



Shop Writer12

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1 Getting Started



Version 12

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1.1 About This Manual

The following are the major sections of this manual:

Getting Started

This gives you basic core information about the program, its setup, the license agreement, and a very broad introduction to the controls and windows you will be viewing.

MLS 12 Installation & Setup

The Data Manager is the utility you use to build your initial data files, register and update your software, to handle file indexing and maintenance, and to even edit the files directly. This section explains all of the areas of the Data Manager and how to use them.

MLS 12 Reference

This is your "Getting Started" guide to MLS 12. It is designed specifically to explain all of the screens you will encounter in the sequence you will use when first using the program. It constantly points to the appropriate pages in the Reference section. This section provides detailed descriptions of every field on every screen you will encounter in the program.

System File Structures

The structures (name, indexes, field names, and the use for each) of all files in the system are detailed here. This is particularly useful when using the File Editor or if using data from copies of a file in another program.

Trouble Shooting

Based on experience, we know the most common problems which will arise. This section will be expanded, or reduced, in accordance with the input we receive from clients. Most information necessary to overcome your specific problems can be found in here.

Navigating

Contents

The main "tree" display to the left of this text is the Contents section. All topics are listed in an organized order. You can browse the tree, find an appropriate topic, and click on it to open the page on the right side.

Index

Keywords have been selected that represent topics, and placed in alphabetical order. You can type in a word and see a list of topics that might relate. Simply click on the topic and it will be displayed.

Search

A dictionary is created on your system which is broader than the index option. Type in a key word and see all entries with that word displayed.

Jumps

On most pages, you will see an icon, , followed by underlined words like [jump to](#). Click on the underlined words to jump immediately to the referenced section in the manual. You can read the appropriate information, and then select the Back button to return to the origination point. These will help you find the specific reference information quickly.

Program Interface

From within the MasterLink Shop Writer 12 program, when you press the F1 key, the reference page from the manual that pertains to the screen you are viewing will be displayed.

Important information is placed in red. You should pay close attention to these notes.

Save Time .. Save Frustration ... Read the Manual !

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1.3 Hardware Considerations

Hardware is the key to performance. Although **MasterLink Shop Writer** may run on a wide range of computers using the Windows operating system, the following is the suggested configuration for a multi-user installation:

Server

For a dedicated server on larger installations, use a recent version of Windows Server, 64 bit, with an Intel processor, and 8 GB of RAM, plus a 1 TB hard drive. It is further suggested that an external USB drive be installed for automated daily backups. The Advantage Database Server is suggested for better performance, security, and flexibility. Smaller hard drives are permissible, but a larger one is suggested to accommodate the storage needs of other software running on the server.

Some businesses will use a standard Windows 10/11 Professional computer as a server in peer to peer networking. This is sufficient if you do not exceed a total of 3 workstations and have high speed networking.

Client:

Each client should be running Windows 10/11 Professional. MasterLink Shop Writer will run well with any OS from Windows 7 Professional on up. We encourage Win 10/11 because it offers the best security, leanest performance, fastest connectivity, and supports full touch screen activity. We suggest 8 GB of RAM and 500 GB hard drive on each computer. SSDs (Solid State Drive) are faster and less prone to failure. Wide screen monitors, preferably 24" or larger, will give better results. Notebooks work fine.

Tablets:

To operate MLS, you must use a tablet which provides the Desktop interface. RT systems are not sufficient. Tablets running Android or iOS WILL NOT work with MLS. Although Windows 8 or 8.1 tablets are working, you will have a better experience with Windows 10/11.

Network:

Optimum performance will be found with a "Gigabit" router and network cards. Most newer computers come with this capability. Workstations should primarily use wired (cable) connections for best results. However, a Wireless N router or access point should be available for notebook computers to be used for portable situations.

Printers:

Printers are now considered consumable devices. We suggest black only laser printers for workstations. Inexpensive printers usually work quite well. Any printer that will install to your Windows computers will work. However, MasterLink Shop Writer does support color printing for Invoices plus watermark graphics when desired.

Apple Computers

The functionality of any software is dependent on the operating system. MacOS is missing some capabilities necessary for a native application. However, you can install a "virtual machine" using a program called Parallels. In that, you install a copy of Windows. and your shop writer program. Parallels has a mode called Coherence, and using that allows you to have the shop writer program on the Mac Toolbar and run it just like any Mac program, or you can open it full screen in a Windows desktop, and switch between the two. Parallels allows you to run on Intel, and M1/2 Apple products.

Android Computers / Chrome Books

Due to a variety of technical, compatibility, and security issues, our software DOES NOT work on any Android or Chrome based device.

Our recommendations are for optimum performance at a reasonable price.

MasterLink Shop Writer will work on older operating systems, and computers with less than what we suggest.

1.4 System Considerations

PLEASE BE PATIENT ...

Have you noticed that most windows programs take awhile to load screens and information. MasterLink Shop Writer works very quickly, and loads generally faster then most programs. However, sometimes people get impatient and start clicking buttons if the result isn't instantaneous. You will find that the speed of performance after a screen loads is very fast, but to attain that result, a lot of information may have to transfer across the network from your server. Each time you click a button, you give your computer ANOTHER command ! You are not reinforcing the first click. In fact, you are adding processes to the memory, and that will ultimately lead to difficulties. If you hold down a mouse button, or key, then you will "auto repeat" that command and really create chaos. Let your computer work and you will appreciate the result !

Menus:

Moving through The MasterLink Shop Writer is accomplished by making selections on menus. When the first window opens, you will see the primary menu. The underlined character in each menu item is the accelerator key. When using the main menu, if you press the ALT key plus that letter, you will open a sub menu, or go to that task. In the sub menus, simply press the first accelerator key displayed, and the proper program window will open, and that operation will begin. You may also point to an item with the mouse cursor (arrow), and press the left button once. You can then select the proper option in the sub menu in the same manner.

Pushbuttons:

On all data screens, you will find Pushbuttons, with their task printed below , ie. {ie. Save, } Select the proper button with a mouse, to perform the desired action.

Lookup Buttons:

There are two types of lookup buttons used within The MasterLink Shop Writer. The first is located within an edit box (field), and is a downward arrow. Selecting this arrow will display a list of items from which the desired value could be selected. These lists are usually short, and can be scrolled rather quickly. The information for these lists may be preprogrammed (ie. states), built using the List option in Setup, or built automatically by adding new information in the course of the user's daily work.

The second type of lookup is performed by selecting a magnifying glass button which is located inside the field, to the right. This is a more powerful lookup capability that opens a window into a database, and may show multiple fields. These windows usually include search capabilities to more quickly find the desired record. Selecting the proper record, and pressing the **OK** button returns the value to the field in which you are working. Selecting the Close option returns no value.

Both of these lookups are powerful tools which you will find utilized throughout the program.

Browse screens:

Browse screens contain lists of data from which you may select a specific record for use, or editing. The browse screens have a vertical bar on the right hand side. You may move up and down in the browse window using the Page Up, Page Down, Up Arrow, or Down Arrow keys and the mouse wheel. You may also press the left mouse key when pointing to the up, or down, arrows on the screen. To move more quickly through the list, point the mouse arrow at the little gray rectangle in the scroll bar, and pressing the left mouse key, drag it up or down. This will accelerate your movement through the database.

Search / Locate :

On many browse screens you will see a search key. These usually provide a series of options for re-ordering the list by a specific column on the browse. Once you select the type of browse, you can start typing the first few letters for the field you are using and the browse repositions you to the proper location of your list. You can either start editing the values in the boxes above the browse, or if you are using a lookup list, double click on the record you want to use and its value(s) will be returned to the field from which it was called. **By default, the majority of browses are already in the most common order for which they would be used, so you may just start typing (ie. inventory is partnumber, vehicle is license, client is company name) and you only need to select the locate button if you change the search criterion.**

Data Entry:

Computers can do wonderful organizational tasks with information that you enter into their files. This data entry is done on special display screens called Dialogs. You will notice the following conditions in effect for all data entry screens: Screens are written on a colored background. Lines, titles, and field names are written in black. Displayed data is written in a white box. You may move around the fields using the tab key, or by pointing the mouse cursor to the field in which you want to work. When you enter data in a field, and press TAB, you will automatically move to the next field.



When working with lists of data, or multiple screens (folders), you can save the information that is currently displayed using the Save button. This button is provided when you will not want to exit the window immediately after saving the information. For example, with a client list, you will edit one account, Save the information, and then move to another item in the list. When you complete the work in the window, you select the close button.

- ✓ When you finish entering information onto a data screen, you must select (point to, and click the left mouse button, or use the accelerator key) the OK button to save the data, and close the window. The OK button is a "processor" which will perform the tasks required in the window. Failure to do this will result in loss of the information you entered.

It is very important that this point not be overlooked. Unless the OK or Save button is selected, any data entered into the fields on the window will NOT be saved.

- ✗ The Close button is used to exit a screen once you have completed your work. The close button is present when the screen is available to edit or add to a list of items, ie. the edit screen for all clients. The Close button exits the screen and does not save any data unless you have already used the Save button on an item.

Message Lines:

On the bottom of every screen you will find a message bar. Whenever the mouse cursor (arrow) is pointing at a field, a browse window, or a pushbutton, a message will appear on that bar. The information should be sufficient to explain the purpose of the field, or control, at which you are pointing. When in doubt about what to do, always look at the message bar.

Popup Windows:

Often the program will popup a window with a question, or statement, about the operation of the program. Watch these windows carefully because they will prevent mistakes from occurring.

The Right Mouse Button:

In some operations of this system, you will be instructed to highlight an item in a list (point at it and press the left mouse key once), and then to press the right mouse button to perform an action. You may also use the arrow, or page, keys to move the highlight bar to that item, and then press the right mouse button. These actions will be performed more quickly in this manner than by adding more pushbuttons.

In most cases, the right mouse button is used to "cut and paste". Once you highlight some text, you can cut (remove the highlighted area and save it in the windows clipboard), copy (make a copy of the highlighted text to the clipboard), or paste (copy whatever is saved in the clipboard to the position of the cursor on the screen).

- The Spell Checker

✓^{ABC} Your system includes a powerful spell checker for all your text fields. Whenever you see the spell button, simply select it and your system will automatically check the text, showing you misspelled words and providing options for replacement. You can also add in your own words and special codes.

- Email

@ The Email button can be used to create and send an email to the person or business displayed on the screen at the current time. For example, if you are looking at a client's record, and you have an email address in the proper field, then pressing this button will address an email to them, and display a screen for you to enter a subject and text. When you then press **OK ...** it will be sent.

1.5 Environment

Most shops will use multiple computers. One is considered the "Server" because it holds all the data files. The other computers are called "Client"s.

We suggest that you create a Mapped Drive on each workstation. It should point to the \MLS12s folder on the server. We usually select this as drive M (for Masterlink).

You will install the Client program on each computer. When you start MLS 12 the first time, it will tell you it cannot find the path. You must then select the path. Following the previous direction, you will find a drive M: showing on the displayed list under My Computer. Highlight it, and then press the OK button.

This will properly set the path to the data files. If you make a mistake, you can use Windows Notepad to open the file CONFIG.CBA in the \MLS12c folder. You will see where the path has been written, and you can change it to the proper location.

1.6 Before You Begin !!!

Computers can be a great boost to your business, but they can also create major heartache. This occurs when your staff introduces destructive software to your system, and the result may be a significant loss of time, data, and money ! Here are two major cautions !

Never permit a demonstration package to be installed on your business system

That salesperson who wants to show you some great new software may install a demo version of his product that introduces changes to your system, which can lead to conflicts, program failures, and other frustrations. Then you will spend time and money to have someone research the problem, find the cause, and fix it.

When a salesperson pays you a visit, let them demo on their own equipment. Don't ever make an exception !

Protect Against Malware

You know about viruses, but there are all types of malware. They are designed by clever people who love to inflict damage on others by destroying their computers. You wouldn't hang out with these people so why let them into your computer.

Here are a few cardinal rules that you need to follow, and insist your employees obey them also.

- **Install, and keep updated, effective anti-malware software. If you are using Windows 10 or 11, the installed software from Microsoft is your best option.**
- **Do not visit any website unless you are absolutely certain it is a known company that can provide services to your business (ie. catalogs, parts ordering, tech bulletins).**
- **Do not visit any entertainment sites of any type**
- **Do not click on any email links to view anything. Email links are often shortcuts to a file attached to an email that will kill your programs.**
- **Always have a backup every single day !**

Viruses infecting your system can cost you thousands of dollars. Make sure you have a signed contract with each of your employees that warns them they will be financially accountable if they allow a virus to invade your business computers.

2 MLS 12 Installation

This section provides complete information on how to install MasterLinks Shop Writer 12.

2.1 Networking

**Network installation requires good hardware.
The most frequent problems are the result of faulty wiring, low
quality network cards, defective hubs, and other hardware
issues.**

In a network environment, quality equipment is a must !

The optimum performance will result when using a wired (ethernet) network for your main computers.

Be sure to use a Gigabit router. All your computers should have built in Gigabit cards.

Use of wireless network connections will work, but at only a fraction of the speed. Limit your wireless to machines you perhaps walk around with (ie. tablets).

2.1.1 Installation - Server and Client

There are two significant parts to The MasterLink Shop Writer 12. Please read the following sections to understand how to properly install the program.

The Server

All data is stored in files on one computer which shall be known as the server. The complete installation is found in one file, MLS12s.exe. It will install all files that you will need.

The initial creation of the files, editing of raw data directly in the files, plus all of your default setup values are handled by the **DataManager 12** program which is installed to the server. You will also use this to update your authorization codes and to download new files from the internet.

The initial installation of your system is in LOCAL SERVER mode. This means that you may share the data across a network of computers. A LOCAL installation uses native Windows protocols, but is best for only 3 or 4 workstations. In LOCAL SERVER mode, the data is stored on the server, but processing, and even some file services, are handled at the workstations. This will not cause concern in small workgroups, but can be problematic with larger installations.

A preferred option is [CLIENT SERVER](#). Using this system, separate data server software is installed on your server computer, and handles all processing on that machine. This provides increased reliability and improved performance (speed) at the workstation. **MasterLink Software** has written **MLS 12** to be used with the Advantage Database Server. Unfortunately the ADS

software reached its end of life so we no longer sell new copies. The publisher (SAP) has discontinued it. We are currently working on alternative client server options.

The Client

The actual input, viewing, and reporting of all information is handled on workstations using software known as the Client.

You will install a copy of the client software on each workstation with the MLS12c.exe file.

Installation steps are outlined in [Installing the Server](#) and [Installing the Client](#)

Of course, MasterLink Software will go online and do the full installation for you as part of your subscription.

2.1.2 Issues of Networking

Networking allows several computers to access the same data simultaneously. This occurs when one computer, holding all the data (SERVER), makes that information available to other computers (CLIENTs).

Performance is directly related to the quality of the equipment and cabling. The server should have ample storage space and memory. When it runs low on physical memory (RAM), it starts writing information to the hard drive to free space, and that slows down performance.

Good equipment is not necessarily expensive. Today's computers all have ample storage. For small networks, connecting 2 computers, Windows XP Professional, Vista Business, or Windows 7 Business, can use "peer-to-peer" services and work well. For larger networks, a dedicated computer running Microsoft Windows Server 2003 or 2008 is recommended. These programs will recommend a minimum of 512MB of RAM, more may be beneficial.

The biggest problem with networking is when connections are lost. The computers hook together through a router which is a relatively inexpensive device that sends the signals to the proper places. A defective cable, or router, will disrupt the communication and prevent information from being stored.

The next issue that creates problems would be running too many programs at once. Every program must be monitored by the computer, and having too many going can create significant disruptions to data processing. Having instant messaging services, websites, and email programs all running at the same time can sometimes be problematic. It is suggested that you limit your activity to one IM program and one email program. Leaving open connections to websites can be like having a dozen other programs running at the same time, all clamoring for the computer's attention.

In a business environment, using wireless connections is not recommended. These can tend to drop in and out, and they run slower than wired connections. They are also less secure. Because of interference issues, they can drop a signal, and thus lose data.

Networks can operate flawlessly over prolonged periods of time. However, remember that the primary operation is business, and build it strong enough to handle intense data flows. MasterLink Software strongly recommends using computers from established companies and keeping the

installation simple but direct. Please call us for specific recommendations regarding your installation.

2.2 Installing the Server

The Server is the one computer in your system which stores all of the data. It can be one computer of a workgroup, or a dedicated server.

New Installation

MasterLink Shop Writer is installed from download-able installation files. The server is performed by running MLS12s.exe, and the clients by running MLS12c.exe (which is included in the server install, and placed in the \MLS12s\MLS subfolder). Place the downloaded file anywhere on your primary (server) computer, and double click on it to start the installation. Answer the questions. For support purposes, the default installation folders are best to accept.

To install the Client software, from the client computer, browse across the network to the \MLS12s\MLS folder on the server, then double click on the MLS12c.exe file. It will then install it on the remote computer.

Follow the prompts and fill in the requested data during the installation.

On new purchases, MasterLink Software will perform the installation for you via an internet remote connection. We will also be glad to assist with installation on new computers, or those which needed repair and lost the install. We will also be happy to consult with your IT professionals.

Pre-Configured Data

If you do not have data in a previous MasterLink Software automotive product to import, then you may wish to use the supplied pre-configured data. You can also use this to "start over" with specific data. The information supplied is a pre-written glossary system for automotive repair, federal payroll tax tables, and a complete general ledger with defaults.

Importing Data

You can import data from any current installation of MasterLink Shop Writer. The data should exist on your server, and you should know in which directory it is located.

Once the new software has been installed on the server, run **DataManager** and perform the following steps:

Your initial user name is LINK and the password is MASTER

- On the menu, under **Files**, create **New** databases
- Under the Import option, find the version you are currently using and select it. It will ask for the path (which you select in the popup) to the folder where the current data is stored. Then it will import from that version directly to MLS 12s files.
- Under **Files**, select **Index** and check off all of the boxes, then **OK**
- Under **Edit**, select **Authorize**. You will first be asked for your serial number. Use the 5 digit number that was assigned to you when you first purchased the program. . **DO NOT** perform this process without the correct serial number.

- You have now completed the basic install. You can enter the program.

If you make a mistake, DO NOT uninstall the program. Problems can be handled quickly by emailing tech support. Performing an uninstall and reinstall will only compound your errors.

If you are not importing data, then omit the 2nd and 3rd steps in the previous procedure.

MasterLink is always happy to perform the installations by remote connection on the internet

2.3 Installing the Client

The Client software will be installed on each computer that operates the program.

Initial Install

Browse across the network to the server, and locate the \MLS12s\MLS folder. Find the file MLS10c.exe and double click on it. This will then perform the installation.

When you start the program the first time, it needs a path to the data on the server. Use the displayed browse capability to find the **MLS9s** folder on the server. DO NOT select a subfolder. Double click on the MLS8s folder icon so it displays open. Then select **OK** and you will be able to sign in.

If you make a mistake, reset the path as described in the section below.

DO NOT run an uninstall and reinstall if you have a problem. Email **Support@MasterLinkSoftware.com**. Doing an uninstall will not fix the problem and making internal changes may just increase the problem.

Updating MLS 12

MasterLink Shop Writer performs an automatic updating to the server, and workstations. This works in the background. When re-entering MLS, you may see a pop up box that says your system has been updated. That means your local computer found a newer version of the Client software on your server and copied it over. It was downloaded to the server by a program that runs there 24/7.

Setting the Path to your Data

Your "client" software needs to know where the data resides. When you start the program for the first time, you will be shown a browse window, and you simply need to find the MLS9s folder on the server, highlight it, and click the OK button. It will store the path in the computer registry and every time you start the MLS9.exe program, it will know where to turn for the data.

The path is stored in the CONFIG.CBA file in the MLS8c workstation. You can open this file with Notebook (a Windows program) and edit the path value. You can also delete this file and then re-enter the client program (MLS9.exe.). You will be prompted for the path.

Setting the Server Type

You will be prompted for the server type. If this machine is not connected to a computer running the Advantage Database Server, you are running in LOCAL server mode. If ADS is installed, you should select CLIENT SERVER, or if this machine will normally connect via the internet, select that option. Internet machines can be plugged into a network and connect successfully to the ADS server. You cannot access the program via the internet unless ADS is operational.

Setting the Data Type

Normally you will select DBF as the data type (when prompted). ADT is an optional mode but contact MasterLink before selecting this. SQL is a pending option.

If you try to start MLS8, and an error box pops up noting CONFIG.DBF (2) cannot be found, then your path is incorrect. Reboot your computer in case it lost its connection to the server. If this fails, then you probably have fouled the path value saved in the registry and it will need to be reset.

2.4 Advantage Database Server

CRITICAL NOTICE

Although the Advantage Database Server continues to provide excellent Client Server functionality, the publisher (SAP) has discontinued the product and ended all support.

For those having an existing license, MasterLink Software will continue to provide assistance, to the degree we can, and is pursuing a current alternative.

For this reason, we will not sell new licenses, or upgrade user counts. SAP continues to collect fees for those cases, although the software reached End of Life in 2021 and they will provide no support. We cannot justify passing on the cost of "dead product" to our clients.

2.4.1 Client Server Operations

MasterLink Shop Writer 12 is designed to be run either as a "peer to peer" program, or utilizing a client server technology. Peer to peer operations should only be used for a maximum of three high speed workstations. Performance will degrade quickly thereafter unless you enable a "client server".

MasterLink Software is an authorized reseller for the Advantage Database Server which provides full client server functionality. **The following information is provided by Extended Systems to explain the operation of Client Server technology and its benefit to your business.** To purchase the server software, please contact **MasterLink Software** directly.

Desktop database applications developed with tools such as CA-Clipper, FoxPro, Visual Basic and Delphi have traditionally been popular because they are relatively inexpensive to implement and deploy. But as more users and Internet and remote access capabilities are added, performance, data integrity and security begin to suffer. Moving the application to a client/server platform is the perfect solution.

When a PC database application is used by only a few users on a LAN, and the database is small, the application usually provides good performance, is easy to maintain, and is relatively stable. Very small user sites often acquire additional tools for use against their database, such as report generators and database browsers. Everything is running smoothly and all database tools are in place. Performance is good and the database is stable.

Increasing Users Increases the Problems

As the number of application users at the site increases, the size of the database doubles, then triples. Transaction loads skyrocket. A remote site is added that requires access to the home site data via a WAN. Suddenly, performance has slowed to a crawl. The network is swamped with traffic and index corruption becomes commonplace. When workstations or the network go down, the database becomes corrupt. With the addition of new users, there is now a need to limit access to key data. Database security becomes a larger issue. Performance is declining. Accessing the database on the LAN is taking longer, and performance of the WAN is even worse—it is unusable. The database is no longer stable or secure. Users have lost their ability to do their work in a timely manner.

Why the Performance Declined

With desktop database applications, the user interface, business calculations, database concurrency control, data movement, data searching, and data manipulation are all performed on the workstation. The file server only acts as a shared hard drive. There is no central point of control to the data. When a workstation needs to search for, read, write, or otherwise access data, it must first attempt to provide database concurrency by locking the data it needs to access. With only a few users on the system, there is little contention for common data. However, as the number of users at a site increases, so does database access contention. The workstation data locking attempts will fail more frequently on initial and subsequent attempts. Not only does the individual application performance suffer but other users' application performance suffers due to the additional network traffic generated by multiple database concurrency lock requests. The performance problems

have become a double-edged sword. The database concurrency locking requires multiple retries and the additional network traffic makes it tougher to make the lock requests.

Why There is More Frequent Index Corruption

The increased frequency of index corruption also has a simple explanation. Every time a table record is to be updated, one or more index files usually also require changes to complete the update operation. Once an update operation begins, the database will only remain in a stable state if each and every table and index update is completed. Each individual index update operation requires a concurrency lock to be obtained, index page(s) to be read and written, the index header to be read and written, and finally an index "flush to disk" operation to occur. This is for each and every index affected! If the workstation or network goes down at any time during the update operation, indexes will be corrupt and the database will be left in an unstable state.

Advantage Database Server Brings You the Benefits of Client/Server

A move to client/server is in order. What is needed is a product that provides all the security and integrity benefits of client/server and all the performance benefits that should be available in a client/server environment—while allowing developers to keep all their existing applications, their existing hardware, and their years of accumulated expertise. The product that delivers is Advantage Database Server.

• **Intelligent Processing.** The Advantage Database Server provides client/server processing by intelligently dividing processing between the client and the server. The user interface and much of the business calculations are left to be done by the client workstation. All database concurrency control, data movement, data searching, and data manipulation are performed by the Advantage Database Server on the file server. The Advantage Database Server becomes a central point of control for database access. So unlike non-client/server desktop applications, Advantage moves the shared data processing operations to the file server where it makes sense— where the data is stored. Only the results of the database operation are returned to the client. The superior architecture of Advantage leads to far better performance than non-client/server systems.

• **Eliminate Concurrency Contention Problems.** Because the Advantage Database Server is the central point of control to the database, data concurrency contention issues are minimal. The Intelligent Lock Management System of the Advantage Database Server allows multiple users to search through and read from shared files concurrently. This leads to drastically improved performance in multi-user systems.

By performing all database concurrency control and data access on the server, network traffic is reduced which also leads to drastically improved performance in multi-user environments. Reduced network traffic not only helps LAN performance, but it makes WAN database access feasible when before it was out of the question.

• **Eliminate Index File Corruption.** Advantage Database Server eliminates index file corruption. Table and index updates are performed on the server. A table or index is never passed to the client to be updated. When a table record and the associated index files are updated by Advantage, the update operations do not occur until all necessary information has reached the Advantage Database Server on the file server. Even if a workstation or the network goes down, no index corruption will ever occur and the database integrity will always remain intact.

• **Transaction Processing.** The Advantage Database Server also adds a complete Transaction Processing System (i.e., Begin, Commit, and Rollback Transaction) to your application. This allows application developers to define business transactions which usually involve multiple updates to one or more tables in the database. If one or more of these updates in the defined business transaction do not occur, the database is left in an unstable state. With the Advantage Transaction Processing System, all of the updates necessary to complete the business transaction would be placed between the Begin and Commit transaction commands/functions. If the workstation or network were to go down before the Commit Transaction was reached, all updates would be automatically rolled back. If the server were to go down before the Commit Transaction was reached, all updates would be automatic once the server was brought back up and the Advantage Database Server was re-started. In either case, the database would be left as if the transaction did not even begin.

• **Referential Integrity and Database Constraints.** Advantage Database Server provides Referential Integrity and Database Constraints to verify the validity of data in your database and maintain relationships between records in your database. Specifically, Advantage has support for Unique and Primary Keys, Referential Integrity, Field-level constraints, and Record-level constraints.

• **Security.** The Advantage Database Server can be used to provide database security by allowing only Advantage-enabled applications to access the database. The system administrator can take

away all desired network access rights to the directories that contain the database tables and index files, so that non-Advantage applications cannot gain access to the database. Unauthorized access to the database is eliminated. Advantage Database Server provides further database security functionality by allowing creation of user accounts to control the access to tables, columns, views and stored procedures.

Use What You Already Have, Add to What You Already Know

The Advantage Database Server brings client/server functionality to existing database applications. No application re-write is necessary.

Advantage provides plug-and-play client interfaces for the most popular development platforms, including Delphi, C++Builder, Kylix,

Visual Basic, Access, Perl, PHP, CA-Clipper and CA-Visual Objects. Since you do not have to change applications or tools, and no user

training is necessary, existing system expertise can continue to be used. The Advantage Database Server does not require new dedicated

server hardware. It runs on existing NetWare, Windows NT/2000, Linux, or Windows 95/98/ME servers. Advantage Database Server

installs in minutes and is easy to maintain. It does not require a database administrator for maintenance like other database systems.

Advantage also allows developers to convert their existing applications one at a time to use the Advantage Database Server, eliminating

lengthy down time during integration. If your site has multi-user performance problems, suffers from data corruption, and lacks database security, it is time to look for a client/server solution. Advantage Database Server is simply the best client/server solution available. Advantage provides the

performance, database integrity, and database security expected in client/server systems without requiring application re-write, new hardware or loss of existing expertise.

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2.4.2 ADS Installation

The **Advantage Database Server** is an optional program developed by Extended Systems and resold by MasterLink Software. It is included on the distribution CD, but it will not activate without an authorization code. You can try it for a couple of weeks if you request a trial code from MasterLink. It can be purchased in license increments of 5 users. For example, an 8 user system would require a 10 user license.

You will need an authorization (trial or buyer) code **before** you perform the installation. You will be prompted for this information as part of the process.

To install the software, place the CD into the drive on your server. When the menu displays, first perform that MasterLink Shop Writer 12 Server Install.

Then select the Advantage Server Install option, and follow the on-screen prompts. This only is installed on the computer with the data files.

The program will then install automatically and start the server.

You may install the ADS software even after MasterLink Shop Writer 12 has been installed. However, make sure you exit the MLS 12 program on all workstations before performing the installation.

From any workstation, you may now enter MLS 12, and under **Help** on the menu, select **System Info**. It should display the message that you are using You are using the **Advantage Data Server** in the Server Type field.. If it says you are using Local Server, then you will need to email, or call, MasterLink Software technical support.

2.4.3 ADS Configuration

Sometimes a network and server are functioning poorly and a computer has a hard time auto detecting the Advantage Database Server. In that case, you will need to create a configuration file to direct the program to the right location on the network.

This has been automated by a utility you can run to write the file. However, you must know the name of the computer where the server resides, the IP address, and the port that the server is monitoring.

To run this utility, on the Tools menu of MasterLink Shop Writer 12, select "ADS Configure" and answer the questions with the following information:

Server Name

You will need to know the name of the server. Usually this will be the computer name that was assigned, and is what appears when finding the computer via "My Network Places"

IP Address

On the computer you are setting up, go to a Command Prompt (usually found on the Accessories group on the Start - All Programs option of Windows), and type IPCONFIG. The computer will display the IP address, ie. 192.168.1.100, for your computer. Type this into the IP Address field on the dialog box.

Port

Normally the server will be monitoring port 6262. This value will display by default, but may be changed if your installer setup the ADS to monitor a different address.

If this process does not help, you may need to delete the file **ads.ini** found in the **C:\WLS9c** folder.

Important Considerations

Server IP:

We strongly recommend you set the server to a STATIC (fixed) IP address on your network. It is normal to use 192.168.1.101 on the server. Then you will be consistent with your ADS.INI file from all machines. If you use a Dynamic IP, then the server address will be changing which takes longer to find to establish a connection. If you do use your server on a Dynamic IP, then you do not want to create an ADS.INI file.

Server WAN IP

If you wish to connect to your network from the internet, you will need to have a STATIC IP address for the WAN side. Your ISP can provide this. Your server should be connected so it is listening to that address on a port you specify.

In the **ADS.INI file**, you will want to add the following lines to the ADS.INI file installed on the computer which is used to access via the internet.

```
INTERNET_IP=xxx.xxx.xxx.xxx ( using the actual WAN IP for that server )  
INTERNET_PORT=2000
```

2.4.4 Check Server Status

You can check the connection to the server at any time. Simply go to **Help - System Info** on the menu of MasterLink Shop Writer 12. Near the bottom of the display you will see Server Type. This tells you the actual connection that workstation is currently using. If ADS is installed, you want to see ***You are connected to the Advantage Client Server.***

If the message says you are using LOCAL SERVER, then your connection is not working properly (if ADS is installed). **THIS NEEDS TO BE CORRECTED IMMEDIATELY TO PREVENT DATA CORRUPTION.**

2.5 Datamanager - Your Installation Tool

2.5.1 DataManager Overview

The **Data Manager** will be the first tool you use to begin operating **The MasterLink Shop Writer 12**. It is also used to apply updates and advance your authorization file to allow newer versions to be run. Finally it handles all of your file maintenance operations and data defaults setup.

This program is only run on the server ! Do not install it on, or run it from, any workstations.

The Data Manager Menu

The following is the primary menu of the Datamanager program.

These are the subsections of each main category:

Files:

- New - Create new, empty, data files
- Index - Build, or rebuild, indexes for your data files
- Backup - Does a local backup of the MLS 12 data files
- Restore - Restores a backup to your working backup files.

Import:

- ASW 5 - Imports data from Auto Shop Writer 5 for DOS versions into new MLS 12 data files.
- EMS - Imports data from Executive Management System versions into new MLS 12 data files
- ASW 8-11 - Imports data from Auto Shop Writer versions 8 to 11 into new MLS 12 data files.

Setup:

- Company - View company information provided by MasterLink, and edit some data
- Authorize - Apply key file to authorize system from CD or internet files
- Interface - Provides for path settings to 3rd party interfaces
- Backup Drive - Allows you to specify an alternate drive and path for automated backups.

DBMS

This allows you to create an alternate database for the program. It will copy the data from the current DBF files into the new database.

- ADT
- SQL

Editor

The multi function File Editor allows you to add, modify, and edit files, and to export copies or import data from other files.

System

This provides the current status of the system, including licensing data, windows statistics, and computer utilization.

Help:

- Manual - Displays this complete manual
- Tech Connect - Allows you to connect the server to MasterLink Software for tech support
- About - Displays the current version of the Data Manager, and build information

2.5.2 Files

2.5.2.1 New

Before using the program, you must build empty data files. This button will trigger the routine which will build all new, empty data files.

When run the first time, the system will build brand new data files since none exist on the system. However, if run thereafter, the system will check to see if a file exists, and if so, it will prompt to determine if you wish to replace the existing file with a new one. If a file is erased on the hard drive, the system will build a new copy of that file.

If this program is run on an existing system, all data will be lost whenever a file is selected to be replaced. Be sure you have daily backups of all data files !

2.5.2.2 Index

Index

To achieve speed in finding specific information, the program uses special "index" files. These are created from the main data files, and are preserved in special files with a .CDX extension.

Indexing is important when records seem to have disappeared. Most of the time, it is just a "blown index" and using this utility will create new pointers, and the missing information will be "found".

It is not necessary to index regularly. It is common to reindex only when information seems to be missing.

Other users should not be in the program when reindexing. Only one machine should be in the program, and that is the one actually running the operation.

To index files, click on each box next to the area you wish to rebuild the file, and then press **OK** to proceed.

Indexing files does not affect the actual data that is contained in the data files (.DBF).

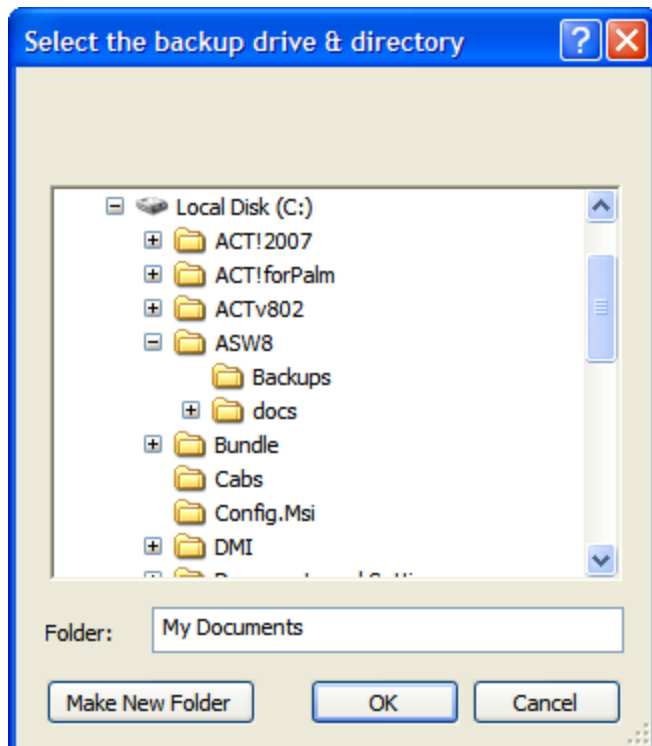
This option is also available from any workstation under **Tools**. Indexing on one workstation actually takes place on the server and applies to ALL workstations.

2.5.2.3 Backup / Restore

These utilities have been added to MasterLink Shop Writer 12, but are not intended to replace a daily system backup.

Backup

When you install an Auto Update, and you run Datamanager, file structures may need to be changed. The system will prompt you to backup your files, and you will need to select a location.



Simply browse the folder tree until you find the **MLS10s** folder. Select the + next to it and highlight the **Databases** folder. Then select **OK**. You may also create a separate folder called backups if you prefer as shown in the screen display above.

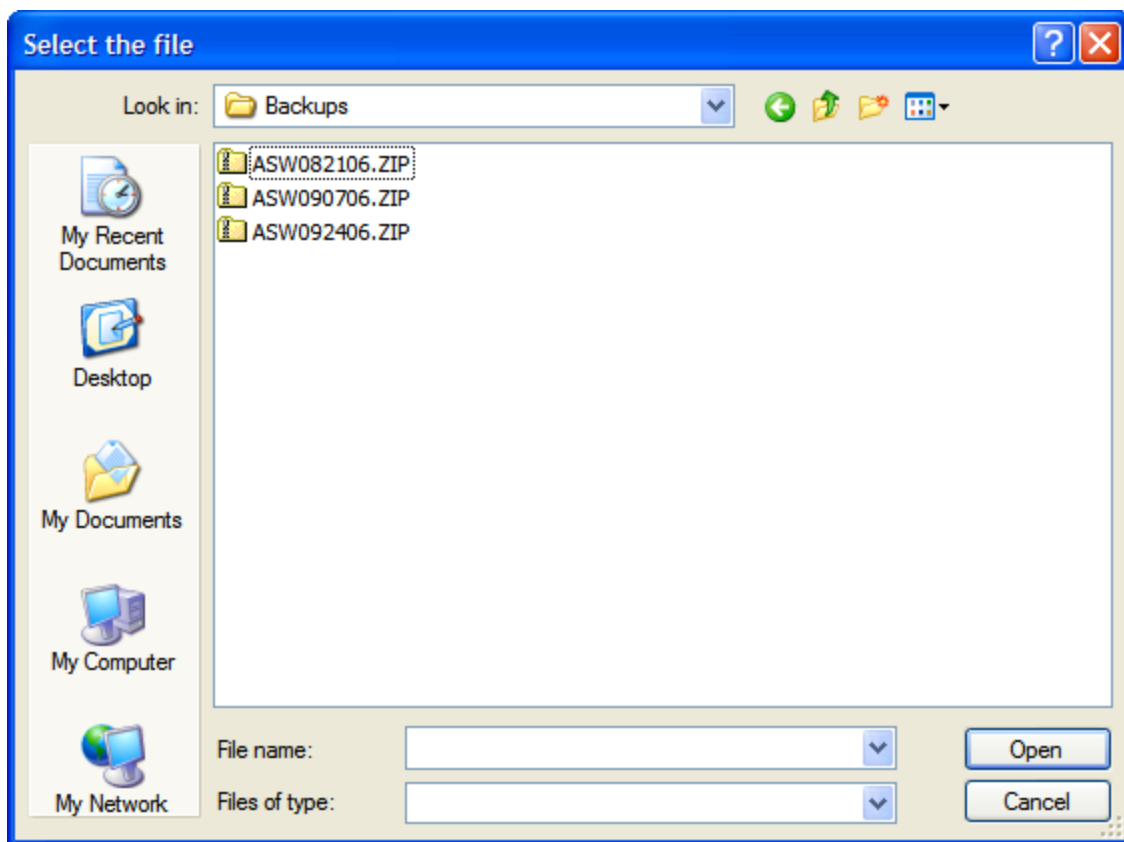
The system will then automatically create an archive backup file in compressed format and name it with the current date.

You may also use the backup utility from the menu to make regular backups. You can also select an alternative (portable) drive to store the files if you wish. Some people like to use USB RAM drives, and carry them home in their pocket. Although this can work, it is considered high risk because a magnetic field can easily erase that chip.

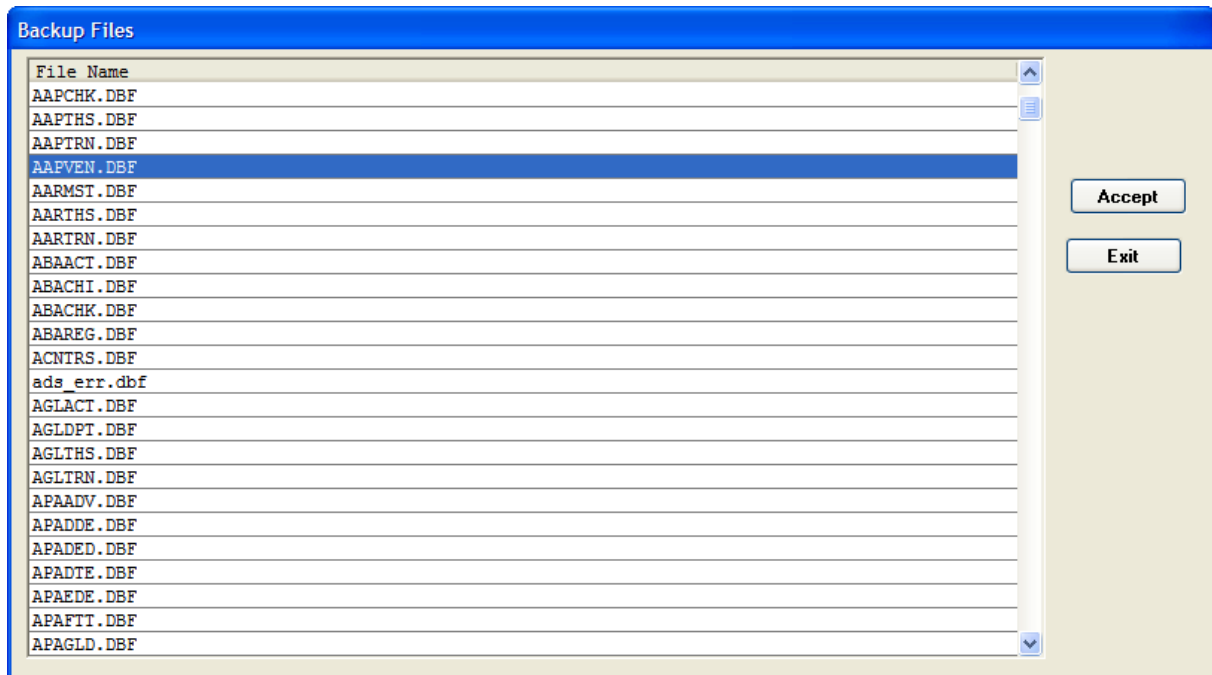
Restore

You can restore files easily from a backup. Select the **Restore** option from the **File** menu in **Datamanager**.

First, you must select the proper file from which you will restore, as shown in this sample:



Next you will be asked if you wish to restore all files. If you say yes, then all files on the computer will be replaced with the archived data. If you say no, then you will see the following (or similar) list of the files that are contained in the backup:



Highlight a file you wish to restore and select **Accept**. Do this for **ALL** of the files you wish to restore. Then select **Exit**. The system will tell you how many files it intends to restore and if you press **OK**, they will overwrite the data currently in the computer.

Once this work is done, be sure to reindex all of your files.

2.5.3 Import

2.5.3.1 Import Data From ASW5

Before importing any data, be sure to [build empty data files](#).

Selecting the menu option MLS5, from the Import menu option, will start the system import routine. The system will import data from an existing version of MasterLink Shop Writer 5 into the new (empty) MLS 12 data files.

If the files are not empty, it will place the data in addition to the existing data. Running this routine multiple times without first rebuilding the files to an "empty" status will result in multiple copies of each record.

It is recommended that the MLS 5 directory be located on the same server being used for MLS 121. Transferring data across the network is usually reliable, but if you have any problems with the connection you will corrupt data.

When you confirm that you want to do the import, a browse screen will pop up. You must locate and select (double click so the folder appears open) the MLS 5 directory **where the data currently resides**.

Once you complete the MLS5 import, you can use the Index option to be ready to operate your new program version.

The most common problems with updating are:

- Bad data exists in the files.
- If you receive an error 2, File Not Found, you did not select the correct directory during the browse function

MLS 5 importing involves restructuring of the data files. You will not affect your MLS 5 files, but instead will make a copy of the data on new files in MLS 12's folder.

2.5.3.2 Importing Data From EMS 2000

Selecting the EMS option of the Import menu will start the system import routine. The system will import data from an existing version of The Executive Management System

Before starting, make sure you have [built new MLS 12 data files](#). If the files are not empty, it will place the data in addition to the existing data. Running this routine multiple times without first rebuilding the files to an "empty" status will result in multiple copies of each record.

It is recommended that the EMS 2000 directory be located on the same server being used for MLS 12. Transferring data across the network is usually reliable, but if you have any problems with the connection you will corrupt data.

When you confirm that you want to do the import, a browse screen will pop up. You must locate and select (double click so the folder appears open) the EMS directory where the data currently resides.

The most common problems with updating are:

- Bad data exists in the files.
- If you receive an error 2, File Not Found, you did not select the correct directory during the browse function

EMS importing involves restructuring of the data files. You will not affect your EMS files, but instead will make a copy of the data on new files in MLS 12s folder.

2.5.3.3 Importing Data from ASW 8-11

Selecting the ASW 8-11 option of the Import menu will start the system import routine. The system will import data from an existing version of The Executive Management System

Before starting, make sure you have [built new MLS 12 data files](#). If the files are not empty, it will place the data in addition to the existing data. Running this routine multiple times without first rebuilding the files to an "empty" status will result in multiple copies of each record.

It is recommended that the ASW##x (substituted your version for ##) directory be located on the same server being used for MLS 12. Transferring data across the network is usually reliable, but if you have any problems with the connection you will corrupt data.

When you confirm that you want to do the import, a browse screen will pop up. You must locate and select (double click so the folder appears open) the ASW##s\DATA directory where the data currently resides.

The most common problems with updating are:

- Bad data exists in the files.
- If you receive an error 2, File Not Found, you did not select the correct directory during the browse function

ASW 8-11 importing involves restructuring of the data files. You will not affect your earlier ASW files, but instead will make a copy of the data on new files in MLS12s folder.

2.5.4 Setup

2.5.4.1 Company Data

The company data is stored on the server, but shared with the workstations. Your company information is provided in a key file that is distributed by **MasterLink Software**. . Your system will download an authorization files via the internet. This is updated periodically.

The following information is provided in the authorization file:

- Company
- Address
- City, State Zip
- Phone
- Serial Number
- Key File : Displays

The following information can be modified by you:

State License #

Most states require repair facilities to display a license number on their invoices. This is often issued by the State Department of Consumer Affairs, and shows you are qualified to offer the services you provide.

Company Slogan

Your invoice has a space to print a slogan on the top of the invoice. Please limit it to 75 characters. It prints just above the client data.

2.5.4.2 Authorize

The Authorize menu option will update your access rights to new versions, and implement changes in your company data based on the registration on file. You will usually only need to perform this at the initial installation.

When you run this command the first time, you will be asked for your 5 digit serial number provided by **MasterLink Software**. This number never changes from when you purchased your first license.

The computer will then save the serial number and you will not be asked for it again. Please do not guess at this number. If you do not know it, then you must contact support@MasterLinkSoftware.com and we will email the number to you, usually within minutes.

The Shop Writer runs an automatic update service, and it will keep your authorization code updated.

This is especially important for people on the Developers Partnership Program (including Rentals) because it updates their version eligibility and enables new program features.

2.5.5 DBMS

Enter topic text here.

2.5.6 Editor

Enter topic text here.

2.5.7 System

Enter topic text here.

2.6 Dictionary

MasterLink Shop Writer 12 has a built in spelling checker. It should configure properly during installation, but sometimes the reference settings don't get written to the drive.

If your spell checker is not working properly (not displaying the dictionary), simply go to **Tools** and select the **Dictionary** option.

This will automatically reset the location data so it knows where to check for the dictionary files. This process only takes a second.

If you type in words that the checker does not recognize, it will give you the opportunity to add them in the displayed box. You can expand the dictionary using this capability.

2.7 Remote Operations

The Service Writer system is based at the local shop, and not in the cloud. The reasons are simple:

- **Security** - Cloud based systems are hosted by other people who could scan, and sell, your data (known as mining). Also, access to your system by others is easier.
- **Speed** - While internet services might seem fast, they usually handle small amounts of data at one time. However, your business handles a lot of data, usually from multiple workstations, and this would truly strain the bandwidth provided by the local internet carriers who serve you. Cloud hosted systems often are shared among hundreds of users, and response time can become quite slow.
- **Reliability** - A shop based system can be established to "always be online". With backup power in case your electricity fails, and well maintained computers, you can depend on your system being "up" during your entire business day. However, cloud servers can go down, and then you

have no "system" until it is repaired. In addition, internet connections can be lost due to problems at your service provider, or along the network to your hosted service, and your system is once again "down".

- **Financial** - Computers have come down in price, and now last many years. You have a fixed cost, and that is easy to budget for over time. However, hosted services can see continually escalating costs. The hosting company could end up increasing prices frequently, as could the internet provider.
- **Support** - No need to explain this. We've all encountered the failure of companies to provide support in a timely manner, with technicians who can communicate effectively.

MasterLink Software, like most companies, would need to contract with one of the cloud "hosts", and to be honest, that is just not an arena we feel best serves our clients.

Does this mean we can only operate the system from within the shop on our local computers ?

Actually, that is NOT the case. Many of our clients access their systems remotely on mobile units, or from home or alternate worksites. Here are some of the most common ways:

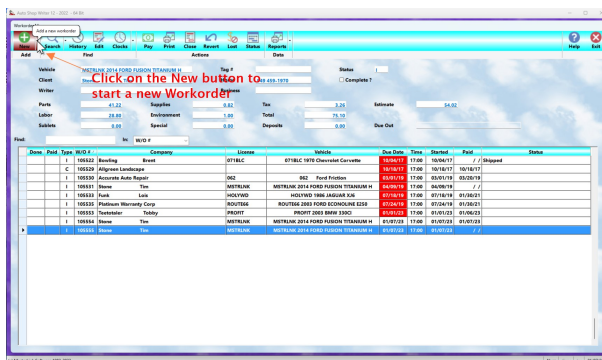
- **Remote control software** - Many companies provide software that allows you to take over any shop based computer remotely. MasterLink currently uses a product from **Splashtop.com**, but there are many others. On the computer you wish to control, install a small program that runs full time. Then, you can use a software package on any device that will connect to that computer from anywhere via the internet. This is particularly useful since both locations will be able to control the computer (but just one person at a time). In fact, such software can allow a manager, using a cell phone, to actually log on to a workstation to answer questions (assist) the operator in the shop.
- **IT based systems** - Your IT technician may be able to provide direct access to your network via the internet. This could be done using a VPN server (virtual private network), a router using DDNS (Dynamic name server and access), or some other means. In this case, you would install the Service Manager on your portable computer just like any other workstation. It would be configured to connect to the server where the data files are stored in the shop. Then all of your work on the remote computer can be handled from anywhere that provides a solid internet connection, including a beach in some exotic tropic setting. These systems require the configuration by a networking professional.
- **(Legacy) Advantage Database Server** - Auto Shop Writer is built to utilize the internet connectivity available to those who have the Advantage Database Server software installed. It is necessary for the shop server to have a STATIC IP for the web. This is a fixed address that never changes. Most companies have a dynamic IP address which the provider may change frequently. A STATIC IP may be available, but at an increased fee from your provider. **MasterLink Software was a reseller of the Advantage Database Server. Legacy systems still run, but the product, and support, from SAP (the publisher) has reached End of Life, and the product is no longer available. The last version was released in 2015, and has not been updated, although the company continued to sell it for many years thereafter. This solution, therefore, is only available to those who already have the product installed.**

3 MLS Operation Overview Tutorials

These tutorials will provide the basic step-by-step processes for performing work in the Service Writer system. For more detail, view the Reference Section pertaining to the area you are utilizing.

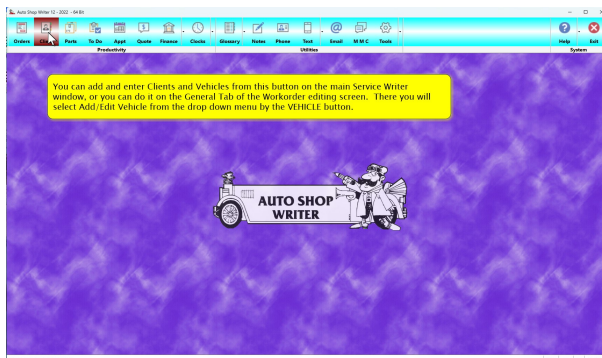
- [Writing Workorders](#)
- [Adding Clients and Vehicles](#)
- [Service Histories](#)
- [Inventory Control](#)
- [Order/Stock Parts](#)
- [Accounts Receivable](#)
- [Accounts Payable](#)
- [General Ledger](#)
- [Banking](#)
- [Merchant Services](#)
- [The File Editor](#)

3.1 Writing Workorders



How to write a Workorder

3.2 Adding Clients and Vehicles



Enter the title of your presentation

3.3 Service Histories

Under development.

3.4 Inventory Control

Under development

3.5 Order/Stock Parts

Under development

3.6 Accounts Receivable

Under Development

3.7 Accounts Payable

Under development

3.8 General Ledger

Under development

3.9 Banking

Under Development

3.10 Merchant Services

Under Development

3.11 The File Editor

Under development

4 MLS 12 Reference Section

The following sections provide detailed descriptions of the various operations (features) within the Shop Writer program.

To easily access the appropriate section, within the program, from any screen, hit the F1 key and the correct page of this manual will quickly display in a popup. This will save you all that time hunting through the many pages of documentation.

4.1 General Operation Guidelines

Welcome to MasterLink Shop Writer 12. You will be using a very sophisticated program to process, track, and save all of the vital information about your business, clients, and their vehicles. The tools included here are closely tied together under the principle that you enter data only one time, and it gets applied wherever it is needed.

Important Tips

- Most operations are performed by selecting the option from the menu system, and clicking on the desired task with the left mouse button. Work is performed by using the button to ADD a new record, filling data into the displayed data fields, saving the information by pressing the SAVE button , and then exiting the procedure.
- **To understand what is desired in any given field, an explanation message is shown on the bottom line of the window. As the cursor arrow points at a field, the explanation is provided in the message bar. Pointing to a different field will show a new message.**
- When a window is displayed, and you press the **F1** key, the manual will open to the reference section page appropriate for that information.
- Read the prompts carefully when they pop up !

Now that you've come this far, here are some quick guidelines on how you can find all the answers you need in the documentation.

1. This manual will provide you with the steps to work through your full system
2. The Reference section will provide information on each screen you will encounter.
3. From within MLS 12, when you press F1 with any screen displayed, the manual reference page for that screen will be displayed (no need to do a search).
4. When opening the manual, you can use the Index to find topics, or the Find option to look for specific words. This will make searching much faster.
5. Check out the Procedure Summaries for quick charts on the steps to follow on specific tasks.
6. The Trouble Shooting section holds the answers to 98% of the questions we are asked.
7. If something is missing, please send an email to Support@MasterLinkSoftware.com so we can update the manual.
8. On your server (the computer where the data files are stored) there is an **MLS12** folder. In that is a subfolder called **Docs**. [\MLS12\Docs\] . In there you will find:

MLS12_Help.exe This file can run as a desktop book on any windows computer

MLS12.epub This file can be used on any device, and read using the "Books" reader native to it, ie. on your phone, tablet, etc.

MLS12.pdf
 native to your device.

This file can be read anywhere by a PDF reader application

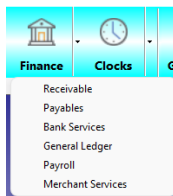
You will be able to print the entire manual, or any section, using the function available in the reader you choose from the files above.

**It is very important that you take time to carefully enter the information and check your entries
 Most errors occur when people rush, and these can be caught**

4.2 Menus



The Main Menu displays when the program starts. From this point, you can select all of the options within MasterLink Shop Writer 12 by pressing one of these buttons. The system will then open a screen to display that particular feature and all of its options, also contained in a button bar across the top of that window.



The Buttons that have an ▼ to their right have drop down menus for selecting specific options. The Finance button displays this menu. Select the area you wish to work on and it will then display a screen for that desired operation.

The operations covered by the buttons follow:

Orders

All activity involving workorders are accessed with this button. Use this to create, edit, and review any work that has been performed.

Client

All activity related to customers, and vehicles, is maintained in this section.

Parts

Inventory processing, including the adding, editing, and tracking of parts will be found here. Also the purchase order system, stock input, pricing utilities, and maintenance tasks are included.

ToDo

The system will automatically generate a ToDo list for the current day based on information you have entered in appointments, PM scheduler, and other daily activities.

Appointments

MasterLink Shop Writer provides a full appointment scheduler. You can assign vehicles and/ or clients to it, and even create quotations. Workorders can be started from scheduled appointments and even capture, and apply, the parts and labor from quotes, plus any special notes you made when initially talking to the client.

Quote

You can quickly generate quotes for a customer on the phone, or in person, who is inquiring about services. You can save the quote, attach it to an appointment, and automatically generate estimates or invoices.

Finance

Accounts Receivable, Accounts Payable, General Ledger, Payroll, Banking and Merchant Services (Credit cards) are all found with the Finance drop down menu.

Clocks

MLS has a time clock for employees checking in and out throughout the day, plus a clock to track the actual labor time expended on individual tasks, and down time on a job waiting for parts or available technicians.

Glossary

MasterLink Shop Writer employs the ability to create pick lists of parts, comprehensive labor descriptions, Kits that include parts and labor, and labor history tracking. These items are accessed here from the dropdown menu.

Notes

There are always things we want to remember, so the Notebook allows you to keep information handy which can be viewed on any workstation.

Phone

You can maintain a phone book in MLS for non-client, non-vendor phone numbers. This also references a phone dialer if you have a modem installed that works with your phone system.

MMC

The Masterlink Message Center allows you to communicate among the various users of the system. This is the perfect place to create and save phone messages and other relevant information, or to create notes for someone else to have when communicating with a client.

Tools

Tools are the maintenance utilities for overall system setup and health. You can go here to work with your lists, perform setup functions, reindex all files, edit individual files directly, and setup integrations to 3rd party vendors.

Help


This button will open the MLS Manual to its main page. ***Please note that pressing the F1 key in any screen will open the manual to the proper reference page for the screen you are viewing.***

Exit



This button will close MasterLink Shop Writer

4.3 System Information Setup

Although you may want to "jump right in" and start working with MasterLink Shop Writer, your first steps need to involve performing the setup of data that will be used to verify, and make consistent, basic data used on all of your information processing.

You will find the options to change these values when you press the Tools  button on the main screen.

Lists

Be sure to check your information carefully. Also, make sure to add data to the Validation Lists. Often it is helpful to have "drop down" lists to quickly look up information used in fields, ie. the city name, state, etc. You can access the lists by selecting the  or  buttons in the actual field. The down arrow button usually references items found in the references lists, where the magnifying glass icon usually finds information created in other databases.

To edit the lists, select the Tools button () on the main menu bar.

List editors use a split screen. The upper section has one, or more, fields which you can add, or edit, the specific data. The lower section is the browse which shows all of the records in the list. When you highlight the record you want to modify, the data appears up above for editing.

List of Local Cities Served







City

City	
▶ Agua Dulce	
Aguanga	
Alhambra	
Aliso Viejo	
Alta Loma	
Anaheim	
Anaheim Hills	
Apple Valley	
Austin	
Azusa	
Bakersfield	
Balboa	
Balboa Island	
Baltimore	
Banning	
Bel Air	
Bell Gardens	
Beverly Hills	
Big Bear City	
Brea	
Buena Park	
Canyon Country	
Canyon Lake	
Capistrano Bch	

To **Add** a new entry, press the first button. Press the **Save** button to keep changes. Use the **Delete** button to remove the highlighted records. You always want to remember to Save your changes for each record individually.

[Jump to Validation Lists](#)

Setup

Setup includes data used throughout your processing, including tax and labor rates, validation settings, printed text on various documents, the Email system, and even the Inspection Checklist. There are also some utilities used to globally modify data stored on some, or many, records.

4.3.1 Validation Lists

Labor

Although there is a default labor rate in the system, a schedule of alternaterates may be set up with this list function. Special clients may deserve custom rates - some lower than the normal rate, and perhaps some should be higher. In addition, special services may be more, or less, expensive. As a result, all of these rates, with a descriptive statement, may be entered into the system.

Codes

On the client data entry screens, there is a code field which may be used to group customers by some common factor. Often these are used for determining how the client had been referred to the shop, so that advertising dollars may be well spent. You may use numbers and/or letters for codes. This gives you 36 possible choices. Codes may be used for a wide variety of "sorting capabilities" regarding your client list. The options are only limited by the user's imagination.

City

\Typing the names of local communities can become very boring after awhile. Abbreviations really don't help the situation. Therefore, it is possible to create a list of local communities from whom you obtain your clients. The list can include as many towns as you wish, but will be best if it is kept to local sites. Use of the list assures consistency of names for reporting and the correct spelling, which may be important to the client. To create the list, simply add the names using the City option of the Lists Editor. This list will also be added automatically as you add new cities to clients and vendors within the program, and respond to the popup box permitting the addition.

County

Zipcode

Although some computer systems have zipcode decoders, they are often laborious, and don't work. Further more, they require that you know the correct zipcode, and they supply the city and state. Sometimes people can't remember the zipcode number. In our overly numerical society, this happens frequently. Using the list function, you can enter all of the local zipcodes, with a description that enables the operator to be very accurate in selecting the proper code. For example, some cities have multiple codes, depending on the location (North, South, East, or West perhaps). When creating the list, enter the full code, and the location. If you only know the first five digits, enter 0's for the last four places (after the dash) to retain accuracy for your system.

Assign

The scheduler will use this list to assign appointments. You can either use names of employees, or service areas, or a combination of both.

Vehicles

The MasterLink Shop Writer knows the makes and models of the units you service. We offer a single list, Vehicles, which specifies the make, model, and sub-model, of each vehicle type. You may add to, or subtract from, this list. It should be very comprehensive and handle all of the vehicles you service.

To use the list, you will simply press the Detail button on the Vehicle editing screen. You can then select the year, tab to the make and select it, then tab to the models and select from those specific to the make, and then tab to the sub-model and select the one that matches the vehicle you are adding to your database.

Manufacturer

Parts manufacturers should be shown for every item in inventory. Their absence can be a nuisance, requiring you to continually type the name into the system. Some people use abbreviations, but they vary from one entry to another (ie. Fishmaker Electrical may be Fish, FME, FishMakElect or FIMAEL). Consistency is a key which can be provided by using the manufacturers list. The system has many parts suppliers already indicated. You can add, edit, or delete from, this list as appropriate for your business. Lists of different manufacturers for various industries may be available for download from the website. Also, the system will automatically learn the new manufacturers names as they are added to inventory parts.

Sort

You can categorize parts into your own categories. Some reports then allow you to select only the data for parts matching the specified sort code. In the list you will enter a code and description. On the Inventory Edit screen, you will only input the sort code. It is not necessary to have codes for all parts when using the sort option.

Departments

When first selecting Tools - Setup - List - Departments from the menu system, you will be asked if you want to turn departments on. If you answer Yes, you will then be asked for the global G/L numbers used for parts, labor, and sublet sales as shown below.

The MasterLink Shop Writer system will utilize departments by flagging them with a one letter code. To understand what each code means, a list must be generated with titles for each department. This option works in the same manner as all other lists, permitting the entry of codes, and descriptions. You may use codes 0 to 9 and A to Z. Prepare a department chart first, and perhaps use the letters that will most easily be remembered with the title, ie. P for Paint, B for Body, M for Mechanical, E for Electrical. An example is shown below.

Care should be used with departments because they also are integrated into the General Ledger, if it is used. Remember that separate account numbers must be used for each department in the G/L. Please read the section on [Using Departments](#)

Colors

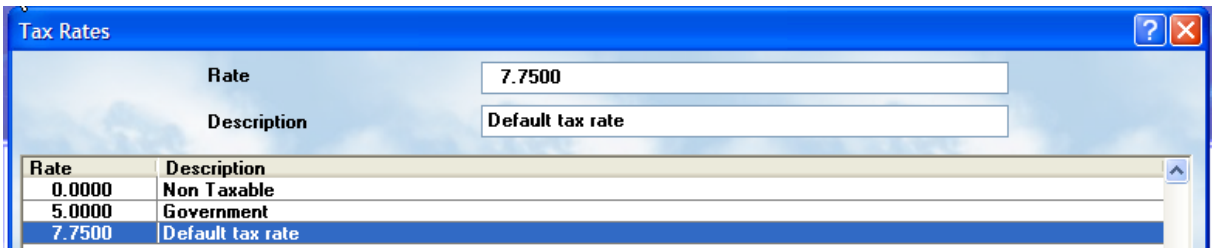
You can specify any color for a vehicle, and become as generalized, or specific, as you wish. This list connects to the lookup button for color on the vehicle edit page.

Writers

Many shops identify, and track, the service writers for work being performed. This information corresponds to the lookup list on the General Tab of the Workorder Development screen.

Sales Tax Rates

This list allows you to provide multiple tax rates. Always have a 0.00 rate (non-taxable), and then add all of the tax rates that you may need to charge. Enter the values as a percentage, ie. 8.75 %. Then provide a description which allows a new user to accurately pick the correct value. These values are then made available with the lookup icons in the Workorder (General screen) and Client editor.



System

Labor Glossary entries are found through a lookup program that utilizes System and Group codes to quickly find task specific listings. (See the Glossary Concepts reference page). You may enter new, or modify existing, System codes on this screen.

Groups

Labor Glossary entries are found through a lookup program that utilizes System and Group codes to quickly find task specific listings. (See the Glossary Concepts reference page). You may enter new, or modify existing, Groups codes on this screen.

Category

Labor Glossary entries can be filtered by a category. You can create codes by vehicle, or any other breakout you wish to use. Setup your codes in this section, then select the correct code you wish to apply in the Labor Glossary individual entries, as appropriate.

Source

This field is typically used to specify the type of part source, ie. New, Used, Rebuilt, etc. Create whichever codes you want to use to specify the source type of the part.

Messenger

Your Shop Writer program has an internal messaging program ([MasterLink Message Center](#)). This is where you can create a list of user names that can be selected from the drop down box when creating messages.

Client Status

This user defined field can be helpful in assigning a "status" to a client. The most common ones might be "active" and "inactive", but you can get more specific (ie. "seasonal"). You can also use it to highlight customers of concern, or special circumstances (ie. "charity", or "payment issues").

4.3.2 Setup Values

The MasterLink Shop Writer automates much of the information entry for you. However, you must store basic values in the software before it can be applied to your daily work. On the main

Datamanager menu, select the option for Setup. Under this you will find the following categories. (Click on each title to take you to the proper reference section).

Defaults

This window is where you will set up the default tax and labor rates. This information is used for calculations and validating information that is entered.

[Taxes and Rates](#)

Text

In numerous places within the system, you will print text used for disclaimers and special notations. You can personalize the text in this editor.

[Text Options](#)

Invoice

This option will allow you to control how an invoice is printed, and the number of copies.

[Invoice Printing](#)

Worksheets

Worksheets for technicians are very helpful, and provide an excellent "hard copy" of the work that has been performed. The format is flexible, and this section allows you to control what is printed.

[Worksheets](#)

Security

All of your employees can be assigned their own log in codes, and you can restrict access to the majority of the program, granting useability for only those areas of the system you wish the employee to use.

[Security Setup](#)

Job Costing

Proper Job Costing (labor) is determined by the rates you set for employees. You will handle the setup with this option.

[Job Costing](#)

Breakout

Some inventory parts can be grouped into a special category which is also displayed on the final invoice. This option allows you to set the code, and title, for the category.

[Breakout](#)

Interface Paths

The program is installed on each computer, but the data is only set on one. If you need to change where the computer looks for the data, you can use this option.

[Interface Settings](#)

Special Label

Some items track in a special category. Set the label here. It prints on invoices and reports.

[Special Label](#)

Inspection Checklist

Setup a post-service inspection checklist that can be added to a service order, and printed for the customer.

[Inspection Checklist](#)

Display Setting

Select the type of display (traditional, wide screen, tablet) for an individual workstation.

[Display Settings](#)

Interface

The MasterLink Shop Writer 12 interfaces with numerous other products which provide data to the system. This option will allow you to specify the path for the necessary executable files for the other programs.

[Interface Settings](#)

ADS Setup

Sometimes, on a busy network, you will need to create a file to tell the workstation which machine has the server.

[ADS Configuration](#)

Email Setup

[The Email / FTP system](#)

4.3.2.1 Taxes and Rates

Taxes:

You may need to charge tax on your services. Each area has a space to enter a **Y** or **N** for charging tax, and a field for the tax percentage. These amounts will be charged for all taxable services when entered on a workorder. You must enter the amount as a whole number, not the decimal equivalent of the percentage (ie. Six percent is 6.00%, not 0.06). If no tax is charged, leave the amount at 0.00 %. The tax flag here is the starting value. However, tax will not be charged if either the inventory tax flag, or the client tax flag, is set to false.

Labor Rates:

The setup menu also provides for **Default Labor Rates**. This would be your normal hourly charge. This amount may be overwritten when writing a workorder. In fact, you will have a lookup table, and may have an unlimited number of rates, with descriptions. There are five labor rates available, although you can add any rate to a workorder. The five levels correspond to the pricing level assigned in the labor flag to each client.

Margin:

The **MasterLink Shop Writer** can guarantee you never lose money on a sale. This is done by implementing the minimum margin you wish to obtain on all parts, labor, and sublets that are provided. Enter in the percentage of margin you wish in each category. Be sure to use whole numbers, and not the decimal equivalent. You may wish to start with one margin initially, and revise it with experience. Whenever you enter service, or parts, on a workorder, the system will automatically check to be sure this margin is attained. If not, it will alert you to the actual margin involved, and allow you to adjust the price by simply entering the desired margin. If you do not want to use this feature, enter 0.00 in each category and the system will accept all entries.

Assessment Rates:

This screen allows you to enter information about a specific surcharge you may assess for services. This may include a small percentage for incidental consumed parts, or for hazardous waste disposal. The system asks for the percentage to be charged for parts, the percentage for labor, and the maximum amount for any given workorder. If you wish to make any charges, enter the amounts in the appropriate fields as prompted. If you do not wish to assess these charges, the percentage and ceiling rates should be 0.00. All shop owners have individual preferences for how, and how much, should be charged. It is customary to charge about 3%, with a \$5 ceiling. Check your state laws regarding this option. Some states require that all "miscellaneous shop supplies" be itemized under parts, or no charge is permitted.

System Counters

The system automatically assigns account numbers to clients, invoices, receivable accounts, and vendors. The default installation sets each area to 1, but you can set the starting number higher if it is productive. Generally, unless you have used other programs which assign numbers, the defaults are acceptable.

Print Totals

On invoices, companies have a preference for totals being listed either in a Vertical column on the right side of the paper, or using less space by printing all totals on Horizontal lines. The choice of how this should be printed is personal and neither format is considered to have an advantage.

4.3.2.2 Text Options

Whenever an estimate, invoice, counter sale, receivable statement or worksheet is printed, it is helpful to have text at the end of the document which details disclaimers, warranties, or other features. The text is printed using Rich Text Formatting. If you do not want to print one of these "footers" on a document, you can leave the information blank. This is especially useful when use pre-printed forms. The following editors are included.

Estimate

Your estimate should have a protection clause for the shop which does the following:

- The client must grant written permission for proceeding with the services detailed on the estimate.
- The shop must be granted permission to operate the unit during the time of service.
- The responsibility of the shop should be detailed, and the limits of liability should be specified.
- Procedures for handling disagreements should be stated.
- The procedure, and method, for payment should be clearly stated.
- A signature line should be provided showing acceptance of the terms and conditions of the agreement.

Invoice

The text on the final invoice should clearly specify the terms and conditions of acceptance and warranty. It should also include a specific place for the customer's signature, with a statement that indicates the repairs have been accepted as satisfactory. It is vitally important that the terms of warranty be set forth. Omission of this information may be considered critical in time of dispute. If it is not in writing, it is debatable.

Invoice Tag

You may provide an advertising tag statement on each invoice. This may be to provide your hours of operation, coming specials, seasonal service needs, or anything to which you want to draw your client's attention. This tag is usually modified on a regular basis.

Counter Sale

Counter sales deal with only inventory items. The text should provide information relative to exchange policy, including refunds or credits, and the procedures for processing warranties on defective parts.

Worksheet

Often shops will create checkoff forms at the bottom of the worksheet for technicians to evaluate each service unit. A space is provided in front of the text, with perhaps underlines to fill in the important information. Visual inspections of the unit, with checkoff spaces on the form, are great for public relations with your client, and the checkoff actually verifies that you have done the advertised service. In addition, wearable items should be noted, with the estimated life noted. One important caution is appropriate for this area. Be very conservative on your estimates. If brake pads look like they may have 3,000 miles left, under estimate the amount. There is nothing worse than having a major repair result from a client waiting the recommended time, and finding that the delay caused severe damage.

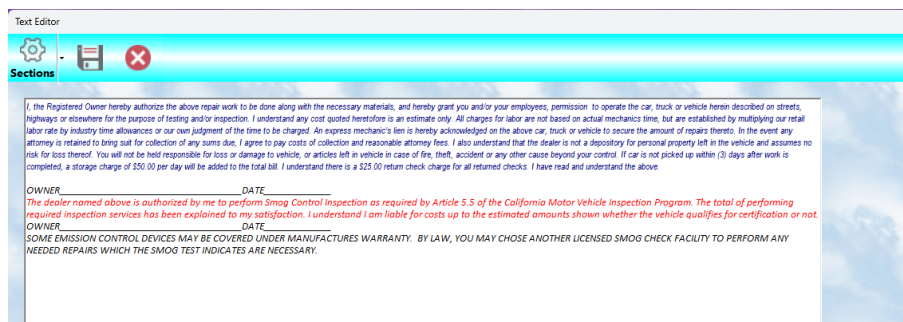
A/R Tag

You may add tag lines, for advertising purposes, to your Accounts Receivable statements. With this option they can be easily modified each month before you print your mailing. These tag lines can provide information on specials, new hours, highlighting special service capabilities, or other information that helps your clients better understand the special ways in which your business may benefit theirs.

The Rich Text Format Editor

This editor allows you to use normal word processing features to format the special text sections above. This includes choosing the font style, size, and color. You can also align text (left, center, right, or both sides), bold, or underline text, and more.

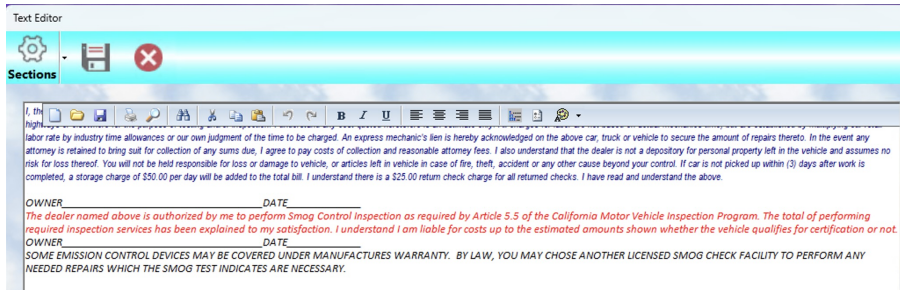
The RTF editor will check your spelling as you type, and underline incorrect words. (At this time it will not offer correct spelling options). The normal MLS spell checker will not work in this control.




Here you can see formatted text. We've used different colors and font sizes to make areas stand out.

Most of the commands are present on the editing control bar. Move your mouse to the top of the screen and you will see it appear. If you are not sure what any control means, simply point at it with

the mouse and a description will pop up. To use it, highlight the text you wish to modify with your mouse, then select the control from the list and it will apply that change.



If you wish to modify the FONT, highlight the text, then Click on the Right mouse button. Select Font from the menu. Now you can select the font, the size, and the color, all from the one popup screen. When you press Apply, it will make the changes, and OK will exit you from the font selection box.

Once you make your changes, and are finished, be sure to SAVE  your completed work. Otherwise, it will be lost. You can then exit the editor.

4.3.2.3 Invoice Printing

You have several options for the layout of your invoice. You will handle the options by checking those options you want from the **Tools - Setup - Invoice** screen.

Print Company Data

If you are using pre-printed forms, leave this unchecked.

Print Box / Frame Lines

Some areas will look better if borders and boxes are included. Checking the box turns this feature on. However, if you are using pre-printed forms, this is inappropriate.

Print Grey Background

There is some grey shading that makes a plain paper invoice very presentable. Checking this box will print the grey background, while leaving it unchecked will provide a plain paper background. This works well on laser and inkjet printers but is inappropriate for pre-printed forms and dot matrix printers.

Print 2 Copies

With this option checked, when you select Print on an invoice, it will run two copies. Otherwise, it will default to one. You should have two copies for inkjet or laser printers. Be sure the client signs both.

Underline Titles

Title lines on your invoices may look more professional if underlines, and easier for the clients to read. However, you might prefer no underlines. Checking the box will include them.

Color Printing

MLS 12 supports printing some parts of the invoice in color. This provides a more professional appearance to your client. The colors used were set after extensive testing to see which gave the best appearance. We suggest you use this if you have a color laser printer. Though inkjets work, the speed may be slower and you may go through more cartridges.

Printer

Each workstation can have the Estimates/Invoices directed to a network printer. Clicking the arrow in this box displays a list of printers that are available for that computer. It may vary on each workstation, so do this setting on each one. Some people use pre-printed forms and place them in only one printer. Then they make sure it is seen as a network printer on each computer. In this setting, that printer is then selected at each workstation. The Invoices will then be redirected, but all other print work will go to the default printer for that computer unless, when selecting the report, you elect to select a different one when prompted.

Lines/Page

Most invoices are printed in portrait mode on an 8 1/2 x 11 inch paper. The standard is 6 lines per inch, so you should enter 66 in this field. Some printers don't like to cooperate so you might need to use a smaller number.

Font: N)ormal or S)mall

Some printers don't always cooperate. They will automatically wrap a line to the next one even when it is not needed. This may (or may not) happen when set to Normal which is a slightly larger font. If it does occur, then set the value to Small and the printing will fit. This setting is saved on each individual machine so some printers may work fine with Normal while others require Small.

Accept / Cancel

Press the Accept button to Save any changes you may have made, or Cancel to exit the selection box without saving.

4.3.2.4 Worksheets

The **Technician's Worksheet** can be customized to add additional information regarding each part and service item. This option from the Setup menu allows custom configuration.

The first option permits adding blank lines to the form. The first field is for the number of blank lines to be printed after the parts listing. This can be used to write in parts used, but not previously printed, on the worksheet.

The second field is to specify the number of blank lines to be printed at the end of the labor section. This permits the addition of notes about the unit itself, ie. the condition when it was prevented for service.

The third field allows the manager to specify the number of blank lines to be added after each individual labor item. The purpose for this is to permit specific notes about that service, or to allow someone who checks the work to sign off on that service.

Some shops tag each part with specific information which has to be handwritten onto the **Technician's Worksheet**. For example, parts removed may be evaluated for condition, and replacement parts checked as New, Used, or Rebuilt. Using this screen, the system manager can create up to three lines of text which will print after each part.

Some service centers also have specific information that needs to be verified on each labor item. Up to 3 lines may be added to each labor item.

Using the final field, you can click on the ... and select an available printer (local or network) to send your worksheet printout. You might have a printer in the service area you want to use for worksheets. The printer must be visible to the workstation you are using.

4.3.2.5 Breakout

You may designate a specific category of parts to track separately. The most common are oil / lubricant products which may be treated differently for revenue taxes in some states. You specify the breakout code and title from the **Tools - Setup - Breakout** menu option.

The code should be limited to three letters (or numbers) and must be the first three characters of all partnumbers for this category. For example, if you use 10W-40 oil on a service, and its partnumber is normal QS1040, then its inventory number would be OILQS1040.

The title should be limited to 8 characters in length.

4.3.2.6 Job Costing

The technician list provides the name, and cost factor, for each individual who provides services on workorders. This cost factor should be calculated by looking at the total costs for the technician, not just wages. It is used when the system assigns costs to labor performed, but does not affect payroll.

To add a technician, assign a code, and then their full name. The code should be one which can be easily remembered in the future, especially when reviewing a workorder of a job returned because of client concerns.

The amount to be entered is either a fixed rate per service unit, or a percentage of the gross charge. Remember, the rate should include the actual cost factor for the technician, which is often 30% to 40% higher than the actual wages when considering taxes and benefits.

An additional field provides for the basis of calculating labor costs for technicians. In this screen, you now instruct the system to calculate the cost based on Units, or Actual time.

Add all of your service technicians to the list, with their individual rates. Remember to assign only those people who perform services listed on workorders.

4.3.2.7 Special Label

There is a category for pricing that can have it's own user defined label. It might be a special tax, or business specific charge not covered in other categories. You can name it whatever you want.

This utility provides a popup for the name of the label, and it will then be used throughout the system. It will appear in the parts entry field, the totals, on the final invoice, and on reports.

The entered amounts will accumulate and display as appropriate.

One example is to use this to track F.E.T. tax on qualifying items.

4.3.2.8 Security Setup

The security system is used to permit access to various areas of the program for individual users, as established by the system manager.

When first installed, MasterLink Shop Writer will prompt for the user name, and password. Enter **LINK** for the user name, and **MASTER** for the password. You will then be given access to the system. You will have unlimited use of all areas. You may wish to delete this user once you have a system password with rights to all access of the program established.

To confine use for an individual operator, it is necessary to develop new user accounts, with passwords. Select **Security** from the **Tools - Setup** menu. You can use the original user name and password to enter security for the first time, but the system manager should then change these values to deny access to other users. You will now see a list of users, and checkboxes for all of the major program areas. You can add new users, assign them a password, delete other users, or modify the access rights for any given user.

To provide access rights, check the box to the left of each area desired for that user. Items that are unchecked will generally not be seen in the menu.

Once a user signs on, their access rights have been established, and will be used. They will be granted, or denied, access to various areas of the program according to the settings you have entered on the security setup chart. If other's will use a computer who do not have those rights, the operator must sign out.

You may also turn off their ability to see the cost of parts by unchecking the **Display Cost** field.

Options include:

- **Workorders** - Write a new workorder, add parts, labor, recommendations, and revisions
- **Workorder Totals** - View workorder totals
- **Payment Posting** - View and post payments to the open workorder
- **Inventory Editor** - Full access to inventory for adding, editing, and removing parts

- **Purchase Orders / Stock Input** - Create a PO and input stock to inventory or directly to a workorder
- **Core Processing** - Permits user to receive and return cores
- **Inventory Utilities** - Utilities to process inventory, changes prices, etc.
- **Client Services** - Full editing of client and vehicle data, plus follow up and management of accounts
- **Glossary** - Full access to the parts pick lists, labor glossaries, and kits management
- **Receipts** - Full access to Accounts Receivables
- **Disbursements** - Full access to Accounts Payable and included check writing
- **Bank Accounts** - Full access to the bankout setup and utilities
- **General Ledger** - Full management of the general ledger
- **Payroll** - Full management of payroll setup and services
- **Reports** - Ability to run, and print, reports
- **Setup** - The ability to the various system setup routines and the rates set therein. Access is both in Datamanager and MLS 12 workstation client.
- **Display Cost** - Display the cost of parts on workorders. If this is not checked, the box is empty
- **File Editor** - Access to the MLS 12 workstation client File Editor. **Caution: only the most experienced executives should have this access.**
- **Revert WO** - Provides the ability to reopen a workorder. **Caution: This should only be available to the highest level administrator.**

4.3.2.9 Dictionary

When first installed, the dictionary must "register" the location of it's libraries (supplied). By simply selecting this option, the program will do so automatically. This is a one time setup, but must be performed at each workstation.

If the dictionary is not working properly, simply go to this option and select it once. Everything should be fine thereafter.

4.3.2.10 Interface Paths

You may use several products that interface to **The MasterLink Shop Writer 12**. You will need to specify their installation path using the screen displayed by this menu option.

The name of the supported interface is provided on the left. Use the lookup icon on the right to search through the computer folders to where the 3rd party program actually exists.

You may not use any of these programs. Most are older technologies and the links are provided as legacy code. Newer versions of those interfaces are usually built into the new links.

4.3.2.11 Warnings

Service Shop Writer does have Warnings for many operations. Their purpose is to be sure you do NOT make mistakes that will cost a lot of time resolving.

Some people find it cumbersome to add a single mouseclick to acknowledge a warning. This gives them the option to turn off the warnings that are automatically displayed within the program.

We DO NOT recommend using this feature. The fraction of a second it takes to click an OK button (or Cancel) may save hours in reversing an entry error. However, we do provide the option.

4.3.2.12 Backup Drive

The Auto Updater makes a copy of your data files every night after working hours. By default it places them in the MLS12s\AutoBkUp\ folder. Though convenient, if your drive fails, then all the backups are gone.

We recommend placing your backups on an external drive. There are many on the market at very low prices, and they plug into an available USB port on your server. We recommend you obtain one and make sure it is plugged into the server computer. The new ones do not need a separate power source.

Once you install the drive, look at Windows File Explorer to see the letter assigned. Then click on this option and put in the drive letter. If you want it to be in a folder on that drive, then create the folder, and use that in the path. For example, if your new drive is assigned E: by the computer, and you create a folder on it called MLS13Backup, your path entered in this field would be E:\MLS13Backup\ and then the auto updater system will create the new archive file each evening and place it in that folder.

4.3.2.13 Authorize

Normally, you would update your authorization for MLS Service Writer in the Data Manager program on the server. Of course the auto updater keeps it current automatically, but if for some reason it is not running, you may have to do it manually.

If you find that you need to manually run the authorization, you can use this function on a workstation, and it will do it remotely on the server.

The authorization program is used to show your system your eligibility for various modules, handles your shop name and address info, verifies your support status, handles rentals, and more. Often people call saying something has expired, or is not granting them access to a special feature. It is because their auto updater is not running, and so their key file has not been updated recently. This will correct that issue.

4.3.2.14 Company

This setup will display the company information that is assigned to your license. If you need to modify what is shown, contact MasterLink Software. Your master record will be updated, and a new key will be made available to your computer.

There are two fields that you can change on this screen.






State License: Most states require shops to be licensed, and to show that ID on their estimates/invoices. You can add in yours, or change what displays in that field.

Slogan: What simple phrase describes your business ? You can enter it in this field. For example: **"Serving our clients since 1982"**.

You can change this information frequently if you wish.

4.3.2.15 Inspection Checklist

Inspection List Values Setup

Add Save Delete Help Exit

Code Category Label 1 Label 2

Description

BRAKES

Code	Category	Description
▶ 01BRT	0100T	BRAKES
BRPWF	0101D	Front brakes pad material remaining
BRRTF	0101E	The front brake rotor and calipers are in serviceable condition.
BRPWR	0102D	Rear brakes pad material remaining
BRRTR	0102E	The rear brake rotor and calipers are in serviceable condition
BRMCS	0103A	Master cylinder and brake cylinders inspected for leaks, smooth operation, and dirt buildup.
BREBS	0104A	Emergency brake system checked for proper working condition.

The Inspection Checklist is designed to provide a report to a client on the condition of their vehicle after the service is complete. It is completely customizable. Once you create the list, it will automatically work on every workorder where you wish to add it. This section details how to setup the list. To read about using the list, please go [here](#).

Creating / Editing / Deleting entries

The controls at the top of the screen will be similar to those used throughout **MasterLink Shop Writer**. These include the Add, Save, and Delete buttons. To put a new line item on the checklist, use the Add button. Make your changes to the fields and then select the Save button. Finally, to remove unwanted items, highlight them, and use the Delete button.

MasterLink Software will be happy to provide you with a pre-built checklist that you can enhance, or reduce, as it fits your needs. Call us to have the files transferred to your computer.

The Checklist

The lower half of the screen shows the complete list of items for the inspection checklist. They are displayed in the order they will appear on the printout. Whenever you click on a line item, the full details will show on the upper half of the dialog box. Browse the list to be sure you have all of the items in the correct order, and provide a complete checklist of the items you want to be covering.

Record (line) details

Code

The Code field carries a reference to the service you are reviewing. These codes can be absolutely anything you want. The field is 10 characters long. You may want to have a naming convention, or use the same codes as you would have in your existing glossary. It's best to have a pattern to use so that all similar services have a common code base (first 4 characters).

Category

The heart of how the checklist displays, and prints, is in the Category code. Here there is a very distinct pattern:

Positions 1 & 2 : The group ID. You will want to put all of your inspections in groups so the customer can quickly understand what you are referencing. It may make the most sense to group by service areas of the vehicle, ie. Brakes, Tires, etc. Write down a list of your groups. You can use numbers from 01 to 99. For the numbers 1 through 9, be sure to put a 0 in front of them.

Position 3 & 4: This is for positioning within the group. It makes the most sense if you have these in sub-groups. For example, group 01 may be brakes. The subgroup 01 might be front brakes, and subgroup 02 might be rear brakes. These would be listed as 0101 and 0102.

Position 5: There are two reserved codes. T is for Title, and S is for Space (skip a line). Otherwise, the codes would be in sequence. We suggest letters here to give you more options, but you could use the numbers 0 through 9. If you had an item 0102A and a 0102B, and you wanted to put something in between, go to the second entry and change it to 0102C, then add a new entry for 0102B. It will then line up properly.

The T in position 5 will cause a record to be a title. On the report it will print with a box around it to nicely format the output.

Label 1 & Label 2

You will only use the label when you want to input a value on the actual checklist (in the workorder). For example, you may want to have Tires as your 02 group. You want to show the remaining depth, so 0201A might be a general description. 0201B could have the labels "Left front" and "Right front". 0201C could have the labels "Left Rear" and "Right Rear". On the workorder, you will see the labels on the list, and be able to fill in the values on the fields next to them. Most records will not have a label.

Description

The description field is used for the message you wish to provide on the inspection item. On most post service inspections, these are very short, although you are given enough space to make them quite long. You can include any language you want, but generally it is best to keep it short and very client friendly. Use of technical terms doesn't really help.

We understand this may be a bit confusing at first. Therefore, we uploaded a file to your computer called EPRINL.DBF. You will find it in the MLS9s\MLS folder. You can copy it to the root MLS9s folder, then go into Tools - Index and select the Workorders. Then press the Index button. You can now see a fully constructed checklist. You can add, or delete items, and revise any language to what you prefer. We hope this helps.

4.3.2.16 ADS_SetServer

If you are using the Advantage Database Server (optional Client Server software), this will allow you to setup the connection from your workstation to the server.

Server Name - This is the name of the server computer, as displayed to the Network (a Windows setting on that computer).

Server IP - This is the IP address for that computer. We recommend you give your server a Fixed (Static) IP, rather than staying with the default Dynamic option.

Server Port - Always use Port 6262 (the default). Also, make sure that it is open in UDP on the server.

If MasterLink handles your MLS Shop Writer install (included), then these are handled at that time.

4.3.2.17 Display Settings

MasterLink Shop Writer has evolved across many stages of hardware improvements. Thus we have user selectable display settings that may change over time.

Standard

Resolution of 1024 x 768

The Standard was developed for the old VGA monitors. It is more compact and some people still like to use it because it doesn't fill the monitor.

Wide Screen

Resolution of 1920 x 1080

Wide screen was added because the amount of information needed to display on a screen had become extensive, and the standard mode was getting too cramped. This mode is very easy to read, and provides much better spacing between fields.

It is important to be sure the resolution of your monitor will handle Wide Screen before accepting it. Many people buy newer monitors but don't install the latest drivers, and the resolution becomes less than the 1920 x 1080. Sometimes you can simply download the most recent drivers from the manufacturer, though some retail outlets still sell old units, at lower resolution, offering "a huge savings".

Current monitor offerings are actually over 2000 pixels wide.

4.3.2.18 The Email / FTP system

Your MLS 8 system provides connectivity to the internet for file transfers (FTP) and emails. You will find directions for using these capabilities in the appropriate subsections of your manual.

However, it is imperative that you have your system properly configured for your internet connection.

You can email tech support directly, but of greater value is the fact you can send emails with PDF documents attached (automatically) to anyone. You have the option whenever you print any document, and View it.

Your ISP

The term ISP is common, and it refers to your Internet Service Provider. Your ISP will provide you with the following information:

Your IP Address

This is the address at which the internet will find your computer. Some ISP's will give you a number (STATIC) which you must enter into your internet setup while others assign the number at the time the computer connects (DYNAMIC). The second option is actually easier. The number is written in the format 70.128.36.128 and tells other computers where you are so they can communicate.

Your SMTP Server

When you send emails out, they are directed to an SMTP server. You will need the exact address to be used. IF you use an online email system (rather than a program actually installed on your computer like Outlook), you may not have an SMTP server available. Please see the configuration notes below.

Your POP3 Server

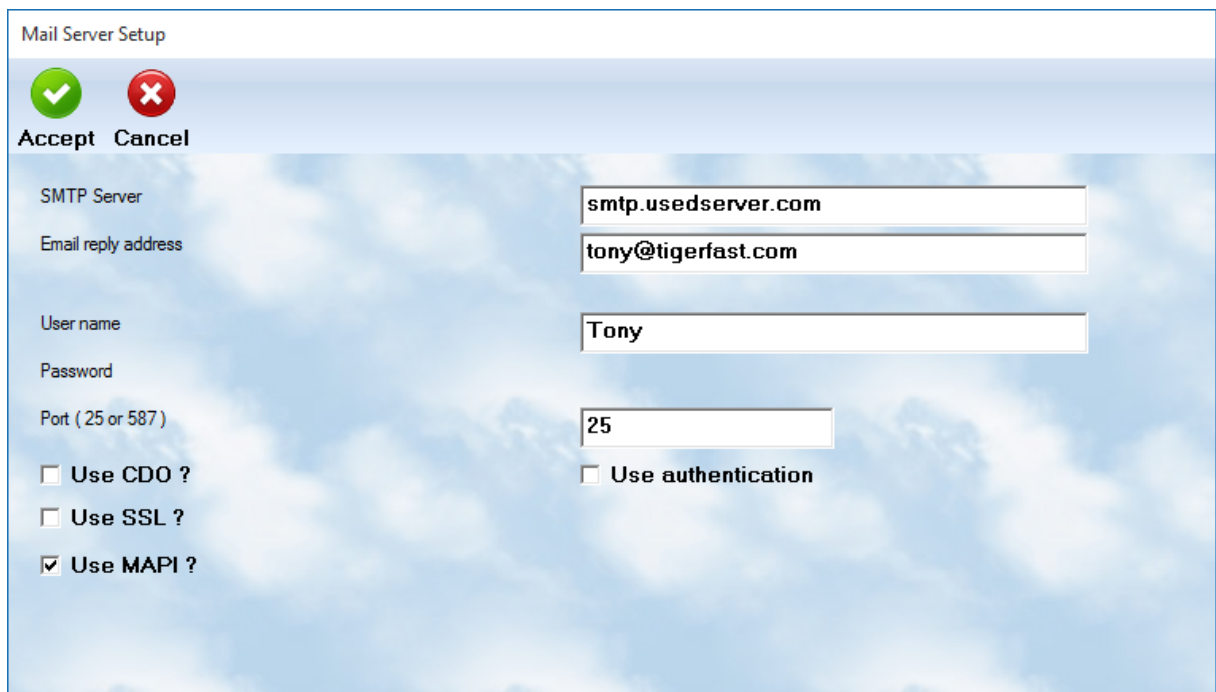
When emails arrive, they are stored at your POP3 server. Your email program then downloads the files to your machine from that server. You should know the IP address for that server, and also know your username and password.

Configure the computer

Your computer must first be configured to connect to the internet. This will be done by your hardware specialist. You will want to be sure that Microsoft's Outlook Express can work independently on the system. If not, you can be sure you don't have a valid connection for email transfers. Consult the Micorosft guides for installing and configuring the internet connection if you are doing it yourself.

Configure the software

MLS 12 needs to know your email and internet settings for some functions. Others will need to know the outgoing email server (see above ... Your SMTP Server) and your return email address. Use the Tools - Email Setup menu option, and then fill in these four entries on the popup window.



Basic Setup

Your email server address will be provided by your internet service provider. This is the name of the server that handles your outgoing email.

Your email address is the one you supply your clients.

The **Port** for email is usually 25, but some ISP's now block it for anything other than their server. If you wish to send email out through an address on a remotely hosted server, and Port 25 is blocked, you can try port 587. Some ISP's are very firm on their contract language about using anything except their server.

Authentication

You may not need a **Authentication User ID**, but if you do, it is provided by your internet service provider.

If you need to use Authentication, you will also need a **Password**. This was established when you first setup your account for internet email service.

Be sure to click on the box for authentication if it is required.

Use CDO

Check this option if you are using a server that requires SSL and authentication. This is the most compatible with very secure SMTP servers. Also check the box to Use SSL

Use MAPI ?

If you have software installed on your computer that retrieves and stores all of your email (like Outlook), you can check this box and leave the other information blank (except your return email address). Then all messages will be sent through your email client program (ie. Outlook), and you can also track all replies in that same program. This is the recommended method if it is available. It also works with Outlook as provided in Office 365. When using this your emails then are specific to the machine on which they are sent rather than generic to the shop. Thus, an email sent by one person will use their address, and replies will be returned to them directly.

If you have difficulties ...

The MasterLink Shop Writer email system may not work with your service provider ! Of particular note are those systems that require SSL communications. Also, many service providers will block the standard ports used for email and you may need to specify an separate outgoing email port. Be sure it is also open in your firewall.

MasterLink Software has setup an outgoing email server. If you check "Use MLS server" all other information will be set by the software internally. However, you should include your own Email Reply Address.

The email system must be working for all included services to be functioning. This includes the email auto follow up system.

If you have problems, please email them to support@masterlinksoftware.com. We will be compiling a list of common problems and solutions relative to email setup.

4.3.3 3rd Party Setup

Although Service Shop Writer is incredibly powerful, some people like to have others provide certain support services. MasterLink provides interfaces to products that we have found to be reliable, and our clients have stated are very valuable to them. The settings for those interfaces are found in this section of the Tools menu if they are required. Some products interface directly and need to settings to be input by the shop..

Carfax

Carfax provides FREE information to your company on all vehicles available in the United States. You can lookup, and decode, a VIN by entering the license plate, see service histories for individual vehicles, and even obtain free marketing services for your company with your clients, who will receive it in a format they find appealing and helpful. That program, and setting it up in the program, is detailed in [CARFAX Services and Utilities](#)

Quickbooks Setup

Service Shop Writer provides a very robust accounting system that is fully integrated. It also can write data directly into Quickbooks files for Invoices when closing.

You can get full installation guidance at [QB Link Initialization / Auto-Setup](#)

Demand Force

Demand Force provides a CRM system for many industries including sub-groups of the service industry (ie. automotive).

More information is provided in the section [DemandForce](#)

Kukui

Kukui provides a CRM system that is popular with many repair shops. They find the information helpful in retaining clients and obtaining new ones.

More detail is provided in [Kukui](#)

WorldPac Activate

WorldPac uses their Dial desktop utility for parts ordering. It can be accessed through Shop Writer and the parts you select will be automatically entered onto workorders. Full details are in the article [World Pac](#). It is important to know that their Dial interface is a 32 bit program, so the Shop Writer must be using the 32 bit build of the program.

4.4 Glossary

The Glossary system provides templates and quick automation for your entry of parts and labor.

You have "templates" that are the text for labor descriptions, in an easily searchable list, organized by the vehicle system, and then service type. This can be highly specific. When selected and placed on a workorder, the actual text can be modified, and those changes will be saved to that specific workorder without changing the main template.

You also have parts lists that would include specific part numbers to be used for a specific vehicle and service. Each list has no limits for the number of parts than can be added.

Kits combine up to six lists of parts, and six glossary items, under a single code.

Effective use of these features can make estimate writing incredibly fast, and accurate.

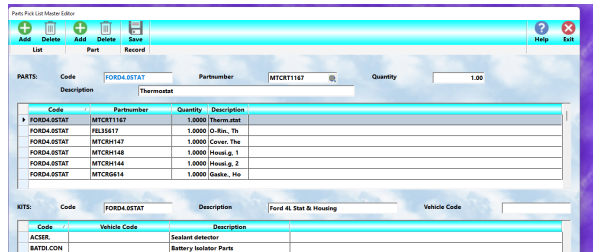
4.4.1 The Glossary System

The Glossary system will enable you to add parts and labor to a workorder using simple codes. It is very helpful to build your Glossaries prior to completing many workorders. The on-line manual chapter on the Glossary system will provide detail on how to organize and build these.

Before inputting Glossary items, it is very helpful to create an organization chart. We suggest that you look at the type of product you service. First, consider the "service systems", which are the main maintenance categories. For example, on an automobile, systems might include Brakes, Electrical, Cooling, etc. Next, you divide the systems into "groups". On a vehicle, the brake system might include in the group list front disk brakes, rear disk brakes, rear drum brakes, and master cylinder. Finally, each service group would have a list of specific services performed in that area.

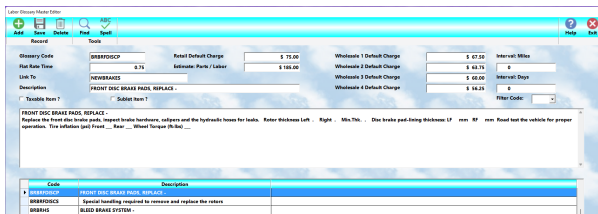
By following this pattern, lookups for services become quite simple. First, the system is selected, then the group, then the specific service. Take your daily work, and divide it into these categories. Then create Glossary descriptions as discussed in the following pages. Specific instructions for each of the areas will be obtained by clicking on the title below:

[Parts Pick List](#)



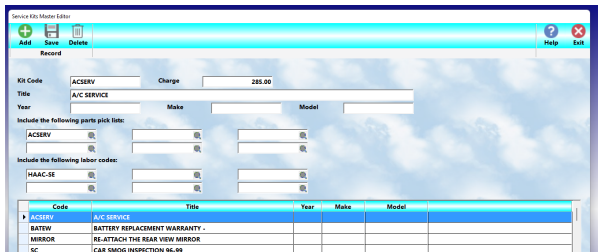
The parts pick list allows you to add groups of parts to a workorder based on a specific code. You will make up these lists based on the parts numbers in your inventory file which correspond to each item to be included. When you select the parts pick list, or specify one in the kits, you will have all of the parts on the list automatically added to the workorder.

[Labor](#)



Labor glossary codes allow you to enter a detailed description of the service by using a simple code. With the glossary look up list capability, even the most inexperienced service writer can provide the client with a specific description of value.

Kits



Kits are particularly helpful when handling repetitive maintenance services for vehicles commonly serviced by your business. A kit can have up to six different parts pick lists (each with multiple parts) and up to six different labor glossaries (descriptions) added to a workorder with a single kit code. Often kits are used when

providing periodic maintenance services, ie. a 30,000 mile service.

Chart

Code	Year	Make	Model
NEWBRAKES	2014	FORD	FUSION TITANIUM
NEWBRAKES	2014	HONDA	Pilot

Your system will maintain a labor chart (history) for each unique glossary code for vehicles based on year, make, and model. The chart can be rebuilt, or edited, from the Glossary - Chart menu selection. When performing a vehicle service, after entering the glossary code, you can do a lookup on the charge, based on the chart, and see the high, low, and average time and charges

you have assessed for that service specific to that vehicle type.

4.4.2 Glossary Concepts

Introduction to Writing Glossaries

The Glossary system enables you to write comprehensive labor descriptions with only a few keystrokes. Pick Lists allow you to add up to 50 parts to a workorder with a single code. A glossary is up to 30 lines of detailed text describing work, including pricing and labor time, that has been performed on a vehicle. Kits combine the parts and labor codes, permitting the entry of 300 parts, and 180 lines of descriptive text, with one code. You will find that glossary codes greatly speed the operation of writing your workorders, and will improve your customers impression of your professionalism.

The Glossary Coding System

Glossary codes may be up to fifteen characters long, and are used to find the proper glossary description for inclusion on the workorder. It is important to remember that the same codes can be used for parts, labor, and kits, without any complications. The MasterLink Shop Writer system is shipped with a comprehensive labor glossary system, but managers can supplement, or replace, the system if desired. A specific coding system has been developed for use with the automatic lookup table used for labor codes.

The codes are six characters long, and have the following breakdown:

- Position 1 & 2: Service system
- Position 3 & 4: System group
- Position 5 & 6: Specific service

An labor glossary for vehicle services could be divided into the following Service Systems, and groups. This should be a good model for setting up glossaries in your own type of business:

AC Air Conditioning

- PM Periodic Maintenance
- AC Air Conditioner Service

AM After Market

- TT Trailer Towing
- CR Care / Repair
- AT Anti Theft

AT Automatic Transmission

- CO Components
- AT Automatic Transmission

BR Brakes

- HS** Hydraulic System
- DR** Drum Brake
- DB** Disk Brakes
- PB** Power Brake Booster
- EB** Emergency Brakes

CO Cooling System

- CO** Cooling System

DA Dash Board

- GA** Gauges
- EC** Electronic Computer

DL Drive Line

- DS** Drive Shaft
- TT** Torque Tube Drive
- UJ** Universal Joint
- TR** Trunion Type
- CV** Constant Velocity Joint
- RD** Rear Drive Differential
- FW** Front Wheel Drive
- DL** Drive Line

EL Electrical

- PM** Periodic Maintenance
- BA** Battery
- ST** Starting System

EM Emission Controls

- CC** Catalytic Converter
- PV** PCV
- AI** Air Injector
- EG** Exhaust Gas Recirculation

EN Engine

- PM** Periodic Maintenance

FS Fuel Systems

- FT** Fuel Tank
- FP** Fuel Pump
- FT** Filter
- CA** Carburetor

IG Ignition

- IG** Ignition System
- EI** Electronic Ignition
- CM** Ignition Components

IN Interior Repair

- CL** Cleaning
- RP** Repair

LI Lights / Fuses **LI** Lights**FU** Fuses**MT** Manual Transmission**CL** Clutch**CO** Components**MT** Manual Transmission**SA** Safety Systems**WS** Warning Systems**SB** Seatbelts**EA** Energy Absorbing Bumper**AB** Air Bags**SC** Safety Checks**SS** Sound System**TD** Tape Deck**RA** Radio**SP** Speakers**AT** Antennas**ST** Steering**SY** Steering Systems**SU** Suspension**FS** Front Suspension**RS** Rear Suspension**TI** Tires / Wheels**WH** Wheels**TI** Tires**TU** Tune Up**CV** Compression / Vacuum**SP** Spark Plugs**DI** Distributor Service**EI** Electronic Ignition**IT** Ignition Timing**CA** Carburetor**VA** Valves**WS** Windshield W/W**WI** Wiper**WA** Washer**WW** Wiper/Washer

Under each of these groups are specific services to be rendered. They would have the first four letters established in the above model, and then added letters to differentiate the specific services. It is suggested that two letters designate the specific type of service, and additional letters / numbers be used to designate services for specific makes and models of serviced units.

Lookup of codes

The lookup function, activated when pressing the the right mouse key when the system prompts for a glossary code, starts by displaying a list of the systems. By highlighting the desired item, and pressing the Enter key, the specific groups for that system will be displayed. Highlighting the desired group, and pressing Enter, will cause the system to display the service codes.

4.4.3 Parts Pick Lists

Parts Pick Lists permit the entry, on a workorder, of up to 50 parts by using a single code. The principles described above may be effective in developing the picklist codes.

Once a code is entered, the system will display the information already entered regarding the existing listing. If none is found, the system will ask the user if a new code is to be added. If the code is not found, but it is in the system, use the right mouse button to activate the lookup function to locate it the desired list. Highlighting the proper list, and pressing Enter will place it in the appropriate field.

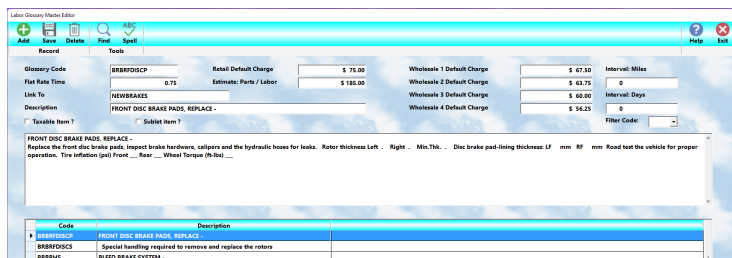
Once the code is found, and displayed at the top of the screen, the second line will display a description of the code's application, ie. Tune up, 68-72 Ford Mustang, 289 cid V8. If a new record is being added, the field will be open to add the description.

The system will also display the quantity, partnumber, and description of all parts already included on the glossary. To edit current parts, highlight the item on the list, and make your desired changes. Be sure to select the OK button to save the change. To add new items, select the Add key, and blanks will be opened at the top quarter of the screen for entering the quantity, partnumber, and description.

- The quantity refers to the normal number of the parts to be used in a single service. A tune up on a six cylinder engine would require 1 set of points, 1 capacity, but 6 spark plugs. Consequently, the quantity would differ for each part.
- When entering the partnumber, be sure to use the exact number that is entered into inventory. If the part needs to be special ordered, it may still be entered in the glossary, and will be entered on the workorder.
- When a partnumber is entered, the system will include the description from inventory, if it exists, or prompt for the description if it is a special order item.

Although you will enter the normal parts to be used, this list may be edited in the parts entry mode of workorder development. Therefore, it is acceptable to include the full complement of possible parts, and then edit the quantity when they are actually being placed upon the workorder.

4.4.4 Labor Glossaries



The Labor Glossaries are used for entering labor, and recommendations, onto a workorder. They are a very powerful feature of **The MasterLink Shop Writer** system because they permit the entry of complete, precise, descriptions with only a few keystrokes.

Writing Descriptions

Once you have decided which codes need to be created, you will then want to write the descriptions. The editing window is a block of five lines, but it can be scrolled, permitting up to 30 lines of text for each code. This block is for entering detail about the work that has been performed. Each line is 60 characters long, providing a total of 1800 characters for the description. Please review the chapter on Basic Concepts to more fully understand the editing capabilities of this window.

We strongly suggest that the title of the service be entered, in all capital letters, on the first line. When setting up the initial glossaries, the additional lines, typed with upper and lower case letters, were used to describe the service in detail.

Services can be broken into activities, each preceded with a -. This provides a very professional looking statement. When entering information, it will not be necessary to fit your descriptions on each line. The system will 'word wrap' to the next line any words that do not fit. If words are split, you may need to assure the accuracy, and insert the hyphen. If you wish to have both the right and left margins even (justified), you can add additional spaces between words until the last letter on the line is at the end of the line. The description will then print in uniform blocks. We do not recommend using any abbreviations. The whole goal of this system is to provide clear communications of exactly what service was performed. Abbreviations are confusing, and can be costly when the client has a misunderstanding. At best you have an irate customer, and at worst, you have a lawsuit.

Data: Code, Labor Units, and Charges

When the description is complete, it is possible to edit the data. The first field displayed is the code. Following it is the description line. This is the information that appears on the summary screen during workorder development, and is scrolled when reviewing labor. It does not print on the workorder or worksheets.

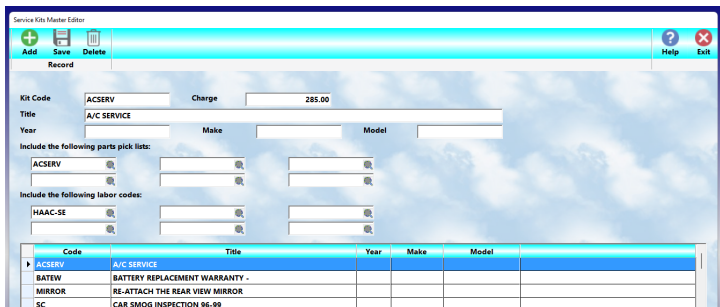
- The Estimate Charge is the amount the customer will most likely pay for the service, including parts if they are to not be itemized. Often shops will create an Estimate Description which includes a diagnostic statement, probable solution, and estimated charge for parts and labor. The amount would be entered in this field.
- The Labor Charge is the amount you wish the customer to pay for the service. It may be related to the units, or it may be a fixed rate. If you leave the charge off, and only have units in the glossary, the system will calculate the service charge by multiplying the units by the shop rate. If you place a value in this field, the amount will be used when entering labor, and no other calculation will take place. Of course, you can edit this value when adding it to the workorder. Please note that there are actually five price ranges for the labor charge for each glossary item. These correspond to the parts Retail and Wholesale levels 1 to 4.
- Labor Units refer to the fixed time by which the charges for a job are calculated. You may utilize your own time estimates, or obtain data from the many resource publications you may

purchase. Enter the time in hours, ie. 1.5, 2.0, 4.8. This is used for reference, and will be stored on the workorder system, but is not printed for the client.

- If the service is taxable, check the box. This is a default option, and can be changed in edit mode when working on the service.
- One labor code can call other codes if desired. This process is known as linking and can be used to chain a group of services. This is useful, for example, when you wish to diversify services. An automotive shop might create a range of five tune up services, spaced at 12,000, 24,000, 36,000, 48,000, and 60,000 miles. Each one has a different opening statement, but then calls the plug replacement with scope and adjust, which calls the oil change, which calls the lubrication, which calls the safety check. The one code, then, pulls in all of the others.

4.4.5 Kits

Kits are a fast manner for entering parts and labor on a workorder using a single code. Once setup, and entered on a workorder, the kit loads existing parts and labor glossaries quickly, and without operator input, onto the workorder.



Setup

- The Kit Code may be setup in the same manner as all other glossary codes.
- The Charge refers to a single price to be charged, under labor, for the complete service. If no charge is specified, all items will be individually assessed on the workorder. If an amount is specified, the title line will be listed and labor, followed by the charge, and the parts and labor itemized charges will be n/a. This is especially good for services where there is one price, regardless of what parts and services are actually rendered.
- The Kit Title is a one line description of the service. The title should specify the exact type of service being rendered. It is not a detailed description of the services. An example of an automotive shop kit title might be: Mustang 30,000 mile factory service.
- The system provides blanks for specifying six Parts Pick Lists. It is vital that these be actual pick lists that are in the system, or the items can not be placed on workorders. When entering parts on a workorder, a picklist is preceded by the #. Do not include this symbol in the kit function.
- It also provides blanks for specifying six Labor Glossaries. Be sure these codes also exist. When using kits, the system will not link glossaries. Therefore, all services must be specified. Enter only the actual glossary code.

4.4.6 Charts

Chart Creation

The chart is automatically updated with each daily closing, and totals are revised accordingly. If no entry currently exists for a service, a new one is automatically generated.

Recreating Charts

The MasterLink Shop Writer tracks service totals for each labor glossary item, based on year, make, and model of the service unit. By selecting the Rebuild option in the Glossary menu, the system will automatically generate a new labor chart from this data.

You will be asked to put in a beginning date, from which the history will be calculated. Because rates from many years back may not be desired, you may select a more recent date. Be sure to run this routine overnight when no one is using the system. You will probably want to re-run this utility on a yearly basis to recalculate totals on a more specific date range.

Editing Charts

Using the Glossary - Charts option you will see all existing chart entries listed, and you may edit any records.

Service Unit Time and Charges Chart

Glossary Code	OILLEAK	Unit Model Year	
# Workorders	263	Manufacturer of Unit	
Highest Flat Rate Time	11.00	Model of Unit	
Lowest Flat Rate Time	0.05	Highest Labor Charge	\$ 876.15
Average Flat Rate Time	0.51	Lowest Labor Charge	\$ 3.60
Actual Flat Rate Time	0.00	Average Labor Charge	\$ 42.53
		Actual Labor Charge	\$ 0.00

Code	Year	Make	Model
NEWBRAKES	2014	FORD	FUSION TITANIUM
NEWBRAKES	2014	HONDA	Pilot

Glossary Code

This matches the code found in your labor glossary system. The charts require at least an exact match on the labor code.

Actual number of services

This is an exact count of the number of times this service has been performed when calculating the chart. If the chart is rebuilt then only the number of services selected will be shown.

Unit Model Year, Manufacturer and Model

This information will help refine a search for the service code chart and allow you to differentiate between the time and charges that vary depending on the type of vehicle.

Highest, Lowest Average Labor Charge

The system will automatically track each charge for a matching service (code plus vehicle data if specified). It calculates the average, high, and low charges that are assessed.

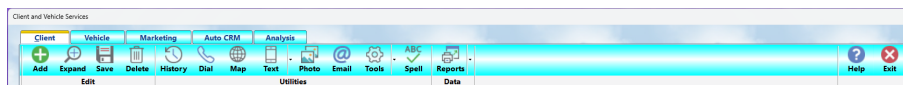
Highest, Lowest, Average Flat Rate Time

The system will automatically track each time (units) for a matching service (code plus vehicle data if specified). It calculates the average, high, and low times that are entered

Actual Flat Rate Time and Labor Charge

This price is not calculated by the system but you may provide it. This is the actual time and charge you wish to have assessed for this specific service.


4.5 Clients and Vehicles



All records for Clients and Vehicles are maintained on a single, tabbed, page. This allows for quick navigation between the two sections of data, and interaction between them.. Specific details are discussed on each of the reference pages that follow, but there are some important points to know about how the two pages work together.

Navigation


Click on the tab to work on the Client or Vehicle screen. To move quickly to the proper record, select the column you want to use (License, VIN, Client account or name, etc) and then start typing the data you are seeking. You do not need to click in any field before you start typing because the system is monitoring the keyboard input, not the field. It will then position the highlight bar closer to the target with each letter, or number, you type.

If you search for a client, and double click on their record (left mouse button), the system will automatically jump to the vehicle display and show you only the vehicles owned by that client. To see all vehicles again, click on the  button. If you are looking at a vehicle record, double click on it, and you will switch to the Client screen, with that client's record highlighted.


Adding a new client

Go to the Client screen and click on the Add button. Fill in the data and Save it.

Adding a new vehicle for an existing client

Go to the Client's record, and double click on it. The Vehicle screen will appear. Select the Add button, put in the data, and Save it. Remember, for a new vehicle, put in the license and the state, and the VIN will automatically be retrieved if you have Carfax activated. Be sure to click on the  in the Account field (top center of vehicle data) to link the vehicle to the client.

Adding a new client and vehicle

First follow the procedure above to Add a new client, and save the record. Then double click on the client. When the Vehicle screen comes up, do an Add. Be sure to click on the  in the Account field (top center of vehicle data) to link the vehicle to the client.

For specific information on the data screens, please view the following pages:

[Reference page for Client Data](#)

[Reference page for Vehicle Data](#)

[Marketing](#)

[Auto CRM](#)


[Client Analysis](#)


4.5.1 Client Data





Account	Client	City	Phone	Cellular	Email	Last Visit	Total Sales
13054	Stone, Tim	Trabuco Canyon	(949) 589-3186	(949) 589-3186	timstone@masterlinksoftware.co	01/30/21	2,072.67

Controls

 **Add:** To add a new account, simply select the button. When the data screen on the top is then displayed with empty boxes, fill in the blanks as appropriate.

 **Expand** Select this button to bring up the text in a larger display format (full window height, larger font). You may make changes on the popup window, including the use of the spell checker, and your results will be saved to the actual client record upon exiting the window.

 **Save** Always press this button after making changes to your program. This will save the information / changes to the main database.

 **Delete** If you select this button while a record is highlighted, you can delete the client. Deleting clients is not recommended. The record takes up very little space on your computer, and is a link for all of the individual service units you may have remaining in the system. If you must delete records, be sure to use the utility which removes all service units first, and all associated records.



History When you press this History button, MasterLink Shop Writer will automatically display the service history for all visits by the highlighted client. This includes all vehicles they own.



Map Display a map of the client's area



Dial Use the built in phone dialer (modem must be connected to the phone line) to call a displayed number of the highlighted client.



Text The Text button allows you to send a text message to the client's cell phone. You must have both a cell phone number, and their service provider, for this to work from your computer. Please complete those fields when the client visits.



Photo View the photos associated with the selected client



Email Send an email to the displayed client



Tools The tools are used to perform maintenance and updating services to the client records. Details are found in [Client / Vehicle Utilities](#)



Spell Check the spelling on the notes for the selected client



Reports This button provides a drop down list of Reports you can run specific to your clients.



Help Open the manual and lookup information. (Open to the page for this window by pressing the F2 key instead).



Exit Exit the client dialog window.

Edit an account

When a client is highlighted in the browse list, the record data is shown in the upper section of the window. Make any changes you wish, but be sure to select the Save button to retain your work.

The account data

The following information is tracked on each customer:

Company

The Company field holds the name of the company, or the client in last-first order. This is the field used for locating the client, and will be maintained in alphabetical order by the system.

Client First/Last Name

Enter the first and last name of a responsible party at a company, or of an individual if no company is involved. The computer system will automatically reverse the first and last name, and store them in the company field for individuals.

Address / Address 2

Enter the client's street address in these fields. The address should include an apartment number, or office suite, if it exists, which is usually entered on the 2nd line.

City

Enter the name of the client's city in this field. Do not use abbreviations if possible.

County

It is often helpful, especially for tax purposes, to indicate the county in which the client resides or conducts business.

State - Zip

Use the approved postal department two letter code for the state, and the full zip code if possible. These will be very important when performing follow-up mailings.

Resale #

If the client has a resale certificate, enter the number in this field.

Account

The account number is unique to each client. When adding a new record, the number will be assigned automatically. The account number cannot be changed. It is used to link many files to the customer. Experience has shown that allowing users to assign, or change, this number leads to significant difficulties.

Phone Numbers

Enter the home, business, cellular, fax, and pager phone numbers whenever possible. Be sure to add the area codes, especially in large metropolitan areas.

Email

Enter a valid email address for this client.

Contact By

Use the drop down list to select the method by which the client prefers to be contracted

Resale

For wholesale accounts, the client's resale number must be tracked. This field is provided for the number, which will be displayed on appropriate reports.

Range

Whenever you complete a workorder for this customer, the date will be entered in this last sale field.

Code

The rating field is used to assign clients into groups. Some examples include how they choose the shop, type of car (luxury, recreational, family), frequency of service, or any other user defined system. The codes are established in the Setup program, as a list from which an option is chosen. Enter the client's code in this field, as is appropriate for the system you have installed.

Price Level

All clients are assigned to a price level. By default, they are established as Retail. However, they may be placed on one of the 4 wholesale (2-5) levels. These are used whenever the client buys parts, either across the counter, or as part of a workorder. Their level is automatically displayed on the parts entry screen, although it can be changed at that time.

Occasion

Would you like to remember a special date for this client, ie. birthdate or anniversary ? Enter it here.

Charge Tax

<input checked="" type="checkbox"/> Charge Tax ?	Tax Rate:	Parts %	<input type="text" value="2.3500"/>	Labor %	<input type="text" value="0.0000"/>
--	-----------	---------	-------------------------------------	---------	-------------------------------------

If the client is tax exempt, do not check the first field. Otherwise, do check it so that sales tax will be properly charged. Place the percentage they should be charged in the appropriate fields (parts and/or labor), and that rate will be used for calculating the sales tax on workorders. Use the lookup icon to bring up the list of valid tax rates and Accept the one you wish to use in each category. **Do not type in the values !** Be sure to add any new rates to the list in under Tools.

Total Sales

The total for the workorder will be accumulated, so you will always know the total volume of work you have charged to this client.

Alternate

You may enter secondary name(s) in this field for reference.

Send To CRM ?

MasterLink Shop Writer works with a variety of 3rd party Customer Retention Management systems. Generally data is submitted for all clients, but sometimes there are "drop ins" for whom follow ups are not useful, ie. people who stopped while traveling from out of the area. When setting up one of the services, a utility can mark all of the customers last serviced since a specified date, and then the computer operator can uncheck those clients for whom services should not be sent. Of course, if the customer hasn't been in the shop with a vehicle since the cutoff date, they are already unchecked.

Status

The status field is user definable in the Lists utility. You can assign a status from those options to any clients.

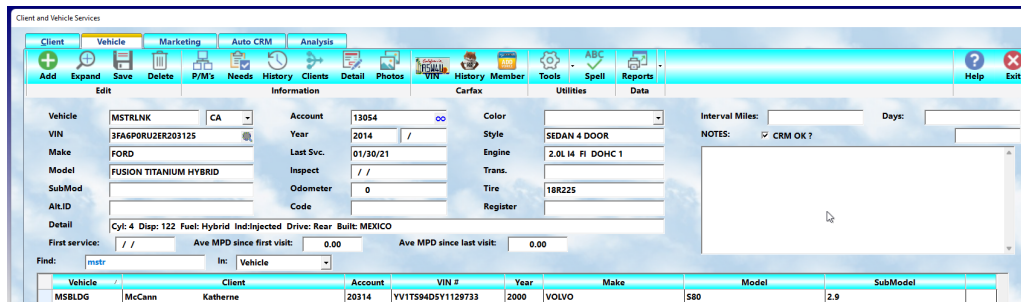
Notes

The memo field is for notes about the client. You may type any information desired in this field. Use the editing keys to move around as detailed in an earlier chapter. When finished with your notes, select the OK key to save your work. If you use the **ESC** key, your work will not be saved, but you will exit the field.


Find & In boxes


The first box displays the letters you are typing for the search in the browse control (list of client records), and the second box shows which field you have selected. The Δ on the right side of the column header shows in the one you are searching, and is either up or down to indicate Ascending or Descending order of the records.


4.5.2 Vehicle Data





Controls


 **Add:** To create a record for a new vehicle, you may select the button. It is not necessary to add vehicles here because the procedure can be done quite easily while writing a workorder. However, sometimes it is desirable to add vehicles to the listing prior to performing any services on them.


 **Expand** Select this button to bring up the text in a larger display format (full window height, larger font). You may make changes on the popup window, including the use of the spell checker, and your results will be saved to the actual vehicle record upon exiting the window.

 **Save** Always press this button after making changes to your program. This will save the information / changes to the main database.

 **Delete** By selecting the button when a service vehicle is highlighted in the browse section, you can remove the vehicle from the listing. This is not a recommended procedure, however. This removes only the record for the vehicle, and none of the workorders associated with the vehicle. Deleting a vehicle gains very little space, and virtually no performance enhancement.

 **P/M's** Edit the Preventative Maintenance Scheduler for the highlighted vehicle using this button. For details, see [Preventative Maintenance Schedules](#)

 **History** Selecting this button will display the complete service history for the highlighted vehicle

 **Client** Selecting this button will display the client information (not editable from this view) for the selected vehicle. To edit client data, click on the search button inside the Account field (see below).


 **Detail** If you do not have a license plate, or VIN, but wish to lookup a vehicle, use this option. You can select the vehicle year, make, model, and submodel and it will automatically populate the fields in the vehicle record. This list is very comprehensive, and using it means you will have consistency on vehicle's when performing reports and lookups.



Photo View the photos associated with the selected client



License to VIN If you have a license, and state, but no VIN, press this button for the highlighted record. The system will query the Carfax database and return the VIN if it is available. It can then be decoded for full detail. This is often used to get VINs for cars missing the information in the database.



Carfax This button will display a Carfax service history for the highlighted vehicle which includes records su



Tools The Vehicle Tools include the license change utility, and others to be added.



Reports This option provides a Vehicle Expense report that allows you to see the costs of repairs over time for the highlighted vehicle. Just add in the date range you wish to measure.



Spell Check the spelling on the notes for the selected client



Help Open the manual and lookup information. (Open to the page for this window by pressing the F2 key instead).



Exit Exit the client dialog window.

The Data Screen

The following information is tracked on each service vehicle.

License

The license is a key field, and links the vehicle to the workorder. Do not change the License here or you will lose the linked records to workorders, clients, etc. Use the License Change utility under tools.

We strongly suggest you use the actual, exact, vehicle license. Some people use the last 6 digits of the VIN, but that is NOT a unique ID and can lead to confusing the system. If a plate is transferred to a new vehicle, run the license change utility and convert the plate to a new value. For example, the plate SAMPLE could be changed to SAMPLE01. This preserves it's unique value. Then create a record for the new vehicle using the plate SAMPLE.

VIN

The ID is unique, and unchanging, for the vehicle, and is known as the VIN. This is the vehicle serial numbers.

The MasterLink Shop Writer utilizes an automatic VIN decoder for automotive vehicles. Based on established standards, the code carries the year, make, and model of the vehicle, and may optionally include other information. When defined in the code, the values will be automatically

decoded, and entered into the appropriate fields, when the workorder is first written. Use of the lookup icon next to the VIN will also trigger the decoder. Be sure to read the manual section under Interfaces about Carfax, then activate the agreement, to use the supplied VIN decoder. You can see more about this option in the Interface Products section ([click here](#))

Make

This field contains the name of the manufacturer of the service vehicle.

Model

This contains the manufacturer's model name for the specific vehicle

Submodel

This field contains the manufacturer's sub-model name for the specific vehicle

Alt ID

The Alternate ID is often used to track vehicles instead of the VIN number. You can use this field for other data if you wish. We strongly recommend, however, that the complete VIN number be placed in it's field. This will assist you in ordering parts and confirming services.

Detail

This space is provided for additional brief information about the service vehicle not covered in the other fields. The VIN decoder will automatically populate this field with important data.

First Service

This is the date the vehicle was first serviced at your shop.

Average MPD since first visit

This is the average, calculated by the system, of the average number of miles driven on this vehicle since the very first service visit.

Average MPD since last visit

This provides the average miles driven each day since the last visit. It is useful in projecting when some services may be needed.

Account

By entering an account number in the field, the system links the service vehicle to a specific customer. If you wish to move the vehicle to a new customer, simply change the number to match the new client's account.

**** SPECIAL NOTE ** When a vehicle is sold, and you service it for the new owner, create an account for the client, and change the number in this field. If the client already is in your file, just change this account number to the alternate client's. All records will be handled properly, and no data will be lost.**

Year

The system will track the year in which the vehicle was manufactured. The first field provides for the model year, and the second field provides for the month/year of actual production.

Last Service / Inspect / Odometer

The system will automatically update the last service date and meter from the most current workorder.

Often vehicles should be inspected on a regular basis. You can use the Inspection Date field to enter when the vehicle is next due for such a check. You can use this date effectively to remind clients that you can provide the service they need. This may take the form of a flyer, letter, or postcard reminder. They should be sent out one month prior to when the service is due. This date is usually an annual event, separate from the periodic maintenance schedules.

Code

The VIN decoder will provide an APAA compliant code for this specific vehicle. It should not be altered because it can speed up the interface with other catalog and labor products.

Color

The color of the service vehicle may be desired information, and can be placed in this field.

Style

You can use this field to describe the construction style of this vehicle. With vehicles, you might describe it as a 2 door, 4 door, or hatchback.

Engine

This space is provided for notes about the engine type. It is suggested that the manufacturers model number be included. Most repaired items have some type of engine or motor.

Transmission

This will provide detail on the type of transmission shipped on this vehicle.

Tire

The first two digits will provide the factory specified wheel size, and the remaining code represents the tire size the manufacturer provides.

State Reg

Sometimes states use a registration number that does not match the VIN or the license. If this is the case, you can enter that number in this space.

Interval Miles / Days

For future development: If you want to have recommended service intervals for automated follow-up, enter the interval based on miles (ie. 5,000 for every 5K of driving), and days (ie. 90).

CRM OK ?

This will default to True and information on the service of this vehicle (includes the type of service, and odometer reading, but no client or pricing info) will be accumulated and passed to Carfax via an internet connection. If you must exempt this vehicle from that reporting, unclick the field and save the record. **Use of the Carfax vin decoder is made available in exchange for this data. A vehicle should not be exempted unless you have a specific directive from the owner, and it should be a rare exception, not a general policy.**

Notes

You may use this field to keep track of any information specific to the vehicle. It will be visible on the workorder screen.

4.5.3 Service History

It is always wise to check the service history on a unit before writing the estimate. This allows you to remember what services have been performed previously. You may also wish to review the vehicle notes to see if there were any concerns stated previously that should be handled at this visit. This will allow you to discuss possible pending services with your client, which may lead to additional sales.

Lookup

To check a complete service history for a vehicle, select the **History** button on the screen in which you are working.. You may lookup a service for a specific vehicle, or all services for an individual client. MasterLink Shop Writer will know which you are seeking based on the screen you are using.

Viewing

The system displays the complete service history for the vehicle selected. For each workorder, listed from most recent to oldest, the system gives a summary of the totals, and then provides all of the parts, labor, and recommendations. The workorders, and totals, are listed in the upper half of the window, and the full detail of the highlighted workorder is displayed in the lower half of the window. Both can be browsed freely, The detail also includes

Drill Down

If you need more information on a part listed, or a labor item. **point to it and double click the left mouse button**. A popup window appears and shows you everything you put onto that item in the original workorder.

P/M Scheduler

You can also view the P/M Scheduler for the vehicle by selecting the button on the Service History display. This is a popup feature which opens while leaving the history screen available.

Invoice

You can highlight an invoice from th3 service history, and then press the Invoice button to reprint the workorder, either to the screen for viewing in its complete state, or directly to a printer. In View mode you can also email it to a client.

Printing

You can print a Service History, or any portion of it. Select the Print button on the history display screen. Check the View button first. You can then see the entire history as it would appear on a printed report. Select the printer icon to print out the whole report. If you want to select only some pages, note the page numbers as you review the report. Then close the view and select the Print button again from the main history display screen. Select the Alternate printer and you will see the windows print display. You can select the option for printing only some pages, and then enter the page numbers you wish to have output. You can list them individually separated by commas (7, 9, 11) or in a range (2-4). Then select OK on the printer dialog and your report will output only what you want.

4.5.4 Marketing Using MLS 12

MasterLink has built powerful marketing tools for **MasterLink Shop Writer**. We have worked with principles we believe are cost effective and beneficial to your business.

Some people prefer to hire a 3rd party vendor provide these services. We encourage all of our clients to evaluate their options and make a business decision based on their findings. **MasterLink Shop Writer** does have interfaces in place for several popular CRM companies.

A critical factor is to evaluate your **Return On Investment**. Here is a simple way to do this:

A) Calculate **all** of the costs for your marketing effort. This includes shop time necessary to prepare materials, and the fees you pay for the services you use. Remember to be complete.

B) Calculate the **profit** from business you can directly attribute to business brought from your marketing effort.

C) Subtract the costs from the profit and you will know your ROI. It must be a positive number, or your marketing effort is losing money.

It would be wise to do this on each aspect of your marketing program. This is the only way you will know precisely what works, and what doesn't. You can then focus your attention on those activities which benefit your company financially.

The following topics may help in planning your activities.

4.5.4.1 Visualizing Your Brand

People don't easily remember names, but Brands seem to stick with them. The best ones have a catchy phrase and a visual image that is easy to recognize.

What is your brand ? Is it something short, inspiring, and easy to recognize ? When MasterLink Software started in 1983, a consultant created the MasterLink Shop Writer logo. It's unlike anything provided by other companies. It's the studious little professor with a pencil, ready to work for you, standing next to a reliable classic car. Our clients know the brand, and so do others. It has been there for 35 + years, and it sends a message.

If your clients look at your brand, do they think of you ? Do you have it present everywhere ? It should be on your paperwork they take home. It can be on your correspondence. It should be prominently displayed in your business where clients visit, and of course it needs to be on your business card.

Do your clients think of quality service, and a welcoming environment, when they see that brand ? Think about Apple computers. That simple little apple logo signifies to millions that the product upon which it is placed is of high quality. In addition, they know the store that displays that logo provides friendly, receptive staff, and a dedicated support team ready to resolve their concerns. Does your brand carry a similar message.

If you don't have a solid visual brand, there are some excellent consultants who can help you create one. Then, embrace it, spread it everywhere, and back up it's message with the highest quality service.

Your Brand also reflects your method of operation. The key to a positive brand is that people immediately identify you as a company with whom they do business. Read the next page to better understand this concept.

4.5.4.2 Profiling Your Strengths

Do you know your strengths ? Most businesses don't even think about this, but your customers do. Considering the diversity of products on which you may work, your clients want to know your expertise relative to their specific needs. Just like doctors have specialties in their practice, it is probably your business does also. The whole summation can be found in two areas:

Expertise - What specific skills do your employees possess ? They may have attended special courses, or received certifications through testing, on specific types of services or brands. Years of experience specializing on problems is also appreciated. Create a profile of the expertise clearly exhibited by your staff, and let others know what they have to offer.

Equipment - With today's modern technology in vehicles, the equipment needed to perform repairs and adjustments is significant. Gone are the days when a set of wrenches and screwdrivers were sufficient to enact all repairs. You will want to share with potential clients the types of equipment that make you unique, or highly qualified, to perform specific services.

Price - You know what your service is worth, and you should know how much you must charge to keep your business healthy. Consumers always want a "deal" but in the end they simply want to get a fair price. If a shop tries to compete based on price and discounting, it plays to an audience of shoppers who always look for the cheapest option. It's expensive to utilize this strategy and it doesn't help your long term prospects. A quality shop profits by bringing back it's solid customers, and not always trying to find shortcuts to save money necessary to play the discount strategy. MasterLink Shop Writer marketing tools will help you identify which customers benefit your business, and provide opportunities to reach out to them regularly, yet automatically.

Once you determine your service strengths, then you want to use your marketing efforts to communicate that to your clients. It is likely they will be looking for a service provider who specializes in a particular brand or service (ie. electrical, fuel, transmission, etc.). You want to be sure your outstanding qualities are featured in your communications and any niche marketing.

4.5.4.3 Understanding Your Clients

Who is your client ? Can you create a profile of the people who make your business successful ? Often companies spend a lot of time striving to obtain business from people who just don't contribute much to the bottom line. These contacts cost precious resources of time and money. So, it's important to identify just who does help your efforts thrive, and who provide an economic incentive to your employees with their patronage. Here are some thoughts to look at:

Financial What does your client provide as income to the business ? In MasterLink Shop Writer, you can see the number of visits, average amount spent per visit, and total spending. The client who comes regularly and purchases a complete service package is actually contributing the most. You absolutely want to retain their business. The high ticket item may seem attractive, but if it is only a one time visit, you have to replace that client with another. The person always looking for discounts and comparative shopping wastes a lot of time, and doesn't leave enough margin to enhance your service offerings.

Attitude: Is your client high maintenance ? Sometimes this type of person can suck the profits right out of any transaction, and sour the climate of your reception area. You want to seek those who appreciate your service, and will care enough to recommend you to others.

Demographics: Do your clients have stability in the community, or will they be constantly mobile. Long term clients are the most profitable while the mobile community needs to be constantly replaced with new clients. The second group is the most expensive. Also, consider the age plus social needs of your clients. Are you staffed to handle them appropriately ?

Waiters: Some people like to wait while the service is being performed. Is your reception area comfortable and inviting. For those who are technology savvy, do you provide wifi ? For the older generation, is your seating comfortable Is the waiting area protected from the loud noise of the repair area ? If you offer TV, is it tuned to a channel that will not irritate your customers ?

Location: Are you in an area that customers will consider accessible and safe ? Can they walk to other businesses while waiting for a service to be performed (ie. restaurant, coffee shop, retail stores). Will they benefit from a free courtesy ride to work or home ?

You need to understand your clients and what helps them while you are servicing their vehicle. Then when you do engage in marketing, you want to address how you provide for them while you work on their vehicle.

4.5.4.4 Selling Your Services

You may provide the greatest service in your community, but that is certainly not sufficient if no one knows about your business, or if your customers don't feel they are important. The number one method for attracting, and retaining, clients is communication.

Specific details are found in five sections of this manual

[Why Communicate?](#) - This is a good selection of ideas on why marketing helps.

[Creating Text](#) - For letters and post cards you need to create the text and format it efficiently. This section details how that can be accomplished.

[Selection of Records](#) - This is the meat of the chapter because it reviews all of the different selection methods.

[Choosing a Format](#) - This section allows you to select the most appropriate format for output, from letters, cards, labels for preprinted cards and flyers, email, or merging to another program.

[Strategies](#) - This section details ideas about how to make these tools more effective

Studying these areas and learning how to market your business can enable you to turn the corner and increase profits dramatically.

The basic principles are as follows:

- [Communicate with your clients on a regular basis](#) - You should have something in their hands at least 4 times per year, even if they return on their own.

- [Alert them when services are due](#) - Track their normal service intervals and send them regular reminders
- [Thank them after they visit](#) - Call a few days after they visit and ask if the vehicle is performing correctly. End by thanking them for their continued patronage.
- [Offer them an incentive to return](#) - It doesn't have to be much. A clean waiting room with coffee and muffins works wonders. Have a few copies of the daily paper available. Offer a ride to work if its local, or to the mall. Much of the "hand out" material vendors want you to buy for promotion is just junk. Some things, though are useful. Pens to carry in a purse or glove compartment are great. In fact anything to write on in the glove compartment is great. Around the house people do save refrigerator magnets, and also clips for chip bags, or grip pads to open jars. Help them to remember you.

Study the sections mentioned above carefully, and then put your marketing plan in place. Do it now !

4.5.4.5 Methods For Reaching Out

There are many ways you can reach out to potential, and returning clients. You can spend a lot of money doing this. The main question becomes, which investments will actually yield results.

Before spending money on marketing services, you need to know which offerings will actually work with your clients. Here are some considerations on popular methods:

[Newspapers](#) - Advertising can be expensive. You need to know if your clients actually read their papers, or just glance at headlines. Some people just move them from the driveway to the recycle bin. If they don't read the papers, this is a lot of wasted money.

[Magazines](#) - It is likely your clients will not be exposed to magazines, except perhaps in a waiting room. If that is the case, you can be seen, then soon forgotten. In some communities, however, there may be local magazines that everyone receives, and they actually look through it carefully.

[Radio](#) - Radio is most often listened to when people are driving, and they likely don't have a way to note, and remember, the information on your business.

[Email](#) - This is a very popular method for communicating today, but frankly there is so much spam email that your communications are likely to be filtered out, and never seen. If you do use this method, keep it brief, personal, and specific. For example, a nice reminder email about a recommendation or service may attract attention. The other thing to try is the newsletter with advice about a seasonal service they may wish to track on their vehicles, ie. be sure to check the tire treads when heading into winter. Check hoses and connections before taking that summer trip. Emails that are just ads for your business will be considered a nuisance and deleted, or your business could even be blocked.

[Phone](#) - The only type of call to make is a follow up to a service you just provided, or to inquire about something personal the client mentioned in their last visit. For example, if they mention a spouse having health issues, and share it with you, make a note, and a few days later give them a call to ask how the person is doing. This type of caring creates a bond that will not be overlooked in the future. Also, follow up calls after a service are appreciated, but don't do it as a survey. Forget the scripts. Have a chat when you call, inquire if everything is working well now, and then thank

them for the opportunity to provide your services. Any other types of calls may seem intrusive, and work against you.

Mail - Postcards work well because they can easily be saved. They are great if they provide a reminder of what needs to be performed. When received, they can easily be placed on a bulletin board, or in a holder, ready for when they need to be used. Mail that looks like junk will be treated as such. However, mail that looks personal gets attention. Handwritten envelopes always get opened. The letters inside, if printed on a nice paper, will be read. Be careful about what you write, and always focus on the positive. Postage is not cheap, but the investment in nice letter stock and envelopes will make sure that investment is never wasted.

Telemarketers - Most people find phone solicitors to be highly offensive, and they may well turn away from your business if you use them. Most work in call centers, and the person who is interrupted when answering the phone will know immediately what is coming.

Social Media - There is a current trend to turn to social media to make your presence known. The sales pitch you will receive on using this will assume because so many people populate this medium, you need to be there. Sure, you may get some leads here, but it is critical to evaluate the ROI on any costs for these providers. You may also want to check just how social media communicates these messages. Most people go there to communicate with friends, and totally ignore the paid advertising. What does happen is a person will ask for referrals for a particular type of service and get 15 different names to check out. None of the referrals will have specifics, only the comment "I like the guys at ...". Paying to advertise in this climate may not be a benefit, so if you do try it, make sure to evaluate the results.

There are other ways to reach out, and they may have some success. Overall, whichever methods you use, keep the message specific and personal. That provides the best chance your efforts will be rewarded.

Finally, when using any outreach methods, track the results. In every case, evaluate the Return On Investment by comparing the profit for workorders versus the cost of the outreach method. If you do not see a net positive income, the method is simply not worth the investment.

4.5.4.6 Creating Text

When sending cards, or letters, you will need to specify a desired text. From the Client toolbar, select the **Tools** button, and the **Text Editor** option. This will display a scrollable list which will also be shown at the time a choice must be made in the follow up section of the program..

A document is created with this **Text Editor** and will be a **Card**, **Letter**, **Email**. Be sure to select the **Add** button for a new entry.

Both types of document have a code and subject. The **Code** is a short set of characters, and numbers, (user created) which are used to look-up the text. Enter **C** for card,, **L** for letter, or **E** for email, in the **Type** field on the text editor window. The **Subject** is a description of the purpose, or contents, of the text. This should be brief, and very specific to what the text contains.

A letter about 50,000 mile services might have a code GS50K, and the subject might actually define the code, ie. General Service, 50,000 mile. It is usually not necessary to be specific to manufacturer, or unit, on these codes because 'generic' letters can be written to take advantage of the intended message.

Letters contain three additional fields.

- **Closing:** The closing is the line which precedes your signature, ie. Sincerely, or Regretfully. Use words that convey your intent, without being ancient (ie. Yours Truly is considered outdated).
- **Signed by:** The signed field is for the author's name, which is usually that of the shop manager.
- **Title:** Finally, the title field is for the author's position, ie. service manager, owner, lead technician.

The main editing box is for the text of the card or letter. Full text editing features are active to perform this function. Please remember to check spelling in the text. Since your document needs to be created only once, this is not a time consuming task.

When the letter is complete, it will be stored by selecting the *Save* button.

4.5.4.6.1 Strategies

Ideas For Letter Text

Letters are formal, or personal. In either case, they convey an important message, from you, directly to the client. Your business will be more successful with the personal touch. Your clients will be quite responsive to your professional activities.

When you create letters, be brief, positive, and to the point. Take time to use a dictionary, and check the spelling of every word that could possibly be misspelled. You will only need to enter the text one time, so this is not a significant expenditure of time.

When you send letters, do not include junky flyers. Use a good quality of paper, perhaps with a nicely printed letterhead, and send them in nice quality envelopes. A print shop can supply you with good stock, at reasonable prices. Be sure that your printer has a good ribbon, and makes clean images. You might even want to invest in a Daisy Wheel printer to do your letters. Although painfully slow, the quality is identical to the finest typewriters, and an old used one might be found at a computer swap meet for a very small investment. These use carbon ribbons that leave a beautiful image.

Letters with handwritten names, and addresses, are more likely to be read than those with labels. If you do use labels, obtain 'clear' stock. These give the impression that the name and address has been typed directly on the envelope. If you use an attractive envelope, and stick a large white label on the front, you lose the whole effect.

Your letters are your greatest marketing tool. They are an expense, but your rate of return should be well worth the cost. If you do them well, you will see an immediate increase in clients. If you send out letters, on the cheapest type of paper, in smudged envelopes, you will not leave a good impression. Some people may come in for service, but not as many as when you send a quality presentation.

Ideas For Card Text

Postcards should be brief and to the point. They are best when there is something to attract the client's attention, ie. a special. You should have the front of the card pre-printed with your shop information. Graphical artists can be very clever in doing a layout that says who, and what, you are in a professional manner.

When writing your text, do not be afraid to use "white space". A few words - standing out - leave a lasting impression. A long, impassioned, plea for the client's return may be far less effective. It should be your desire to "jog their memory" about the need for a return visit, not to give them a sales pitch. If you can get them to pick up the phone and call, you have succeeded with your job. Then you can review the sales history, and share with them their vehicle's needs.

Ideas For Emails

These emails are for the Auto Follow Up system in MLS, and they are sent as scheduled without any required action by shop staff. The first email is sent the night when a service is completed, and expresses thanks for the client coming to your business. Write the text just like you talk to the clients, make it sincere, and short. Then you can be assured they will read it and appreciate the thought.

The remaining emails are sent at 30 day intervals after the service. It is suggested that these be helpful hints rather than service reminders. Make them newsy, and keep them brief. The main point here is that you are putting your name in front of them. Just reminding them you are there does a whole lot to bring them back in the door for their next service. It is also a good idea to change the content of these emails periodically.

Keep your message short - neat - centered - and positive.

4.5.4.7 Analysis

The Analysis section gives you a lot of information, shown in maps, graphs, and reports, about the patterns of your client base, their locations, their spending habits, and of your operations. Each of these is derived from the data you enter when creating workorders, and provides an easy to understand summary that you can use to refine your marketing operations.

Maps

30 Day This map displays a location pin for each client who has visited your shop for a service within the past 30 days. It helps you quickly visualize which areas of your community use your services. When you see an under represented area, you may wish to do a targeted mailing to clients in your database who are in that zipcode.

2.5 K This map displays clients who have spent over \$ 2,500 at your shop. Marketing to these areas may bring others who will purchase more expensive services. It is also a reflection of those who may return consistently.

Graphs

Zipcode This graph gives you a quick visual of the spending volume of people in each of the zipcodes you serve. You can see which areas give you a higher volume of income, and you may want to enhance marketing to these areas accordingly.

Sales This graph provides a quick view of the average sale per customer, split into ranges. It allows you to understand the type of clients you are serving. The high dollar ranges represent the customer base that is most healthy for your shop, while the low ranges reflect the percentage of clients who come only for the cheap services.

Reports

Average This report will show the zipcodes you serve, how many clients are in each, and the average they spend. It's very specific and thus provides you with an ability to directly target the more profitable areas. You shouldn't ignore other areas, but dollars spent in the higher volume zipcodes may yield the most business.

Visits This Analysis shows activity for the past year, reflecting the number of clients who are repeat business. It will help you understand if your clients are solo visits (less profitable) or returning (more profitable). If you find your customers are not returning, you may want to spend some time focusing on why you may not be attracting more repeat customers, and thinking about strategies that will overcome this trend.

Overdue This is a very useful report because it shows you people who have been returning clients, but who are now overdue for a return for services. It provides you a list of names and this would be an excellent opportunity to give them a call and see if you can schedule them in for their next service.

Services This report will give you information about each service code in your system, the number of times it has been on a workorder, and the income derived by it. You can quickly see what services are requested most frequently by your clients, and which one would be "not so much." Some of this is just the normal needs of vehicles, while other areas may reflect what clients see as your specialty.

How To Use The Reports

These reports are to be used with the Targeted Marketing service. As you review the information in the various reports, patterns will emerge clearly indicating which audience it may be beneficial to target. Then you can use the Marketing system to select the people who should be contacted, and the method by which you wish to communicate with them.

When going through the reports, note patterns. Each provides specific data about your client population. Then decide on which strategy you believe will work best in bringing in their business. This is a time when you will use your professional skills to make these important decisions. Then put your strategies to work, and evaluate the results.

4.5.4.8 Targeted Marketing

When you have used the **Analysis** section, you will have a better idea of which customers, areas, or groups to whom you should direct your marketing. This is your target audience. It is best to work with small groups at a time. To communicate with them, choose the **Marketing** tab on the Client screen.

The selection criterion permits you to pick a very extensive, or limited, list of clients for followup correspondence. You may use any, or all, of the criterion for selection.

The system will only use those fields in which you enter data. All others will be ignored. It is not necessary to enter data in all fields, nor must you specify a beginning AND ending date. Only those fields which are specific to your needs must be provided with data. For example, by entering a

beginning date, without an ending one specified, will mean all records which have a date at, or beyond, the beginning date will be chosen. If you wanted to send letters to someone who had a unit last serviced between March 30, 1990, and today, you would only need to enter 03/30/90 in the beginning date field.

The system is divided into five major areas, and each has its own criterion. All, however, can output postcards, labels, or letters. The groups include service unit, customer, type of service, recommendations, and Preventative Maintenance.

On the data entry screen, you will see dividing lines, and a "radio control" on the left side of each section. Simply select the radio button for the type of selection, then fill in the data as described below.

You may send letters, emails, labels, postcards, print a listing, or create a merge file. You can also run dual options, so you could run letters, then print labels for the envelopes, and then run the listing for a hard copy of who you contacted, all without re-entering the selection criterion. Also, you can send emails to the selection, and then select letters. You will be asked if you want to skip emails, and if you answer Yes, then you will print letters for people who do not have email addresses in the system. This will cut your postage costs, and yet you can be sure to reach all of your clients.

Selecting by unit

Selecting records by unit information enables the manager to send followups based on the unit type, last service, or pending inspection. This information is all tracked within the unit file, and any combination of selection criterion may be used. The unit option will be most useful when you wish to communicate based on the need for service based on history. These letters will be very specific, and will most often be used for keeping clients on a regular schedule of visits.

- **Date of last service** - The system will review all units, and select only those whose date of last service matches the criterion you have selected. For example, if you wish to select all units whose last serviced between 11/01/89 and 11/15/89, enter 11/01/89 as the beginning, and 11/15/89 as the ending dates. If you wish only units whose date of service was before 06/01/89, enter this date in the ending field, and leave the beginning field blank. If you leave both fields blank, date will not be a selecting feature.
- **Date of next inspection** - The Date of Next Inspection fields work just like the Date of Last Service. However, this criterion looks directly at the Inspection date. If you state has periodic services, ie. annual certifications, you would track the due date in this field. (See previous discussion) To filter reports on this field, follow the procedures in the previous discussion on service dates.

- **Mileage at last service** - The system will review all units, and select only those whose mileage at the last service matches the criterion you have selected. For example, if you wish to select all units whose mileage at last service was between 50,000 and 60,000, enter 50,000 as the beginning, and 60,000 as the ending mileage. If you wish only units whose mileage at last service was less than 12,000, enter this amount in the ending field, and leave the beginning field blank. If you leave both fields blank, mileage will not be a selecting feature.
- **Unit** - The computer will select records that match any data you put into the unit year, make, and/or model. Adding information into any, or all, of these fields will limit the number of records chosen to those with an exact match. You may leave any, or all, fields blank.

Selecting by Clients

Sometimes you will want to communicate with all of your clients, reminding them of 'general service information.' A very effective tool is the Shop Newsletter. There are two formats. One is a cover letter, and then a simple text of hints, techniques, and reminders. The text would be massed reproduced, while the cover letter would be run by the The MasterLink Shop Writer system. The other type of newsletter is the professionally prepared document, which contains articles, tips, and professional advice. In this case, you would use the MasterLink Shop Writer to run labels for mailing.

***** SPECIAL NOTE *** You have invested a lot of time, money, and energy developing expertise in your field. You can turn that into money by sharing it with your clients. The more they see your knowledge in action, through a newsletter for example, the greater your professional image becomes in their mind. Show them that you know your business.**

To communicate, using the client selection, you may filter records by the name, zipcode, or rating. The system will ask for the beginning, and ending range of the name. It is important to fill all three spaces. Remember that spaces count, and they come before letters. Therefore, if you entered A as the first letter, you would obtain everything that started with the letter A. However, if your final letter was Z, you would actually not get all of the Z's because Z-space-space comes before the letter ZA. Therefore, it would be necessary to enter the final value as ZZZ. To run all clients, A to C, enter AAA as the beginning, and CZZ as the end. Clients may also be selected by the zipcode of their residence. The system will find all zipcodes that match. You may enter a five digit code, and the system will find all matches, regardless of the last four digits, or you may enter the full nine digit code for exact matches. Finally, you may enter a rating code, and all clients with a match will be selected. Because the codes are not necessarily sequential, or related, they must be specified individually rather than by a range.

Selecting by Previous Recommendations

Letters may be sent based on recommendation codes that have been used. The MasterLink Shop Writer will mark off any recommendations that have been completed, unless they are written as blank lines.

This report does not work on blank lines, so the letters that will be generated are strictly for work that has been recommended, but not completed. It may be assumed that recommendations made many months ago may have been accomplished at another facility. Therefore, the system will allow a "search back" date limit. This means that the system will only review records since the earliest date to be included.

This selection method prints cards, letters, and labels like the others. It is most appropriate to use for clients where you want to be sure to follow up on specific jobs that should be accomplished. Because it works on codes, and not free form recommendations, it is suggested that your glossary include a wide range of suggested services.

Selecting by Type of Service Performed

The service selection works in a manner similar to the recommendations criteria. The system looks for matches on specified services, and sends reminders that they need to be performed again. This is quite effective with periodic services, ie. oil changes, tune ups, and safety checks. Simply enter the labor code you wish to match, taken from the glossary, and the date range during which the service would have been originally provided. The system can then print the follow ups to clients based on these criterion.

Selecting by Preventative Maintenance Items Due

Because the P/M Scheduler tracks unlimited services per unit, it is a natural means by which to follow up with clients. It alerts them that work will soon need to be performed on their unit.

The P/M follow up is extremely sophisticated, and automatic. It uses a predefined printout format, and inserts text as appropriate. It will evaluate each unit in the system that is being tracked on a schedule, not just a selection, and print letters to all of them. If you use the P/M Scheduler with most, or all, of your clients, you may wish to run this report at night. However, if you only use it on a small selection of units, it will run quickly at any time. Only those units with an attached schedule will qualify for this report.

In addition, you will find that other information, of value to your client, will be printed on the letter. This makes the system appear to be "diagnostic" in nature. It is suggested that these reports be run on a monthly basis, and mailed to your clients.

To remove clients from this list, you must remove them from the P/M tracking program. This is described later in this chapter.

4.5.4.8.1 Choosing a format

Selecting the Text

Once you have selected the individuals who will receive the postcards, you must select the text. The computer will display available card, or letter, text files. Simply select the one you wish to use.

If you wish to add a new text, press the **ESC** key, and you select the **Text Editor** option described later in this chapter.

Printing the Cards, Letters, Labels, or Lists

Before printing, be sure your printer has the paper, or cards, properly loaded, and is "on line" ready to accept the computer output. The system will automatically print all of the cards you have selected.

To interrupt the printing, press the **ESC** key. Remember, however, that you must start the process over should you stop in the middle of the operation. Should you wish to interrupt the printer temporarily, press the "on line" switch, deactivating the printer. Do not turn it off.

Work in small batches. For example, you may wish to run a batch for a one week period, rather than a full month. This will allow you to be finished more quickly, which is a safety factor if you have other jobs to do. If you have a high quality, slow speed, printer, you may wish to have letters running after normal work hours. It certainly will not hurt the computer to be left on all night. Start the print job as you go home, and come back in the morning to a finished product - and no one's time has been wasted.

Be sure that your 'paper path' is clear - so that paper can be fed to the printer without interference, and will stack properly as it comes out. There are special printer stands, with baskets, that work beautifully for this task. It is important to be sure the paper coming out of the printer cannot backup onto the path of the paper being fed into the printer.

The Merge File

Selected data can be saved to a merge file (MRGDAT.DBF) which can be read by most standard office products (ie. **Microsoft Office** programs, and **Word Perfect Suite**). The file is independent of any data that you may be using for your daily work, and can be imported and/or manipulated by external programs without causing any difficulty to your main program.

Forms

You can use standard paper, or any 8.5 x 11 inch sheets for your letters and labels. Labels are formatted for Avery 5160 or the equivalent, single sheet, 3 across format. Postcards are designed to be printed on Avery 8387 card stock, and will print 4 cards per page.

Printing lists is actually a great way to get a mini-report of customers using the specific criterion you have selected. It is also helpful when you wish to have clients called to follow up on services or a need.

4.5.4.9 Auto CRM

The Basics

How it works

When the Auto Follow Up system is activated, each evening, the updater will send emails to your clients based on certain criterion. The system is totally automatic, and once you have it setup, nothing else needs to be done by the computer operator. For this to work properly, your client needs to have a valid email address on file, and you must have messages configured.

When a workorder is "closed", an email record will be created if the client has a qualified address in the system. The first night, a Thank You note will be sent. Then, if you have messages setup, after 30, 60, 90, and 120 days, a followup email will be sent. Each will include the text you have set in your system. These all go out automatically, without any steps needing to be taken ... set it and forget it !

Creating the messages

Your first step will be to create the text to be included with each email. You will do this in the text editor located in the [Client Follow Up](#) system. Make sure your **Type** is an **E**. Spend some time with

your text because you want to be sure to catch your client's attention. Also, keep the length brief. That way they are likely to read it.

The first text should be a sincere, quick, thank you message for choosing your company to perform a service. The 30 and 60 day reminders should focus on them calling you should they sense anything could be wrong with the vehicle, and perhaps a small tip on enhancing performance.

The 90 day is an alert that normal periodic service is due and advisable. The final reminder should be a caution that service may be overdue on the vehicle and an invitation to call for details.

Setting up the automation.

Once you have the texts written, go to the automation setup. Check the box to turn on the system, then specify S)MTP or C)DO for the type of email you have setup in your system. Next use the lookups in each of the reminder fields to select the text you created for each of those intervals. Save and Exit and from then on its all automatic.

The Process

When you close workorders, records are added to the Auto CRM system. This includes those for PM's and one for the Service. When you make an appointment, if you press the Confirm button (email symbol) a record will be created for the pending appointment. These are displayed on the Auto CRM edit screen.



The records automatically created by the system can be reviewed and modified. You can manually Add, Edit, or Delete records using the displayed controls.

The list shows all of the pending activities on the list, and the fields for each is displayed. The first line shows when the vehicle was in for service, who it belongs to, and their email. (No record will be created if you do not have an email on file for this client). The second line shows the vehicle information.

Note the Completed box. If someone gets an email, and wants to be removed, you can click the completed box, plus the Save button, and they will not receive further emails.

The Service Follow Ups show you the dates when the specific emails were sent. All of these are SERVICE followups only. Once the last email is sent, the Completed box will be checked.

The PM Scheduler will show the Service Code being tracked, the Miles due, and the systems calculated due date (based on driving record). When the email is sent, the date will be entered and the record marked complete.

The Appointment line shows the date of the appointment, plus the detail about what is to be performed.

All of these records are generated automatically. You do not need to do anything once you have activated the Auto Follow Up system in Tools.

The Service follow ups will use the text you have created for them as outlined earlier in this chapter.

The PM Scheduler has a built in text and the email clearly states this is a recommended service, the expected time and odometer reading, and the summary description of the service to be performed.

The Appointment reminder is also programmed into the system and states the date, time, and nature of the appointment.

The Auto CRM system works for you ... and requires no regular intervention on your part. Hopefully, your clients will appreciate this communication and come in for a regular service visit on time.

4.5.5 Preventative Maintenance Schedules

One of the best ways to have favor with your clients is to stay on top of preventative maintenance services, and keep your clients informed about what is needed, and when. MasterLink Shop Writer allows you to track an unlimited number of services for each vehicle, and provide automated alerts to your clients when the service due date is approaching.

This is the editing screen for the PM Scheduler. You can add,edit, or delete records. The screen shows services you are tracking for the vehicle you have selected.

PM Scheduled Maintenance For GH1T489

ID: GH1T489 Code: MAPMLUBC Description: LUBE, OIL & FILTER -

Meter: Last Service: 0 Interval: 5000 Next Service: 5000

Date: Last Service: 01/01/80 Interval: 120 Next Service: 04/30/80

License	Code	Description	Project	Last	Interval	Next	Last	Interval	Next
GH1T489	MAPMLUBC	LUBE, OIL & FILTER -	01/01/80	0	5000	04/30/80	0	120	04/30/80
GH1T489	BRWHDROT	ROTATE ALL FOUR WHEELS -	01/06/18	147565	5000	172565	09/08/17	120	01/06/18
GH1T489	MAPMCABIN	CABIN AIR FILTER, REPLACE -	03/26/16	60662	15000	75662	04/01/15	360	03/26/16
GH1T489	MAPMTRANS	TRANSMISSION SERVICE -	10/09/15	63366	50000	113366	10/09/15	0	10/09/15
GH1T489	TETTUEN	MINOR TUNE-UP & CYLINDER -	01/01/80	0	100000	100000	01/01/80	0	01/01/80
GH1T489	MAPMCOL	COOLING SYSTEM MAINT -	10/07/20	63366	100000	213366	10/09/15	1825	10/07/20

Code

Each service to be tracked must correspond to a valid Labor Glossary code. The code is entered in the first field of each service display. You must use only codes that currently exist in the Labor Glossary system.

Labor Description

The one line summary description of each service is automatically entered into this field when the Glossary code is first entered.

Mileage / Clock

The first method of tracking recommended services is by usage. This is generally measured by the odometer / clock of the service unit. The first row of figures supplied for each service are based on this method, and applied as listed below.

Date

One method of tracking recommended services is by date intervals, ie. every 3 months. The second row of numbers display the dates when the services should be performed based on the following criterion.

Last Service

The first tracking column shows the last odometer / clock reading when the specific labor code service was performed, and the date. This is automatically updated by the computer system whenever the service is performed, and is an element of the Daily Closing process.

Interval

This is the amount of days, or miles (clock hours) recommended between services. So, if servicing a truck, and oil should be changed every 90 days, or 3000 miles, enter those values in the two fields in this column.

Next Service


The system will automatically calculate a date, and odometer / clock reading at which the recommended service should take place. This will let you know where the service stands in comparison to the present readings on the service unit.

Projected

On the list, you will see a column called Projected, but there is no place to edit the field. This is a calculated value and is put in automatically. MLS will first decide how many miles per day the vehicle has been driven since the last service. It then determines, if that remains constant, the probably date when the miles interval will be reached, and sets that as the projected date. A vehicle that should be serviced every 3,000 miles, or 90 days, may actually drive enough to require service in less than 90 days. The projection feature is used for automatic follow up in a timely manner with the vehicle owner.

Creating A PM Schedule

You can create schedules two ways. First, you could go into the Vehicle Editor, select the PM button to get this screen, and then Add services you would like to track. Of course you will want to add when the service was last performed, and the proper intervals.

 There is a much easier method. When you are in a workorder, on the labor screen, if you wish to track a service, highlight it, and press the **Add PM** button. You will then be prompted to enter the day and miles intervals. Now this service will be tracked automatically.

Hint: If you wish to re-inspect a service you performed within a specific period of time, add a PM and the system will alert you, and the client, when it is due ... automatically.

Working with the client

If a client typically comes in for service every 6,000 miles, and a periodic maintenance is due before that time, be sure to alert the client to the need during the estimate writing discussion time. Then they can decide to obtain the service during the present visit, or return when it is due.

If the notification comes after they have the unit serviced by your facility, they may decide to have the recommended tasks performed somewhere else.

Involve your client Make sure the client is involved in every phase of the service planning. Calling them on the phone later to discuss what is necessary breeds distrust. While it may save time initially, it may lead to frustration and conflict later.

PM Schedules are tracked, and updated, automatically by MasterLink Shop Writer. When you perform the service again, there is no need to go back and update data. The system will do it for you.

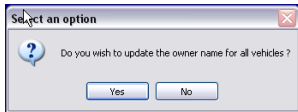
4.5.6 Client / Vehicle Utilities

Each of the client utilities provides a popup screen which will ask a question appropriate to the task. Simply answer the question and the system will apply the results. The utilities are described as follows:

Name Space

When working with data from older versions, the names had shorter field lengths. This utility should be run to reset the spacing of the names of each client to the new, longer, lengths. It also will have the option to update those names on all workorders so history searches by customer will be accurate.

Owner Utility

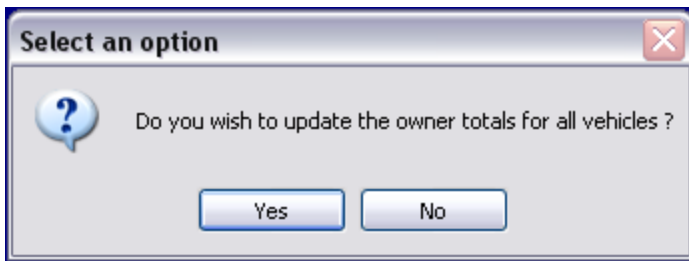


The vehicle records include the company name. If somehow the name is not included, or is incorrect, use this utility to refill the vehicle record with the proper owner. The system looks at the account number for the vehicle, looks it up in the client file, and puts the name in the vehicle record.

Workorder Names

This utility will update the names saved on ALL workorders with the current one associated with that license. This simplifies performing searches by names when looking for an old job that was performed by your business.

Update Totals



Use this routine to reset the totals for service for all of your clients. The system will re-total the work completed for each client **during the current year** and put it into their record.

Update Dates

This utility will update the dates of First and Last Service for each client. It will look at each vehicle belonging to the client, and save the dates, modifying the range as calculated.

Change Tax

MasterLink Shop Writer permits charging a separate tax rate for individual clients. When a client is first added, the default parts and labor rates are put on their account. However, you can specify a different rate when appropriate. For parts and labor, when selecting this utility, you will see a previous and new field for each tax rate. To keep from changing all values, we actually allow you to specify the current value, and the desired new rate.

For example, if some customers pay 8.25 % but most pay 8.75%, and that rate is now 8.85%, on parts only, you would have:

Previous Parts tax rate	8.75
New parts tax rate	8.85

Those at 8.25 % would remain unchanged. This utility will change the rates in your client records. Be sure to also add the new tax rate to the tax rate validation list (Tools - Setup in MLS 8).

Auto Email Setup

This utility allows you to setup the system to automatically send emails after normal business hours. It starts with a Thank You note on the day of service, followed by emails at 30 day intervals. For details, see [Email Auto Follow Up](#)

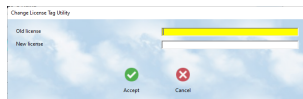
Auto Email Edit

The system creates a file for tracking the emails. You can use this list to discontinue sending a set of emails. Simply scroll to the record of the service, Then scroll right to the fields that show .F. for emails not having been sent, then click in the field and type a T. The value should now be .T. and no email will be sent.

Text Editor

The Text Editor is used for follow up cards, letters, and automated emails. It is described here: [Creating Text](#)

License Change



Although it might seem easy enough to change the license on a vehicle record, you would then have no connection to any workorders. Instead, you want to use this utility. Simply put the current license into the "Old Tag" field, and the new one into the "New Tag" field.

Here are some cases where this is helpful.

- 1. New Vehicle, Old License** - Your client buys a new vehicle but retains the license. First, change the license to reflect the old vehicle. For example, a 99 Ford has a license ROADHOG. Put that in the Old Tag field, and ROADHOG-99FMC in the New Tag. Now you can see the complete service history for the old vehicle.
- 2. Old Vehicle, New Owner** - A vehicle you have serviced is sold to another customer who comes to you for work. The old plate was retained by the previous owner and a new plate has been issued. Put the old plate in the Old Tag, the replacement plate in the New Tag. Remember to change the customer record (or add a new one) for this vehicle by going to the vehicle editor and looking up the client, then saving the proper account number.

Vehicle Delete



From the Vehicle screen - Highlight the desired vehicle to be removed, then select the Delete option

From the Client screen - Highlight the client, then select the Delete option. You will be asked if you wish to delete the associated vehicles. If you say YES, then it will display each vehicle linked to the account and you can select to have it removed, or not.

In the case of duplicate vehicles, make sure all the data is correct in one record, then delete the other one.

In the case of duplicate accounts (clients), highlight the unwanted record, say NO to deleting the associated vehicles, and then just the record will be removed.

4.6 Inventory



Inventory management is critical for your business and profits. Failing to understand what to stock, and what is not selling, can adversely effect your bottom line. The MasterLink Shop Writer Inventory system is comprehensive, and not only tracks your parts stocked, and special orders, but also assists in wise ordering, and stocking with accurate price tracking.

Inventory is maintained with a single record for each partnumber. The Inventory Editor is the primary screen for viewing, and updating, the information contained within the files. It also allows you to run special utilities for pricing, core handling, returns, ordering, stocking, and more.

The Menu Bar

All options are displayed for processing your complete inventory from just one screen. Special utilities may pop up other screens, but you will always be returned to the primary inventory editing screen. These are the options.



Add: Add a new record to the file



Expand: Pop up a larger screen for editing Notes



Save: Save the record and/or any changes you have made



Search: Select how you want to search (All items, Stocking Parts, Non-Stocking Parts, in partnumber, description, or cross reference order.



Delete: Delete the highlighted record. The Stock Here value must be 0.00



Stock:: Run the programs to create a purchase order, or to input newly received stock



Tools: Inventory management tools and pricing utilities



Prices: Recalculate the selling prices using the assigned mark up table



Photo: Pictures associated with the highlighted part



Reports: Reports for all inventory data

Navigation

Initially, when the screen first displays, you can simply start typing a partnumber to reposition the highlight bar to a new part. You can also select a different search option (description, cross reference, etc.) by selecting the locate button, then the search option, and pressing OK. You can then start typing the data to reposition to the proper place in the inventory listng.

Considerations

Before you enter parts into the inventory, you must know what stock you actually possess. This is quite simple if you have a working card file currently available. However, most people without computers do not currently track stock. We suggest that you create a simple form. You may then have someone enter the parts onto the form by working through your current listings. Once your lists have been gathered, you can type the data into the machine.

You will find that young people, with a desire to earn some spending cash, can perform this job quite easily. Give them a clipboard, with blank forms, and have them go down the aisles of your store room, making notes of all the parts they find. College students with typing skills can enter the data quickly, correctly, and for a very affordable rate. Remember, your professional staff is paid well to perform crucial services. Although they can perform these tasks, it may be more cost effective to use part-time personnel.

Your inventory input is critical to saving money utilizing The MasterLink Shop Writer. Inventory expenses occur easily, as shown by using parts in a repair and not itemizing them on the workorder, buying new parts when old ones are currently in stock, stocking parts that do not move on a regular basis, repeatedly buying parts on individual orders when you move a large volume, and other similar issues. Each of these adds to the cost of doing business, and does not provide for an appropriate return on your investment.

The information within the computer will provide you with an excellent understanding of your inventory issues, and you can then make appropriate management decisions which improve your business' bottom line.

Be sure to read the other sections of the Inventory manual to understand how these operations are handled.

4.6.1 Inventory Data

The Inventory data provides a lot of tracking information crucial for understanding what stock you actually use on a regular basis. It is edited within the following fields:

Please review the following sections to best understand how each of these areas is used:
(click on the links)

[The Inventory Editor](#) Used to input and track all of the information on individual parts

[Stocking Parts](#) Those items that actually are placed on the shelves for future use

[Non-Stocking Parts](#) Items ordered for individual workorders

[Partnumbers](#) The primary link for all parts tracked

[Descriptions](#) A description of the item

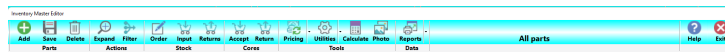
[Manufacturer](#) Who manufactured the item

[Location](#) Where it is kept in inventory

[Sales Data](#) The various totals maintained for individual parts

[Pricing, Flags and Vendors](#) The pricing used, and the vendors who sell your business the parts

4.6.1.1 The Inventory Editor



The following functions are all performed by selecting Inventory from the main menu, and then by selecting the Inventory Editor option.

Entering New Stock

Entering new parts to inventory is as simple as selecting the Add button on the bottom of the Inventory Editor window, entering your information, and saving it by pressing the Save button.

You may start, and stop, this process at any time. There will be no problem adding more parts at a new work session. You will also use this method whenever you add new stocking items. This will occur frequently, especially when you begin reviewing your Parts Utilized Report.

Editing Stock

When changes need to be made to your stock records, simply find the part, make the changes on the screen, and select the Save button.

Inventory Information

The inventory data is all maintained on the record screen displayed for each individual part. The following are the descriptions of the displayed fields.

The screenshot displays the inventory record for part SKN247-762, 'Module, Electronic Control'. The interface includes several sections:

- Identification:** Number (SKN247-762), Description (Module, Electronic Control), Manufacturer, Location, Return?, and Quant (0.00).
- Stocking Fields:** Stock Here (2.00), On Order (0.00), Core Here (0.00), Due Back (0.00), Minimum (0.00), Stock To (0.00), Source (U), and Move.
- Category and Tax:** Category (018-2476), Table (20), List, Weight, Type, Sort, Return, and Pack.
- Notes:** A text area for additional information.
- History:** A table showing M-T-D, Y-T-D, -1 Year, -2 Years, Purchase (07/28/15), and Sale (07/28/15) with corresponding values.
- Vendor Information:** Vendor 1 (P00009), Vendor 2 (P), Vendor 3 (P), and Vendor 4 (P).
- Pricing Summary:** Average Cost (\$150.0000), Last Price Paid (\$150.0000), Core Value (\$0.00), Retail (\$187.50), Wholesale 1 (\$168.75), Wholesale 2 (\$150.00), Wholesale 3 (\$140.63), Wholesale 4 (\$131.25), Core Charge (\$0.00), Assessment (\$0.00), and Environmental (\$0.00).
- Summary Table:** A table at the bottom with columns: Part, Description, Manufacturer, UPC, Cross Ref., On Hand, Charge, and Location. The row shows: SKN247-762, Module, Electronic Control, Manufacturer, UPC, Cross Ref., On Hand (2.00), Charge (167.50), and Location.

- **Number:** Enter the manufacturers part number
 - **Description:** Provide a precise description of this part. Be sure to be uniform on your descriptions so that all parts of the same type will be listed together.
 - **Manufacturer:** Enter the name of the manufacturer of this part
 - **Cross Reference:** Review the Cross Reference discussion and enter a number if appropriate.
 - **Super:** If the part has been superceded by a new partnumber, enter the new number in this space. Be sure to create a new record for the new part number.
 - **UPC:** The universal product code assigned to the part
-
- **Loc/Sort:** Enter a proper location code.
 - **Build:** Select New, Remanufactured, Factory 2nd, or Used.
 - **Move:** This reflects the vendors code for expected movement timing of this part
 - **Weight:** If you provide shipping of parts, enter the weight of the item plus its shipping container.
 - **Type Code:** You may enter a special sorting code of your choice to be used when creating special queries and reports
 - **Sort:** The sort code of your choosing is for grouping similar parts. You may wish to use the down arrow key to check available sort codes.
 - **Return:** This notes if the vendor will accept a return of this part
 - **Pack:** This provides the quantity per package
-
- **Stock Here:** When first adding a part to inventory, you will want to enter the current stock. Thereafter, or if you use Stock Input to enter a new part, the system will automatically track this amount.
 - **On Order:** The system keeps track of the quantity of a part on purchase orders.
 - **Core Here:** This is the number of cores currently in your possession which need to be shipped back to the manufacturer.
 - **Due Back:** This is the number of cores clients have not yet returned.
 - **Minimum:** Enter the minimum quantity to be in stock, below which you reorder this part.
 - **Stock To:** Enter the quantity you wish to stock to when reordering this part.

- **Source:** Refers to the type of part source, ie. New, Oem, After Market, Rebuilt, Used
 - **Move:** This is the vendors movement code that they would supply.
-
- **Category:** Automotive industry standard codes are provide for the part type. A selection box is provided for looking up the proper code.
 - **Tax:** Check this field if the item is normally taxable
 - **Price Table:** Enter a Price Table code for this part if you have one already built.
 - **Stock:** Check this box if the part is normally stocked in your inventory. Leave it blank to track special order items.
 - **Core:** Check this field if the item has a core
 - **Kit:** If you wish to automatically add parts from a Parts Pick List that you have developed, check off the first box, and put the Pick List code in the second box.
-
- **Vendor 1-4:** Enter the Disbursement account number for any vendors from whom you purchase this product.
-
- **MTD / YTD / Month totals:** The system tracks all month to date, year to date, and individual monthly totals of sales.
 - **-1 Year / -2 Years:** When closing a year, the system will take the totals and place them in the - 1 (last year's) column, and move that figure to the year before (-2).
 - **Date of last purchase:** When ever new parts are purchased, this field is automatically updated.
 - **Date of last sale:** Whenever this part is sold, the system updates this field
 - **Sales Totals:** Sales totals are automatically tracked each month.
-
- **Average Cost:** The system calculates the average cost based on current quantites and value, plus the cost of new stock purchased. It is very important that the Average Cost field not be adjusted manually unless it is the very first time a part is being added to inventory. This amount reflects the true value of your inventory. By changing the price, you records will become inaccurate and you may endure tax consequences. The system will handle this value appropriately during any receipt of new parts when entered through the Stock Input routine.
 - **Last Price Paid:** Whenever an item is purchased, the current price is entered into this field.
 - **Core value:** This price is provided when stock with cores is input, and it is maintained by the Stock Input routine.
 - **Retail:** Enter the retail price that will be charged for this item.
 - **Price level 2-5:** Enter the discount prices you wish to charge for this item. **Note: You can press the space bar for a calculator to figure the price.**
 - **Core charge:** Enter the amount you intend to charge for a core that is not returned, or damaged.
 - **Assessment:** Enter the amount you need to charge for special taxes, ie. F.E.T., on this item
 - **Environmental:** Enter the amount you charge to cover hazardous waste disposal or special assessments on this item.
-
- **Notes:** This section is for any notes you wish to save on this part. You can use the Expand option to have a full screen view of the notes, and to make changes.

Saving the Information

To save the information you have entered, you must select the Save key. Failure to do this will result in all of your entry on that record being lost. No other key will provide you with a saving capability.

Searching for a Part

The **MasterLink Shop Writer** provides a search option button. The popup screen will let you select from a range of search options, which include all parts in the system, or limiting your search to either stocking parts, or non-stocking parts.

First you must select the radio button which is in front of the type of search you wish to perform. Then click on the OK button and start typing the beginning information based on the type of search you selected. You will automatically see the list jump to the proper location in the database.

Moving through the inventory list

You will see a browse box at the bottom of the Inventory Editor screen. The highlighted part has its full information displayed in the upper part of the screen. As you browse through the list, you will see the information in the data fields above change to match the highlighted part.

You may move through the list by using the Page Up, or Page Down keys, the arrow keys, or by selecting the up and down arrows with your mouse cursor (arrow) and pressing the left mouse key. You may move more quickly by taking the bar in the scrollbar on the right side of the browse box, and moving that bar either up or down.

Price Calculation

You can automatically recalculate the prices you charge for an item, if you have set up and specified a Price Table. By selecting the Price Calc button, your computer will apply the appropriate price table to the current cost, and display the new prices in the proper fields. This will not work if no price table is specified.

Deleting Parts

You may delete parts by selecting the Delete button at the bottom of the window. You will be asked to confirm that you want to delete the item. **It is generally unwise to delete items since they contain your sales history, and pricing data. It takes very little space to store a record for a part and this information can be valuable. Never delete a part when you have items in stock, or on order.**

Exiting the Editor

To Exit from the Inventory Editor, please use the Close button on the right bottom side of the window. This button triggers the appropriate operations which save your data and close the inventory files.

4.6.1.2 Stocking Parts

Items which are maintained in inventory are known as stocking parts. The control of these items is vital for the financial stability of a company.

There are several key rules to determine what items to stock, and how many to maintain in inventory at any given time.

- Print a sales history for the previous month. Look for the non-stocking items that have been used more than once in that period. These are items you paid extra to special order, and which you may be using on a regular basis. You can probably purchase these at a savings if you buy a quantity.

- Print a report for items not sold in the past 30 days. Be sure to not retain stock on these items known as slow movers
- Beware of sales representatives with "special purchases". Often they are offering specials on items their company has found to be overstocked due to poor turn around. You won't find that accepting their dead stock will be of value, no matter what the price, unless the items are ones your history shows that you use in quantity, and on a regular basis.
- Be sure that your stocking inventory is located where it can be found easily. Use the location codes to properly place each part. Be sure to check the computer before making a special order.
- Never let the sales representative for a company make the determination of what parts you need to stock. They get a commission on everything they sell, and your computer knows far better what items you will actually use.

Enter your stocking parts using the **Inventory Editor, or with Stock Input**, with particular attention to the information discussed in this section of the manual.

4.6.1.3 Non-Stocking Parts

Items which are utilized in services, but which are not maintained in inventory, are considered non-stocking parts. These are often purchased "on the fly", and generally will cost you more because of the small volume and delivery charges for special order items.

The MasterLink Shop Writer will track non-stocking parts, and permit you to know the sales volume, costs, and even vendors from whom you purchase these items. By reviewing the records of non-stocking parts, you can decide if they should be perhaps carried in inventory.

Whenever you place parts on a workorder, the information history will be used for a non-stocking part, eliminating the need to retype pricing information, description, manufacturer, etc. Non-stocking parts can also be placed on Purchase orders, or the information used in the Stock Input utility. By having this information on hand, you will know the status of these items even though they never rest on your shelves.

Parts that are special ordered will have the **Stock ?** box unchecked. [Review your non-stocking parts regularly through the provided reports.](#)

To change a non-stocking part to an inventory item, simply check the box for Stocking Part on the Inventory Editor screen.

4.6.1.4 Partnumbers

Partnumbers

The MasterLink Shop Writer provides a space 20 characters long for partnumbers. We have yet to see a number which exceeds this requirement.

You may use numbers, letters, or symbols. When using letters, the system will default to capitals for consistency.

It is strongly recommended that you use the manufacturers partnumber for your inventory.

This will make it easier for all of your staff to find the correct items when entering parts. In addition, it will provide correct information for stocking, and re-ordering.

Partnumbers are sorted in alpha-numeric order. Some people are confused by this process. They feel numbers should be in numerical sequence:

100 121 145 976 1253 2235 14065

When computers must sort based on numbers and letters, it defaults to an alpha-numeric sort. Each letter is translated to a "decimal value" as is each number and symbol. Spaces also have value. The computer sees a string of 20 "decimal equivalents" and sorts the information accordingly.

Thus, the partnumber 14577 is written as:

49 52 53 55 55 32 32 32 32 32 32 32 32 32 32 32 32 32 32 32

The number 185 is written as:

49 56 53 32 32 32 32 32 32 32 32 32 32 32 32 32 32 32 32 32

As you can see, when the computer prints the list, the number 14577 will print before the number 185, because the second decimal equivalent of the first part, 52, is smaller than its counterpart in the second number, 56.

When placing typical characters in sequence, you will find spaces have the lowest value, followed by the dash (-), numbers (0-9), the underline (_), and then letters (A-Z). Please note, 0 is the lowest number.

Cross Reference System

It is normal for a shop to have several similar parts which have different numbers because they are from a variety of sources. These may be easily interchanged when performing a service. For this reason, the Cross Reference system has been developed.

When adding a part to a workorder, the The MasterLink Shop Writer system will first check the stocking quantity of the part ordered. If the quantity is 0, or below, it will ask if the operator wishes to substitute a part. If Yes, the system will then display all of the cross referenced parts that have stocking quantities.

Parts are cross referenced using a common part number. A given part is manufactured by five companies, and each has its own number, ie. 127XA, FP-123, OF-1, FIL-27X, and FR-02-1. The original equipment manufacturer uses the code OF-1 as its part number. Although you stock this part in inventory, you also stock the other four. Each would have their individual partnumber listed under a separate inventory record.

To cross reference them, they would each have the OF-1 code in the Cross Reference field.

By using this system, no matter which part is used, if it is out of stock, all of the other parts, with stocking quantities, would be displayed.

***** COMMON ERROR NOTE *** Often people will enter a number of one other part in the Cross Reference Field, thinking the system will simply look up the other part. This is not the case. Be sure to use the same cross reference code with each part that is capable of being substituted. Otherwise, the system will not function properly.**

***** SPECIAL ALERT ***** Some systems suggest that you only use one partnumber, that of the OEM part, and then just substitute in another manufacturer's part under that number. In many states this is illegal, and can be considered fraud. It is very important to always provide the manufacturer's partnumber for the item you actually used in the service.

Superceeding Part Numbers

When a part has been replaced by a new number, there are two options. First, the operator can change the old partnumber on a record to the newly assigned number. For many people, however, parts change so rapidly that they want to retain the old number because it has been remembered.

In such a case, create a record for the new number, and enter that number in the field entitled Superceeded By on the old part number record. Then, whenever the old number is requested, the new number will actually be placed on the workorder.

To eliminate a referral, simply erase the partnumber from the superceeded field.

4.6.1.5 Descriptions

Descriptions tell your client exactly what parts you have used for a service. In the days of handwritten workorders, clients tried to decipher the codes, much like we try to decipher the words in a prescription.

With the advent of computer generated workorders, your clients will appreciate your professionalism - and the clear statement of part names. While this may not seem to be a serious issue, in actual practice we often hear comments about precise workorders, and how impressed clients are with the new system that a shop has installed.

Do not use abbreviations when entering a description of a part. Is a DRSP a Down Rolling Siphon Pan or a Dayco-Romy Spark Plug? Abbreviations will get you in trouble. Use the full words - you have space for 30 characters. We really haven't seen parts that need more room.

Be consistent with your descriptions, because your lookups are done in alphabetical order. The Oil Filt. and Oil Filter will not group together. Nor will Spirk Plug and Spark Plog. They will be close, but separate. These are similar descriptions, but some will have a much greater distance on the look up scroll, or report, and may be overlooked. If you don't find the actual part you need, you may buy additional items, and your shelf stock becomes a liability - wasting both space and investment capital.

Manufacturer

The system does provide for the tracking of parts by manufacturer. To alleviate the need for spelling the name repeatedly, common supplier's names have been added to a lookup list. You may press the down arrow key to access the name, highlight it, and press the **Enter** key to return the value to the field. If you type in a name, the system will verify it's accuracy, and display the pop-up list if you make an error.

Type Code

Inventory can be broken into subgroups for reports, based on the Sort Code. Although the computer does not any special format, or set codes, it is suggested that you use codes which make sense in your operations. While LUB may be significant to group lubrication items for one shop, others may wish to use a different code. It is best to use three letter codes to provide for the widest range of options.

4.6.1.6 Location

The location code is very valuable for preventing lost sales. Parts which are used infrequently may become lost as they are pushed to the back of a shelf. However, when the operator knows the location of the part, they can be quickly moved to prevent this needless expense.

Frequently, shop owners will search briefly for an item they believe is in stock, and then order a new one rather than waste more time searching. This creates a problem because funds are then tied up unnecessarily in unmoved stock.

Location codes may be developed quite simply. The first letter represents the general area of the shop, which may be a wall, shelf unit, storage shed, or office. These areas should be labeled clockwise on a floorplan. You may have shelving units, wall locations, storage bins, or even a special warehouse.

The second letter represents the position in the section (ie. L for left, M for middle, and R for right).

The final element of the code might be the shelf number. A part with allocation code of FM3 would be on shelf F, middle section, third row from the top.

The location codes should be established in a manner which is most logical for the actual shop layout. It is very important to implement these codes for effective shop management.

4.6.1.7 Manufacturer

There are several pieces of information requested specific to the manufacturer of the part:

Build	<input type="text"/>
Move	<input type="text"/>
Return	<input type="text"/>
Pack	<input type="text"/>

Build

Is the part New, Remanufactured, or Used. You may wish to specify this in the field. Most regulatory agencies assume all parts sold are new unless otherwise specifically stated on the invoice. Full advance disclosure of the status of the part builds better customer confidence in your business.

Move

Some manufacturers issue special movement codes for parts which indicate the regularity with which they are routinely sold. This information could be automatically provided in catalog disks and

would be updated by the MLS interface program if available. However, you can also use this internally with your own coding system.

Return

Some manufacturers will designate parts that can be routinely returned, and others that require prior authorization. This coding system may also be provided on a manufacturer's catalog disk and inserted automatically by the MLS interface program if available.

Pack

This field is used to designate the normal packaging for this part. For example, a unit of 1 might contain two pieces, or you could specify quart, ounce, foot or inches as the unit of measure. Because the system supports decimal quantity, oil might be packaged per quart, but since it is pumped from a barrel, it can have a fractional amount, ie. 1.7 quarts.

4.6.1.8 Sales Data

Stock On Hand

This is the actual number of parts currently on the shelf, or in storage. **** HINT **** When first setting up the system, you will be entering parts which may be sold before the job is complete. We suggest you use the stock counts from the shelf. When complete, run the inventory report, perform a physical count, and calculate the differences. You will be able to then use the Input option to add, or decrease, your actual count.

Stock On Hand and On Order

Whenever parts are first added to the system, it is necessary to specify the current stock on hand.

Always leave the On Order field at 0, because this is manipulated by the Purchase Order system. When parts are ordered using a P/O, the On Order total will increase by the amount specified. When parts are input into stock, that have been on a P/O, the number will be decreased, and the Stock On Hand will be increased.

When parts are added to a workorder, the stock is decreased by the quantity used. However, if that number is adjusted through editing, the Stock On Hand will not be adjusted appropriately.

***** ERROR WARNING *** Some people tend to not use the stock input program - and simply adjust the Stock On Hand value whenever parts are received. This is not recommended because other values (ie. average cost) are not calculated properly. Although you can realistically perform this operation, the result will be a failure to really see the proper inventory statistics.**

Core In House and Due Back

Generally, the Core In House and the Core Due Back fields will never be touched. On initial setup, if cores have been tracked manually, it will be best to continue tracking the outstanding cores by hand until they have been fully "processed." The The MasterLink Shop Writer system will track the cores with workorder processing. The Core In House total are used core, waiting to be returned to the vendor. The unsold core is the same count as the Stock On Hand. The Due Back field is the count of core which are currently in the hands of clients, usually as the result of a counter sale, and they are due to be returned.

Setting Minimum, and Stocking, Levels

The Minimum is that stock level below which you wish to reorder new parts. This figure may be calculated by the following formula:

$$(\text{Sales/day} \times \text{days to restock}) \times \text{safety factor}$$

If you sell 2 framagadgets each day, it takes 5 days to receive an order, and you want a 20% safety factor, you would have $2 \times 5 \times 1.2$, or a minimum of 12. Using your averages, this means that you will actually be able to function for 6 days waiting for your order. Of course, no formula will be totally dependable, and you could run low, or overstock. As you calculate your minimums, you may realize that some adjustments will be necessary. These can be made manually at any time.

The Stocking Level works on the same principle. You would use the formula:

$$((\text{Sales/day} \times \text{restocking interval}) \times \text{safety factor}) + \text{minimum}$$

If you stock every 10 working days, and you average 2 sales per day, with a minimum of 12, and a safety factor of .2, you would calculate the Stocking Level as $(2 \times 10 \times 1.2) + 12$, which equals 36. These two figures will keep your stock under control.

Sales History: Y-T-D, M-T-D and Past Years

The MasterLink Shop Writer automatically totals all parts sales, and maintains a history count for the inventory items. The Month Chart, Month To Date and Year To Date counters are advanced with every sale. The -1 year, and -2 years totals are preserved when a year end closing is performed.

The Month To Date field displays the total sales for the current month. The chart shows the totals for each month of the fiscal year.

When entering parts for the first time, totals can be entered in these fields if they are known. Otherwise, simply let the system do the counting. The program also tracks the dates of last sale, and last purchase. This is especially useful when monitor information during parts ordering.

Obviously, if you hit the minimum on a part, but it hasn't sold for a month, and availability is good, it is probably time to readjust the minimum. Intelligent decisions will be at hand by watching these dates during order processing.

Date of Last Purchase, Sale

The system will automatically track when you last purchased an individual part, and when you last sold one. You do not need to enter any values in these fields.

You may find the information valuable when you browse parts, but it is also possible to run reports based on these dates, and to adjust your stocking patterns accordingly.

Monthly Totals

The system will automatically accumulate the totals for each part sold in the appropriate month. This chart is interactive with the parts application routine that places items on workorders, and is considered "live" processing.

Stocking vs. Non-Stocking Parts

The advantage of this inventory system is that it tracks all parts used including those that do not reside in inventory. Consequently it is very easy to track non-stocking items of quantity, seasonal

parts, and lost sales. The system will automatically place non-stocking parts into inventory when first used, and then update the data as appropriate.

Vendors

When you purchase a part from a vendor, you will want to add them to the list. You must use the proper A/P account number and not codes of your own development. These codes help process automatic ordering, and give you a quick reference when needing to buy specific parts or replace stock. You may use the search button to open a lookup in Accounts Payable.

4.6.1.9 Pricing, Flags and Vendors

Flags and Tables

Tax Flag

Most states require that a sales tax be applied to parts. In some cases, however, there are exceptions.

If your state does not charge sales tax on parts, then you can turn off tax in the system setup and there will be no charges applied. However, if some, or all, parts are taxed, and you have turned on the tax for parts, and entered a rate, then you can flag non-taxable parts.

If the part is taxable, check the Tax Parts field. Otherwise, leave it blank. Even if tax is charged, if this value is blank, this item will be exempted from sales tax.

The value entered here is a "default" and can be overridden on the individual workorder.

Core Flag

If this part has a core, place a check mark in the core field and the values assigned to the core pricing will be applied.

Using the Pricing Table

The Pricing Table is a unique system which allows the resale pricing to be established based on an assigned formula set. The setup of this routine is described later in this chapter, under the section titled Creating Price Markup Tables. Each part can have reference to its own markup table. To perform this function, simply enter the table code in this field. Once you select the Pricing option, the system will display suggested prices, based on the specified table, and ask if you wish to accept the values. The codes are always 2 characters in length.

Vendors

Vendors are assigned an account number in the Disbursements program when they are first entered. When assigning vendors to a part, use only that account number, or the system will not be able to provide the appropriate information during part lookups. Vendor account numbers should be entered for the top four vendors from which you buy the part being entered. They should be in purchase priority order, with the one most likely to supply the part being first. This will be used in providing a listing of vendors when performing part lookups. Up to four vendors may be included.

Pricing

Average Cost

The computer will calculate the average cost for each item in stock. For example, if you buy 5 filters for \$ 10.00, the average is \$ 2.00 per filter. Later you buy 5 for \$ 5.00 on a special. This time the items cost \$ 1.00 apiece. You have 10 filters, and you spent \$ 15.00, so the average cost is \$ 1.50. Do not change this value once it has been established, unless you are sure it is inaccurate. When initially entering your stock, be sure to enter a value for your current inventory. If the amount is unknown, enter the current buying price for setup purposes. If you leave the amount at \$ 0.00, you will have inaccurate pricing in the future.

Last Price Paid

The computer will enter the last price you paid for the part. Whenever you input new stock, the system will make an adjustment of this value. If it is higher than the average, you know the price is rising. Be sure to check your retail price for an adequate profit margin.

Core Value

When you purchase a core from a supplier, its price is the core value. When you return the core to the supplier, you should receive a credit based on this value.

Retail Charge

This is the price you will charge your clients for the part. Be sure you have accurate pricing information for all of your inventory. The MSR pricing is affected by the world currency values, and since many of these parts are imported, their prices and value change daily. If you are not current, you will lose money.

Wholesale Prices 2 To 5

You have the opportunity to set four different pricing levels for your non-retail clients. These may include wholesale transactions, senior citizen discounts, special account pricing, etc. The four levels of pricing are completely at the operators discretion, and may vary depending on part cost and type. They may be set by table, or by inventory pricing utilities.

Core Charge

The Core Charge is the amount you wish to bill your clients for a core pending its return, or if it has been damaged beyond further usage. When calculating this amount, be sure to provide some margin over the core value to cover handling and processing.

Special Tax

The **Federal Excise Tax** field is for the amount to be charged for this part (**FET**) if appropriate. This is usually a fixed amount regardless of what you charge for the part, and comes from a table supplied with the item when you obtained it for resale.

Hazardous Waste

Many states now have hazardous waste disposal programs which are subsequent to normal waste disposal. The cost for such disposal should be entered into this field on a per unit basis. Be sure to check your state regulations regarding this amount. Although your cost to dispose of an item may be \$1.00, the state may limit you to only a portion of that, ie. \$.50.

Shipping Weight

Enter the normal shipping weight for the item, including packaging, in this field. This will be used by the shipping calculation system to assess the proper charges.

Calculator (internal)

The retail and wholesale prices do have a line calculator. With the cursor in that field, press the space bar and the calculator will pop up. Enter the basis (ie. the cost or suggested retail price), an

* to signify multiply, and then the percentage (of markup or markdown). Press the enter key and result will be entered into the field. Make sure you Save the screen after making a calculation. Of course, the Mark Up table method for pricing is far more useful and works more quickly.

4.6.2 Purchase Orders

Purchasing Parts

It is easy to pick up the phone and call in an order for parts, but then there is usually no record of what was wanted, or who it was ordered from, leading to frustration when it doesn't arrive quickly. Therefore, the Purchase Order system will be extremely useful in placing those orders.

Specific information on the fields displayed in this screen is found later in this page. Overall, here are some key pointers to remember.

- When first starting an order, you will be asked for the vendor. Be sure you have your Accounts Payable setup, and all vendors entered, before using the Purchase Orders
- Enter the name of the sales representative who gets credit for this sale. Better service always is provided when a name is on an order.
- Fields in blue are displayed from the system's own calculations and cannot be changed. They represent historical data important to know when obtaining an item.
- If you want to tie a PO to a workorder, enter the number in the specified field. When you perform stock input, it will then place the part on the workorder, so you do not need to add it before hand.
- To add an item, type in the part number in the field following the Item prompt. When you press the **Tab** key, the system will automatically look up the part and display the description and data. If the part has not been in the inventory file previously, you will need to type in the description.
- The only other fields you need to complete are the **Buy Quantity** and the **Order Price** (the cost per each unit).
- Be sure to use the Add button to put a new part on the PO, and when you finish entering the data, press the Save button. If you don't do this, the parts will disappear.
- If you are adding parts, and you only see the last one displayed that you entered, select the up arrow key and browse up your list to see all of the entries.

Purchasing Stock

The MasterLink Shop Writer Purchasing System works automatically, or manually, to enable you to purchase the items you wish to add to your current stock, or to order new items for inclusion in stock, or on a workorder. The system is quick, and very easy to operate. It is highly recommended that this system be utilized rather than manually entering parts because it will save time, and money, for controlling your stock.

New Purchase Orders

The computer must first know if you are preparing a new order, or reviewing an older Purchase Order. If you select a new order, you will be prompted for the vendor code. This is the Disbursement account number assigned to the vendor. You can enter the account number, or do a search (press the search button to do a lookup by vendor name or account) and the value will be supplied automatically..

Selecting Parts Automatically

If the option for automatic selection is accepted (Yes), the computer will search the entire inventory. First it will determine if the part is supplied by the vendor selected for this purchase order. Then, the system will determine if the part is below the recommended minimum. If so, the suggested order will be calculated, and the relevant data will be stored in memory. Finally, the system will continue to evaluate the remaining parts. Once the inventory is scanned, the parts recommended for ordering will be displayed on the screen for review, editing, or cancellation. Once this task is complete, the list of parts to be ordered will be displayed.

The Information Screen

The information screen displays the following data about the order, and each part:

- **VENDOR** - The account number, and name, of the vendor for which this purchase order is being created.
- **SALES REP:** It's nice to know, should you have to refer back to the order, who your sales representative was when you placed it.
- **ORDER DATE** - This is the date on which the Purchase Order is submitted to the vendor
- **ORDER TOTAL** - This is a running total of all of the parts on the Purchase Order
- **WORKORDER** - If an individual part is to be applied directly to a workorder, the workorder number is to be entered here. A right mouse click will perform a lookup by browsing current workorders.
- **ITEM** - The part number and description of the item to be ordered.
- **IN STOCK** - The current inventory stocking level
- **ON ORDER** - The quantity previously placed on order which have not yet been received
- **SUGGESTED** - The suggested re-order quantity, which is the difference between current stock and the stocking level.
- **LAST PRICE** - The last price paid for this item
- **AVERAGE COST** - The average cost of this part based on purchasing history
- **ORDER PRICE** - The price to be paid for this order
- **LAST PURCHASE** - The date this part was last purchased
- **LAST SALE** - The date this part was last sold
- **BUY QUANTITY** - The desired quantity for this order
- **STOCKING PARTS** - Check if this is an item normally maintained in inventory.

Editing The Recommended List

The list may be scrolled using the **Page Up** and **Page Down**, or arrow, keys. The list will display the number of parts recommended on the order, price, partnumber, and description. The operator may review the entire list, even though much of it may be "off screen" by using the normal scrolling keys. Detailed information for each highlighted part is displayed in the information (upper) screen.

Often it is wise to review parts sales and purchase dates. If a part appears on the list, but has not been sold for awhile, perhaps the minimum should be adjusted to a lower value. In addition, it may be desirable to modify the price to recognize advertised specials, or to change the order quantity.

To edit an entry, simply modify the values in the appropriate displayed fields. Press the Save key when finished with an item. Be sure to select the Save button when changes are complete, or they will not be saved.

Adding Additional Parts

Additional parts may be added to the purchase order selecting the Add key. The system will automatically add an additional record. Enter the partnumber you wish to add. If the item is in inventory, the system will display the stocking information in the data box, needing only the price and quantity. The last price paid is offered as a default for the price. If the item is not in the list of parts, the data may be entered manually.

In all cases, the system will want to know the price that is to be paid for each item, and the Buying Quantity. The later is the number you wish to order. Selecting the Save button will complete the transaction.

Deleting Parts

If a part is listed on the screen, and you do not wish it to be ordered, highlight the record in the browse view, and select the Delete key. The system will automatically remove the item and reconcile the on-order number in inventory.

Printing

By selecting the Print button, you can preview the order on the screen, send it to a printer, or fax it to a vendor. You can utilize the standard print options to accomplish these tasks.

Close

Once the list has been completed, select the Exit key to return to the main menu. You can review and modify this Purchase Order at any time.

The Purchase Order is automatically closed out by the Stock Input operation when all parts on the order have been received, or taken off backorder.

Workorder number or stock to inventory

During processing, non-inventory items should be assigned to either inventory, or a workorder. For each such part, the system will ask for a workorder number. If one is included, when the part is received it will be added directly to that workorder. Otherwise, it will be added to inventory. This means that the system will automatically create a record for this part in the inventory file. However, you will need to add specific data to the record, including your minimum and stocking levels, pricing, and other statistical information.

4.6.3 Stock Input

Overview of Stock Input

You can input stock directly from an invoice, or from a pending purchase order. There are two screens displayed used for this task. Specific directions can be found later on this page.

This is the first tab, called **Stocking Items**, and it is used to verify parts received, and to add new items. Once the PO is selected from an available list, or the vendor is selected from the search control if there is no PO, this screen will display. All items already on the order will be displayed. Here are important notes about this screen. Highlight an item, and enter the Received quantity. If you ordered 20, and 10 arrived, then the system will put 10 on Back Order. However, if you cancelled the balance, simply change the value to 0 then verify the Actual price paid for each item. You should enter the correct Retail price in the specified field. This is a quick way to keep it current, and the value will automatically change in Inventory.

You may add additional parts to this input screen, even if they were not on the PO but came in the same shipment.

When all items are completed, then select the Totals tab.

All values should be entered in by default except

- **Shipping Charges** - These would be levied by the vendor and itemized on the invoice
- **Prepaid Tax** - Some government entities charge a pre-tax which would be entered here.
- **Invoice #** - This is the invoice received with the shipment.

When everything is complete on this Purchase Order, you may press the **Exit** button.

You may revisit a purchase order several times. For example, the first shipment leaves many items on backorder. When those

items arrive, simply do a stock input for that PO again. Only the outstanding items will show up, and they are processed in the same way.

As you receive parts that you order, you may input them into the inventory very easily. You could use the editor to adjust the counts, and average cost, but this would be time consuming, and laborious. To save time and handle parts purchases easily, select Stock Input from the Inventory Menu.

Parts on a Purchase Order

When you select the Stock Input option, you will first be asked if the received parts are on a purchase order. If so, you will be asked to enter the PO number, or you can press the right mouse button for a lookup list. Once the number has been entered / selected, the system will list all parts on the purchase order.

Parts not on a Purchase Order





You may also enter parts not on a purchase order. If you select this option when asked about the purchase order, you will see the data screen displayed with no information provided. You can then fill in the information as detailed below.

The Stock Input display

The Stock Input window has two display tabs. The left one shows the parts listing browse window (lower half), and the detail for the highlighted part (upper half). The right tab shows the totals screen. You may freely switch between these two screens as you work on the stock that was received.

The control buttons

These buttons control the actions on this window:

-  - select this button, after each part record is added or modified, to save your work
-  - select this button to add a new part to the list
-  - select this button to delete the highlighted part from the list
-  - use this button only when your work is complete, and you wish to process the entries

The parts data

The following information is to be provided for each item in the stock input listing.

- **Vendor** - In the first field, enter the vendor's Disbursement account number, and the system will supply the vendor's company name in the right field.
- **Date** - The system provides today's date by default, but you may edit this to a different date.
- **Item** - The part number is displayed in the left field, and a description is displayed in the right field. If the items are displayed from a purchase order, this information is already on file. If a new item is added, when the part number is added, the system will seek a description from the inventory file of stocking, and non-stocking, parts. If none is found, then the description will have to be typed in manually.
- **Job** - If the part is to be added directly to a work in progress, enter the workorder number in this field. If the item is to be stocked in inventory, this field remains blank.

- **Taxable ?** - Check this box if the part is taxable
- **Core ?** - Check this box if the part has a core
- **Core charge** - Enter the cost of the core, if appropriate, in this field
- **Commission** - If the part is to be placed on an invoice, and an employee is to be paid a commission, enter the employee code in this field.
- **Environment** - If there is an environmental (hazardous waste disposal) fee associated with this part, enter the amount here. The figure used should be the fee for each individual part, even if you have more than one being entered.
- **Department** - If the part is to be placed on a workorder, and charged to a specific department, place the code in this field.
- **Ordered** - If the item was on a purchase order, the number ordered will be displayed here. If you are revisiting a purchase order, this number will reflect the amount still on backorder
- **Received** - Enter the actual quantity of this part which was received. By default, the system will place the number still on order in this field.
- **Backorder** - If the number received is less than the number on order, the system will display the difference as "backordered". If you do not intend to accept any backordered parts, change the quantity in this field to 0.
- **P/O price** - The system will display the price shown on the purchase order, or the last price actually paid for this part.
- **Actual** - Enter the amount which was actually charged by the vendor for this part. By default the system will display the same value as shown in the P/O price field.
- **Retail** - The system will show the current retail price for this part if it is in the inventory list. If the retail has changed, enter the new value in this field.

The totals data

The following items are the totals for the stock you have input on this account. The system will calculate the totals for parts and core, but you will need to post the shipping charges, any pre-paid tax that was levied, and the vendor's invoice #.

- **Total parts** - The system will calculate the total for all parts and show the value here. If the value is incorrect, you adjust it by correcting the individual items rather than adjusting this number.
- **Total core** - The system will calculate the total for all cores received and show the value here.
- **Vendor's subtotal** - The system will calculate the subtotal of parts and cores and show the value here.
- **Shipping** - If the invoice includes a shipping charge, enter the amount here.
- **Pre-paid tax** - If the invoice includes a pre-paid tax assessment, enter the amount here.
- **Invoice #** - Enter the vendor's invoice number for these parts in this field
- **Vendor's Total** - The system will total the charges you have entered, and that are calculated automatically, and display the value here.

The following items are for the General Ledger account numbers used in each category supplied.

- **DEBIT Inventory** - Parts that are to be stocked in inventory should have a debit account in the Assets category.
- **DEBIT Expense** - Parts being applied directly to workorders should be immediately expensed. This account will usually be the cost of parts account number.
- **Credit** - Generally you will credit the total to Accounts Payable. However, you may have arrangements for alternative payment methods handled from a different account.
- **Shipping account** - This is the expense account in the General Ledger for all shipping charges.

- **Tax account** - If you have a prepaid tax requirement (ie. Canada), then you would enter the GL account number here.

If you make any additions or changes to this data, you must select the Save button to save your work. Do not make any changes to the Total parts and Total core. If changes are necessary, adjust the values on the parts data screen.

Processing

When you select the Exit button, the system will process all of the data. Parts will be applied to inventory and/or workorders as appropriate. The charges will be posted to the Accounts Payable, and appropriate totals will be posted to the General Ledger.

When the processing is completed, the system will ask if you wish to print labels and/or a summary report.

Backordered Parts / Revisiting the Purchase Order

If items were left on backorder, the purchase order will remain open. You can re-enter the stock input section at a later time, and recall the purchase order. Only those items which were left on backorder will be displayed, and processing would continue as normal.

The Summary Report

The summary report provides a listing of all parts input in this processing round. Some business owners find it useful as an auditing tool.

Printing labels

The system will ask if you wish to print labels. If you answer Yes, then the system will display a list of the parts and the quantity of labels. You change the count on any/all items to be the exact number of labels you want. (You may have 500 bolts, but only want one label for a container, but label for each of the 3 oil filters you receive.) These can then be placed on the parts for quick reference at a later time. Once you specify the number, the system will ask you for the starting line. Since you are using sheets of labels, if some have already been printed, count down the number of used lines to the one you want to start on, and enter it. (For example, if you already used 3 lines, you want to start on line 4). This method saves you from wasting labels.

Many people use a "double backed" label. This allows them to place the label on the part package, then remove it and place it on the back of the shop's copy of the worksheet. This allows for double checking the invoice to be sure all parts are billed.

4.6.4 Returns

There are times when you have inventory items that need to be returned because they are overstock, or defective, or the wrong part was sent. This menu option will allow you to process returns, including the accounting, in a very easy manner.

Select the Vendor

Returns are "per vendor" so your first prompt will be to select the vendor. Browse through the list, or use the search, to find the correct vendor, and then select the Accept button. The system will now present the vendor code, vendor name, the date, and the return credit reference number.

Add the parts

Initially there are no parts on the list. You must press the Add button for each part you will be returning. This is an immediate process, so you will enter all of the parts for this return now. You cannot save and return to the process later. However, you can handle additional returns as the need arises. You will want to fill in the following information for each part added, and when you are finished, be sure to press the Save button to retain the information on that part.

- **Part Number**

Enter the partnumber of the item you are returning. If it is in the inventory listing, all of the additional information will be then added to the form when you press the Tab key. If not, you will need to type it in. Be sure to always use the factory specified part number

- **Description**

This is the description of the part.

- **Inventory ?**

This should be checked if it is a stocking item

- **Quantity Returned**

The system will suggest the number of items remaining in stock. Change this field value to reflect the actual number you intend to return.

- **Credit per Unit**

Enter the amount you will receive for each item returned. DO NOT ENTER THE TOTAL AMOUNT. Calculate this as a quantity one credit amount.

- **Reference**

Add a note here that reflects the RMA number, or other reference that indicates why the return is being made.

Complete the processing

When you finish entering the parts to be returned, select the Exit button. The system will confirm that you want to process these parts, and then it will adjust the inventory records, and handle the accounting in the Accounts Payable and General Ledger Sections. Finally, it will print a hard copy credit invoice for your records.

4.6.5 Core Processing

The Core Processing system allows for the monitoring of all cores after the point of sale. These are items that have been charged to clients (counter sales) and need to be returned, or those items stored in the shop awaiting return to the vendor. The following procedures are used:

Accepting Returned Cores

The first step in accepting cores from a client is to obtain a list of items that the customer has outstanding. This is accomplished by entering the account number when prompted. The system will then display a listing of the outstanding cores.

Returned	Original	Current	Date	Part #
0.00	1.00	0.00	10/21/92	BWC351893
0.00	1.00	0.00	10/21/92	BWC374203

You can highlight, and select, the returned items. The outstanding core quantity is displayed. The operator simply enters the exact number that is being returned. Continue to specify the returned quantity, for all of the parts that have cores being returned. Select the Save button whenever an entry is made so that it will be saved.

When the work is completed, select the Exit button to process the activity. The system will then print a receipt for the client. Finally, the system will ask if the item is to be posted as a credit to the client's account, or is a cash payout from the daily receipts. Enter the appropriate responses at each prompt.

Outstanding Core Report

The Outstanding core report lists all cores that are still in the hands of clients, by account name and number, with those returned, the unit value, and the total value. It must be remembered that this is not 'potential income' because these clients have already been charged for the items. The report runs automatically.

Return Cores To Vendor

When this option is selected, the system will display vendors to whom cores can be returned. Highlight the desired vendor, and the system will then display all of the core on hand.

Return	Original	Current	Date	Part #
1.00	1.00	1.00	06/12/17	DEL25FS
1.00	1.00	1.00	04/27/16	DEL321-2128
1.00	1.00	1.00	03/21/16	DEL336-1910A

By highlighting an entry, the full data is displayed, and the user can enter the number to be returned. Enter the proper amount, and select the Save key to save the value. Review the list until all of the items to be returned have been marked. Select the Exit key to process all of the activity marked.

The system will then print a report listing all of the items to be returned to that vendor. Finally, the system will post a credit to the vendor for the total of the items returned.

Current Core Status Report

The Status option displays the cores, currently on hand, their unit value, and their total value. This report is a listing by partnumber, and is itemized for each supplying vendor. The report prints automatically to printer, screen, or file.

By using this option, the shop manager can always locate cores 'laying around the shop', and return them for income or credit.

4.6.6 Data Change

Deleting Parts From Inventory

It is not recommended that parts be deleted from inventory. The sales history should be retained, at least through the year. Stocking parts do not occupy much space on the system, and their removal will not clear a significant amount of new space. If it is desired to remove parts, select the Delete option from the Inventory Editor buttons when the specific item is highlighted.

Changing Location Codes By Group

Reorganization of shelf space is a hard task, and would be even more complex if every part that was moved had to have the location code changed manually. However, most moves involve blocks of items, usually a whole shelf, or section. The Location Utility assists with changing codes quickly. If all of the parts in location L-1-5 were moved to V-2-4, their 'address' could be changed with one swift operation. When the option is selected, the system will ask for the original location code, and the new code. Simply type in both values; the old as it currently exists, and the new as it shall exist, and the system will automatically make the changes. There is no further operator intervention required. This utility will be particularly helpful when new shelves are added, or a 'better layout plan' is developed.

Zero P/O's Utility

When selecting this option, open Purchase Orders will be displayed. If one is selected to close, all remaining parts will be zeroed (removed from backorder status), and the system will clear the purchase order from active status.

Changing Vendors

There are times when a vendor will no longer be a source for products, but the line may be supplied by an alternate source. You may change the vendor code quite quickly, wherever it occurs, by using this utility. When the option has been selected, the system will ask for an old value, and a new vendor. Remember to use the Accounts Payable number assigned by the system. This will be a number, preceded by a P. You may wish to delete a vendor, but replace it with nothing. In such cases, it would be best to enter a holding account number that doesn't really exist, ie P9999. This could then be recalled at a later time to assign to a new vendor, should that be appropriate. Otherwise, changes can be made manually by calling up the parts and modifying the code individually.

Yearly Closing

The Year End Closing (Close) is simple, and quick. Once this option is selected, the system will ask the operator to type the word CLOSE in the box provided. It will then move all the history from one year ago to the two year's ago field, and the current year to date total to the history for last year. Finally, the year to date field will be reset to 0.00, and will start the tally process anew. This process does not affect accounting, nor does it post any information to the ledgers. It simply resets counters to new values.

4.6.7 Inventory Price Management

The MasterLink Shop Writer system can change the parts of inventory either manually, using the parts editor, or globally by selected criterion. The Utilities for changing parts include:

Fixed percentage

To increase parts by a fixed percentage, enter the value by which the RETAIL price of all parts is to be increased. The following formula is used:

$$\text{Retail} = \text{Current} * (1 + \text{Increase \%})$$

Therefore, if a part costs \$10., and is increased 10%, the following calculation is performed:

$$10 * (1 + .10) = \$1.10$$

The system will take all parts, and increase the retail accordingly, without any specific selection criterion.

Specific vendor

With this option, the fixed percentage increase is used, but only on parts for the specified vendor. The system will increase the retail of each price where the vendor is listed in position 1, 2, 3, or 4 of the codes. The same formula, and procedure, applies.

Specific manufacturer

The fixed percentage increase is used, but only on parts for the specified manufacturer. The system will work on parts where there is an exact match on the manufacturer's name. This is a vital reason for using the lookup function for inserting names, because variations in spelling cannot be detected by the system for this operation.

Cost range

Parts can be marked up based on their COST, and for a specific price range. The following formula is used:

$$\text{Retail} = \text{Cost} * (1 + \text{Increase \%})$$

Consequently, a part costing \$10, with a markup of 100%, would be calculated as:

$$10 * (1 + 1.00) = \$20.00$$

This is different than the fixed percentage markup. In addition, the markup is for parts in a specified cost range, ie. \$10 to \$20.

For appropriate profits, parts with very low costs must be marked up more than those with high costs. For example, bolts, with a cost of \$.05, increased by 100%, are only \$.10. However, a \$600 part, increase by 100%, may not be as acceptable at its \$1,200 selling price. Use percentages that are appropriate for the item to be sold. It is easiest to build a Table of Standard Markup to use with this system. On such a document, the percentage of markup would be specified for each price range. A sample would be:

- Cost: to \$.25 Markup: 500%
- Cost: \$.25 to \$.99 Markup: 200%
- Cost: \$ 1.00 to \$ 4.99 Markup: 100%
- Cost: \$ 5.00 to \$ 19.99 Markup: 90%
- Cost: \$ 20.00 to \$ 49.99 Markup: 80%
- Cost: \$ 50.00 to \$ 99.99 Markup: 70%
- Cost: \$ 100.00 to \$ 199.99 Markup: 60%
- Cost: \$ 200.00 up Markup: 50%

Wholesale as a percentage of retail

This option will calculate the four wholesale prices as a percentage of the retail price already established. Enter the percentage of discount for each level. For example, level 1 may be 2%, 2 may be 4%, etc. Enter the values as whole numbers. The computer uses the following formula:

$$\text{Price} = \text{Retail} * ((100 - \text{discount \%}) / 100)$$

As a result, a part who's level 4 discount is 10%, and has a retail price of \$100, would be:

$$100 * ((100 - 10) / 100) = \$90.00$$

Creating Price Markup Tables

The mark-up/mark-down table is a very powerful tool which allows individualizing the pricing scheme for your parts. You may have an unlimited number of tables, but each must have a unique two character code. Letters and numbers are acceptable. Each part may be assigned to a table.

In normal operations, tables are usually created based on the cost range of a part, or the vendor. Some shops will only use one table, while others have a variety from which to choose. Enter the values to be used as whole numbers, ie. 23% = 23.00. The system will change these to their decimal values during calculation. The system will calculate the retail price with the formula:

$$\text{Retail} = \text{Cost} * \text{markup}$$

Consequently, for a \$10 part, when determining the markup, calculate the number of times you want to increase the price. Therefore, if you want to double the price, your markup would be 2.00. If you want the retail to be 2 1/2 times the cost, it would be 2.50. The discount method for wholesale prices use the formula:

$$\text{Level} = \text{Retail} * \text{Ratio} \%$$

Level refers to wholesale 1, 2, 3, or 4. Retail is the price calculated in the previous step, and ratio is the percentage of the retail that you wish to set this price. The ratio is calculated by the formula:

$$\text{Ratio} = 100 - \text{Discount} \%$$

Therefore, if you wish a 4% discount, your level would have an entry of 96.00 percent. Use this method for all four levels.

The Mark-Up Table is activated from the pricing utilities, or when the pricing section is chosen when editing an individual part. The ratio system allows the shop to always keep all parts priced appropriately because it can be run frequently, and corrects for all cost variations.

All prices by mark-up table

For a discussion of the markup table, see the section under System Routines. With this option, the computer will recalculate prices for individual parts using their specific markup/markdown table. When prompted, enter a specific markup table code, and only parts with that value will be adjusted. Entering an XX at the prompt will cause the system to recalculate all inventory prices according to the specified markup table in the part record. If the table is empty, no action is taken.

4.6.8 Stock Balancing

On a regular basis, companies need to reconcile their actual stock counts to the computer records. Imbalances can happen when parts are mis-entered onto a workorder, when parts are lost, or when a user forgets to enter a part on an invoice. Adjusting the computer records to the actual count will allow the business to maintain accurate records, and to take a financial adjustment for "depletion".

Run a report for the locations you wish to review. The report will provide the partnumber, description, and current stock on hand.

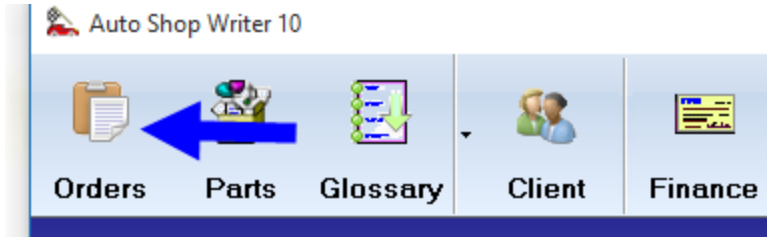
The process begins by selecting the **Balance** option in the **Inventory - Utility** menu list. Because this process can include a large number of parts, it is suggested that it be performed in location sections. Enter a beginning and ending range, and the system will display a listing of all parts, and the recorded quantity on hand. Compare this to the report you have run. You can make any adjustments to the list, and then save them using the Save button.

Once the reconciliation is complete, you can select the Report button to obtain a printed summary of the changes, and the value involved.

It is important that this procedure be performed on a regular basis.

4.7 Work Processing

All work is tracked, and processed, from one location. The Orders button on the main MLS 12 window takes you to a screen showing all of the open workorders.



Initially you will be presented with the primary workorder screen. This will display all of the open workorders, and can also be used to find, and review, completed work.

For more detailed information, see: [The Primary Workorder Manager](#)

Double clicking on a highlighted workorder, will open it into The Workorder Development Screen where all related tasks are performed.

For more detailed information, see: [The workorder development screen](#)

4.7.1 General Workorder Information

The workorder is the primary communication between your shop, and your client. It not only provides the details of the work performed, and parts used, but it also conveys an image of the professionalism of your facility.

Scribbled, messy workorders do not display a progressive image, while computer generated invoices, with comprehensive service descriptions, will provide ample evidence that your operation emphasizes quality.

The workorder may have two parts - an estimate, and the final invoice. In addition, workorders that do not contain labor may be invoiced as "Counter Sales". Information for the service technicians may be provided as a Worksheet, which includes information not appropriate for the client, plus the details of parts and labor to be included in the service. Workorder basic principles

The Workorder screen is controlled by multiple tabs across the top, and by control buttons which activate pop up windows with additional functions. Clicking on a tab will display the underlying information specific to the workorder you have placed the edit mode from the initial Workorder screen.

The **General** tab allows you to specify information on the vehicle being serviced, the client who owns the vehicle, the date and mileage at the time of service, and other data specific to this job.

You will want to read the sections on [The Workorder Development Screen](#), [Client and Vehicle Data](#), and [Header Information](#) for specific guidance on the individual fields. Here are some helpful hints, though, which will get you started quickly.

- You will want to first select the Edit Vehicle button to select, or add, a specific vehicle and client to this workorder. If it is a returning vehicle, enter the license. When the vehicle is shown on the list, and highlighted, press the Exit button. You will be asked if you want to use that vehicle and the answer is yes. The system will then add all of the vehicle and client data to the workorder. You may also use the screens to add a new vehicle and attach it to a new, or existing, client.
- Once a vehicle and client have been added to the workorder, if you want to see the full list of phone numbers simply press the Phones button. A pop-up screen will display all of the information.
- Be sure to enter in the odometer reading at this time, and the due out date and time.
- If you start this workorder as an estimate, all data you enter will be in estimate mode. The chapter on [Converting an Estimate](#) is important to understand the simple steps to changing the workorder into a billing invoice.
- It is important to use the Save button after entering data.
- Do you want to return the parts to the client? If you do not know, you are "better safe than sorry" and you should check the box so the technicians keep the parts with the vehicle until the client has picked it up after the service is complete.
- Make a visual body check and place any thing you see of concern in the Vehicle Notes.
- Be sure to note anything the client says regarding concerns in the Workorder Notes, even if you reached an agreement during the writing of the original estimate.
- Written, and signed, estimates are a very wise business practice.

4.7.2 Workorder basic principles

The Workorder is your primary document used to track all parts, labor, and recommendations when servicing a vehicle. It includes all data relevant to the job performed.

Usually, it is a wise practice to start with an Estimate that details what services the customer would like to have performed, with an estimated cost. This is your initial contract with the client, and guides the staff in meeting their needs. Some companies will specify parts and labor, while others will simply declare the labor and an estimated price that includes the parts to be utilized.

Once agreement has been reached, and the client signs the estimate, the system can print a Technician's Worksheet which guides the staff on what to do with the vehicle. They can make notes on that paper and hand it in with the completed service.

The Estimate is converted to an Invoice, and the staff will add parts, labor details, any observations, and recommendations. Payments are received and recorded, and the final invoice is printed for the client as a receipt.

When the Workorder is complete, it is closed, and all pertinent record keeping is performed. This will include accounting, service history maintenance, inventory control, payroll tracking, and customer service follow up setup.

Data entered on a workorder will be applied in all appropriate places. Consequently, MasterLink Shop Writer is truly an "enter once, apply universally" system. Service histories, reports, and accounting are all managed by adding data to the workorder. Specific details are described in the following pages of this manual.

4.7.2.1 The Primary Workorder Manager

Workorders are the main source of all information in The MasterLink Shop Writer 12 because they detail all of the services, and parts, provided to your clients. Taking time to create effective workorders not only improves your understanding of the daily performance of your business, but they will also communicate professionalism to your clients.

When you press the Orders button on the main screen you will enter the Primary Workorder Manager which will display a list of all active workorders. Use of the Search button will allow you to also access all closed workorders. Double clicking the left mouse button will open the highlighted workorder. This is the main screen:

Done	Paid	Type	W/O #	Company	License	Vehicle	Due Date	Time	Started	Paid	Status
	I		105557	Stone Tim	TIM4HMS	TIM4HMS	07/05/22	17:00	07/05/22	07/07/22	
	E		105556	Stone Tim	RGINGI	RGINGI 2011 TOYOTA SIENNA XLE/LIMIT	07/05/22	17:00	07/05/22	/ /	

The Browse List

All active workorders are listed on the primary screen. You may also search, and display, all completed work. Basic totals and workorder status are displayed in the upper section of the screen, while the lower section displays the list of the individual workorders. As you scroll up and down the list using the up and down arrows, or the scroll bar on the right side of the list, the data in the upper section will change to display the highlighted record below.


Stage: The far left column of the list has a symbol to indicate the status of the processing of this work as follows:












- The workorder is still in progress
- ✓ The technician(s) work has been completed
- ★ The workorder payment has been posted and it is ready to close

All other information will help you identify the workorder, vehicle, client, and have a quick view of the status.

Menu options

The buttons on the top will enable you to perform various workorder functions. They are:

-  - Selecting this button will add a new workorder to the list, automatically giving it the next number in sequence.

-  - This option allows you to search for workorders in various ways, including all workorders that are closed and no longer display on the default screen. Of particular help is the ability to order workorders by vehicle license, or by the client's name.
-  - Lookup the entire service history of the highlighted vehicle
-  - This opens the workorder for editing. You may also double click the left mouse button while pointing to any item in the browse list to open it. This is the primary function you must do to add information to a workorder.
-  - These are the employee timeclocks
-  - Enter a payment for the workorder
-  - Print the highlighted workorder
-  - You will select this button, with the desired workorder highlighted, to perform a closing on that ticket. This function will then apply the information to all of the appropriate sections of the system for tracking of accounting, history, and client information.
-  - Select this button to reopen a closed workorder. **Caution is advised. MLS will post entries to counter the values when you closed the workorder, but when you re-open, and then re-close it, you will need to check your accounts to be sure all posts are properly credited. All transactions will be governed by the payment posting date.**
-  - Use this button to enter information about a sale that was lost due to not having the part in stock.
-  Selecting this button will provide you with a popup graphical screen that shows the status of each active workorder. There are five columns into which the selected status will be displayed: Working, Hold, Sublet, Testing, and Ready. The status is shown by a color bar in the right column. Those workorders with no bar are either waiting to begin, or have been picked up.
-  All workorder related reports will be seen in a drop down menu from this button. Click on the report you want and it will be processed.
-  - Leave the main workorder screen.

When you edit a new workorder for the first time, you will be asked if this is an **Estimate, Invoice,** or **Counter Sale**. Please read the section on [New Workorders](#) to decide which option best applies to your current task. Selecting one of these options will then lead you to the General information screen of the workorder.

4.7.2.2 The workorder development screen



This is the main screen for all work to be logged on a specific job. It also has utilities to assist when seeking information about previous services, and other known data. Links are provided for detailed information.

On the top of the screen you have these buttons for additional tasks relative to this workorder:

Needs - This button displays the [Needs](#) screen, which lists recommended services from previous visits that have not been completed or removed.

P/M - This button will show you the [Preventative Maintenance Scheduler](#) for this vehicle.

History - This button displays the [Service History](#) for this vehicle.

Carfax - This button will display a service history for the vehicle, prepared by [Carfax](#). It may include work done at other shops.

Deposit - [Deposits](#) are entered for this workorder using this button.

Revise - It is a wise business practice to first create an estimate, have the client sign it, and then convert it to an invoice. Then, whenever you need to make a [revision](#) to the original estimate, it would be logged on the screen activated by this button.

Print - This button is used to [print the current workorder](#). Once pressed you will have the option to View the workorder on the screen before printing, or to send it directly to the printer. From the view mode you may print it or send it by email to the client or a consultant.

Lost - Click this button to log parts that you could have sold if they were in stock [Lost sales report](#)

Notes - Access the system [notebook](#)

Appts - Access the [appointment scheduler](#) even while developing a workorder

Phone # - Access the MLS [Phone book](#) to look up numbers for individuals and businesses you maintain.

MMC - Access the [MasterLink Message Center](#) where you can leave notes for other system users

Help - Open the full menu. Remember, to open to a specific page related to the screen displayed, press the F2 key instead.

Exit - Use this button to exit from the current workorder.

Below the buttons, you have tabs:



General - This tab displays the screen on which the vehicle, client, and header information is displayed. [Client Data](#) [Header Information](#)

Parts - This tab displays the screen on which you will add, edit, and remove parts for this specific workorder [Parts Entry](#)

Labor - This tab displays the screen on which you will provide detailed descriptions of the work performed, the charges for that labor, and the technician's who will perform it. [Labor sales](#)

Recommendations - This tab displays the screen on which you can add specific service recommendations for the vehicle. [Recommendations](#)

Totals - This tab will display the totals, allow you to recalculate the charges, check available credit for this client, and also post payments by cash, check, credit card, or to accounts receivable. [Workorder totals](#)

Job Cost - This tab displays a chart showing the charges, cost, and profitability of parts, labor, and sublets on this workorder as dollar totals and percentage of profit. [Job Costing](#)

Inspect - This tab provides access to 3rd party programs which help with customer follow up, parts and labor information, and more. All work is relative to the open workorder. [Inspection Checklist](#)

Services - This tab will display controls for any 3rd party services, and appropriate interface data, that you have contracted to use. [Services](#)

Attachments - You can attach any additional documents to the workorder using this page.

Alert - The system displays the invoice versus estimate status, and alerts you if the invoice total exceeds the estimate.

4.7.3 New Workorders

Choosing: Estimates, Invoices, and Counter Sales


Clients who only wish to purchase parts are best served using the Counter Sale format. However, clients who receive parts and labor will need a full workorder. It is highly recommended that Estimates be written prior to beginning a service, because this forms the basis for a clear understanding between the service center and client about what is being provided. Invoices are the completed billing for a workorder, while the estimate is the planned services and charges.

Choosing to make a workorder a **Counter Sale, Estimate, or Invoice** is handled by the Status flag. This is set when first writing the workorder, through a prompt, but can be modified within the

Status menu selection. Each of these can be assigned to a vehicle plus client, client alone, or a cash sale. **Full workorders should not be provided as Cash Sales, even though the system will accept them.**

Creating a new workorder

Writing a new workorder is very simple. From the main system menu, select the WORKORDER option, or type ALT-W. The system will then display all workorders which are currently under construction.

 To begin a new workorder, click on the Add button. You will see the following list of options. Select the one that fits your needs for this ticket. Then answer the questions that will be provided. Using your responses, the system will start a new workorder with the status you have selected.

- Service** This will originate a service ticket to work on a vehicle that is in your shop.
- Counter** Use this to sell parts across the counter for a specific customer.
- Appointment** Select a pending appointment, and all information you placed on it will be automatically transferred to the new workorder (client, vehicle, notes, quoted parts and labor)
- Cash** Use this for a cash sale where no client is being selected
- Manual Add** This option will allow you to add handwritten workorders into the system for tracking in history.

The system will then assign a number and display the main workorder development screen. The MasterLink Shop Writer assigns a number to each workorder. This is used in connecting parts, labor, revisions, and recommendations to the final invoice.

Entering Data

Once a workorder is started, a subwindow displays with workorder totals, and buttons for various tasks which can be accomplished. Each of these operations is discussed in a later section of this documentation. Each task is performed by selecting the appropriate button on the individual workorder menu.

Saving and recalling a current workorder

When you finish entering data on a workorder, select the Close key, and the information will be saved. The system will return to the Workorder Browse Menu. When it is time to re-access the workorder, highlight the appropriate line on the Workorder Browse list, and select Edit.

Considering The Estimate

Although not required by every state, estimates are highly recommended for all service facilities. They provide a clear understanding between you, and your client, of the service to be performed. This eliminates the conflicts which may arise when the vehicle is ready for pick-up. Usually estimates include diagnostic statements, or specific types of service to be performed. The total for the service should be clearly specified. It is usually not necessary to itemize all of the parts.

If you estimate high, and then perform the work for less money, you will please your clients. For example, to say that a service will not exceed \$85 lets the client know the maximum he will pay. If the actual charge is \$55, you will win a return visit because of your fairness. While the difference will not always be this much, overestimating can be very productive. It is always more difficult to

increase the total later as you get into the job.

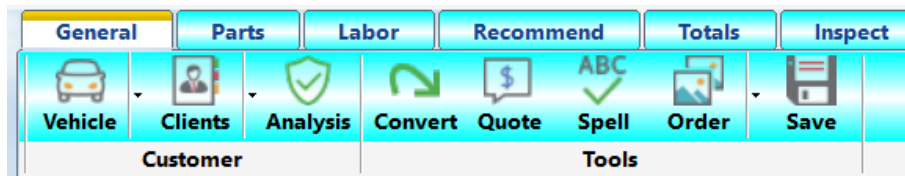
The following sections detail our recommendations for writing the estimate. These include some hints on good public relations.

- **Respect the client's property:** A wise teacher said that she always tries to remember that each student is someone's child, their pride and joy, and the result of many tough decisions. No matter how difficult the child may be, she knows that someone has a lot of emotion invested in them. Her respect for the parent makes her a very well respected teacher. The same holds true for a person's property. Even if it appears to be a piece of junk, it makes a statement about the owner. It was purchased as the best option to fulfill their needs. It may be their pride and joy, or their source of humility. In any case, they want to see you handle it with care, respect, and perform accurate services.
- **Greeting the client:** When the client arrives, grab your clipboard with notepaper and look over the service item with the client. Take a few minutes to listen to their concerns. Do not make snap judgements, because they often offend. It is far better to "look into" the problem then make a series of offhand conclusions.
- Act like a caring doctor, who will first diagnose the problem, and then prescribe a course of action. You know far more about the mechanical needs of this service unit than the client. However, their "gut level feelings" that something is wrong may be a valuable clue to the actual problem.
- Nothing infuriates an owner more than taking an item in for service, and having it returned with the exact same problem. Take time to get the exact symptoms noted on the estimate.

4.7.3.1 Service Unit / Client Data

Overview - Entering vehicle and client information

On the General tab of the workorder development window you will see the following section:



This display shows a summary of the vehicle and client data. All of the data is actually stored in the client and vehicle files, and accessed through the record.

When you select either the Vehicle or Clients button, you will receive the following options for handling the placement, and editing, of data on the workorder:

The Buttons that have an ▼ to their right have drop down menus for selecting specific options.

Vehicle

[Select / Edit Vehicle](#) - When you first create a workorder, you will be able to select the vehicle (with client), client, or cash sale. However, if you want to change that choice, you can use this option. Once you make the menu selection, you will be on the list of vehicles with the current choice highlighted. Simply go to the desired vehicle and click on it to move the highlight bar. Once that is applied, select the Exit button and you will be asked if you want to use that Vehicle. Say OK and both the vehicle, and the associated client, will be assigned to the workorder.

[View Information](#) - You can view much of the information from the vehicle record in a popup using this selection. In addition, you will be able to directly edit many of the fields, and the results will be saved back to the main record.

[View Photos](#) - This option will popup a window and displays any photos you may have assigned to this vehicle record. Use the Photo utility on the main menu to assign them.

[Client](#)

Select / Edit Client - Use this option if you only want to select a client, but no vehicle, for this workorder. You will likely do this when you are processing a counter sale for parts or a non-vehicle specific labor. Do not use this if you have a Vehicle being serviced. The Vehicle option brings in both the vehicle and client records to attach to a workorder

View Information - View the client information here. You will see the address and phone numbers. You can edit many of the displayed fields directly so you do not have to go to the main record to make changes to those items. This is especially useful for email addresses and phone numbers.

Map to Address - You can view, and print, a Google map to the client's listed address

Send Email - For direct communications, this option lets you send an email to the address you have on file.

Send Text Message - You can send a text message to the client's cell phone. Be sure you have this feature setup on their record. Instructions are in [Client Data](#)

Dial Phone - If you have a phone dialer installed in the computer that works with your system, this button will allow you to place the call.

View Photos - You can view any photos you have assigned to this client with the Photo utility.

[Often people will omit some vehicle information, including the VIN. It is important to obtain all of this data on the first visit. Thereafter, you will only need to obtain the license. If the client does not have a vehicle, ie. counter sale, You will only need to select client information. Never only use the last six digits of a VIN. They are not unique ID numbers.](#)

If you do not already have a vehicle and/or client selected, use the appropriate Edit Vehicle or Edit Client button. From there you will see the screens discussed below. When you press the Exit button from the Vehicle Edit screen your client and vehicle information will automatically be added to the workorder. If it is only a client for whom you are creating an invoice, use the Edit Client button and when you exit the screen, the data will be saved to the workorder.

REMEMBER - Client and vehicle data are entered on the screen displayed with the tab marked General. The information

provided on the screen is a summary of what is entered. When starting a new workorder, if the client and service vehicle have been in before, select **Edit Vehicle**, and find the correct vehicle. Select it (Left mouse button click) and then close the window using the **Exit** button.. The vehicle and client data should then be attached to the workorder. For new vehicles, follow the same process, but select **Add** from the **Vehicle** screen and type in all of the information. Save and close the screen.

The Cash Sale

If no vehicle or client information is specified, the system will assume the workorder is a Cash Sale. In this case, it is not necessary to even enter the vehicle/Client option of the menu. CASH SALE will be printed on the invoice, and handled appropriately in accounting.

4.7.3.2 Header Information

The information necessary to track this specific service is included in the Header section. The workorder header information includes the service mileage, dates, service advisor, hat, and miscellaneous notes. These pieces of information are all entered using the Status option of the development menu.

Vehicle / Client

These fields contain information provided from the actual Vehicle and Client records in their databases. The single lines summarize each of the records, and the larger boxes contain notes that are attached to either/both the vehicle and clients selected. If you select the vehicle, the client will automatically be added also. *If you wish to modify what is displayed*, using the dropdown button next to Client or Vehicle, select the **View Info** option. You will see the editable information in black (vs blue). You may make changes there to the master record, and when you exit, it will save that data to the client and/or vehicle master record.

Date of Service

The MasterLink Shop Writer inserts the date of service when the workorder is begun, and will ultimately substitute the new date when the workorder is completed. This is most appropriate for services which last a long period of time, such as vehicle renovations.

Odometer In / Out

The operator should enter a current odometer reading because most states require this information on the final invoice, and because the information is used for projecting needed services. On many serviced vehicles, this might be known as a clock, or meter.

Tag #

The vehicle tag is an ID number assigned by the service center, and may be on a cardboard tag, or a "bonnet" placed on the vehicle when it is acquired for service.

Alternate billing

If you wish to bill this to an alternate individual/company who is already listed in your Accounts Receivable, press the button and select the appropriate person. The account number will be stored here, and upon closing, the charge will be applied to that account instead of the named owner. This is especially helpful for warranty claims billed to a 3rd party, or multiple locations of a company (listed as separate clients) all billed to one central processing office.

Delivery Date/Time

If the date and time of expected delivery are entered, the system will also be able to monitor this in relation to the current date and time, and flag workorders nearing their expected delivery time.

Service Advisor

The name of the person acting as the service advisor, or the individual who accepted the vehicle for service, should be entered in this space.

PO Number

Often work is submitted with a Purchase Order. Enter the number in the field provided.

Status - Each workorder can be tracked using a variety of Status options. You will find them in the drop down list in this field. The Status will change as work progresses. Remember to select the Save button after changing this value. The status is displayed on the main pending work screen, and has a visual display also with a button on that view.

Rating/Source

The rating or source code is derived from the client. However, you may wish to provide a one time change for this workorder. You may select the code from the lookup list if that is appropriate.

Type

The Type field is used to change from an Estimate to an Invoice. If the system was set for the workorder to be an Estimate, and it is time to transfer the data entered to the final invoice, use the Convert utility to change from E to I. The system will then display all of the parts to be marked off, and then the labor.

Return parts

If used parts are to be returned to the client, the notation should be made in the proper field. It is generally a good idea to hold all parts until after the vehicle has been claimed, unless the owner specifically states they are not wanted. This alleviates any potential for conflict later. Some clients may need the parts for insurance claims.

Tax

By default the Tax ? box will be checked if you charge tax for your service and the client pays tax. If this invoice is to be exempted, you can uncheck the box. Remember to select the Save button. Because MLS supports multiple tax rates, you can change the rates for parts and labor in the displayed fields. By default they will be the rates assigned to the client, but this can be modified on each workorder.

CRM OK ?

If you use the Carfax VIN Decoder database, then this will be normally checked. If you have a reason to not send this workorder information to Carfax, you may uncheck the box.

The work is complete

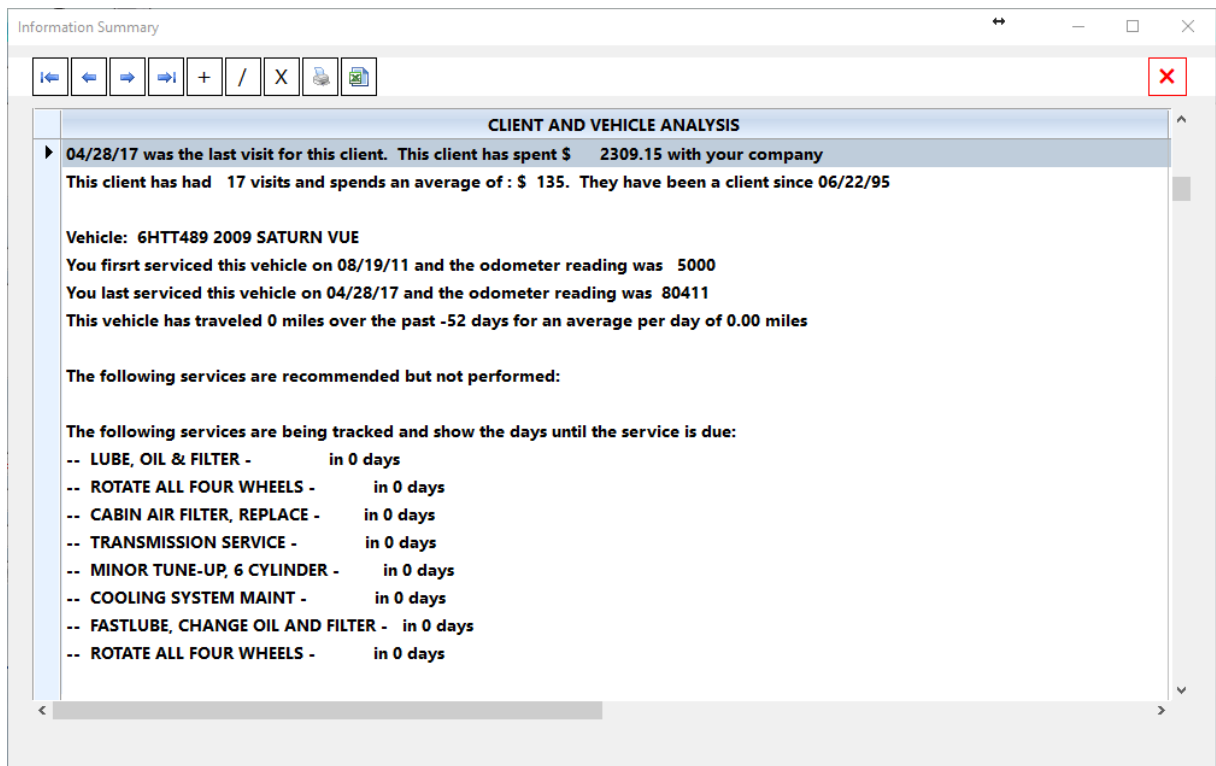
This checkbox should be clicked by the technician when all work has been finished on the vehicle, even if the payment has not been posted. This alerts anyone using the system that the vehicle is now ready for pickup.

Workorder Notes

When the client brings in the vehicle, there are often comments made about concerns or special handling tips. These should be entered into the workorder notes. These notes will then be printed on the technician's worksheet. Included in this may be special alarm codes, special service notes (wash car before delivery), or performance notes.

4.7.3.3 Service Analysis

When a workorder is started, first enter the current odometer reading in the Mileage In field. Then, on the same General tab screen, press the Analysis button. This will display all of the important information you need to converse with your client about the service options on this day. You could look at all of these options individually, but this screen displays all of the important information immediately, in one place.



Client Information

The display shows the client name, how many times they have visited your shop for service, the average amount they spend, the total dollars they have spent and the date of their first visit. This easily helps you see which clients are consistent sources of business.

Vehicle Information

This section is specific to the vehicle they have brought in for service. It shows when you first performed a service on the vehicle, the last time it was in, and also shows the mileage driven since the last visit and the average per day.

Recommendations

Any pending recommendations from previous visits will be displayed in this section no matter how long ago you made them. It's helpful to ask the client if that service may have been performed. When they have been, click on the needs button and remove them from the pending list.

PM Schedule

Tracking preventative maintenance services is a great way to help your clients stay on top of the routine services that should be performed. See the section on the PM Scheduler for full details. This area of the display shows you all PM's you are tracking, and tells you the number of days until they are due.

Inspection Concerns

The Inspection Checklist is a great way to assess a vehicle after a service was performed, and it shows the client all of the areas you observed in caring for their possession. In this display, any inspection items that were marked for review at the next service, or noted as failed, will be displayed.

This is a floating window, so you can actually pull it to the side of your monitor and reference it while viewing, or editing, information in the workorder.

4.7.3.4 Service Needs

By maintaining a history of service recommendations, and keeping the ones which have not been completed on active status, a service center will increase its volume of business, and better serve its clients. For this discussion, the following steps would be appropriate in a shop that services automobiles, and uses The MasterLink Shop Writer.

Ask Questions First

The first step to evaluating the necessary services is to query the client about any concerns or abnormalities with the vehicle's performance. Although the client may be only seeking a standard 24,000 mile periodic maintenance, there may be additional areas of the vehicle that need attention. Consequently, the time spent asking questions may lead to additional services.

To support this investigation, a test drive with the client present is highly recommended. Yes, it does take some extra time, and the client may be in a hurry. However, discovering a small \$10 adjustment at this time which saves the client a \$400 repair will enhance the opportunity for repeat business with this individual.

Review previous recommendations

The second step is to review the previous recommendations. This is accomplished using the {button Needs, } button of the Workorder Development window. Once this option is selected, the computer will display a list of previous services in the lower box of the screen. As the operator browses, and highlight the previous recommendations, the system will then display the full text in the upper box.

You should discuss all of the previous recommended services with your client to be sure they have been completed.

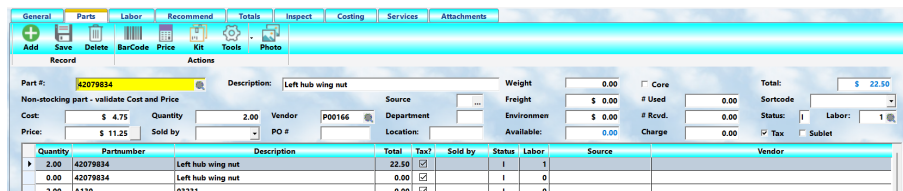
Notice the available buttons on the screen. They allow you how to mark completed recommendations (Delete), or to move a highlighted recommendation to the labor section for current servicing.

Each of these items were suggestions you have made in the past, based on your hands on experience with that vehicle.

These two options are appropriate when servicing anything for one of your clients, not just vehicles.

4.7.3.5 Parts Entry

Parts are added using the second tab of the individual workorder editing window. Important guidelines are detailed below this screen.



Control Buttons

- Use this button to add a new part to the workorder. You must ADD a new record for every part. The quantity will be automatically removed from inventory if it is a stocking part and it will be added to the sales totals.

- You must press the Save button after entering the information on a part. If you find you are missing information it will be because you did not Save it.

- Use this button to remove the highlighted part. This will automatically restock the part in inventory.

If you make a mistake entering a part, use the Delete key to remove the faulty entry and then the Add key to put on the correct part. DO NOT simply change the part number !

- You can use your barcode reader to input a group of parts. Click on this button, and with the popup window, you can scan all of the parts together. If you only have 1 part, then you can click the cursor in the partnumber field and scan it, then process it

- By default, parts entry starts at the Retail level. You can change this to one of the wholesale levels by pressing the Price button and then selecting the desired value.



- In the Glossary section, you can create Kits, which are a collection of specific inventory parts items that are used for a service. Please read the description on Kits to see how this can be of significant benefit. Use the Kit button to bring up a listing and search routine for applicable kits. You may select one and all parts will be automatically applied to this workorder. You may specify a single price for an entire kit, but we do not recommend this option. The system will place the price in labor, and if you only tax parts in your state, it has no way to know how much tax to assess for the items used in the kit.



View photos attached to this part number.

Basic Procedures

Adding A Part

You must first press the Add button to put a record in place to which the information can be written. Then, you may either enter a part number, or select the lookup icon on the right of the part number entry field. The icon will open a search screen that allows you to see all stocking, and non-stocking, parts in your inventory file in either partnumber, or description, order.

It is important that you complete the other information on the screen as appropriate. Of course, your cost should be entered if this is a non-stocking part. Also enter the quantity.

Parts are automatically flagged by the system for tax status but double check to be sure there is a checkmark in the tax box if you want tax charged on this item.

When you add a part to a workorder, the quantity will be deducted from the stocking level, and added to sales totals for the appropriate fields. Even non-stocking parts will have sales totals tracked.

Deleting A Part

Parts are added to the totals in inventory. If you make a mistake, it is imperative that you use the delete key. One common mistake is that people will simply overwrite what is in the fields, or blank it out. This will cause the system to foul. If you delete an item, all totals will be adjusted automatically.

Changing Quantity

If you enter a part on a workorder, and later need to change the quantity, simply change the number in the Quantity box and press the Save key. The system will detect the change and automatically update the totals.

Cores

Some parts will have cores. The computer will properly account for cores if you specify the number used and the number returned. For example, if you have 4 brake pads on a job, you will have 4 cores. If two are damaged beyond usefulness, you will specify the # Used as 4, and the # Ret (returned) as 2. Place the amount to be charged for each core in the Charge box and the 2 damaged beyond repair will be assessed on the workorder.

Vendors

The Vendor lookup will allow you to include a specific vendor account for reference purposes on this part. This is especially important when considering the possibility of warranty returns. By indicating the vendor from whom you purchased this item you will be able to process a return easily if the part fails. You can use the PO # field to specify either the purchase order number from your system or the invoice number from the vendor that applies to this part. It is likely that you will not use this option on every part, but certainly it is very useful on all parts costing over a few dollars.

Price Level

The system employs 5 levels of pricing for parts, and 5 for labor. The system defaults to Retail (1) pricing, but this button allows you to select a different level of pricing.

You may add some parts or labor at one price level, and then select a different level for other entries

Deleting Items

If you select the Delete button, and confirm your desire to delete the highlighted entry in the browse screen, the record will be removed from the workorder. Parts from inventory will automatically be returned to stock.

Parts Field Details

You can add parts from your inventory stock, non-stocking parts, or "on the fly" when they are purchased from a local supplier. All methods are done effortlessly, and records are retained for evaluation of your parts profitability. The following information is important on all parts entries.

Part Number

The MasterLink Shop Writer needs to know the inventory number assigned to the part you intend to use on the workorder. If the part is not in stock, use the number specified when you ordered the part from the vendor. Although some people will use their own "in house" codes, this will lead to confusion, and problems for warranty exchanges. This practice is not recommended.

The MasterLink Shop Writer supports up to 20 characters in the partnumber. This will exceed any part which we have seen currently available.

Another feature allows you to browse a list by Cross Reference code. (See the Inventory section) The system will ask for the quantity to be sold, and display both the unit, and extended price of all available items. This is especially useful for sales of items such as tires, where the cross reference field can contain the size. By specifying the * before the part number, all available stocking items will be displayed for review in a popup window. By highlighting the desired item, and double clicking the mouse, or pressing the Enter key, the item will be placed upon the workorder.

When entering a special order item, the system will ask if you wish to post it to a purchase order. (See discussion on open PO's in the Inventory references) A Yes response will display a list of open PO's, and when one is highlighted, and selected, the item will be added automatically.

**** CRITICAL HINT ** When editing a part, do not change the number. If you need to remove a part, delete the entry. Do not overwrite the existing record. If you modify the part number, the computer can not restock the part, nor will it be properly tracked in the summary reports.**

Description

Enter a description for the part. Do not use abbreviations - they are poor communicators. If you have requested a part from inventory, this field will be filled in when the part is displayed. It is permissible to modify the description. Some shops will put a vendor code at the end of the description field for warranty purposes. This will remain specific to the workorder, and will not change the inventory listing.

Vendor

The Vendor code field is to be used for the Disbursement Account Number assigned to the vendor by The MasterLink Shop Writer. For system integrity, these numbers are assigned automatically, and must be used when noting the vendor for a part or labor service item.

It is especially important to note the Vendor because of warranty issues. By reviewing a workorder, you will know exactly which vendor supplied the service item, and who is responsible for its warranty coverage should it fail.

You can look up available vendors by right clicking on the Vendor field using your mouse.

Department

You may assign each part to a specific department. Enter the department code here. You may right click on the mouse for a lookup of the available departments, then highlight the correct entry and left click the mouse, or press Enter, to select the item.

Tax

If the utilized part needs to be taxed, place a checkmark in this box.

Sublet

If the utilized part is part of a sublet service, and was provided by another vendor, check the sublet box.

Core

If this part has a core, place a checkmark in the box.

Quantity

When a part is entered from inventory, the only field not automatically entered is the Quantity. When you enter a value, the computer will calculate the extended price. If everything displayed is correct, press the OK button to accept the entry and add it to the browse list.

The system will alert the user when any parts added to a workorder are out of stock, and permit the user to automatically look at the cross reference list for substitution. If the user opts to not select another part, the item will be added to the workorder, and will cause the stock on hand balance to go below zero. This works well if a part is on order, because when the order is received, and entered into the system, the stock on hand will be correct.

Changing quantity

If you enter an incorrect quantity, simply enter the correct number in the quantity field, and select the OK button. The computer will automatically make the adjustment, either adding or subtracting from stock as appropriate.

Cost

If you enter a part from inventory, the computer will automatically enter the average cost in this field. If you use non-stocking parts, be sure to enter your cost from the vendor's invoice. This will provide accurate profit information when you run the parts utilized report.

Charge

If you enter a part from inventory, the computer will automatically enter the customer's charge in this field. If you use non-stocking parts, be sure to enter the suggested retail price from the vendor's invoice. This is the amount which will be charged on the final invoice, and will be used when calculating your profit when you run the parts utilized report.

Weight

If the part is to be shipped, add the weight in this field. The weight can be assigned to the part in the inventory program, and the value will then be brought forward whenever the part is placed on a workorder.

Special Charge

Some parts have Federal Excise Tax (FET) assessed, or another special tax. If the item entered is such a part, put the amount in this field. Because the charge is specific to the part, rather than the price of the part, it may be entered on the item's inventory listing, and then this value will be provided whenever the part is added to a workorder.

Environment

You may charge clients for the costs involved in disposing of hazardous materials. You should enter the charge in the Environment field.

*****CONSIDERATION*** While many people think the environment fee is just the cost paid to some hazardous waste handling company, it should also include costs for any special equipment needed to contain, and process, the parts for disposal. These can be prorated across a normal "lifetime" for the equipment or storage facilities. In addition, you should also include the cost of labor to prepare items for disposal. Consequently, the true cost of disposing of an item may not be the \$.25 the handler charges, but \$.35 which reflects the other costs incurred.**

Available

This is the quantity of this part actually in stock when it was withdrawn from inventory. This is used for "auditing"

Location

This shows the inventory location for the part when it was removed from stock. Its inclusion makes it easier for the technician to track down parts when pulling them for the workorder.

Total

This field shows you the running total for the items you have added currently to this workorder.

Core Tracking

Some parts, ie. radiators, brakes, transmissions, have parts with core value. Whenever this is the case, enter a check mark in this field. If the part is in the inventory listing (stocking or non-

stocking), the core flag will be automatically marked on the part data screen. Non-inventory items will have to be flagged manually.

Core Used

The number of cores used will generally equal the quantity of the part used. Therefore, the system will automatically enter the quantity number in the core used field. In some cases, the manufacturer may track cores differently. For example, brake linings may be tracked as 1 core pair per wheel, or 2 core linings per wheel. Since linings are usually sold in pairs. If the core count is different, it will be necessary to change the Core Used Quantity. If the part has no cores, the quantities are unimportant.

Core Received

Generally, the Core Used number will equal the Core Returned. There are two exceptions. First, on counter sales, the Cores are usually returned at some later time, and processed under the Inventory menu system. The other case occurs when the core is too damaged to accept for credit. In this case, the Core Returned count would be less than the Core Used. When this occurs, a core charge is added to the invoice, listed under parts. For example, if two linings were installed, but one was damaged, the system would charge for the unusable unit. The Core Used would be 2, while the Core Returned would be 1.

Core Charge

The Core Charge is the amount of money to be charged for all non-returned items. This is set in the inventory data screen, and usually reflects an amount greater than the service center's actual cost (core value). For example, if the manufacturer charges \$2.00 for a brake lining core, the service center may charge \$2.25. This covers compensation for processing costs for non-returned items.

With non-inventory listing items, this must be entered manually, or the client will not be charged for consumed cores.

Adding the parts

When you add a part, the system will prompt for the partnumber. The cursor will be in the number field. Remember that this is a lookup field. Therefore, you can right click the mouse button to obtain a search window. Alternatively, you can enter a # plus a Pick List code to use a group of parts.

Parts Pick Lists

The MasterLink Shop Writer Glossary System provides for the creation of Parts Pick Lists. Each list is called by using a code, preceded with the symbol #. The parts are automatically added to the workorder. Since each list can hold up to 50 parts, this process will certainly speed operations. It is not necessary for parts to be in stocking items in inventory to be on the list, but they should be at least non-stocking items in the listing.

Before entering the parts on the system, the computer will first display the list, and ask if the list is to be edited. If you wish to change quantities, answer Yes and the list will be placed in edit mode. Highlight the items where the quantity is to be changed, and press the Enter key. The computer will then allow you to modify the quantity. If a part is not to be used, simply set the quantity to 0.00. When completed with the editing process, press the OK button to process your entries, and add them to the workorder.

Parts 'On-The-Fly'

If the part is not in inventory, you will need to fill in all of the data listed above. Do not omit information, because that will limit your record keeping and profit analysis. Be very sure to check

the tax flag. Once you enter data in all the fields, the computer will add the part to the list, and you will be ready to proceed with your next action.

Editing a part

To edit a part, move the highlight bar to the desired item on the browse list. The part data will appear in the entry box at the top of the screen. Move the cursor to the field you wish to change, then type in your corrections. Select the OK button when you finish, and the changes will be saved. Remember, do not change the partnumber of inventory items.

Changing the Quantity Used

To change the quantity of parts used, highlight the proper part on the browse list, and change the quantity to the newly desired amount. The amount entered is the new total, not the difference between the original entry and that desired. The system will automatically adjust the inventory to account for the change, either removing more from stock, or returning those unused.



4.7.3.6 Labor Entry


Labor descriptions are a critical element of any workorder/invoice because it is your opportunity to convey to the customer a clear description of the actual services rendered. This will enhance your client's view of your professionalism as a service center, and will eliminate any confusion or questions in the future. Labor entries are input on the screen below.



Time	Description	Total	Tax 1	Technician	Units	Group	Status
0.70	HEADLAMPS, ADJUST-	\$6.00	1	TED	0.70	1	1

Here are some specific guidelines for getting started.

Adding a labor item

 To enter a new labor item you must first press the  button. If you do not, then you are not actually writing your data to a record, but rather to memory space that will be erased once you move to another record.

Labor descriptions are tied, in a "glossary" system, to a specific code. Please read the [Glossary Concepts](#) to understand how this is designed. If you know the code, you may type it in directly. Otherwise, click on the  icon to begin a search. If you want to type in text that is not saved in the system, use the code B for blank lines. When you complete the entry, you will be asked if you want to save this new entry to the glossary. Enter No. If you fail to make this choice, a **B** code will always bring up the same text !

 When you have completed an entry, please remember to press the  button or your data cannot be retained.



You can delete an existing entry and all tracked data will be automatically reversed where it has been placed.

Price Level



Clients are charged for services based on their price level. Some companies only have one, retail, for everything they do. The MLS 8 system allows five levels, Retail, and levels 1 to 4 for wholesale/discount. You can change the price level for a single entry, or for the entire workorder, with the button. Once you set a level, it will remain there until you reset it to a different level.

Building Kits



Although you can build kits manually within the glossary system, the button activates an [automatic kitbuilder](#). The process works with the highlighted labor item which it puts into a kit (you specify the code), and then you are shown the parts on the workorder, and you will check off those that should be in the kit. The resulting code will then be available to use on future services.

Add P/M



To add a labor entry to a PM schedule for this vehicle, use this button, and follow the on screen instructions

Expand



The text could be "hard to read", so this button will open up a larger, popup, box where you can more easily edit it and see long descriptions

Labor Entries

Your customers should know exactly what services you have performed on their vehicle. You communicate this with the labor entries. Using the glossary codes will greatly speed your entry of data, and provide for uniformity in your work. You may enter an existing Glossary Code, have blank lines to write a unique description, or even write a new glossary for this workorder, and save it to your main glossary file.

Glossary code entries

To use a Glossary entry, type in the appropriate code. This is a lookup field. Consequently, if you do not know the code, right click the mouse when pointing at the code field. The computer will then display a list of service "systems" (See Glossary instructions for more detail). Move the highlight bar to the desired system, and press Enter, or point at it and double click the left mouse button. The computer will then display service "groups". After highlighting, and selecting, the desired group, the computer will display the services available for the group. Select the desired listing from the list, and the actual glossary entry will be read into the current workorder.

The logic of this structure is very consistent, and the codes will be quickly memorized. If an incorrect code is entered, the system will display a scrollable list of all entries. Therefore, memorizing the codes will be safe.

Non-glossary entries


If you wish to enter a description which is not in the glossary, enter a letter that is not in the file, ie. B (for blank lines). The computer will ask if the operator wishes to use blank lines. If you wish to type in new information, select YES. The computer will then open all fields in edit mode, and you may complete the data entry with the following information.


The Labor Chart Display

A charting system has been developed which automatically tracks totals for all glossary service codes specific to year, make, and model of the serviced unit. The system is fully automatic. When you enter a service code on a workorder, if there is a match, the system will display the high, low, and average units, and charges, for that work. It is specific to the unit type for which you are preparing the workorder.

The chart is generated in the Client section, and updated as workorders are closed.

Rates / Totals / Cost

Your system will verify the rate you enter against the list you created in [Validation Lists](#). You may use the  button to look at the list and select one to apply. The system will automatically multiply the Units by the Rate to create a Total. If you want to use actual time for the total, enter it in the Unit field. The cost will be based on the criterion established for the selected technician in Setup - Costing.
Timing

There are two fields for time, Actual and Units. The first refers to clock hours, and must be used if you have set the technician for calculating [Job Costing](#) based on actual time. Units refers to flat rate, or book time. Glossary codes often have the flat rates included, and a value would be transferred to this field once the code is entered. The  next to the field will activate a labor time lookup capability. Several vendors provide labor time guides that interface to MLS 8. You can select the guide you wish to use (if it is installed), or you can select the option to obtain times from the [Charts](#) maintained by the MLS 8 system. When using a lookup system, the selected values are automatically returned to this field.

The Labor Descriptions

The MasterLink Shop Writer 2004 has a pre-built set of labor descriptions (Glossary). You may eliminate, modify, or add to them according to your own needs. These descriptions have been written with your client in mind. It is critical to provide clear, complete, descriptions of the work you perform. This signals your customers that you are a truly professional operation, and it provides a clear understanding of exactly what services you have performed. Brief descriptions, ie. "R&R Radiator", are ambiguous and often lead to conflict. Abbreviations are trouble waiting to happen !

Technician

Enter the name, or code, of the technician who performed this service. This will be printed on the final invoice, and will be retained in the service history for future reference. If you do not remember the Technician's name, right click the mouse for the lookup list. If an incorrect technician is entered, the system will also trigger the lookup list so that the correct individual may be highlighted, and entered.

While some shops like to use codes for their Technicians, it will be faster when doing a service follow up to use the persons name. If you look at a history, and see the service was performed by Technician 007, you will have to know which person had that code when the work was performed. This is a lot harder than recognizing the name James B. on the display.

**** SPECIAL NOTE **** If you leave the technician box empty, when entering a glossary item, and press the Enter key, the whole box will be opened for editing of data.

Actual

The Actual field tracks the actual amount of time which was devoted to this service item. It is compared to the flat rate time (units) for efficiency reporting, and may also be used in Job Costing (see the Technician section under Setup).

Units

The units represent the normal number of hours used to complete a service. This is in decimal form to handle fractional amounts. Remember, every 6 minutes is .1 hours. You may wish to refer to one of your shop service guides (flat rate books) for the standard times associated with a particular service. You have probably purchased one or more of these for this purpose. You may also wish to enter some of these services into your glossary for later access.

Rate

The system will provide the default hourly service rate your shop charges in this field. This was entered using the SETUP utility when you first installed your system, or may have been modified since that time. To obtain a different rate, enter the amount, or right click the mouse for a list of valid rates and applications.

The rate does not print on the workorder. It will be used to calculate the charge if no value is specified. If you wish to omit a charge, enter a \$ 0.00 in this field. The system will then have a charge of \$ 0.00 while retaining the time value for reporting.

Total

The charge is the total amount the client will pay for the labor performed. The computer will multiply the units by the rate for an initial total. You may override the calculated amount by entering a value, as a fixed rate, and the computer will accept the amount.

Cost

The cost field will be automatically calculated based on the rate of pay for technician, and the amount of time (actual or units) involved in this service. You could override the cost field if you are paying a flat fee for the service. This is also the field to enter the amount paid to a vendor if the service was sublet to another company.

Item Estimate

If drawn from the glossary system, this will be the amount estimated for this charge

Tax

The system must know if this is a taxable labor. The Glossary entries will provide a default for this field. If the service is to be taxed, be sure a check mark appears in this box.

Sublet

Some services are handled by sub-contractors. These are known as sublets, and most states require that they be identified separately. The default is Empty for this field because most of your work is not sublet. However, you may check this box when appropriate. Most people will enter the sublet service, and include the total for parts and labor as one entry. This is perfectly acceptable. However, you may itemize parts separately if you wish.

Status

The status flag will tell you if the labor item is currently an Estimate, or Invoice. Items flagged as Estimates will not display on the final invoice. Labor does not appear on a counter sale.

Vendor

Use the appropriate code assigned to the vendor who may have performed this work, if it was not done in the shop, from the Disbursements accounts. You may right click the mouse button to obtain a lookup list of vendors.

Department

If the work is assigned to a department, enter the code here. You may right click the mouse button to obtain a lookup list of departments.

Down Time

When a vehicle ties up an area of service (ie. a lift), this time is costly. The third time clock on the main button bar will track the amount of "down time" a service accumulates.

Total Charges

This is the sum of the total charges to this workorder.

Total Units

This is the sum of the flat rate times assigned to this workorder currently.

Viewing The Description

The system will first display the description, in a scrollable box, on the screen. Review the information for appropriateness. You may make changes to the description which will remain specific to this workorder, even if the original description is drawn from a Glossary entry.

Editing the description

Please review the chapter on Glossary writing for examples on writing descriptions. The most important issue here is The Executive Management System invoices should never contain abbreviations. Clear, Concise, Complete Communications with your Client are the 5 Vitamin C's in profit. Don't ever let them be hidden. Review the section in Coverin the Basics in this manual about using the text editor. This will explain procedures for moving, cutting, editing, and adding text. The description is your most important communication with your client. It should be complete, and never abbreviated. Well written descriptions can be the difference between customer trust and fear.

Edit a service

To edit a service, move the highlight bar to the desired entry, and the details will appear in the data box at the top of the screen, and be ready for complete editing. When you are finished making changes, select the OK button.

Saving A New Entry To The Glossary

When you have used the blank line function, and realize that you have written a "classic", it can be saved directly to the Glossary. You will be prompted, in such a case, by the system, and need only answer Yes to have the item transferred. The system does not transfer pricing information. You will also be asked for a code. Be sure to assign one that meets the standards assigned to your Glossary Setup.

4.7.3.7 Actual Time Timer

It is often helpful to keep track of the actual time spent on an individual labor task. On the Labor entry screen you will see an Actual field for entering this information which is then used in a technician report to compare the real time with the flat rate entry.

Begin Timing a Labor Entry

Go to the **Clocks** option on the top bar of the main Shop Writer Workorder List screen, and select **Labor**. Clicking on the option will display the question:

Are you starting the timer for a new labor task ?

This actually means, do you wish to start a new timer. If you answer Yes, then the system will show you a screen with three selections. First, in the top field, select the technician name. In the middle box, select the active workorder to which the labor has been assigned. Finally, in the lower box, select the labor item which is to be timed. Finally, press the **Start** button in the upper right corner of the screen. The time is now active.

Finish Timing a Labor Entry

Select the **Clocks** icon again, then **Labor** from the drop down menu, and when prompted about starting a new task, answer No. You will see a list of currently active timers. Select the timer you wish to end by pointing at it and clicking the mouse. Then click on the Stop button in the upper right corner. At this point the programmer will add the time calculated to any time already accrued in the Actual field.

4.7.3.8 Auto Kit Builder

Kits can be very useful in establishing the parts and labor to be performed on a specific vehicle for a specific service. You can build kits from the glossary menu, or from within a workorder.

You use the Build button on the Labor entry screen to build a kit. Highlight the labor item you will be adding, and then select Build. The system will then display all parts on the workorder. Double click on the parts that go with the specific service, and a check mark will appear. When you select the OK (Process) button, the system will ask for a code and title for the kit. Fill in the blanks and select OK to save the information.

The system will create a picklist code, and place it, with the labor glossary code, on a new kit. If you wish to add more labor and parts items to this kit, repeat the process and enter the exact same kit code. The system will add the new descriptions to the existing kit.



4.7.3.9 Recommendations

Your clients look for professional advice about the upkeep and periodic service of their equipment. As the technician services the unit, checks should be made of routine wear, and parts prone to failure. Notes should be made during this inspection, and any areas of concern should be noted on the workorder. In addition, upcoming services, tips about vehicle operation, and specific problem clues the operator may detect can all be noted.

Relying on verbal communication is just not sufficient, and does not enhance the probability of repeat business.

Recommendations are added to the workorder in a manner similar to labor. They are entered on the following screen.



The Charge field should specify the anticipated total cost, including parts and labor, for this service. **Remember to press the  button before entering a labor code**, and the  button when your work is complete. You may use a B code to include work not found in the glossaries.

Recommendations are your first marketing tool. They also keep your client informed about the status of their vehicle. This is one area of the program which you never want to overlook !

Entering Recommendations

Recommendations use the labor glossary entries, and employ their full lookup capability. However, most shops will also have some entries which are only for recommendation. If no code exists that states the appropriate message, the operator may enter a B for blank lines.

To Add a recommendation, simply select the Add button. Then add a service code. When a code is entered, or the lookup system is used, the service description will be displayed on the screen. Simply enter the anticipated total charge estimated for the service, and select the OK button to save the entry on the recommendation listing.

Editing A Description

If a change needs to be made to a recommendation, then the summary line should be highlighted. All fields will then be displayed in the upper portion of the screen, and can be edited as needed.

Please see the discussion under Editing Labor Descriptions for detailed instructions in this area. Be sure to select the OK button to save your changes.

It is an excellent plan to personalize the recommendation. Changes made to the text on the workorder will not affect the master glossary entry. For this reason, a core entry can be created which is then modified on each workorder. Brake wear statements are an excellent example of this procedure.

The following entry may be quite easily modified for each individual workorder:

BRAKE LINING: Your remaining brake lining is:
 ___ Left Front ___ Right Front ___ Left Rear ___ Right Rear
 Brakes should be checked again by: __/__/__
 Brakes are a key safety feature of your vehicle. Failure to check them periodically is very dangerous.

The code RE-BR could be used to call up this glossary for every workorder. The changes could be typed in quickly (replacing the _ with actual values), making each personalized, but eliminating any great amount of typing. When the changes are completed, press the F10 save key. The system will then open the Code and Price fields to be changed if necessary.





***** SPECIAL NOTE *** If the glossary code field is changed, it will react differently in reports. Consequently, you may wish to only modify the code in very special cases.**



Charge

The price refers to the approximate charge for the service labor, plus parts.

4.7.3.10 Revisions to the Estimate

Workorder Revisions

Add **Save** **Delete** **Spell**

Current Estimate: **Contact Person:**
Additional: **Phone # called:**
Revised Total: **Shop Rep:**
 Did the shop initiate this contact \? **Date of contact:**
Description of changes in this revision: **Time of Contact:**

Suggested resurfacing front rotors

Date	Time	Previous	Add	New Total	Shop Rep	Contacted
08/26/22	14:48	0.00	125.00	125.00	Ted	Tim

Whenever a workorder Estimate is given, the client has an expectation of the amount to be paid. Although it is always preferable to provide the service at an amount less than the original estimate, sometimes it will be necessary to exceed the original figure because additional parts and services have to be added. This should never be done without first alerting the client to the problem. Each contact should be logged, and printed on the final Invoice.

The Estimate Total

The Estimated Total for services is stored in the system when an Estimate is printed. Consequently, if no estimate is ever printed, the system starts with a \$0.00 total. Each time a revision is added, the total is increased. It is displayed on the Workorder Development screen, and if the total includes revisions, the letter R follows the amount.

The Contact Log

When the call is made, the contact information should be entered on the system.

- **CURRENT ESTIMATE** - This is the current estimate total, and is displayed automatically. If no Estimate was printed, and this is the first revision, the total will be \$0.00.
- **ADDITIONAL CHARGES** - Enter the amount to be added with this revision. NOTE: This is not the new total, only the additional charges. If this field is left blank, the system will assume that no changes are to be made, and will return to the main Workorder Development menu.
- **NEW REVISED TOTAL** - The system will calculate, and display, the new total.
- **PERSON CONTACTED** - Enter the full name of the person contacted. This solves problems later on. Do not enter "His wife" or "Bill" or some other abbreviation. If a name sounds unfamiliar, ask for the correct spelling.
- **SHOP REPRESENTATIVE** - Enter the name of the person who actually made the call. Don't abbreviate, ie. Sam, George, or Melinda. This leads to confusion at some later time.
- **TIME OF CONTACT** - By default, the system assumes the log is being made at the time of the call. Therefore it enters the current time. However, this can be changed if desired. Be sure not to omit any of these categories. They are essential to the final description which will be printed on the Invoice.

The Contact Description

The description is used to justify the increased cost. It should be a listing of additional parts that were not on the original estimate, even though they are on the top of the invoice. The supplemental labor should also be described.

This can be in a narrative, rather than a listing. For example: Mr. Ruby asked that his wipers be checked. The left motor was defective, and the right blade arm was bent. Although the technician was able to bend the arm, it was necessary to replace the motor as included in the parts list. While doing this service, it was noted that the wiring had numerous frays where it was too close to the exhaust manifold. The wire was taped, and a tie down was used to pull the cable away from the hot pipe.

Clients are always suspicious about additional charges. A complete statement about the problem, and remedy, will show that you have nothing to hide, and that you really have the customer's best interest in mind.

4.7.3.11 Sales Tax

Sales tax is normally charged at the location of the sale. However, in some cases there are tax discounts that are applicable for certain clients or organizations, and some patrons may show they are exempt from the tax because of their residence location, nationality, or other exception.

When charging tax, if a client is exempt, that is indicated on their record, and the system will not charge any tax for the workorder. If they are eligible for an alternative tax, the percentage should be entered on their client record and it will be used when calculating the tax on the workorder. The rate is established when you first attach a vehicle or client to a workorder. If you have already added parts and labor to the workorder, be sure to recalculate the totals on the Totals tab.

Tax Workorder

Parts Tax %

Labor Tax %

On the General Workorder Tab, the system will show the exact tax being applied to parts, and to labor. The rate displays in the window. To change a rate for this workorder only, click on the lookup icon next to the rate. A popup list shows the various tax rates. Select the one you wish to apply. Be sure to select the **Save** button after doing this ! Only use this feature to change the tax on this workorder. If the client normally receives a discounted tax rate, change it on their main record so it is always used.

Always use the lookup list when selecting a tax rate. Never type in a value. If the value is not there, then add it to the list in Datamanager.

4.7.3.12 Workorder totals

The Data

One of the great savings of The MasterLink Shop Writer is the automatic totals. When you select the Totals tab, the computer will display all of the subtotals, for parts, labor, sublet, supplies, and tax, and divide them as taxable or non-taxable. The MasterLink Shop Writer prevents calculator errors, and saves you the time of trying to figure all of the amounts due as you would on a handwritten workorder. Many shops have reported saving their monthly payments on a system in the first few days of operation simply through the elimination of costly calculation errors

General		Parts	Labor	Recommend	Totals	Inspect	Costing	Services	Attachments	
Return	Alt	Pay	Graph							
Taxable Parts:					\$	0.00	Sales Tax:		\$	0.00
Non-Taxable Parts:					\$	0.00	Environmental Fee:		\$	0.00
Taxable Labor:					\$	0.00	Freight:		\$	0.00
Non-Taxable Labor:					\$	1,500.00	WORKORDER TOTAL:		\$	1,500.00
Taxable Sublet:					\$	0.00	Deposits:		\$	0.00
Non-Taxable Sublet:					\$	0.00	Discount: 0.00 %		\$	0.00
Taxable Breakout:					\$	0.00	Payments:		\$	1,530.00
Non-Taxable Breakout:					\$	0.00	Process: 2.00 %		\$	30.00
Miscellaneous Supplies:					\$	0.00	BALANCE DUE:		\$	0.00
SUBTOTAL:					\$	1,500.00				
Estimate Total					\$	125.00				

Totals

Totals are calculated with the Totals option of the Workorder Development menu. The system will view all parts, and labor, and display the taxable, and non-taxable, totals in each category. The tax, miscellaneous shop supplies, and hazardous waste fees that are suggested by the values in the system setup will be displayed.

Tax

Tax is automatically calculated on the workorder based on data entry in the Services section. However, if you intend to discount the ticket globally, using the option on this screen, there is no

way to automatically detect if the amount is being withdrawn from taxable items, non-taxable items, or both. Consequently, you might need to adjust the tax total by changing the amount in this field.

Shop Supplies, Environmental Fee

The Environmental Fee (Hazardous Waste Disposal) will calculate automatically based on the service entries provided on the workorder. However, some shops add a global amount to this figure. Also, if you have not added any fees to the individual items, you can assess a fee at this point.

Miscellaneous Shop Supplies are handled in the same manner as the Environmental Fee. Simply type in the amount of the charge in the appropriate fields.

Deposits

The deposits are displayed because they are calculated by the system based on entries made to the Workorder. Do not attempt to change the deposit amounts.

Discounts

Once the totals have been calculated, and the special charges assessed, you can add in a discount. If the operator wishes to modify the discount (\$ 0.00 by default), the enter the proper percentage. When the Enter key is pressed, the dollar amount will be calculated and applied. The system will then place the cursor in the field holding the discount amount, and permit entry of a new value. For example, you may wish to enter "rounded" totals. If the actual discount, at 3.00%, is \$15.35, you may wish to round it to \$15. Enter the changed value, and proceed by pressing the Enter key.

Process

Some businesses will surcharge on the payment total when a credit card is used. By entering a %, the fee will be calculated, and added to the balance due for payment. Please be sure to check your state regulations before using this feature.

We DO NOT recommend that you use the Discount function. This capability may seem like a nice addition to your invoice, but in fact, it does have an adverse affect. We have provided five levels of pricing to truly reflect the cost and charge of services. All items are tracked individually, and reports are prepared from this data. Using the discount feature, although the totals are maintained correctly in the General Ledger, it is impossible to know exactly how the discount is applied to parts and/or labor. Consequently, the system reports will not reflect on the true profitability of all parts and labor, but merely the profit "before discounts". This data could significantly mislead you when understanding the overall yield from parts and labor on individual jobs, and the business as a whole.

The Controls

Re-sum



This button will re-sum the workorder to be sure the displayed totals are accurate.. The system will check all valid records for this workorder and reset the totals if needed. All information is saved automatically

A/R



You can check this accounts status in Accounts Receivable by pressing the A/R button. The system will display if there is not an account, or show the amount of available credit if one does

exist. You can check the credit status of a client immediately with the A/R button on the Totals screen menu. The system will immediately calculate the total charges currently assessed against the client, and deduct the amount from the offered credit. The balance available will be displayed. If the client has not been granted credit, that information will be displayed. **It is important that the available credit always be checked before work has begun.**

Payments



Use this button to post a payment to the account, mark it for closing, and send any balance to receiveables.

Graph



MasterLink Shop Writer will display a graph for the workorder which provides a visual analysis of income versus cost for the workorder.

4.7.3.13 Payment Posting

Category	Sub-category	Amount
Invoice due:		\$ 1530.00
Cash Payment:	Received	\$ 0.00
	Applied	\$ 0.00
	Change	\$ 0.00
Check:		\$ 0.00
Credit Card:		\$ 1,530.00
Balance:		\$ 0.00
Posting Note:		
Posting Date:	07/07/22	...

Check if you wish to close this workorder today

Payments are received by cash, check, or credit card. For your daily records, it is best to post the correct amount for each method of payment. If the total payment is different than the actual billed amount, The MasterLink Shop Writer will give you a warning message. If you made an error, simply re-post the payments. The last values posted will be retained.



MasterLink Shop Writer works with 3rd party Merchant Services companies to directly process credit card payments and apply them to the workorders. MLS will accept up to 4 credit cards for charging on each workorder in case your client must spread out the total. Selecting this button will prompt a question or two, and then bring up the interface for processing the credit, or debit, card. When complete, the total will be saved within the workorder, and the receipt will be printed on the client's invoice along with their signature if a pad is supplied.



Use the Save button to remember the transaction before returning to the Totals screen.

- **Balance due:** This is the total of the invoice as previously calculated, and is the amount for which payment must be made.

- **Cash Payment:** Enter the amounts for Received (cash handed to you) and Applied (the amount to be applied to this workorder). The computer will automatically calculate the Change to be given to the client.
- **Check Payment:** If the payment is by check, enter the amount here
- **Credit Card:** If a credit card is used, enter the amount here. If you use the Credit button, the system will automatically return the proper amount in this field.
- **Post To A/R:** The balance still due will be shown here and should be posted to an A/R account for this client. If no account has yet been established, be sure to do so before closing the workorder.
- **Posting Note:** Use this space to note a drivers license #, authorization number, or other appropriate note about this customer's identification.
- **Posting Date:** The system should automatically put the current date, but you can change it if you wish to have the income applied to a different date.
- **Close Today:** Check this box if you want the workorder included in today's daily closing. The workorder will not be closed until this box is checked.

Be sure to select the OK button to save your payment information.

Payment Date

The payment date may differ from the service date. The system will display the current date, but you may change it to reflect when the bill was actually paid. If you enter a date that is different than today's, the system will verify that it is correct by asking you. Do not be concerned - just be sure you did not put it in an incorrect entry. The system will accept your modified date. You may use a date different than the current day. However, such an action will affect the daily totals reports, a fact which must be understood when comparing daily totals reports to the Daily Journal summaries.

Posting To Accounts Receivable

If a balance exists, it will be flagged by the computer, and you will be notified on the prompt (bottom) line. The system will beep, and present a warning message in red. If you have the Accounts Receivable system, the The MasterLink Shop Writer will process this balance to the account established for your client. This will not work, however, if the client does not have account privileges. Rather than lose the data, the transaction will be posted to a Receivables Transaction File, and will be recoverable once the account is set up in the Receipts program (see The Accountant).

Payment Posting To Multiple Workorders

When in the main Workorder browse list, you will notice a "Payments" button. You can highlight any workorder on the list, and press that key, to be in the payment posting screen without having to first bring up the workorder development window. The same information listed above should be applied when posting from this option.

4.7.4 Job Costing Analysis

The **MasterLink Shop Writer** enables the user to be sure there is good profitability for each workorder. By selecting the Job Costing button on a workorder's development screen, the user can see the total charge, cost, dollar margin, and percentage of profit on that ticket. If the profitability is not sufficient, adjustments can be made to the charges assessed for various items on the invoice.

It should be a common practice to evaluate the job costing summary before a workorder is closed, and the customer pays the bill. By doing so, effective shop managers can be sure that each job has sufficient profit to ensure the viability of the company. The job costing totals are summarized on the

following screen, and are updated whenever values are added, or modified, in parts and labor. These figures can be very helpful in identifying losses before providing the final invoice the client. The **View Graph** option will let you see a visual picture of your profits.


COSTING:	Taxable	Non-taxable	Cost	\$ Margin	Margin %
Parts	\$ 10.07	\$ 8.25	\$ 8.25	\$ 10.07	54.97%
Labor	\$ 0.00	\$ 64.95	\$ 0.00	\$ 64.95	100.00%
Sublet	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	0.00%
Special	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	0.00%
Total	\$ 10.07	\$ 73.20	\$ 8.25	\$ 75.02	90.09%
Misc. Supplies		\$ 0.00			
Hazardous		\$ 0.00			
Tax		\$ 0.81			

4.7.5 Deposits on the total




Whenever a deposit is made on a workorder, it should be logged into the system for proper tracking. The Deposits option of the Workorder Development menu provides for this task.



Most states have laws about accepting deposits. Generally, they are refundable, and are only earned when the total job is complete. For this reason, they are generally entered into the General Ledger (if used) in holding accounts under Assets and Liabilities, and applied as cash payments when the full workorder is closed. Because of this, once a day is closed, deposit entries cannot be edited like other entries.

Posting a Deposit

Select the  button to post a new deposit that has been received. Be sure to select the Save button to save the data you enter. The system will need the following information to properly track deposits:

Workorder Deposits


Cash: \$ 25.00 Date: 08/26/22
 Check: \$ 0.00 Reference: _____
 Credit Card: \$ 0.00 This item has been posted to accounting

Date	Cash	Check	Credit	Reference
08/26/22	25.00	0.00	0.00	

- **DATE** - The system will provide the current date. If this is correct, move to the next field. If not correct, enter the right date, and then move on.
- **CASH** - If part of the payment is received in cash, enter the amount in this field.
- **CHECK** - If part of the payment is received by check, enter the amount in this field.
- **CREDIT CARD** - If part of the payment is received by credit card, enter the amount in this field.

- **REFERENCE** - Enter the check, or credit card, information to identify this transaction. The reference information should be sufficient to readily identify the check, or card, at a later time, ie. VISA 058898082989, or CK 7104 ACCT: 51105 B of A.
- **POSTED** - If the item has been posted to accounting, through daily closing, the system will display a posting flag in this place.

Correcting a Deposit

If an error is made, a deposit record may be corrected prior to running a daily closing. To do this, highlight the desired entry, and make the appropriate changes in the data field. Press the  button to save your changes.

If a daily closing has been performed, then prior entries cannot be edited. In such a case it would be necessary to post a counter manding entry. This is accomplished by entering the amount of the change as a negative number in the proper payment field.

For example, Mr. Lincoln's check for \$50 bounced. Make a new entry, with a -50.00 in the Check field. Write Bad Check in the reference field. When processed, this will provide the correct totals on the account.


4.7.6 Printing the invoice

Basic Procedures

Once you have calculated the totals, received the payment, and posted it to the computer, you are ready to print the final invoice. This is accomplished by using the Print button on the Workorder Development menu. Be sure your printer is on line, and the paper is ready. The MasterLink Shop Writer will check the printer, and if it is not found, will give you an error message. While we don't expect it to be on a coffee break, or out shopping, printers occasionally become disconnected or someone presses the "online" switch, turning it off. You will be able to correct the error condition before printing.

Invoices may take multiple pages. The MasterLink Shop Writer is set to handle such an occurrence, and will continue printing the information appropriately. The MasterLink Shop Writer can use preprinted forms which enhance the appearance of the final document. Formats are readily available by calling MasterLink Software for further information. Be sure you have performed the [invoice print setup](#).

Printout Options Window

When you select the  Print button, the computer will first ask you to select the type of printout you wish. You may select from one of the following options:

- **Estimate** - This is a customer's copy of the estimated cost of the services you intend to provide.
- **Worksheet** - This is for a technician to see the work to be performed, the parts to be used, and other appropriate notes.
- **Counter Sale** - This is to be used for over the counter sale of parts only.

- **Invoice** - This is the client's final bill for a complete service.

Printer Selection Options Window

You have numerous options when selecting the type of printout, and how it is to be processed. They are displayed in a popup window, and should be handled as follows:

- **Default / Alternate Printer** - The Default printer radio button is highlighted, and if you leave that option, your output will go to the printer which has been set up in windows as the default for your machine. If you wish to send a fax, direct the output to a different printer, or change the number of copies, select the Alternate Printer option.
- **View** - Select this button if you wish to preview the printout on screen first, or to send an email. You can print from the preview display.
- **Print** - Select this button to immediately send the information to the printer
- **Cancel** - Select this button to abort the printout process immediately.

Emailing a Printout

Select the **View** option, and then the @ icon on the preview screen. You will then fill in the subject line and text of the message to which the printout will be attached. The email will include all pages in the preview selection, not just the one shown on the screen. For this to work correctly, you must first [setup the email system](#).

Faxing a Printout

You may send any printout to a FAX rather than a printer. First, you must have FAX software installed in your computer. When given the Printer Selection Options window, select the Alternate Printer option. Then you will be shown the print setup window. You can select the FAX device from the list of installed printers. Your computer will then activate the FAX software and ask for the number, and any other information you wish to provide. Windows will then take over sending the data to the FAX modem rather than the printer.

If your FAX does not go through, it will be saved in the FAX software and can be resent through that program's control panel.

Printing Multiple Copies

You can print multiple copies of any document by selecting the Alternate Printer option. Windows will then provide the Printer selection window. Select the total number of copies you wish to print and the system will handle your task.

Special Graphics

Check out how you can enhance the appearance of your printouts by reading "[Special Invoice Graphics](#)"

4.7.7 Writing Estimates

The Estimate should be a descriptive statement of the service to be performed. This can be accomplished in one of two manners.

1. Some shops prefer to write a summary of the problem, as a diagnostic statement, and provide a general price which includes parts and labor charges.
2. Other shops like to write estimates that detail the exact parts and labor totals.

Either method is supported with The MasterLink Shop Writer. Once the workorder number is assigned, if you wish to write an estimate, select that option from the prompt (when first creating the workorder), or from the Status option if another selection was made previously. The system will then be in Estimate mode. This means that parts and labor are referenced, but not officially on the workorder, until they are transferred.

Writing Estimate Content

The Estimate as a Communications Device

The Estimate is your contract with a client. It communicates to the client exactly what work will be accomplished and the terms for that service. It is very important to use understandable terms, and to avoid abbreviations. What is stated in the estimate is the full understanding the client obtains about your obligations, and their financial commitment. It should be complete and accurate.

Diagnostic Statements


Diagnostic statements should be fairly standard, and may be pre-written, and saved, in the Glossary program. They are added using the labor (text) functions described below. It is assumed that the diagnostic statement will be unique to the estimate, and would not be transferred to the workorder. Consequently, once the status is changed, no parts or labor would be converted. (See subsequent discussion on Converting Estimates to Invoices). Diagnostic statements are best if they describe the type of problem encountered by the client. When the customer takes the estimate home, there has been clear communication about the type of problems that need to be resolved. Although the problem is specific to the one client, the types of problems that will arise are usually similar in nature, and have the same root causes. Consequently, saved glossaries will be appropriate because they refer to repetitive incidents.

Including Parts and Labor

If you wish to have parts and labor detailed on an estimate, add them in the manner described below. Specifying parts, and labor, on an estimate provides the most accurate manner for evaluating the probable cost of a service. The emphasis here is the same as before - clear, concise, communication improves customer relations and leads to a continuing business relationship. When parts are placed on an estimate, the detail information is included, but the items are not removed from inventory until the estimate is converted to an invoice (see Conversion discussion).

4.7.8 Converting Estimates to Invoices

Once an Estimate has been accepted, it can be converted to an Invoice. This process should be done prior to working on the service unit, because it enables the operator to print a detailed Technician's Worksheet.

 The Convert option, on the **General** tab on the Workorder Development screen, will process an Estimate into an Invoice. The system will first display any parts listed on the workorder. To transfer parts, highlight the desired item, and press the Enter key, or double click the left mouse button. The status, which is displayed on the left column of the list, will change from **E** to **I**. All items marked **I** will be added to the invoice. When all parts have been marked, select the Process button, and the work will be performed. At this time, all parts will be physically removed from inventory stock, and the totals adjusted.

The system will then display labor. Using the same highlight plus Enter / Double Click process, marking each labor description to be converted. Selecting the Process button key will begin the conversion of labor items.

When parts and labor are specified on the estimate, they would normally be converted. In some cases, an exact labor description will be put on the workorder, with an Estimate price that includes parts, although they were not specified. When the conversion takes place, however, the system will use the actual labor only price that was saved when the entry was placed on the workorder originally.

When diagnostic statements are used on an estimate, they should probably not be converted.

So you forgot to convert some items !

If you go through the process of conversion and skip some items, or accidentally press the Process button before marking the items to be transferred, you can still move the other entries. Simply return to the Header screen, and select the Convert button again. Only those items not already transferred will be displayed. Process them just like you did the items on the first round. You can do this routine repeatedly if you are moving items from Estimate to Invoice status in stages (ie. a restoration project).


In some cases, a client will decline work, but then later will call and ask to have it performed. If you left the pertinent items in Estimate status, they can then be easily added to the Invoice.

Do not simply change the Type radio button on the General tab screen. If you do this, then all items in parts and labor will continue to be flagged as E type, and will not be processed properly. Use the Convert utility to handle this data correctly.

4.7.9 Searching Workorders

When selecting the Workorder option from the menu, the system first displays all pending (open) workorders. Scrolling this list will display all workorders that are in progress, listed in workorder number order.

Done	Paid	Type	W/O #	Company	License	Vehicle	Due Date	Time	Started	Paid	Status
		I	105537	Stone Tim	TIMAHMS	TIMAHMS	07/05/22	17:00	07/05/22	07/07/22	
		E	105536	Stone Tim	RGINGI	RGINGI 2011 TOYOTA SIENNA XLE/LIMIT	07/05/22	17:00	07/05/22	/ /	

Once a workorder is complete, and the closing routine is performed, then the invoice is marked as a History item. The  button, on the main workorder screen, will allow an operator the opportunity to then find specific workorders, placed in an order selected by the user. When the search screen displays, the operator selects how the completed workorders should be arranged, based on the following options:

- **Active work only** - This is the default condition when the workorder menu option is first selected.

- **Completed work only in invoice number order** - This is a listing of only those workorders that have been Finished.
- **All workorders by client** - This option will place all open, and closed, workorders in order by the client name
- **All workorders by service unit** - This places all workorders, open and closed, in order by the service unit identification code
- **All workorders by payment date** - This would place all workorders, which have been Finished, in order by the date of payment.

Once the sort order is selected, the field provided is used to set the order of the desired information being sought. Begin typing the data (workorder number, license, client company name) and the display will move to the first record that matches, or falls immediately after, the data that is entered. The operator can then scroll the list to find the exact record desired.

4.7.10 Deleting Workorders

Workorders should never be deleted.

To do so breaks the continuity of the numbering system, and also is a "red flag" in an audit. It signals "missing workorders" and "hidden income."

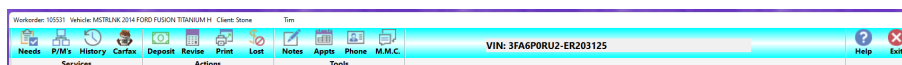
When work is declined

Not every estimate will be accepted by a client. When this occurs, write the word "Declined" on the estimate and ask the client to sign it. If you are audited later, you have clear coverage that the work was never performed.

When an order is started accidentally.

Sometimes an order is started, and you don't even get to the point of adding estimate items. Perhaps you did assign a vehicle, or client. Maybe it just started as a cash sale and you didn't mean to create a new order. When this occurs, simply reassign the workorder to a new, correct, vehicle and add the detail. You do this by going into the Vehicle Add/Edit mode, finding the right vehicle, and then exiting, saying Yes when asked if you want to use that vehicle on this workorder.

4.7.11 Review Needs / PMs / History



MasterLink Shop Writer tracks the service history, PM schedules, and recommendations. The buttons on the Workorder development screen give you immediate reference access to needed services and the history of repair. Those buttons are detailed below.

P/M's (Preventative Maintenance)

If you track PMs, then you know due dates and mileages are calculated by the system based on when the vehicle last received the specified services. If you use the PM system, be sure to check it to see if any services are due, or nearing their expected date/mileage.

(Service) History

You will often want to check the service history to see what work has been performed in the past. This is especially useful when you are working on a car, encounter a problem, and wonder if it was ever addressed in the past. When looking at a history, you can double click on any part or labor item for a popup with the complete detail.

When looking at the Service History, be sure to scroll down the display and see entries made on checklists during previous services.

Carfax

The Carfax button gives you a quick display, from the Carfax online database, of the services that have been performed on this vehicle regardless of where the work was done. Of course, it is only as complete as the reporting by the various repair facilities.

Needs

Needs are those services you have recommended in the past. You will want to review these with your client while creating the original estimate. When you press the Needs button, you will be asked if you only want pending recommendations (not yet completed). Normally this will be your choice. Then a screen pops up that displays all pending recommendation. You can process the items quickly using the two listed buttons.

Add

Pressing the Add button will post the recommended item immediately to Labor on this workorder. Use this when discussing the needs with your client and they say, in effect "Go ahead and do it."

Delete

With an item highlighted, click on this button to mark a pending item as completed. When you interact with your client, and share the list of pending items, they may say "I had that handled over at XYZ Company. Press the Delete button and it will no longer be pending, although it will still remain in your recommended list.

The Analysis button on the General Bar will show you all of this information on one screen which can remain open, and moved out of the way, as you create the original workorder. Use this when talking with your clients.

4.7.12 The Inspection Checklist

Pass	Next	Fail	N/A	Code	Category	Item	Value	Item	Value	Detail
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	01BRT	0100T	.	.	.	.	BRAKES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BRPWF	0101A	Left.p.ds	.	Right.ad	.	Front.rs
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BRRTF	0101B	.	.	.	.	The frnt
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BRPWR	0102A	Left.p.d	.	Right.ad	.	Rear.b.ak
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BRRTR	0102B	.	.	.	.	The re.r
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BRMCS	0103A	.	.	.	.	Master.cy

The Checklist displays as a tab on a Workorder. It is easy to apply and use with the following controls:

Basic Controls

Add



When you first click on the tab, there is no checklist available. This is because not every workorder will need one. If you want an inspection checklist for the workorder you have open, click once on the Add button. It may take a few seconds to create the new list. Once you have added it, you will see the list anytime you click on the Inspection tab.

Delete



The Delete button is for individual line items. To remove an item from the checklist, highlight it and click on the Delete button.

Save



Once you have checked off items, and added values, but before switching to another tab, click the Save button. You can work through the entire list if you want, and only click the Save once when you have gone through all items.

Check Lists

To obtain a check mark in a given box, double click your left mouse button while pointing at the desired box.

Pass

Click on the Pass box if the item is currently testing OK.

Next

Click here if the item is within normal limits now, but you believe it may need service at, or before, the next regularly scheduled visit

Fail

Click this box if the item does not meet the manufacturer's specifications and should be serviced immediately.

N/A

Click this box if you do not want the item to appear on the report. Clicking on this box will skip the entry during the printing process.

Values

You can enter values in their respective fields. If the items are setup correctly, the labels will appear next to them. You should also indicate the type of measurement, ie. 45%, 32 mm, 3 qts. Although you could enter data into any values field, it makes more sense to do it when there are labels present.

Printing

When you select the Workorder Print option, you will be asked if you wish to include an inspection checklist. If you say yes, the Checklist will be printed following the other Invoice information. The checklist will be saved in the system and can be reviewed by calling up the workorder from history and viewing / printing it.

Viewing

You will see the inspection checklist on workorder printouts. You will also see it after the Recommendations when browsing service histories. Simply highlight the workorder on the top section of the History display, then scroll down the lower window to see all the entries you made to the checklist during that service.

[Creating a Checklist](#)

4.7.13 Services

This tab will display the buttons for Workorder services provided by 3rd party vendors. If you do not have the service, you will not see a button displayed.

For complete details on what is offered, and how to use them, review the manual section on Interface Products.

In general, if you are using a Customer Follow Up system, and see a button, it will usually be to run a report, or to add data for transmission to your service provider.

If you click on a Parts Catalog button, you will find it activates the vendor's software and you can place an order for parts you need for that invoice. When you exit that program, returning to MLS, any parts ordered will automatically be applied to the workorder.

If you are using a Labor Guide, the same principle applies. You can look up the labor description, and it will be brought back into MLS. You will have an option to import a new labor record with the 3rd party description, or just apply the labor rate to a specific task.

4.7.14 Attachments

Often there are documents (other than photos) that you wish to attach to a specific workorder. You can do it with this utility.

First, save the document on your computer. You may wish to create a folder for all business related documents, and save them there. MLS 12 has an "**Attach**" folder in the MLS12s main folder. We would suggest putting the files in there for convenience.

Now select the Add button to pop up the windows browser, and you can find the document and highlight it. When this is done, click the OK button.

The View button will allow you to look at any type of document in its native format. This might be a spreadsheet, Word document, PDF, or some other type.

The attached documents will remain in their original location on your drive, but be referenced from within the workorder.

Contracts are especially important to attach, and any correspondence related to the work performed.

4.7.15 Finish Workorders

Once a workorder has been completed, it must be closed so that the data can be sent to the appropriate accounting and history data files. Although this task is only a "keystroke" away, it is important that you perform the following tasks prior to closing the workorder.

- Review the printed workorder to be sure all parts and labor items are included.
- Be sure that any special notes and recommendations have been added to the proper entry screens.
- Double check the totals, and the payment posting to be sure it is correct

When these tasks are completed, then on the Workorder Browse listing, highlight the workorder, and select the **Close WO** button. At this point, the computer will then total all of the information and process it to the appropriate files. The workorder is now CLOSED and can be viewed, but not edited.

There is no time requirement for closing workorders, although it makes sense to perform this task immediately after the work is completed. On network installations, the closing of a workorder may take place while other users are working in the program. In addition, workorders may be closed individually throughout the day without any problems.

The workorder closing does not include processing of inventory, payroll, or receipt of deposits. These tasks occur at the time the item is entered on the workorder, and is posted to the proper files immediately. This feature permits live updating of all files.

4.7.16 Techniques for workorder format

The following suggestions have been found to be wise business procedures by companies that have implemented them.

Use mixed-case letters in all text

Some business owners place the CAPS LOCK in the ON position on their keyboard, resulting in all text being typed in capitol letters. This is considered "un professional" by most businesses and many clients. It is best to used mixed case (upper and lower case letters) on all workorder entries.

Use the actual partnumber, not an OEM equivalent.

Many states consider it consumer fraud when an aftermarket part is used in a service, but the manufacturer's part number is placed on the workorder. Always use the actual part number provided by the manufacturer of the item placed on the service unit. This eliminates confusion for the consumer, and in case of warranty replacement, plus it enables the business to accurately track the inventory and parts utilized.

Do not abbreviate

Often part names are abbreviated on a workorder. This causes confusion, and makes it more difficult for the client to understand exactly what parts were used. Always use a complete description of a part.

Provide extensive descriptions of services

Often there is a tendency by service personnel to abbreviate the description of the labor performed. For example, R & R Transmission is an abbreviated statement of a very complex process.

Abbreviations lead to confusion on the part of the client about what service was actually provided. If there is any contention after the unit is returned to the owner, a clear statement of the procedures utilized in the service will eliminate confusion.

Many people have found that they can provide very detailed services quickly by using the Glossary Code option. Descriptions are created in the Labor Glossary, and then inserted on the workorder using a simple code.

Make specific recommendations for future services

All final invoices should provide recommendations for future services. These are determined after a careful review of the service unit by the technician(s) who performed the work at this time. Recommendations should note the current status of wearable parts, with a suggested time to recheck their condition. In addition, notes should be made about any damage noted to the service unit, or any conditions which could cause immediate operational problems.

4.7.17 Labor Item Timeclock



The second option on the Clocks menu will accumulate the actual time for a specific labor item on a workorder.

Starting a timer

The technician will click on the clock, and will be asked "**Are you starting the time for a new labor task?**" This means that you intend to start timing the task. Selecting **Yes** will then display a form to be completed.

- Select the technician name in the dropdown box
- Select the workorder from the top display
- Highlight the appropriate labor item on the bottom box
- Select the **Start** button.

Stopping a time

Select the option again and when asked if you are starting a new task, say **No**. Then highlight the appropriate labor item to stop timing and select the **Stop** button.

4.7.18 Downtime Calculator



The third clock option will accumulate a downtime time for a specific labor item on a workorder. Use this to accumulate downtime while waiting for parts, or broken equipment, or even employee fatigue.

Starting a timer

The technician will select on the option, and will be asked "**Are you starting the time for a new labor task?**" This means that you intend to start timing the downtime related to a specific labor task already entered on the workorder. Selecting **Yes** will then display a form to be completed.

- Select the workorder from the top display

- Highlight the appropriate labor item on the bottom box
- Select the **Start** button.

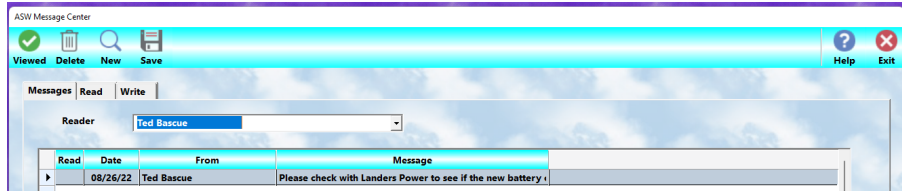
Stopping a timer


Select the option again and when asked if you are starting a new task, say **No**. Then highlight the appropriate labor item to stop timing and select the **Stop** button.

5 Special Utilities & Features

MasterLink Shop Writer has several special features which enhance its productivity and enable the user to gather more information. All of it is described in the following pages of this manual. Please look at them to see if you can benefit from their use in your business.

5.1 MasterLink Message Center



 The **MasterLink Message Center (MMC)** allows a shop to electronically communicate with the users. Each employee should have an individual account. You can add them under **Tools - Lists - Messenger** on the main menu. Employees can quickly press the MMC button on the toolbar to see if there are new messages for them, or to write messages to other employees. This is particularly helpful when a client leaves a phone message or drops by when an individual is off site.

Primary Screen

The initial screen will provide the options, and show a list of available messages. The user will select their name from the reader list, and the messages just for them will be displayed. They can highlight any message and click on the Read tab to see the detail.

The Read Screen

The Read tab will display the message, and the date/time it was written. It will also show who the message is from. When you finish reading it, click the Viewed button. Switch back to the messages tab, and select the Delete button to remove a highlighted message from the list.

The Write Screen

When you select this screen, you will be able to create a message.

- First, be sure you are the "Reader" listed on the Messages tab. That will automatically make you the sender on this message.
- Second, click the New button to create a New message
- Select who you wish to send the message to, and then click on the text box and enter the information you wish to communicate.
- Finally, hit the Save button

This will create a new message in the system.

5.2 The Phone Directory

Name	City,State,Zip	Type 1	Phone 1	Category
A1 Cardone		Business	800-280-8324	Resource
AC Delco District Manager		Business	(714) 473-0259	Resource
AC Delco Free Hotline Assistance	Michigan	Brakes	(888) 701-6109 op	Resource

Your **MasterLink Shop Writer** provides a system wide additional address book for personal and non business information. You will use the phone icon to bring up the address book. The information included here would be in addition to that provided with clients, vendors, and employee databases. You may access this from any workstation running MasterLink Shop Writer.

Name

Enter the name as it will be most easily looked up. For personal numbers, first names might be easy, or the name of a business might be appropriate. However, if you have a lot of

Address 1

Enter the number and street name

Address 2

This line is usually reserved for apartment or suite numbers

City, State, Zip

Enter the city, state, and zip code for this entry

Phone Numbers

You can store up to three numbers for each record.

- **Type:** Use the drop down list to select the type of phone the number reaches
- **Number:** Provide the area code and phone number.

Category

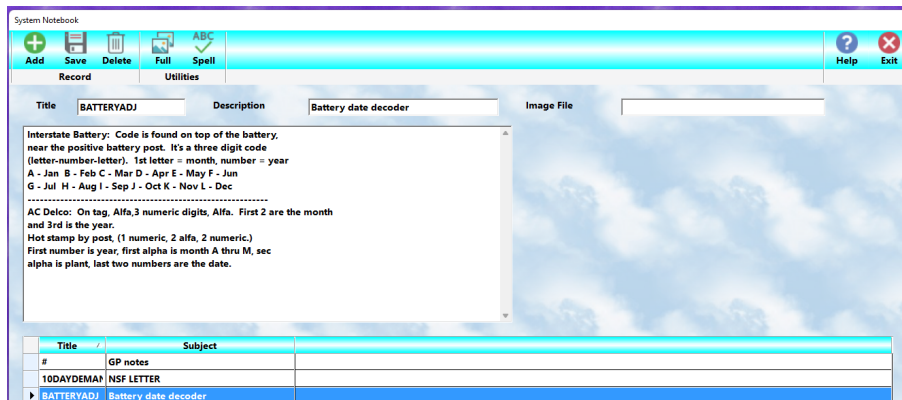
You may classify these phone numbers into categories by selecting the one most appropriate from the drop down list.

Automatic dialing

Due to the wide range of phone systems, and connection issues for line selection when hooking a computer to a phone system found in most businesses, we do not provide an auto dial capability.

5.3 The Notebook




The notebook is effective for saving a great amount of useful information about shop operations, servicing tips, and other topics.



The Notebook screen is divided into three parts. On the lower part of the screen is a browse box showing the topics. The upper left half of the screen displays a field for the topic, and then a text box. As you browse the lower box, the information is displayed in the upper boxes for the highlighted record in the browse.

The upper right section of the screen is used to display a graphic file. If you wish to attach a scanned image, or picture, into your computer, save the file to your \MLS8 directory. Then, simply enter the name of the file, with its extension (ie. sample.jpg) in the box titled "Image File Name".

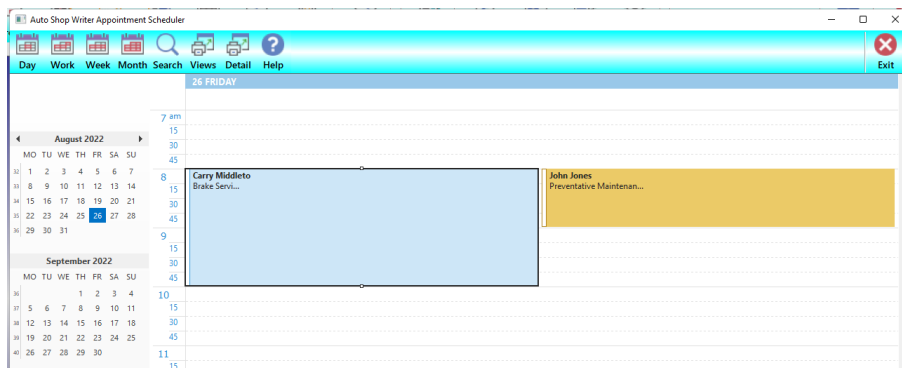
Images are automatically loaded as you browse the list of topics. You can select the View Image button to actually view in full screen mode. The view window has scroll bars to permit browsing of an object that might be too large to fit in the window, ie. a wiring diagram.

You can edit any information by making the changes and selecting the  button. You can start a new topic by selecting the  button, or remove a highlighted topic using the  button.

Your right mouse key provides cut, copy, and paste edit features so you can modify, or move, highlighted text. Use standard windows procedures for highlighting, and moving, text in the main information window.

5.4 Appointment Scheduler

The **Scheduler** permits the maintenance of appointments for the shop as a whole, by technician, or by work area or any combination. The system is very easy to understand, and operate, and the process will help to organize the workday.



About the Scheduler

Most people have Calendar programs on their computers, but they are not "system wide" unless they have invested in full server technology and costly exchange programs. The MasterLink Shop Writer scheduler permits any workstation to view, add, and edit appointments to the master system. You can also attach a client, or a vehicle plus client to the appointment, and you can create a quote which can be added to a workorder automatically.

The scheduler window shows a browse box of appointments for the current date, and edit boxes to enter, or modify, the data. Each of the controls is explained below.

Workorder Interface

When creating a new workorder, you will see an Appointment button. Selecting that will show a list of pending appointments. Selecting one will then instruct the program to create a new workorder (Estimate, Invoice, or Counter Sale as instructed on the top part of the Add Workorder screen), adding the client, vehicle, notes, plus any parts and labor saved to that appointment. **Only select the type of workorder before pressing the appointment button.**

The Scheduler Controls

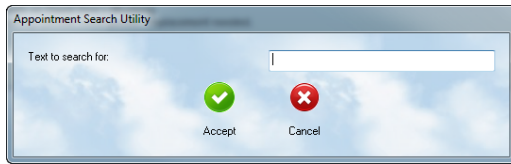


The appointment bar allows you to quickly select various options.

View selection

The first four calendar icons will instantly change the view from the selected Day, to Work week, full Week, or Month. You can also select views by the Day, Week, Month, or Time Line mode buttons. Finally, see the notes on the Date Picker to understand options for custom date ranges.

Search



The search icon is simple, but powerful. When pressed, you will be asked for a search term. You can use a license, name, or any other word that makes sense. The search will look at the summary line, detail notes, vehicle information, and client information, and then display a list of matches. Find the one that best meets your need and double click. The system will jump to, and highlight that appointment.

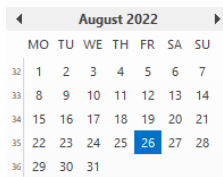


Printing

Views - This option will print the view you have currently selected (day, week, month, selected range). It provides the same information that is shown on the window (summary plus detail, times).

Detail - This option will provide a detailed listing of all appointments for a selected date range. It will include the heading, vehicle and client information, contact number, and detail.

The Date Picker

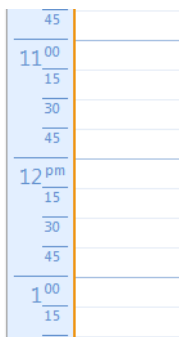


The Date Picker serves many purposes. First, it is a display of dates over a three month range. Any date with an appointment will be shown in bold. Today is highlighted, and the selected date is framed.

To have a new day view, simply click on a date displayed. The system will then display that date.

You may also click on a date, then hold down the left mouse button and drag it down to highlight any range of dates. Your view will automatically change to the highlighted view. If you do this, when you do a Print View, what is highlighted will be printed.

Adding New Appointments



To create a new appointment, move to the date, then click on a time on the timeline display when you want the appointment to start. Then start typing in the information you want in the Summary Description line. When you finish, the appointment will be created at the time you selected. You may then double click on the new entry to enter the full edit mode. If you are creating quick appointments, without details, then you are now finished.

To put in an all day event, click on the bar at above the timeline, and under the date. This solid bar is where you create fixed, or all day, events.

Adjusting Times

Click on an appointment, and it will display a box. The system will default to a 15 minute appointment. Just drag the box in the bottom center down until the appointment fills the desired amount of time. As an alternative, you can adjust the time in the full edit mode, although this method will be faster.

Multiple Days

To stretch an appointment across multiple days, switch the month mode, click on the appointment, and then drag the right side across the days you wish to cover.

The Appointment Editor

To enter the edit mode, double click the left mouse button while pointing to any appointment in any view.

The Appointment Description

Enter a brief statement about the service to be provided. Include the first and last name of the client, and the service, ie. John Hawkins, Tune Up - 67 Mercury. Although some clients may hesitate to provide their first name, it will help you if you should have to do a search later. You may have 100 Mr. Smith's with appointments still in the future. However, the search system will locate Mr. Hiram Smith very quickly.

Phone

When you set an appointment, be sure to ask for "the best contact number". This allows you a quick way to contact the client should there be a need to make a change.

Assign To

You can assign appointments to any person, area, or type you wish. You will create a list in the MLS Tools - Lists - Assign menu option. The options are strictly ones that work best for your business. Some people make appointments by tech, while others do it by service area.

Category

You can assign a color designator to each appointment. You will probably create your own reference for what the colors mean. Sometimes it may be the service type, while others might want to use this to track status of appointments (waiting, AM return, PM return, etc). Be sure to select the color you wish to use.

Reminder

You can turn on the reminder for an appointment by clicking in the box, and then specifying how long (in minutes) before an appointment you wish to have a reminder.

Importance

There are three levels of importance, low, normal, and high. Select the one which best fits this activity.

Busy Status

When looking at the calendar in the various views, the left side of each appointment reflects the busy status. Make your selection from the drop down list, and when exiting the Appointment Details dialog, you will see the display that corresponds to that option.

Start / End Date(s) and Time(s)

It is easiest to adjust the dates and times using Drag and Drop on the calendar control. However, any changes made to the dates and times in the edit dialog will automatically reflect on the views when you exit the edit screen.

All Day

Selecting this will remove the time fields, and place the appointment at the top of the calendar view.

Meeting

If you select this option, the calendar event will display a small person icon

Private

If you select this option, the calendar will show a small lock icon on the appointment

Recurring

You can create repeating appointments with this button. It will only work once on a scheduled appointment, and then tell you it has already performed this operation once (to eliminate unwanted duplicate entries). When you press the button, you will see:

You need to include two steps. First is the Repeat Pattern. If you want to create an appointment every Monday at 8:00 am (ie. a staff meeting), go to the date of the first occurrence, and create the appointment, making the first entry. Then Press the recurrence button. When this screen comes up, you would select weekly, and it will automatically create an appointment every Monday until you come to the specified end. If you wanted to schedule an appointment for multiple days, used the "Every xxx weeks" option and click the days.

The second section asks for Range of Repeats. You can either have the system create a set number of duplicate appointments, or you can have it run to a specific date.

Once you are sure of your criterion, press the Save button. You will return to the Detail screen for the initial appointment. You can click Save, then Exit and you are finished.

Be sure to make all of your entries correctly in the initial appointment. If you forget to enter some data, you will have to add it manually after you select the Recurrence button. It will duplicate all of the data you entered, but not allow you to redo the work later.

Vehicle and Client

Assigning vehicles to appointments enables the ability to use the scheduler to quickly add new workorders when the client arrives, complete with all of the info necessary to start work. If you lookup a vehicle first, it will automatically assign the client associated with that account. If you don't have the vehicle information on file, you you have the client, select them. If neither is known when making the appointment, leave the field blank.

When you select the lookup icon for Vehicle, you will see a browse window. Initially it will be in License order. Simply start typing the license and you will be positioned to find the correct vehicle. Double click on the record you want to use.

If you wish to look up the vehicle by client name, or by Make/Model, click on the title at the top of the browse window (ie. Customer) and the database will be placed in alphabetical order that way. Then simply start typing the last name of the client until you find their vehicle(s), then double click on the one you will be servicing.



Quotes

You can add a quote to an appointment. They are created from the quote system which is called with this button, or from the main MLS toolbar. When a quote is added to an appointment, and you select the appointment when creating a new workorder, all of the parts and labor will be automatically added to the workorder itself. You can create a specific quote for an appointment, or you can re-use quotes in the system. [Click here to see how to write quotes.](#)

Detail Notes

Often there are special considerations for a service to be performed. Use the Notes option, after the appointment has been added to the list, to write down any information provided by the client. It is very reinforcing to them that you took the time to note their concerns before they arrived. In fact, you may have sufficient notes to pre-write the estimate before they arrive. When the client brings in the vehicle, the operator can go to the computer, bring up the estimate, and ask if anything else is of concern. This will clearly impress the client, because the documentation is ready to print with a keystroke, and they can be on their way quickly. The Notes have full word processing ability. Review the section on Text Editing for more information. If an appointment has notes, a check mark is displayed to the right of the appointment listing.

Moving Appointments

To move an appointment, first switch to the Month view. Then click on the appointment and drag it to the new date. You could then switch to the day view and move it to the correct time (if different from the original). Alternatively, you can Edit the appointment and change the date and time values to the ones you desire.

Deleting Appointments

It is not necessary to remove older appointments, but if you do wish to delete one, simply click on it (so it is highlighted) and then press the Delete key on your keyboard.

IMPORTANT OPERATING NOTE

The MLS appointment scheduler is multi-user, and it can be accessed at any time from any computer. However, at the present time, the system does not auto-refresh the appointments on all computers automatically. We suggest the following procedure. First, like other areas of the program, enter the appointment scheduler, do your work, then exit. When you go back in you will see all new entries added by other users. If only one person uses the scheduler, then it could run open all day. In fact, it is possible to pull the scheduler window to a separate monitor, or have it running in the background, and perform other work at the same time. Of course, any changes you make on your computer will display instantly on your monitor, and when others start the scheduler, they will be reflected on theirs.

5.5 Picture Library

You now have the opportunity to save pictures in **MasterLink Shop Writer**, and to directly reference them throughout the program. Once saved, the photos can be pointed to one or more records, and each record can have one or more photos. This option is setup using the Photo Manager found with **Tools - Pictures** found on the main toolbar of MasterLink Shop Writer.

The Photo Icon



Pictures are accessed in the program using the camera icon. On the main button bar (Primary screen), it will bring up the picture assignment dialog. The button on dialogs will bring up the picture viewer associated with the record on which the button is placed. A click of the button will automatically activate the proper actions.

Taking Pictures

When the photo dialog is open, the Picture button will appear. If you are running MLS on a tablet, you can simply point the device's camera at the object and shoot the photo. Also, you can use a USB camera to point and shoot at an object. This is especially useful when using a desktop computer.

Saving Pictures

You will need a sub-directory (folder) in your MLS8s folder (on the server) titled **Images**. You will place all of your digital photos / images, stored as type .jpg, in that folder. You may wish to provide names that have meaning to you, and for the purpose. For example, client images might be named with a C (for client) plus the last name and first name, and then a number if you have multiples. So, the third photo for James Smith might be C_Smith_James_3.jpg

There is no limit to the number of photos you can place in this folder, but do remember that size, and disk capacity, must be balanced. This means that you will want to often use low resolution photos, and make sure you have a high capacity disk drive.

Assigning Pictures

The Picture page allows you to assign your digital files to clients, vehicles, workorders, parts, vendors, or employees. When a photo file is saved in the image folder, you can then call up the System Pictures dialog. First give the page a title and very brief description. Then use the lookup

icon to browse the image folder and select the actual file. Next, you can assign a client number, vehicle license, workorder number, part number, vendor account number or employee code. In fact, as shown in the sample screen, you can assign the picture to multiple records. Finally, add a larger description (if desired) in the center white box.

The dialog shows a reduced size copy of the picture, but you can also press the View Image button to see it in full screen.

You can also assign multiple pictures to a single record. This will be particularly useful with vehicles, parts, and workorder specific shots.

Viewing Pictures

By pressing the camera button on the various dialog screens, a viewer will pop up. Only pictures that are specific to the item you are highlighting will be made available. Thus, if you have 6 pictures of a specific part, and in the workorder parts screen you press the camera button, the viewer will show you a list of the six pictures for the highlighted part. If there are no pictures, it will alert you and not show the viewer. You can also highlight an image in the list and press the View Image button on the viewer to see the full size picture.

5.6 Process Logs

MasterLink Shop Writer uses an automatic update system mounted on your server. It runs all of the time. It also handles the transmission of data to 3rd party vendors with whom you elect to do business.

For each activity, the system creates a record with the result of the event. The auto updater cycles every 3 hours, and each time there may be 4 to 10 entries for activities, including backups.

You can view the log from any workstation, using Tools - Process Log button and menu option. The most recent activity will be at the bottom so simply drag the slider down to view it.

You especially want to see if there are gaps in processing. If you receive an alert message, you will be able to see when the last successful processing took place.

The MLS autoupdater runs as a Windows Service on your data server. If it has stopped running, it is because some other Windows process, or issue, has caused it to do so. The easiest way is to get everyone out of the Shop Writer on their workstations, and then reboot the server. It should start running once the computer is active.

You can also start it manually. Follow these steps:

- On the main Windows bottom task bar look for the Magnifying glass (Search). Click on that.
- Enter Services. When it is displayed, click on it to open it.
- Scroll down to MLS 12 updater on the list.
- Click on it once
- In the upper left side of the displayed box, you will see the option to **Start**
- Click on it
- Look at the MLS 12 updater line. It should now say "Running"
- You can exit and return to work.

5.7 Quotes

The Quote system provides an opportunity to give a quick estimate for parts and labor costs. This is particularly useful when someone walks in the door and wants a "rough idea" to do a job, or a person calls for the information.

Quotes are saved in the files, and may be used repeatedly. Most commonly, Quotes are attached to appointments. Then, when creating a new workorder, an appointment is selected, in addition to the client and vehicle info, and any notes, any parts and labor from an attached quote will also be added automatically to the ticket.



Use this Quote button to start the process. Creating a quote can be called from within an

appointment editor, or from the main tool bar in MLS. Here are the steps that follow selecting the Quote icon.

Create New or Lookup Existing Quote

First you will be asked if you wish to create a new quote. If you say No, then the existing quote list will be displayed. You can use this method to also view the list when wanting to eliminate old quotes or update some you will continue to use.

When creating a new quote, be sure to give it a name that will be significant when you look it up again. The system will automatically assign each quote a unique ID number.

If you wish to delete quotes, just highlight the one you no longer wish to retain and select the Delete icon.

To use a quote you have found, select the Accept button.

You can write generic quotes, or you can create one for a specific client's work. Quotes are often created when a client calls the shop to get a verbal estimate, and if they then decide to schedule an appointment, it is saved on the appointment record itself. Then, to start an Estimate (Invoice) when the client arrives, one only has to select the appointment from the list displayed (under the Add button for starting a new Workorder), and all of the information will automatically be added to that ticket.

Quote Details

Each Quote has three information sections that can be included: Parts, Labor, and Notes. A quote is simply a reference to these items, and does not include the full detail in its saved data. However, when applying the quoted items to a workorder, the source data is looked up and the full description, costs, and pricing are used.

To add notes, simply click in that section of the main Quote screen, and type what you wish to have retained.

You can click on the icons to add parts and labor (as described below). Once you have made additions, be sure to press the Save button to retain the information. The exit button returns you to the program that called the Quote system.

Adding Parts

Adding parts is quite simple. You can type in a part number, and description manually. You can also click on the lookup icon in the "code" field and lookup the part in your current inventory listing (which usually includes non-stocking parts also). You will need to specify the quantity, and perhaps the charge if the lookup doesn't provide it. Click Accept when you have selected the part and it will be added to the list.

Adding Labor

Adding labor is similar to parts. You can enter a glossary code directly, or you can use the lookup to find the correct labor description. The quote system does not do "blank lines". It requires entries to be in the glossary system. In the quote it only retains the short description. The full description is found in the full glossary entry and will be applied when it is used on a workorder.

The quotation system was a heavily requested feature and can save you time. It will also impress your clients that you can provide a fast, efficient, estimate for their inquiry. The time you spend with this tool is eliminated when you write a workorder, which can be a very powerful savings.

5.8 Special Invoice Graphics

You can enhance your invoice printout in several ways.

Setup - Invoice

In this setup box, you can do the following:

Print Company Data

If you check it, the system will print the data automatically. If you are using pre-printed forms with this data already included, uncheck the box.

Print box/frame line

Check this to have boxes printed around the header and a frame around the workorder

Print grey background

Check this to have the grey shading on the background of selected framed boxes. It provides a more professional appearance.

Adding a Watermark

Perhaps you would like a graphical image printed on each page of the invoices and estimates. You can do this by adding a file to the MLS12s folder on the server named [wtrmk.bmp](#) . This file contains the graphic you want to use which is usually a shop logo. It is important to make sure it is

a subdued image. It should be light enough so the printing will stand out against it. Watermarks are usually printed as grey and have perhaps 20% intensity, or 80% transparency. A graphics specialist can provide you with the proper file.

Creating A Graphic Heading

You can use a bitmap graphic heading for your company. To do this, you will create bitmap files and place them in the MLS9s folder on the server. Please use the following information. You may wish to have a graphic artist provide the files:

Page Banner

Usually the page banner contains a logo, and the company name. If you place the file with a banner into the MLS12s folder, then it will automatically print the graphic IF you uncheck the Company box in the Invoice setup screen. To add the banner, do the following:

- Name the file **mlbanner.bmp**
- The graphic must be 576 x 72 pixels
- Place the file in the MLS12s folder
- Uncheck the Print the Company data box in the Invoice Setup screen

Address Box

You can put the whole graphic into the address box. However, some people would rather just enter the address and phone number(s) there. Create a bitmap that has the information, as you want it displayed.

- Name the file **mlcologo.bmp**
- The graphic must be 774 x 194 pixels
- Place the file in the MLS12s folder on the server.
- Uncheck Print the Company data box in the Invoice Setup screen.

5.9 Tools - Reindex

The Index routine is the same here as in *Datamanger*. [Click here for the full instructions.](#)

Please remember to have everyone out of MasterLink Shop Writer, on every computer, before trying to reindex your files.

5.10 Display Settings

When personal computers first became useful in businesses, the monitors were pretty difficult. They were monochrome, with big dots forming text letters. Later color displays were not much better. With the advent of the Windows Operating System, and the Graphical User Interface, monitors became easier to read as the resolution improved.

For many years, the industry had large desktop displays that used the VGA standard, which had a resolution 1024 x 768. MasterLink Shop Writer for Windows was designed to fit these monitors exactly, and this became our "**Standard**" mode.

In more recent years, with rapidly falling prices, **Widescreen** monitors have become popular on both desktops and notebook computers. Large 24" widescreen displays are available for less than \$150

with bright colors and easy to read displays. The current set of monitors are designed to run 1920 x 1080 pixels resolution.

Tablets are also becoming popular. Some, like the **Microsoft Surface Pro**, also run at the same resolution except on a smaller screen. You cannot run MLS on an iOS or Android device. These are not suited for full productivity applications.

Select the type of display from the **Tools - Setup - Display** setting option. This can be individual to each workstation.

Your Monitor settings

For the display to size correctly, your monitor must be set correctly. If you click the right mouse button on a blank area of the display, and select Screen Resolution, you will see an image like this. If the Resolution is less than 1920 x 1080 as shown here, you will need to click on that box to re-set it. If this setting is NOT available, then you likely have old drivers, or generic drivers, installed for either the monitor or video card. Your hardware specialist can help you obtain the right drivers.

The other issue that will make the screens not display properly is the font size. Below the resolution displayed above will be a link to allow you to change the font size. Make sure you click on that and set it to smaller. That is actually 100% of the actual size established in the software. If you use a larger font, the display will not fit onto the screen properly.

Operation

When using the Wide screen mode, the program fills the entire screen. Many businesses now use dual monitors. MLS would run on one, and other programs would run on the other. Even though you are running MLS across the full screen, the task bar on the bottom still shows you all currently running programs. Open the ones you will use, then simply switch between them by clicking on their task bar icons. It becomes quite easy to run many programs in full screen mode doing this.

6 MLS 12 Fully Integrated Accounting

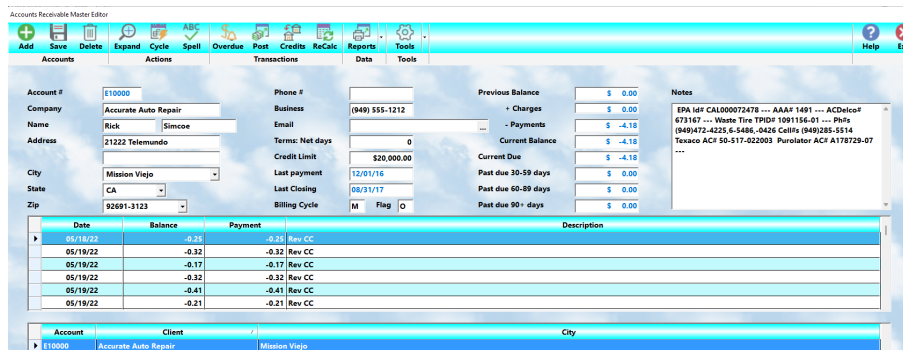
MasterLink Shop Writer provides a fully integrated accounting system. This means you only enter any piece of data once and it is applied everywhere. All aspects of the accounting process are included.

The program also will output workorder and client data to Quickbooks. This is discussed elsewhere in the manual. Other data is not sent to Quickbooks because that program does not support it (ie. inventory control), or it is not practical to interact with the data through the Intuit interface.

The accounting system was developed originally in accordance with standard small business accounting course ware used in community college classes. Over the years, refinements have been made, and additional features added, to focus specifically on the service industry. These modifications were the result of continuous input from shop owners and managers who use the system daily.

Please read the information in the following sections carefully. It will help you use the system to its full capability.

6.1 Accounts Receivable



The Accounts Receivable system will allow you to grant credit to customers, bill them in a timely fashion, track their payments, and always know how much money is owed to your business. Credit should be granted carefully, and in limited amounts. Your business can be destroyed by the over extension of credit to those who see little reason to pay for the services and parts you have rendered on their behalf.

The use of this system is described in the following pages.

6.1.1 Accounts Receivable 101

Welcome to the wonderful world of consumer credit, payment collecting, and posting. This process is known as Accounts Receivable, and enables you to extend credit to your clients, and properly track their debts, and payments. The MasterLink Shop Writer system simplifies this task to the greatest degree possible, and should prevent your shop from incurring bad debts.

Most of your clients probably pay by cash, check, or credit card. These are all really 'cash' payments, because you may convert them to funds in your bank account with a simple deposit. You even receive payment for authorized credit card transactions immediately upon deposit.

When you personally extend credit to your clients, where they promise to pay in a given period of time, the debt is known as a 'receivable.' It is based on the concept that you promise to provide goods and services now for the promise of a payment in the future.

These must be tracked carefully, and billed in a timely manner. If you follow regular, and clear, billing procedures, you will not only have fewer bad debts, but you will enjoy a more positive relationship with your clients. To ensure proper logging of payments, and credits, your receivables should be placed on a ledger.

To easily track the status of each client's debts, the ledgers should be based on individual account listings. This way, it is possible to view the current credit extended, and payments, to know exactly what each customer owes. The charges and payments are also posted to the General Ledger.

When an invoice is charge to an Account Receivable, the amount is listed as an Asset (debit), and balanced as an Income item (credit). Further discussion of these terms is provided in the General Ledger chapter.

When a payment is received, it remains in the Asset section of the ledger, but simply removes the amount from the Accounts Receivable, and adds it to the proper method of payment. With The MasterLink Shop Writer this is usually the 'cash' account, which is then dispersed to one of the bank accounts.

During the month, all of the transactions that take place are logged into the receivables. This includes all charges, and payments.

At the end of the month, it is important to send each client a complete listing of the activity on their account, which is a statement of their status. Although the client has received individual invoices, it is good practice to list a summary of each item on the statement, and then to provide totals.

There are two types of statements. The first is balance forward, which provides a balance total at the beginning of the month, and then itemizes all of the account activity. Once the statement is mailed, the month is closed and a new beginning total is obtained. This is the system used on most 'revolving' charge card systems, ie. personal credit cards, department store credit, and gas cards.

Small businesses are displaying a preference for the other method of accounting, known as open item. Using this method, as an invoice is paid off, it is removed from the statement. This is particularly good when tracking payments. Many companies now like to pay off particular invoices with a specific check, and may hold payment on others for specific reasons.

Accounts Receivables are aged to determine how long credit has been extended to the client for certain invoices. Normally, reporting is provided for 0-29 days, 30-59, 50-89, and 90 plus. The first period is the current due, and usually reflects the amount that is being billed on the statement for the first time.

Amounts in the other categories may be overdue, depending on the terms of the account. There are several terms which are standard for payment. Most of your clients are probably on a Cash On Delivery basis. However, some may have been granted net terms. This means that they owe the net amount within a specified amount of time. Net 10 is quite common for small company billing. Most credit cards are due in net 30 days, after which time interest, and late charges, are accrued (added on).

When accounts exceed the net terms, they become delinquent. At this point, the funds need to be collected. Usually gentle reminders are all that are needed to obtain payment. However, repetitive delays in payment may mean that the client is unable to meet obligations, and perhaps the debt will remain unpaid. It is because of this, that collection procedures may be necessary.

This is a brief summary of Accounts Receivable procedures and terms. Your local bookstore, or library, may have excellent resources that review, and demonstrate, these principles in great depth.

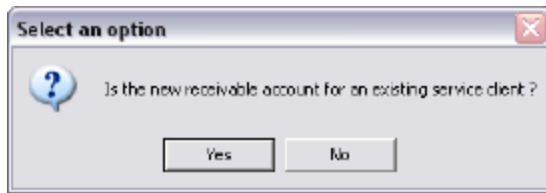
6.1.2 Granting Credit

While not being credit experts, there are some general comments we suggest for extending credit.

- Most people who are 'credit worthy' have an ample supply of credit cards, which they use freely to pay their bills. They have demonstrated their earning potential, and willingness to pay in a timely manner. Extending them personal credit actually restricts your cash flow, and is discouraged.
- It is far easier to pay a few bills, then a lot. Your bill might be the one placed at the bottom of the stack, to be paid 'when we get around to it.'
- In small communities, there are many people who are well known, and keep an 'account' at the local stores. Their word is good enough, and they always settle their account in a prompt manner. If your cash flow needs can handle this, granting an 'account' to such people displays your trust, and a closer personal relationship. It can easily earn loyalty, repeat business, and referrals.
- Obviously, in larger communities, such relationships are rarely formed. Many businesses like to have an account from their service providers. It is a simple manner of bookkeeping. Their businesses run on a cash basis - but its far easier to pay a bill once a month for a number of services rather than write a check every time a service is provided.
- Check the business' payment reputation carefully. Many businesses never pay their bills, but easily afford their luxuries.
- Generally speaking, whenever you can defer credit, it will be to your advantage, except with large service accounts to other businesses that have solid reputations.

6.1.3 Establishing Accounts

When you want to permit clients to pay an invoice at a later date, it is important to track that obligation until it is completed. This is handled through the Receipts (Accounts Receivable) department. Before you can process any bills, you must establish the account. You do this in the **Finance - Receivable** option of the menu bar. When you press the Add button, the following prompt will appear.



If you are creating an account for an individual, or company, whose vehicle you have serviced, or to whom you are selling parts, then they already exist in your client database. Answer **Yes** to the prompt. If you are creating an account for a non-service client, then select **No**, (ie. a warranty claim company). For the existing client, you will then browse the list of all service customers, and you simply select the proper account. Your A/R account will then be setup automatically. This account will have the letter **E** plus the clients existing customer number as their A/R #. The number must be correct or records will not properly transfer from workorders to A/R. Non-service customers will have an account number starting with **A**. You will put their number in the "Alternate Billing" field on a workorder if the balance is to be applied to their account.

You will now see the record added to the account screen, but you must add the **Billing Cycle** and **Flag** codes. Complete information on the fields of this screen will be found in the reference section titled [Editing A/R Accounts](#).

Very Helpful Hint !!! If you close a workorder with a balance due, but have not setup an account for the client in Receipts, simply create the account, and when complete, press the Refresh button. The posted balance will automatically be picked up and processed in the totals.

6.1.4 Processing A/R accounts

Controls



Add To set up a new account, select the button. If this is a new account, the system will allow you to search the service client file, and obtain the information (name, address, and phone numbers) and insert them on the screen for verification. If it is not a service client, you will be provided a blank screen to fill in the customer information.



Expand Use this to expand the view of notes with more space to read, and edit, them




Save When making changes, be sure to use this button to Save any changes.





Delete By selecting the button, you can remove the account which is highlighted in the account browser. Deleting is not an advantage since each account record takes up very little space. Although you do have the option, it is suggested that the accounts be retained for reports, and checking of transaction history at some later / distant date.





Cycle This button will prompt you for a billing cycle, and then limit the account display to just those members of that cycle. Click it again to remove the filter.


 **Overdue** This button limits the display to accounts which are overdue. Click it again to remove the filter

 **Post** This option will allow you to post charges and payments to the highlighted account

 **Credits** This option will allow you to post, and apply, credits to individual records for the highlighted account.

 **ReCalc** This button will recalculate the balances for the highlighted account

 **Reports** With this, you can see a list of A/R reports. Click on the one you wish to run.

 **Tools** These are procedures that can be run on the accounts.

Write Offs - View seriously delinquent accounts and right off amounts that likely will never be collected

Period Close - Close a period, moving all completed work to a history file

Reset Totals - Recalculate the totals for all A/R accounts

A/R Data

The accounting system tracks all of the following data as each transaction occurs. However, if something occurs that makes you believe that the values are incorrect, selecting the Refresh button will cause the system to automatically recalculate all of the totals, and modify the screen display if desired.

Account

Every client who has a receivables account is assigned a number. It is their service account number, preceded by the letter E. If an account is established for a client who does not have a service account, their number is provided by the A/R system, and is preceded by an A.

Company and Name

This space is provided for the name, or company, of the client. When using individual names, the system will enter them last name first. You will want to continue this practice when adding non-service customers. **Please note the spacing that the system inserts between a last name and a first name.** Please be sure to maintain this spacing when editing entries. This will insure that the values are kept in the proper order. The Company field will hold the Last name / First name properly spaced if this is an account for an individual.

Address

The address and phone number information is to be provided in the appropriate fields. This will automatically be brought forward when a service client has a new account started. Furthermore, modifications to this field will also make the changes on the service client's main record. Changes made when the client comes in for service will also be used to automatically update this record.

Contact Info

The A/R records support a direct and a business phone number, plus an email address. Make sure these are current.

Terms

The Net Days field enables the account manager to specify when bills must be paid. Whenever invoices exceed that amount of time, they are considered delinquent, and are tracked accordingly when viewing late payments. An invoice, using the hot accounts system, will be flagged if it is even one day past the number specified in this field.

Credit limit

The Credit Limit is active in The Accountant, and will interface with The Executive to prevent excess charges from being posted to the account without proper authorization. A logging system will automatically note whoever overrides the limit.

Last payment / Last closing

The system will update these date fields each time a payment is posted or the system performs a period closing.

Cycle

Receivable accounts should be processed in batches. It is often possible to divide the work by natural means, ie. those accounts that are processed after the 1st week of the month might be 1, those after the second week are 2, etc. Some may be Monthly, or Weekly, or Special.

These codes are the Billing Cycle, and The Accountant will handle up to 36 cycles (one for each letter and number). These billing cycles are used for statements and closing a period. Even if all bills are processed on the same day, multiple accounts are recommended. Logistically, it is easier to handle processing smaller groups.

Flag

The system also has a Flag field. If the account is active, the flag should be Open. If it is Closed, it should be noted. Finally, accounts that are marked Hold will prevent any sales or services for the customer. This can be a very effective tool in debt collection.

Previous Balance

The previous balance is the amount that was due when the client was last sent a statement, and a period closing was performed.

Charges

The charges shown here are those which have been applied since the previous balance was calculated.

Payments

Any payments entered since the last closing will be totaled and displayed here.

Current Balance

This is the amount that the client currently owes. See the current activity for a display of all transactions that are used to calculate the current balance.

Current due and aging

The aging analysis shows the status of all invoices with pending balances. The amounts are calculated based on the date at which the invoice was processed in relation to the current date. If there are any doubts about the actual amounts, selecting the Refresh button will recalculate the amounts.

Notes

Notes may be very vital for an account. The system maintains a note pad for each account. When using the Hot Accounts option, notes will be made to reflect collection conversations with clients. There may be other reasons to use this notepad, ie. special terms and conditions for the referenced client. This notepad does not interact with the one used in the client's service account record. This one is strictly for accounting data, and is not accessible elsewhere in the system.

Browse lists

Current activity

Although the system originally displays the balances as of the last statement, it is often vital to know the current activity. Mr. Sams may have owed \$1,400 three weeks ago, but that may not be his current balance. The current activity is displayed in the box in the middle of the window in a scrollable listing of all current activity. Each line details the date, charge amount, payment amount, and reference information. The list may be far longer than the size of the window. The arrow keys will move the highlight bar, and scroll the listings, either up or down.

List of Accounts

All of accounts are displayed in the lowest section of the screen. Simply scroll up and down the list, and the activity plus account data will automatically be shown in the upper 2/3s of the screen for the highlighted record. To perform some of the functions on specific accounts, first highlight it, then select the button on the toolbar to perform the task.

6.1.5 Posting A/R transactions

Transactions are the activities that take place which affect the balances of your Accounts Receivable. Whenever a balance exists on a workorder, and it is posted to receivables, the item is marked. When the system runs its Daily Closing, transaction tickets are written, and posted to the transaction file in the receiveables file. These tickets are individualized for each invoice, and account.

Charges from workorders will normally be posted automatically into this section. Payments, and non-invoice charges, however, must be entered manually. Once the Transaction option of the Receipts Menu is selected, the system will ask for an account number. Once a number is entered, the system will display a data input screen, and all active invoices for that client. Information should be entered into the fields as discussed below.

All Posting is performed on this screen, reached with the Post button in Accounts Receivable:

Transaction Processing Buttons



Process The button must be selected after all of the data is entered. If you do not select this button, your activity will not be saved.



Card Payments can be made using a Credit Card if MasterLink Shop Writer has a merchant account service enabled. Press this button to post a credit card payment.



Exit This button will exit from the transaction posting window.

Posting Data

Account

When an account is found, the number is displayed in this field. This field cannot be changed.

Client data

The name and address information for the client is displayed here. The information cannot be changed. It is shown so that the person entering the information can verify the transaction being posted is for the right account.

Pending Credits

The system will sum, and display all available credits for this account.

Balance Due

The system will display the actual amount currently due on this account.

Date

The current date is displayed as the posting date, but may be changed to reflect when the charge, or payment, was actually incurred or received.

Note

The note field is for an invoice, or check, number, and is long enough to accept both.

Charge

The charge field is used when entering an amount not automatically transferred from a workorder. If a charge is presented, and paid, at the same time, but the account manager wishes to have it tracked in the system for history purposes, the amount can be entered here. If a credit is to be applied, it would be entered as a negative number in this field, reversing a portion of the previous charges.

Payment

In most cases, the primary activity to be posted will be payments. Enter the total payment in this field, even though it may be posted against multiple invoices. If a check has bounced, a negative amount may be entered into this field.

G/L numbers

Verify the G/L numbers entered by default and make changes if necessary. The charge and payment each have individual debit and credit account numbers. Typically, a charge is debited to the Asset Accounts Receivable number, and credited to the Income side. The Executive automatically posts income to its appropriate categories, and the Accounts Receivable portion of the receipts is posted to Assets. The payment generally will debit the Asset Cash account, and credit the Asset Accounts Receivable. This enables the system to remove the owed amount from receivables and enter it into the cash pool. From there it may be deposited in one of the bank accounts.

Transactions

This is a listing of all current invoices with open balances.

Available funds

This field displays the total available to be applied to open invoices. It is important to reduce this amount to zero before pressing the OK button to process the transactions.

Applying Funds

The transactions listed will show the activity, original total, current balance due, date, and transaction description. The activity space will be blank until an amount is to be applied to the transaction.

Once the amount is entered, it will be listed in the activity space. The current amount will be adjusted when the total transaction is accepted, and completed.

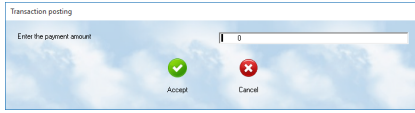
Move the highlight bar to the first invoice to be paid. Double click the left mouse key, and the system will ask for the amount to be applied. It will show a default which will be the current amount due, if funds are still available, or the balance remaining to be applied. The amount can be changed to provide a partial payment, but it is not possible to apply more than is available. Press the **Enter** key once you are satisfied with the amount to be applied, and it will be added to the transaction, and the available funds adjusted accordingly.

You may move up and down the entries until all monies have been applied, or you have cleared all the available invoices. If the later situation occurs, and more funds remain, the system will ask if you wish to apply the amount as a credit to the account. Once you are finished, select the **Exit** button, and the system will process the activity. All invoices will be marked, payments applied, and records will be written to the general ledger. Items will only be cleared when the original charge is fully balanced with payments.

Entering Payments

When payments are received, they should be immediately posted to the account. You will see a list of accounts, and you must find, and select, the appropriate account to process. With it highlighted, select the **Post** button, and you will see the entry screen at the top of this page.

Enter a Note with the payment ID number, and in the Payment field, enter the amount received. It will then also show in the Available funds field. Posting occurs against existing transactions with a balance. Double click on a desired transaction, and the following screen is then displayed.



This shows the amount you wish to be applied. By default it will display an amount not greater than the available funds or the balance due. For example, if you had two invoices of \$ 250 and \$ 400, and a payment of \$600, when you click on the first

invoice, it would show the expected payment amount to be \$250. If you accept that amount, then click the second item, it will show a payment amount of \$350 which is the total funds remaining. You can apply less than the amount due on an open invoice, and the balance will be adjusted accordingly. If you have funds left over after applying payments, it will be saved in the system as a credit.

6.1.6 Preparing statements

Balances are automatically applied to an A/R account as a charge at the time the workorder is closed. You may also select the Receipt - Post menu option and post a charge manually to an account. Charges to be posted to a non-service account (ie. warranty company payment due) are accomplished by adding the appropriate account number to the Alternate Billing field on the General Tab of the Workorder Development screen.

The A/R system will track all transactions with a balance, and display them on the Receipts - Edit screen, and in reports. Once statements are complete, you should also file completed transactions in history as described in the [Periodic A/R Closing](#) section of the manual.

Printing Statements

The statement provides a report to your client of all credit transactions which have occurred between the two of you. It details the charges, payments, and interest. It also shows the status of each invoice, and the aging of accounts. It should be clean, and easy to understand.

To run statements, select the option from the Reports menu. The system will first ask for the billing cycle. Remember that it has been recommended that multiple cycles be used, even if they are all to be processed at the same time. Once the cycle has been entered, the system will ask for a closing date. Only transactions posted prior to, or on, the date entered will actually be listed.

Finally, the system will ask for an interest rate to be charged. Interest is not a good idea in most cases because it causes ill will. However, some shop owners have a group of clients who only pay their bills when they see interest pending. As a result, they use it as a 'spur' to obtain payment.

The statements will run automatically from this point on, and are printed on full size paper. While standard forms are not suggested, statements will be nicer if presented on bordered paper. The client's name and address is printed in a manner that permits folding, and placing the statement in a window envelope.

Each line item indicates a charge, or payment. If partial payments have been received during the previous month, the carry over of the balance due is shown in brackets ({ }). This is not the original amount, but that which remained unpaid at the last closing.

When an item has been fully reconciled, with payments matching charges, it is marked with an *, and will be removed from active status when the closing is performed.

Statements should be run on a monthly basis. However, some companies like progress reports every week or two. The statements can be run several times without any concern. Totals are not changed until the closing is performed.

6.1.7 Periodic A/R closing

Once statements have been successfully run, it is necessary to close the period. Some facilities forget to do this until several days, or weeks later. This will completely confuse your clients, and bookkeeping system.

You must close immediately after printing the statements.

The reason is quite simple. When you close, the system removes all completed activity, noted by * on the statement. If some transactions are completed after the statement, but before closing, they will be removed, and the client will have no record of the action.

To close, select the Period Close option from the Tools button

The system first expects the billing cycle, and then the closing date. It will only process transactions with a date on, or before, the one you enter. Be sure you match the billing cycle, and date, you provided for the statements.

You may also enter an interest rate to charge. Even if you assessed interest on the statements, you do not need to add it to the account. Some people will place interest on the statement because it stimulates quick payment by the client, who sends a check without the interest. In such cases, interest posted to the account would then have to be reversed. Interest is only charged on overdue balances, and never on current items.

When you select the button, the system will then proceed to process all accounts, update their balances and aging, and clear completed transactions to history. No further action is required on the operators part. The remaining boxes on the display show progress, and account numbers, as the work takes place.

When performing a period closing, after preparing statements, accounts with zero balances may have the billing cycle turned off, eliminating them from processing when the next period is prepared. The system will ask 'Do you wish to remove the cycle for accounts with 0 balance ?' Answer Yes to remove billing cycles on each account with a final balance of \$ 0.00.

Remember, a closing only works on the billing cycle specified. It is important to run a closing on each billing cycle.

6.1.8 Handling special problems

There are several problems that may arise when using Accounts Receivable. The following sections detail some of the problems encountered by bookkeeping specialists, and the Accountant methods for resolving them.

Running A Single Account Statement

To run a statement for a single account, first go to the Edit option of the Receipts menu, locate the account, and then edit the billing cycle, changing the flag to a special code, ie. X.

Next, go to the Statement option, and enter the same special cycle code for the billing cycle. Answer the date, and interest questions, and the statement will be printed. If everything is acceptable, return to the Edit option, and change the billing cycle back to its original value.

Although this may seem cumbersome, running statements for individual accounts is not a usual activity. If you have an account that needs this on a regular basis, they should have a personal billing cycle code assigned from the beginning.

Something's Out of Balance

Sometimes the system seems 'out of balance.' This generally occurs when the account balance summary has an amount that is different than the Accounts Receivable asset total in the General Ledger. The most likely cause of this problem is that a transaction exists in the transaction file which has not been picked up on an account.

This is particularly easy to isolate by running the transaction report for an unusually extended date range, ie. 01/01/80 to 12/31/99. This will cause the system to list every transaction in the file. By checking the dates, and the billing cycle entries, you will probably find that transactions exist which are assigned to accounts without billing cycles.

If old dates are displayed, then the account is on a cycle which hasn't been cleared in quite awhile. To correct the problem, place the involved account(s) on a special billing cycle, and re-run the balance report. If everything is correct, run the statements, and close the period. Remember to close all old accounts also.

If a problem still exists, there may be file contamination. Use dSalvage to test the aartrn.dbf file. It is likely that an end of file marker has found its way into the file. dSalvage will remove the offending critter, and alleviate your problem.

Posting Returned Checks (NSF)

When checks are returned, simply post them as a negative payment (\$ - 12.50). You will want to apply the amount to the invoice, or if that item has been cleared, post it as a negative credit to the system.

Posting a Credit

To post a credit, it is best to write a credit invoice. This will adjust the income fields appropriately in the general ledger. This allows you to have a detailed statement explaining the action, and a printed receipt.

Enter the amount as a negative price under parts, assigned to a part called Credits. Labor should be entered as a negative charge, with a credit description that can be pre-developed in the glossary system.

You can post a credit, alternatively, by entering a negative charge (\$ -12.50). The General Ledger will have to know which number in the Income accounts to apply the amount toward. You will handle this by entering the number in the credit field of the General Ledger numbers. However, this method does not adjust entries relative to parts and labor costs / profits.

Correcting Posting Errors

The easiest way to correct posting errors is through a new pair of entries. The first entry should be a reversal of the first, incorporating an exact duplication of the transaction, except using negative numbers. You would then post a new entry with the correct activity.

If you have applied payments to invoices, and thus cleared them, this will not work. In that case, you will need to post the difference between your original entry, and what should have been entered.

Handling Account Defaults (Bad Debt)

Account defaults are much like credits. It is best to write an invoice for a negative amount, detailing the default, and efforts that have been made for collection. This then becomes a permanent record of the deleted charges, and provides an excellent 'paper trail' should you need to verify the data later. When the invoice is totaled, it will have a negative amount. Enter no payment, but permit it to be posted to receivables. It will balance the amount due. The closing will automatically pick up on this balanced account and clear the data.

6.1.9 Overdue A/R payments

When clients fail to pay their bills in a timely manner, your cash flow decreases significantly. If the pattern is too broad, it will be difficult for you to pay your bills when due, or to maintain a sufficient income for your personal needs. Therefore, knowing when your clients are late with payments is critical.

Follow up is equally important. The Overdue function provides such monitoring in an easy, yet very effective, way. When the option is first selected, it displays a four part window. The first provides all of the client and account totals. The second section shows your notes on this account. The third section displays the current activity. Finally, the bottom sections shows a listing of all of the clients with overdue amounts. All other clients are omitted. As you browse the bottom list, the data in the upper sections changes to reflect the highlighted client.

When reviewing the account, notes should be entered with the date, time, and action that took place. For example, if the client is called, and says "The check is in the mail", a note should be made. When a week passes, and payment is not received, its time to call the client and have them check the postal system, or bring in another check.

Notes help avoid confusion over what was said, because it can be instantly logged to the account. The note section uses full word processing capability as described in the General Concepts chapter. Remember to select the OK button to save your notes.

It is strongly recommended that the account manager have a telephone headset when performing these operations. It makes it much easier to talk, and type.

Using these procedures on a weekly basis will assure more prompt payment of accounts, with the least amount of tension between your business and client.'

6.1.10 Write Offs

Sometimes people just won't pay their bills, and it is time to "Write Them OFF" ! When you select this option from the AR Tools menu, you will see the following display:

Accounts Receivable Bad Debt Write Offs

Process Help Exit

Client: Redondo Water District
 Address: PO Box 4000
 City, State, Zip: Modjeska Canyon CA 92666
 Phone: Home, Bus: () - (949) 555-8000

Account: E13422
 Credits: \$ 0.00
 Balance Due: \$ 120.00

Date: 09/02/22 Amount: \$ 0.00
 Debit: 10500 Charge off to account
 Credit: 10100 Reduce A/R account

Date	Invoice	Payment	Charge	Balance
09/05/17	105385: 092644	0	60.00	60.00
09/05/17	105392: 056318	0	60.00	60.00

Account	Company	Balance	Current	30 Days	60 Days	90 Days

Perform writeoffs in the following steps:

1. Highlight the account to which you wish to apply write offs
2. Double click on the invoice line item that you wish to reduce/eliminate
3. The popup screen will show the amount due and ask for the amount to be written off. Change the value shown to whatever amount you wish to apply and select the **OK** button. Do this for each invoice for this client.
4. Move to the next account you wish to work on, and repeat steps 2 and 3
5. When complete, select the **Process** button and your activity will be applied.

Write offs may be frustrating, but its easier than being constantly reminded of the deadbeats to whom you have provided services in the past. Make sure you flag their account to not allow any further charges or work in the future.

6.2 Accounts Payable

Accounts Payable Master Editor

Add Save Delete Expand Cycle Spell Overdue Post Credits Tools ReCalc Dial Map 1099 Photos Reports Help Exit

Vendor: AutoNation, Inc. Account # P00075 Phone # (866) 555-1212
 Address: PO Box 731674 G/L Debit 50100 Fax # (855) 552-1213
 City: Dallas State: TX Zip: 75373-1674 Vendor#: 123456
 Previous Balance: \$ 0.00 Current Due: \$ 0.00 Discount %: 0.00
 - Charges: \$ 0.00 Past due 30-59 days: \$ 0.00 Last payment: 10/17/16
 - Payments: \$ 0.00 Past due 60-89 days: \$ 0.00 Last Closing: 08/31/17
 Current Balance: \$ 0.00 Past due 90+ days: \$ 0.00 Billing Cycle: 2 Flag: 0

Date	Balance	Payment	Description
09/15/22	0	0	No transactions available

Balance	Vendor	Account	City	State	Phone	Notes
0.00	AutoNation, Inc.	P00075	Dallas	TX	(866) 555-1212	

Accounts Payable is the system that lets you track all of your financial activity with vendors. It is also where you pay your bills, by writing checks, or with cash. All of the payable's activities can be processed from this main screen, although some of the charges will originate within workorders, or the inventory control system (ie. stock input).

Your reputation, and ability to obtain further credit with vendors, is dependent on how timely you are with your payments. Using the Accounts Payable system will allow you to stay on track, pay before the due dates, and handle large volumes of charges accurately.

Some of your transactions post when they take place. Others should be posted when they are received. For example, utility bills should be posted within a day of their arrival. The reports also allow you to compare your records with the statements of your vendors, and you can then resolve any conflicts immediately. This process should also take place upon receipt of the statement.

Detailed instructions are included in the following pages of this document.

6.2.1 Accounts Payable 101

The process of incurring debt obligations for goods and services, and then paying your bills in a timely manner, is known as Accounts Payable. The MasterLink Shop Writer system simplifies this task to the greatest degree possible, and should prevent your shop from incurring a bad reputation for lack of prompt payments.

When you personally assure your vendors that you promise to pay your bills within a given period of time, the debt is known as a 'payable.' It is based on the concept that they promise to provide goods and services now for the promise of a payment in the future. These must be tracked carefully, and processed in a timely manner. If you follow regular, and clear, payment procedures, you will not only have fewer late payments, but you will enjoy a more positive relationship with your vendors and perhaps better credit terms.

To ensure proper logging of payments, and credits, your payables should be placed on a ledger. To easily track the status of your obligation to each vendor, the ledgers should be based on individual account listings. This way, it is possible to view the current credit received, and your payments, to know exactly what each vendor is owed.

The charges and payments are also posted to the General Ledger. When an invoice is charged to a Payable Account, the amount is listed as a Liability (credit), and balanced as an Expense item (debit). Further discussion of these terms is provided in the General Ledger chapter. When a payment is made, it is removed from the Liability column, and becomes a credit against the Bank Account from which the check was drawn. Remember that the Bank Account is an Asset (debit), and a credit decreases the balance.

During the month, all of the transactions that take place are logged into the payables. This includes all charges, and payments. At the end of the month, it is important to review a worksheet which lists all charges, and payments, made against the account.

The vendor will send you their complete listing of the activity on their account, which is a statement of your status. Although you have received individual invoices, it is good practice to provide a summary of each item on the statement, and then to provide totals.

There are two types of statements. The first is **balance forward**, which provides a balance total at the beginning of the month, and then itemizes all of the account activity. Once the statement is mailed, the month is closed and a new beginning total is obtained. This is the system used on most 'revolving' charge card systems, ie. personal credit cards, department store credit, and gas cards.

Small businesses are displaying a preference for the other method of accounting, known as **open item**. Using this method, as an invoice is paid off, it is removed from the statement. This is particularly good when tracking payments. Many companies now like to pay off particular invoices with a specific check, and may hold payment on others for specific reasons.

Accounts Payables are aged to determine how long credit has been extended by the vendor for certain invoices. Normally, reporting is provided for 0-29 days, 30-59, 50-89, and 90 plus. The first period is the current due, and usually reflects the amount that is being billed on the statement for the first time. Amounts in the other categories may be overdue, depending on the terms of the account.

There are several terms which are standard for payment. Many of your vendors are probably on a Cash On Delivery basis. However, some may have granted you net terms. This means that you owe the net amount within a specified amount of time. Net 15 is quite common for small company billing. Most credit cards are due in net 30 days, after which time interest, and late charges, are accrued (added on).

Some companies extend favorable terms for payment within a certain period of time, which may be a discount on the total bill. 2 or 3 percent is not uncommon for payment within 15 days.

When accounts exceed the net terms, they become delinquent. At this point, the funds need to be collected. Usually gentle reminders are all that are needed to obtain payment. However, repetitive delays in payment may mean that the vendor will restrict further credit, and perhaps initiate collection procedures.

This is a brief summary of Accounts Payable procedures and terms. Your local bookstore, or library, may have excellent resources that review, and demonstrate, these principles in great depth.

Using Credit

While not being credit experts, there are some general comments we suggest for using credit.

Many businesses like to have an account with their service and goods providers. It is a simple manner of bookkeeping. Their businesses run on a cash basis - but its far easier to pay a bill once a month for a number of invoices rather than write a check every time a service is provided, or goods received.

The concern is that many businesses become slow payers, and are overextended with the credit they receive. They end up in court because they become overwhelmed with the bills that have been left unpaid.

Credit is a very special, and risky, commodity. It is like a unique tool. You don't necessarily use it every day, but you keep it protected so that it is available when the need arises. Prompt, and complete, payment of your bills assures good credit availability in the future, even during economically slow times.

The important issue about credit is that you have to use it in order to get it - but if you don't use it just right, you lose it.

When incurring obligations, always keep in mind the realistic amount you can repay within the contracted time period, and within your current earnings picture.

Some people borrow money as a seed to improving their business, and without a solid business plan, they encounter serious financial difficulties.

6.2.2 Vendor Accounts

Accounts Payable Controls



Add - Adds a new vendor record



Expand - Expands the notes section in a larger pop up window for easier reading and editing



Save - Saves the additions or changes you make to a record



Delete - Removes a vendor record



Cycle - Will limit the displayed vendor list to only those in the selected cycle



Overdue - Allows you to identify overdue bills that you may need to handle quickly



Post - Post new charges, or pay monies owed



Credits - Enter and apply credits from vendors



ReCalc Re-calculate the totals for this account and update it on the screen. This is particularly useful if you have a loss of data in your file.



Dial - Dial the vendors phone number if you have a modem connected to your phone system



Map - The Map button will interact with Google via the internet and show you a map to the location of the vendor.



1099 Data This popup screen will provide access to the information used in preparing a 1099 form for the vendor. If you intend to issue a 1099, click the Rent or Other box to indicate the type, and it will be included in the data output. You should also enter a Legal name for the vendor corporation. The system will automatically track the payments and charges throughout the year, although the 1099 is issued only for the actual payments made. You can



Photos - Display photos associated with this vendor



Reports- Select and run reports for accounts payable



Tools - Perform tasks with these utilities

Period Close - Do this at the end of each month, after paying your bills, to move completed records to storage

Fix History - Recalculate the balances and aging for all accounts

Accounts Payable Data

Vendor Information - It is important to enter all the vendor data including the name, address, and phone numbers

Account - The account number is assigned automatically when a vendor is added to the system. This should not be changed because it is the link that ties all of the records together

G/L Debit - This is the Default GL number to be used for this vendor. You can change it for any specific action, at the time that activity is displayed, but this will be the initial value assigned.

Vendor # - This is the **vendor's account number** for you and may be needed when placing orders

Terms: Net days - This is the total number of days within which you have agreed to pay for items and services received

Discount % - This is a discount percentage the vendor will allow you to take if paying under specific terms

Last payment - This is the date of the last payment you made to the vendor

Last Closing - When performing a closing on an account, this date will be updated

Billing Cycle - This is the cycle under which you process this account. Typical is **Monthly**, **Weekly**, and **Special** but you can use any you wish. 1, 2, 3, 4 are also popular for the week of the month in which you want to process the account.

Flag Open, Closed, Tax 1099, or Hold are the standard flags.

Balances - These fields hold the balances due, and aging, totals for the vendor.

Notes

Notes may be very vital for an account. The system maintains a note pad for each account. When using the Hot Accounts option, notes will be made to reflect your commitments for payment, or special considerations granted by the vendor.

Current Activity

Although the system displays the current balances, it is often vital to view the individual records of the current activity. Your business may have owed vendor Sams Supply \$1,400 three weeks ago, but that may not be your current balance. View the current activity with balances, and recent payments, view the middle browse window where the transaction information is displayed. Each line details the date, charge/payment amount, the current balance, and reference information. The list may be far longer than the size of the window. The arrow keys will move the highlight bar, and scroll the listings, either up or down.

Processing

New Accounts

To set up a new account, select the add option, and enter the the basic vendor data (name, address, and phone numbers). The system will automatically provide an account number.

Locating Existing Accounts Browse the list in the bottom section of the screen. Click on Account in the header, and start typing the account number, or click on Vendor, and start typing the vendor name. You will position quickly to the desired record. Highlight it for all processing tasks.

Vendor Data

The system tracks the name, address, and phone number of the vendor so that the company can be located quickly. In addition, it asks for the Debit G/L account number. This is the expense account to which purchases from this vendor would most often be charged. This will vary for each of the vendors, because some may supply goods, while others provide services. The number can be overridden at the time of posting. Enter the number which will be used most frequently into this field. The vendor # is that account identifier assigned by the other company for you.

Balances and Flags

When the payables screen is first displayed, in addition to the name, address, and phone numbers of the client, the system will display terms, and totals at the time of the last statement and closing. Each time a payables' closing is performed, the system sets the previous ending balance as the new beginning balance. The charges and payments during the billing period are also accumulated, providing a new ending balance.

When the closing is performed, all of the unpaid invoices are analyzed, and the aging of accounts is posted. These totals, as displayed on the opening edit screen, reflect the total activity at the last processing. The date when that processing took place is posted, as is the date of the last payment.

Payable accounts should be processed in batches. It is often possible to divide the work by natural means, ie. those accounts that are processed after the 1st week of the month might be 1, those after the second week are 2, etc. Some may be Monthly, or Weekly, or Special. These codes are the Payment Cycle, and the accountant will handle up to 36 cycles (one for each letter and number). These billing cycles are used for statements and closing a period.

Even if all bills are processed on the same day, multiple accounts are recommended. Logistically, it is easier to handle processing smaller groups.

The system also has a **Flag** field. If the account is active, the flag should be Open. If it is Closed, it should be noted. Finally, accounts that are marked Hold will prevent any sales or services for the customer. This can be a very effective tool in debt collection.

The **Credit Limit** is active in the system and will interface with the customer record when developing a workorder to prevent excess charges from being posted to the account without proper authorization.

The **Net** days field enables the account manager to specify when bills must be paid. Whenever invoices exceed that amount of time, they are considered delinquent, and are tracked accordingly when viewing late payments. An invoice, using the hot accounts system, will be flagged if it is even one day past the number specified in this field.

Edit data

To edit any of the information displayed on the primary payables data screen, simply locate the proper vendor record. All fields will be displayed in edit mode, and changes can be made. Once changes are made, select the Save button to retain the data permanently in the file.. If you fail to save the data, your changes will not take effect.

Please remember:

- Processing vendor accounts is handled with payment periods.
- Payments to Vendors may be done by writing checks to an individual account using the [Writing checks for Accounts Payable](#) option. Although you have an option to Write Checks in the bank account, it is not recommended that this option be used for paying vendors.
- Charges for Vendors may be posted to the account automatically with some workorder functions, and when using the Stock Input option for parts. Other charges may be posted manually with the option [Posting Charges](#).
- Totals for Accounts Payable vendors are updated with each transaction. You may double check the totals displayed on this screen by selecting the Refresh button. The system will automatically recalculate and redisplay the totals.
- All transactions, balances, and totals are available for preview and printed summary in the Reports menu option.

6.2.3 Posting Charges

Full discussion of posting items to Payments is in the reference section [Writing checks for Accounts Payable](#).

. [Here are some key observations.](#)

- Stock input items are automatically posted to Payments as transactions.
- Bills received, except for items input through inventory, must be posted to Payments.
- Posting should take place the day a bill is received.
- Payments may be made for an individual account or automatically for multiple accounts.

[Manual charges](#) are entered through the **Post** screen shown below. ([Some features, like inventory, place the charges into AP automatically.](#)) When first selecting the option you will be shown a list of vendors. Select the proper account and press the {button OK, } button to obtain this screen.

Accounts Payable Transaction Posting

Process View Charge Pay Exit

Vendor: AutoNation, Inc. Account: P00075 Available Funds: \$ 0.00
 Address: PO Box 731674 Pending Credits: \$ 0.00
 City, State, Zip: Dallas, TX 75373-1674 Balance Due: \$ 0.00
 Phone: Home, Bus: (866) 555-1212 (855) 552-1213

09/15/22 Cash Payment Charge: \$ 0.00 Debit: 50100 Credit: 20100
 Note Date: P00075 Payment: \$ 0.00 Debit: 20100 Credit: 10100

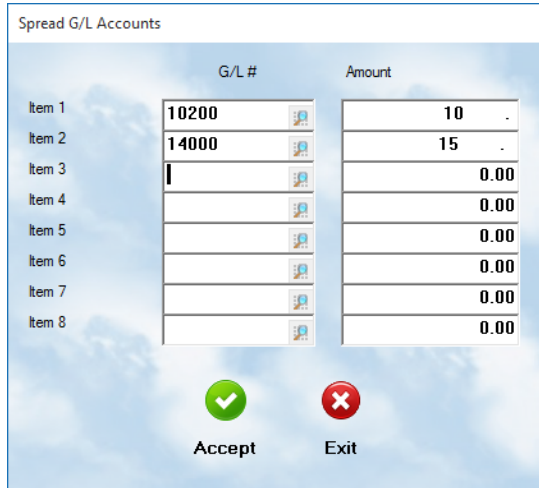
Payment	Charge	Balance	Date	Invoice
0	0	0	/ /	No data found

To enter a bill, put the amount into the Charge field, and verify the Debit and Credit GL account numbers. Finally, add a note with the invoice number from the vendor. When you save this record it will be applied to the account.

You can enter repetitive invoices by pressing the {button New, } button after each transaction and selecting the vendor.

Spread G/L


In most cases the charge will only be applied to one account. However, it may be desirable to spread the charge across several Debit accounts. The Charge button allows you to do this. It will balance the entries on the chart against the credit entry. The option displays this screen.





Simply add the G/L account number and amount to be Debited on a line. The system will not process this unless the total amount shown matches the amount placed in the Charge field.


6.2.4 Writing checks for Accounts Payable


The Controls

 **Process** - When all entries are performed, click the Process button to save and apply the data, and create the check

 **View** - View the check as it will be printed based on currently entered data

 **Charge** - Spread the charge across GL accounts

 **Pay** - Spread the payment across GL accounts

 **Exit** - Exit the transaction for this vendor

The Data

Vendor Information - This is a display of the Vendor's name, location, and contact information. Edit these values in the main screen of Accounts Payable.

Account - The Vendor's assigned account number

Available Funds - If you have money already to disperse, it shows here.

Pending Credits - If you have credits posted to this account, it shows the amount here.

Balance Due - This is the total balance due for this account.

Date - This is the date for processing this transaction

Cash Payment - Check this if you have made a cash payment. This is most useful for items that were delivered and you simply paid the provider in cash.

Note - Use this to record check numbers, or other relevant information, for this transaction

Charge - The amount to enter into the account as a charge

Payment - The payment amount which may be an accumulation of payments for multiple invoices.

Debit / Credit - The appropriate GL account numbers for the charge and payment posting

The Process

Payment cycle First select the payment cycle. Enter in the one you wish to process. This will be identical to one of the payment cycles you established when setting up your original vendor accounts. Now the accounts for this cycle will be the only ones showing in the list at the bottom.

Highlight the first account you wish to pay.

Post: Next, select the Post button. You will see the following screen:

Accounts Payable Transaction Posting

Process View Charge Pay Exit

Vendor: AutoNation, Inc. Account: P00075 Available Funds: \$ 0.00
 Address: PO Box 731674 Pending Credits: \$ 0.00
 City, State, Zip: Dallas TX 75373-1674 Balance Due: \$ 0.00
 Phone: Home, Bus. (866) 555-1212 (855) 552-1213

Note Date: 09/15/22 Cash Payment Charge: \$ 0.00 Debit: 50100 Credit: 20100
 Payment: \$ 0.00 Debit: 20100 Credit: 10100

Payment	Charge	Balance	Date	Invoice
0	0	0	/ /	No data found

Processing

Double click on each of the items you wish to pay. The system will display the amount due in the pop-up box. You can reduce this amount if you wish, or simply accept and move to the next item. The Payment box will increase as you select additional records to pay. Continue through all of the items you wish to include on this payment.

The payment will be applied to the default Debit and Credit accounts shown on the screen. If you wish to have it applied to one account different than shown, simply change it on the Payment line. However, if you wish to spread the payment across multiple GL accounts, use the Pay button and specify the account numbers, and amount that goes to each.

When you complete the assigning of payments, you can Process the transaction. This will complete the work, allow you to write the check, and then you can move to the next account.

Printing checks

When the processing is complete, the system will ask if checks are to be written. First, it must know which account is to be used. Then it will ask if checks are to be developed, and printed, by the system. If not, the system will assume that all bills are being paid by manual checks, and it will display a list of vendors and ask for the check numbers assigned. Otherwise, it will automatically assign the checks, and proceed to print them. When paying multiple invoices, for example, the system will attempt to list on the stub all invoices paid, to the limit of the space available.

Final processing

Once the checks have been completed, the system will process all of the payments, posting them to the transaction register, and to the General Ledger. This is the final step because everything else must be correct prior to performing the accounting.

Reminder: Payment cycles should correspond to a period when the vendor expects to receive funds.

6.2.5 Periodic A/P closing

Once payments have been made, it is important to close the period you have processed. When you perform this task, the system removes all completed activity. This allows the accounting staff to more efficiently review the open invoices.

To perform the closing, select the option Period Close from the **Tools** menu. The system will first ask for the billing cycle, and then the closing date. It will only process transactions with a date on, or before, the one you enter.

Be sure you match the payment cycle, and date, you used when writing checks. The system will then proceed to process all accounts, update their balances and aging, and clear completed transactions to history. No further action is required on the operators part.

Remember, a closing only works on the payment cycle specified. It is important to run a closing on each payment cycle.

6.2.6 Special problems

There are several problems that may arise when using Accounts Payable. The following sections detail some of the problems encountered by bookkeeping specialists, and the Accountant methods for resolving them.

Running A Single Account Payment

To run a statement for a single account, first go to the Edit function, enter the account number, and then move to the payment cycle, and change the flag to a special code, ie. X. Next, go to the Write Checks option, and enter the X special cycle code for the payment cycle. Answer the date

question, and the check will be processed. If everything is acceptable, return to the Edit option, and change the payment cycle back to its original value. Although this may seem cumbersome, running payments for individual accounts is not a usual activity.

If you have an account that needs this on a regular basis, they should have a personal code from the beginning.

You can also write a check by selecting the Post Transactions option, and entering a Payment amount equivalent to the Balance Due. You will then need to apply the payment to the individual invoices.

Something's Out of Balance

Sometimes the system seems 'out of balance.' This generally occurs when the account balance summary has an amount that is different than the Accounts Payable liability total in the General Ledger.

The most likely cause of this problem is that a transaction exists in the transaction file which has not been picked up on an account. This is particularly easy to isolate by running the transaction report for an extended date range, ie. 01/01/80 to 12/31/99. This will cause the system to list every transaction in the file.

By checking the dates, and the billing cycle entries, you will probably find that transactions exist which are assigned to accounts without billing cycles. If old dates are displayed, then the account is on a cycle which hasn't been cleared in quite awhile.

To correct the problem, place the account on a billing cycle, and re-run the balance report. If everything is correct, run the check processing, and close the period. Remember to close all old accounts also.

If a problem still exists, there may be file contamination. Use dSalvage to test the aaptrn.dbf file. It is likely that an end of file marker has found its way into the file. dSalvage will remove the offending critter, and alleviate your problem.

Posting a Credit

To post a credit, simply enter a negative charge in the payment posting routine. This will adjust the payables and expense fields appropriately in the general ledger.

Correcting Posting Errors

The easiest way to correct posting errors is through a new pair of entries. The first entry should be a reversal of the first, incorporating an exact duplication of the transaction, except using negative numbers. You would then post a new entry with the correct activity. If you have applied payments to invoices, and thus cleared them, this will not work. In that case, you will need to post the difference between your original entry, and what should have been entered.

Writing a Single Check

To write a single check, first run a worksheet, and determine the total amount you wish to pay. Then go to Posting, and enter that amount as a payment. Finally, check off the items displayed which are being paid, and process the check.

Year End Closing

You do not need to perform a year end closing. The payables balances are fluid into the next year, but the totals are reflected on the Profit and Loss, and Balance Sheets which are run at the end of the year.

If The Checks Jam

When you process checks, the computer will ask if the check(s) have been printed correctly. If not, it will allow you to reprint them. Simply follow the prompts on the bottom line of the screen to perform this task accurately. When printing checks, be sure to verify that they are correct before releasing the system !

6.2.7 Overdue A/P payments

When you fail to pay your bills in a timely manner, your available credit decreases significantly. If the pattern is too broad, it will be difficult for you to obtain the needed parts and services to continue your operations. Therefore, knowing when you are late with payments is critical.

Follow up is equally important. The Hot Accounts function provides such monitoring in an easy, yet very effective, way. When the option is selected from the menu, the browse list displays the payable vendors with overdue invoices. As the list is browsed, the vendor information and account summary, plus a listing of all pending activity, is displayed in the upper portion of the window.

When reviewing the account, notes should be entered with the date, time, and action that took place. For example, if no statement was received, you may wish to contact the vendor, and alert them to the fact you are waiting for their bill so that it can be paid. Be sure to select the OK key after entering any notes so they may be saved to the file.

Notes help avoid confusion over what was said in previous conversations, because they can be instantly logged to the account. The note section uses full word processing capability as described in the General Concepts chapter.

When the review of accounts is complete, selecting the Close key will return the operator to the menu.

Using these procedures on a weekly basis will assure more prompt payment of accounts, with the least amount of tension between your business and your suppliers.

6.3 General Ledger

The General Ledger is a financial record of all of your business activity. It summarize all of the categories which are involved in your financial management. The accounts are listed on the Ledger - Edit menu option which displays the following screen.

You will use the General Ledger to tie all of your accounting together in one place, and see your complete financial standing. This system was developed using the principles and practices presented in Small Business Accounting courses typically available in community learning centers (ie. colleges). It has been refined using input from clients for over 30 years, focusing on the specific practices and needs of the independent service centers.

You may create your own General Ledger, use your existing accounts, or utilize an initial setup available from MasterLink Software. Any setup you choose can be modified to your individual wishes.

The chapter on the [Editing Accounts](#) describes how this screen is to be handled.

A **Chart of Accounts** is provided within the software. There are also pre-set default account numbers that have been entered. This permits the user to have a full working General Ledger from the very first day. This data is included on the main CD and may be installed to the data Server using the "Content Files" option under "Installing MLS 12."

The provided Chart of Accounts may be used, enhanced, modified, or deleted. It is a good example to use to study how the accounts are set up initially, but as the documentation shows, there is a considerable amount of flexibility on what a company actually uses for their needs.

Review the materials, and if you want to make changes, bring your Chart of Accounts to your current needs. This may be done before processing any work, or you may wish to make changes through experience, and clear the data, and use your finished product at a later date.

It is important that the G/L system includes entries for section Titles, Subtotals and Grand Totals. The General Ledger was designed using basic accounting principles found in all entry level accounting classes. The section [General Ledger 101](#) describes in detail how this is organized.

It is possible to track sales in various categories in your accounting through the General Ledger. The section on [Departments](#) details how they are setup and used. It is suggested this not be performed until you have experience using the General Ledger in its default state. Departments are used for reports only and do not affect the total ledger balance.

Activity is posted to the General Ledger automatically. You can view the transactions of any given day, or add manual entries, in the [Posting Transactions](#) section.

You will find all of your General Ledger information provided in the Ledger section of [Reports](#). This will give you a good view of the financial condition of your business. Please read all of the sections in the manual describing the General Ledger Reports.

6.3.1 General Ledger 101

The core of any accounting system is the General Ledger. This document is used to record all financial activity that takes place within a business. A summary report of the ledger will provide an analysis of the profitability of the company, and the status of its worth.

Companies that do not maintain a General Ledger perform 'shoebox accounting' where they total their income and receipts at the end of the year, and whatever is left over is their profit. While this may work for some very small concerns, it does not lend itself to forecasting (making assumptions about the future of the business), or planning for profits. In lean times, shoebox accountants don't really know where their expenses lie, and they may find themselves overwhelmed with debt before it's too late.

The General Ledger is setup according to specific rules of accounting, and is maintained by clearly defined processes. These are defined in the following paragraphs.

Double Entry Bookkeeping

In bookkeeping, each transaction must be logged into a record keeping system. The Double Entry Bookkeeping method actually logs each transaction into two accounts. When a dollar amount is

recorded in one account, the same amount is also recorded in another account. The goal is to keep a balance of all funds.

The T Account

The T account method is used to handle the double entry system. All accounts have a left side, and a right side. Visualize a very large T on the right of a listing of accounts. When an amount is entered next to an account on the left side of the T, the same amount must also be entered on the right side of the T, but next to a different account.

Because the same amounts are being entered, the total of the left side amounts must equal that of the right side. If not, the ledger is out of balance. The General Ledger is nothing more than one gigantic T that may have a few, or hundreds, of accounts.

Lest we confuse you from the beginning, it is not necessary to always post the exact same amount on both sides. It is acceptable to post one amount to the left, and several items on the right, which equal the total of the amount on the left. Some people say they wish to disperse an amount among several accounts. Perhaps spread is an easier word to use.

Debits and Credits

Rather than confuse people by using the words left, and right, accountants have simplified the process by giving each side a title. The left side of the T is always known as the Debit amount. The right side has been called the Credit amount. This is consistent and never varies. Debits and Credits are used to record the increases and decreases to an account. Applying the rule of the T system, for every amount entered on the debit side, the same amount must be entered on the credit side.

Ledger Framework

The General Ledger is divided into five sections. The first three are used to make up the basic accounting equation. This is: $ASSETS = LIABILITIES + OWNERS EQUITY$. The last two make up the profit and loss analysis: $PROFIT = INCOME - EXPENSES$.

These five areas are the standard used by most accountants.

Assets

Anything that your business owns, which has monetary value, is considered an asset. This includes all of the cash, including receivables, inventory, supplies, property, furniture, equipment, and investments.

Liabilities

The liabilities are all monies owed to others, including bills for vendors, loans, taxes held in trust, unpaid employee earnings, and other obligations.

Capital

When one deducts the total liabilities, from the assets, the result is the owner's equity, also known as capital. This can be divided into multiple groups, including notes held, stock, and profit to be retained by the owner, or divided among the principles.

Income

All money earned by the business, through sales, services, rentals, and investments, is classified as income. Most businesses have income from a wide range of sources, all of which may be specified in the general ledger.

Expense

All costs charged against the business are expenses. The cost of items purchased for resale, and direct labor services, may be classified as cost of goods sold. All other expenses, including taxes, rent, telephones, advertising, postal services, insurance, etc. are operating expenses.

The Balance Side

Each classification has a balance side. This is where the total for the account will reside. It is always the side used to record increases to the account.

Assets and Expenses are balanced on the debit side of the T. To increase these accounts, an amount is added to their debit column. To decrease the accounts, an amount is added to their credit column.

Liabilities, Owners Equity, and Income are balanced on the credit side of the T. To increase these accounts, an amount is added to their credit column. To decrease the accounts, an amount is added to their debit column.

Posting To A Ledger

Whenever transactions take place, and they are placed on the ledger, they are said to be posted. Actually, the amount that is entered on the debit side must equal the amount entered on the credit side.

Posting the two entries is known as double entry bookkeeping. Posting will always be done to two separate accounts. Otherwise, you would add, and subtract, the same amount, at the same time, from the same account. Frequently, the two accounts will be in different sections.

Balancing The Ledger

When all of the ledger debits are summed, there is a debit total. Summing all of the ledger credits results in a credit total.

When the debit total and credit total are equal, the ledger is said to be in balance. The debits and credits within a section will not balance, nor will any two 'corresponding' sections balance. Only the ledger as a whole will be in balance, consisting of all assets, liabilities, equity, income, and expenses.

Profit And Loss Statement

The Profit and Loss Statement is a summary of the activity of your business for whatever period of time is specified. It includes income from all sources, including services, sales, rentals, contracts, and investments.

The expenses are divided into Cost of Goods Sold, and Operating Expenses. The end result is the profit, or loss, of the business operations. The statement presents the income, and sources, and then the expenses. These are listed first as Cost of Goods Sold, and then Operating Expenses. Finally, the profit or loss should be specified.

The Balance Sheet

The Balance Sheet is a summary of the assets, liabilities, and equity, at any given point in time. This document is derived from the three sections of the general ledger, but is often printed in a clean format, with only the titles and totals. It is titled a balance sheet because it shows how the accounting equation sides balance within your business.

The Balance Sheet is used to provide a view of how much of the business you actually own. Because it compares assets with liabilities, it is easy to determine the actual equity of the owner(s), and the debt level. This is the sheet used by accountants to determine the health of a business, and by lenders to calculate the amount available for loans when needed.

6.3.2 Account Setup & Editing

The General Ledger accounts must be set up before processing can begin. When shipped, The Accountant has a standard Chart of Accounts installed. This can be modified, or replaced, to meet your specific needs.

When the General Ledger Editor option is selected on the menu system, the full chart of accounts will be displayed in the lower part of the window in a browse box. Specific work can be accomplished on each item by highlighting the account in the browse menu. You will then be able to edit the information displayed on the upper portion of the window. Be sure to select the Save button to save your work.

Not all of the fields, however, can be modified. Some display data that is processed, and derived, by the system, and should not be changed. The following information must be considered when adding, or editing, accounts.

General Ledger Controls



Add You may select the Add button to create a new account in the General Ledger. A blank record will be added. Simply enter the data in the appropriate fields, and select the Save key to save it to the main file.



Save Save any changes you made to the highlighted account



Delete To delete an account, simply highlight the entry and select the Delete key. It is very important that you use care in this option, and never delete an account that has data present for the current year.



Re-Sum Recalculate the totals for the highlighted GL account



Post Post transactions to an individual date, perhaps to correct any errors the system has found



Analysis Evaluate the status of all accounts and activities to be sure everything is balanced properly



Update Update the totals for all accounts



Defaults Set the default GL account numbers for various areas of the system



Close Perform a monthly closing of the GL. Run this after the Analysis shows everything is in balance. You may close a month as frequently as you wish. It is not necessary to wait for all transactions to be posted to the month.



Reports These are all the financial reports associated with the Ledger, and especially the Balance Sheet and Profit and Loss summary

General Ledtger Data

The Account Number

Each account must have a unique number, which should be 5 characters long. These numbers are assigned by the accounting professional responsible for establishing the G/L system. The system will list all information in numerical order in accordance with the assigned accounts. Following the number is a field for a single character. This is the department code. The code should be the same as that assigned to departments in the setup program. Please check that chapter of the manual for a discussion on that subject. Departments are not required to operate the general ledger.

***** SPECIAL NOTE *** If departments are added to the system, the computer will not add them into the totals, but will track their individual totals, and permit reports to be run by department. This is triggered automatically if the department function is turned on, and accounts appear that have a department code. Be sure to leave the department field blank if you are not using this feature.**

The system will order the accounts in alpha-numerical sequence, and all reports will be listed accordingly.

Based on basic accounting principles, the numbers are assigned to the five sections as follows:

10000 - 19999	Assets
20000 - 29999	Liabilities
30000 - 39999	Equity
40000 - 49999	Income
50000 - 69999	Expenses

Within the range for each section, when setting the general ledger, you will assign titles, debit and credit accounts, subtotals, and section totals.

Department

You can create departments and have an account for each one. Full details are discussed in [Using departments](#)

The Account Title

You may use any name, or title, for each account. The name should be significant to the accounting professional, and specific to its purpose. Typical titles will include Accounts Payable, Savings, Parts Expense, etc.

Status

The status of each account number is assigned by the system operator in accordance with the following codes:

- H - Heading for five sections only
- T - Title line, usually for a sub-section or category
- B - Reset the subtotal calculator to 0.00 at this point
- S - Subtotal at this point in the listing
- G - Print a grand total at this point
- D - Debit account
- C - Credit account

Only the Debit and Credit accounts will have totals maintained. All other account (or line) numbers will signal a specific process. When the system is told to print a subtotal, it will also reset that calculator to 0.00. When told to print a grand total, it will also reset the subtotal and grand total calculators to 0.00. If a subtotal is to be obtained for a group of accounts in the middle of a long list, place a Begin subtotal marker prior to the first included account. This is accomplished by using a number just before that of the first account.

Beginning Balance

The beginning balance reflects the opening value for this account at the start of the fiscal year. Values will be posted for many accounts on the balance sheet, but will usually be 0.00 for profit and loss items.

Budget

Many accounts may be measured against a projected budget set by the system operator. The comparisons are on a monthly basis. The operator enters the dollar amount in the budget field, and the system calculates the percentage of the budget the current total represents. While useful, this information is optional. Budget amounts may be particularly useful with income and expenditure accounts.

Past Year

The total for each month, plus beginning and ending balances, for the past year are displayed. These were set when the previous year was closed. If this is the first year using this system, the amounts are set at 0.00.

Totals

Totals for the current activity, budgeted amount, and past year are displayed at the bottom of the screen. These amounts are calculated by the system whenever a period is closed, and cannot be modified.

Steps To Setting Up The G/L

There are two methods for setting up the General Ledger.

1) The extended procedure.

- The first step is to take five sheets of paper, and label the top of each with a section name (Assets, Liabilities, Equity, Income, Expense).

- List all of the accounts to be maintained within each section. Be sure to include all of the Executive's defaults.
- Group all of the accounts in a meaningful order, and be sure that like accounts are included.
- The five section titles are Headings.
- Within the ledger there may also be Titles for the different sections that may arbitrarily be included. Be sure to list all of the headings and titles in their proper location.
- After entering the headings, titles, and accounts, enter the Grand Total line, using the same name as the heading.
- Draw brackets to group items which are to be subtotaled.
- At the beginning of the bracket draw an arrow to indicate the subtotal calculator is to be reset.
- At the end of the bracket, enter a title for the subtotal.
- Label all of the entries, using H for headings, T for titles, B for the markers at the beginning of a Subtotal group, S for the subtotal lines, and G for the Grand Total.
- Finally, start at the heading by entering the first number in the section (ie. Assets = 10000). Then go to the Grand Total, and enter the last number in the section (ie. Assets = 19999).
- Look at major sections. Space them at intervals of 1000.
- Space the individual accounts at intervals of 100. Then you can have room to enter additional accounts at a later time.

Once this process is completed, use the **Edit** option to add all of the accounts.

-or-

2) The second, or abbreviated method is to modify the default General Ledger that is shipped with The MasterLink Shop Writer 2004. It may be installed from your CD. Print out the Chart of Accounts, and pencil in any additional accounts you wish to add. Then cross off any entries you would like to combine or delete. Finally, use the editor to make the changes.

6.3.3 Using departments

Your MasterLink Shop Writer 8 will utilize departments by flagging them with a one letter code. Your first step is to design a department list. Do this on paper so you can make changes and see how various options will work. Then you enter them into the system in Setup.

General Ledger

First you must set up the GL accounts that correspond to each department. Department codes are used only for Income and Expenses. The system will expect to at least have Income accounts for Parts, Labor, and Sublets. You might use 40100 as the Parts Income account, 40200 as the Labor Income account, and 40300 as the Sublets Income account.

For each department, you will need to setup a sub account. You do this by using the Add to create a new record, and then entering the account number in the first field, and the department code in the second field. For example, if you have three departments, A, B, and C, you will need to set up part income records for all three, plus the master account. Lets say that A is the Mechanical Department, B is the Body Department, and C is the Electrical Department. You would create the following GL accounts for Parts Income:

40100		Parts Income
40100	A	Parts Income - Mechanical
40100	B	Parts Income - Body

40100 C Parts Income - Electrical

You would do the same for Labor and Sublet accounts. Anything posted to 40100 will accumulate in the first account, no matter what department is assigned. However, entries for specific departments will be applied in the subsequent sub accounts (A, B, and C).

***** SPECIAL NOTE *** If departments are added to the system, the computer will not add them into the totals, but will track their individual totals, and permit reports to be run by department. This is triggered automatically if the department function is turned on, and accounts appear that have a department code. Be sure to leave the department field blank if you are not using this feature.**

Tools - Setup

You will select Tools - Setup - Lists - Departments from the menu. First you will be asked if departments are to be turned on and you would answer Yes. Then you will be asked for the master GL account numbers for Parts, Labor, and Sublets. In our example, you would enter 40100, 40200, and 40300

To understand what each code means, a list must be generated with titles for each department. This option is presented next, and works in the same manner as all other lists, permitting the entry of codes, and descriptions. You can enter the codes you assigned when designing your department structure. Use letters that will most easily be remembered with the title, ie. P for Paint, B for Body, M for Mechanical.

Data Entry

When entering Parts and/or Labor, the screen provides a place to enter the department code for each individual item. It will retain, and by default place the same department code, in successive screens, where it can be retained, modified, or removed as needed.

Reports

When running parts or labor reports, if departments are turned on in the system, you will receive a prompt for the department to be included in the report. If all departments are to be included, leave the field blank.

On the Workorder Reports screen, there is also a department report. This will provide you with a summary of totals for each department you have established.

Departments are not reported in the General Ledger since they are simply subsets of the accounts. The GL will always report on the total income in each category.

6.3.4 Posting transactions

Although all normal activity is posted to the General Ledger automatically, there are times when an operator will wish to make additional entries for transactions in the business not normally associated with the functions of the management system. These may be added using Transaction Posting, a menu option in the Ledger main menu.

This option is typical for entering adjustments to the Ledger, ie. depreciation figures. In addition, it is very useful to transfer money from one account to another.


Before reviewing how to post transactions to the General Ledger, it is crucial that you understand which activities need to be posted. Because the systems which interface with the General Ledger are fully integrated, it is not necessary to post any of the standard activity. Consequently, all Workorder, Bank Account, Receivable, Payable, and Payroll activity is posted automatically.

The only transactions which normally are manually posted to the General Ledger are those which are used for balancing accounts, transferring funds, or amounts derived by the accountant from other processes, ie. depreciation and amortization.


Transactions window


Date


To post activity on the ledger, you must first enter the transaction date. The system will then display a screen with an activity window listing all transactions currently posted during that date. Each line shows the account number, the debit amount, credit amount, and user comment. On automatic posting, the system has added identification information to the comment field. The window is fully scrollable, and can handle all of the items posted for the day.

 **Adding entries** After reviewing the current data, it is possible to add new transactions using the **Add** button. The system will open fields at the top of the screen for an account number, debit amount, credit amount, and comment. Fill in the data as appropriate. Once a debit, or credit, has been entered, it is necessary to add another listing for the opposite side of the T. The only exception will be if the day was out of balance, and the entry has balanced the system.

The system will keep a running total of debits and credits, and provide information at the bottom of the screen. If in balance, a message will so indicated. Otherwise, the system will provide an action message, ie "To balance, add \$4,000.00 to a DEBIT account".

 **Saving entries** Use the Save button to confirm the entry you have added, or edited, is saved properly

 **Deleting entries** You may highlight, and delete an entry, listed in the browse window. However, a corresponding entry must also be deleted to assure that the Credits and Debits are in balance.

 **Process** After each entry which is added, or edited, you must select the **Save** button to post the transaction. When you have all of the entries completed for the day, select to **Process** button

to actually apply the changes to the G/L and save the work. You will not be allowed to do so if the entries are out of balance.



Date - Use this to change to a different posting date or to review existing transactions for a different date.

If your work is in balance, the computer will write the adjustments to the current records, and add any new transactions that have been posted.

6.3.5 Ledger Balance Analysis

One of the most difficult tasks with a General Ledger is keeping it in balance. No matter how many 'traps' are entered into the system, somehow errors can occur. The Accountant has a routine to evaluate the ledger balance status, and isolate where problems occur.

Beginning / Ending Balances error

By selecting the Analysis option, the system will automatically test the total General Ledger, and report the findings. First, the system looks at the ending balance of all accounts on the General Ledger master file, and sees if the total for debit accounts equals that of the credit accounts. If so, it indicates the file is in balance.

If it is out of balance, you should print a Trial Balance, and compare the Beginning Balance amounts to the ending balance at the last closing (from your P/L or Balance Sheet).

The most likely cause of this type of error is that someone has changed the Beginning Balance field on a G/L account. The Beginning Balance shown on the Trial Balance is the same as the Ending Balance displayed when the G/L Account Editor is used. That amount is the sum of the months, plus the Beginning Balance on the Editor screen. Errors mostly occur when the Beginning Balances are adjusted between two accounts, and a closing has not yet been performed.

Transaction out of balance

Next, the system will evaluate all transactions in the current file. If the Debit and Credit Totals do not match, the system will report **"Your Transactions are not in balance"**. It will then proceed to evaluate the transactions for each month. If an imbalance is shown, the system will list the month. Then it will perform a day by day analysis for that month, and list the dates of all days that are not balanced. The date displayed can then be entered into the Ledger Posting option for correction.

The most common cause of errors is one sided posting. For example, if a payment is received on an Accounts Receivable due amount, but only the Debit side is posted, the Credit side will have a deficit.

Account number error

Sometimes account numbers are omitted or in error. The final step is to analyze the quality of the account numbers, and dates where errors have occurred will be posted for correction. Using Transaction Posting, these corrections can be made easily.

6.3.6 GL Update

Periods may be closed on a regular basis without creating any difficulty.

It is suggested that this function occur once per week.

The information will be posted to the current month, and added to the total already in that field. Consequently, if a closing were performed every day, the system would not experience any errors in the totals. Before closing, you must perform a Ledger Analysis. If you forget this step, the system will not close, but will prompt you to run the analysis. The closing must be run immediately after the test, or the flag will most likely be reset.

Once you enter this option, the system prompts for the month to be closed. Enter the first three letters of the month's name, ie. JAN, FEB, MAR. Any other combination will not be accepted. The closing will run automatically, updating totals, and transferring the included records from the current transaction file to history.

6.3.7 GL Default Accounts

There are four folders which are used for establishing the default G/L account numbers to be used in the processing of information. In some cases, the defaults are used "behind the scenes" while at other times, the defaults are displayed, and can be changed, prior to processing.

Workorder Daily Closing Defaults

Whenever a Workorder Closing is performed on workorders, the system must post transactions to the General Ledger. Although the program knows the category of the account, it does not know the name you have assigned, nor does it know the account number. For this reason, you must enter the account numbers in the General Ledger Default Accounts - Closing screen.

All Assets, Liabilities, Income, and Expense accounts that have information generated by the creation of workorders are listed. It is only necessary to enter the assigned G/L account number. In this manner, the system will know where to enter the totals on the General Ledger.

The defaults shipped with the system are set for the provided ledger. Run a Chart of Accounts and compare the numbers to the defaults to see how the system works. The same account number may be used in several categories.

All default numbers must have active accounts in the General Ledger. This means that an account, with that number, must appear on the Chart of Accounts. Otherwise, processing errors will occur.

A/R - A/P Account Posting Defaults

Whenever charges and payments are posted to the Accounts Receivable or Accounts Payable, they must also be posted as transactions to the General Ledger. To eliminate the need to enter the account numbers for each transaction, defaults have been established.

These defaults may be entered using the option in the G/L Defaults Menu. The data screen will be displayed, and the values can be edited. Remember to select the OK button after any changes are made so the values will be saved.

Most vendor accounts also have a General Ledger Debit Account number. It will override the default whenever a charge is entered into the Payable posting. For this reason, the debit account number for Payable will usually be the resale parts account.

To better understand this concept, print a Chart of Accounts for the default ledger shipped with The Accountant. Then match the accounts to the values entered on this screen to view which are actually affected by the transactions.

Interest received, paid, and discounts can also be directed to specific accounts based on these defaults. Enter the appropriate account numbers in the fields that are displayed.

Employee

Payroll expenses for employees can be grouped in several categories. The account numbers for Debits and Credits should be entered. If only one category exists, the same numbers will be provided in all fields.

Critical Note: If you will write payroll checks from within MasterLink Shop Writer 8, then the CREDIT account numbers should be a Liability Holding Account. When you write the check, this account is Debited and the bank account is Credited. Then when you perform the Accounting, it is credited and the actual expense account is Debited.

The "Other deductions" field is a holding place for miscellaneous deductions that are withheld from an employee's paycheck. In many cases, the values assigned to the actual deductions will override the defaults established in this section.

Ranges

The system needs to know the ranges in which accounts will fall. The system uses the standard five categories, Assets, Liabilities, Capital, Income, and Expense. The first, and last, possible numbers would be entered here. Examples of these ranges can be found in the [General Ledger account setup documentation](#).

6.3.8 GL Year End

The Year End option will take the following actions:

1. The previous year totals are removed
2. The current year transactions are moved to the previous year
3. The current year ending balance for each account is placed in the new year's beginning balance
4. The current year monthly totals are set to 0

Once you run the Year End utility, perform an Analysis to be sure the accounts have remained in balance. Make any adjustments necessary or desired to beginning balances.

6.3.9 Out of balance

When You Wonder What To Do

When working with the General Ledger, there may be some concerns, problems, or frustrations that arise. The following are the most common difficulties brought to our attention.

The Ledger is Out of Balance

The following steps will help you handle an out of balance problem.

- 1 - Run the Ledger Analysis. Write down the dates that are displayed.
- 2 - Go to Ledger Posting, and enter the displayed date from the Analysis. When all of the transactions are displayed, not the amount that is out of balance, and look for any clear indications of where the problem may lie. Posting to only one valid account is the most common cause of an imbalance.
- 3 - Correct the error by editing, or posting a corresponding amount to another account.
- 4 - Re-run the Ledger Analysis.

How do I spread payments over multiple accounts ?

Using the Ledger Posting, you may enter a single debit entry, and multiple credit entries, or vice versa. In addition, you can have multiple entries in both debit and credit sides of the T. The only requirement is that the totals must balance, or the system will not accept any of the input items.

Which defaults do I need to install ?

It is important to install an account number for every default. The system must know this information to have a place to post values it will generate.

What needs to be 'closed' before I close the G/L ?

The General Ledger can be closed at any time. It is not necessary to close A/R, A/P, or Payroll because they write G/L transaction tickets at the time the activity is performed.

What needs to happen before I perform a year end closing ?

The year end closing is accomplished when the following have occurred:

- 1 - All Transactions for the year have been posted, including any desired adjustments.
- 2 - All months for the year have been closed.
- 3 - The final reports (Profit and Loss, Balance Sheet) have been printed.

6.4 Payroll

If you have employees, you will be obliged to withhold, and pay, federal, state, and perhaps local, income taxes. These are directly related to the type, and amount, of earnings your employees achieve.

There are certain elements of record keeping that must be obtained. First, you will have to track employees' name, address, and social security number. You will also need to record all payments of wages, including the date paid, and the period for which the amount was paid. In addition, the amounts of taxes collected, and the dates, must be maintained.

Each employer must have a federal identification number. In addition, a state number may also be required.

Employees fill out exemption certificates, known as a W-4. These must be retained by the employer, and deductions are then based on the calculations made on the form.

Employers are also responsible for the collection, and payment of FICA (Social Security), and FUTA (Federal Unemployment Tax Act), taxes. Federal Tax rates, including income withholding, FICA, and FUTA, are provided within the Department of the Treasury's Circular E, the Employer's Tax Guide. The taxes are based on earnings, and may have limits. Some are paid by the employee, others by the employer, and some by both.

Taxes must be collected at each pay period. When they reach the limits specified in the Circular E, they must be deposited in a Federal Reserve Bank, or an authorized commercial bank. The limits, and time frames, are also described in the Circular E, and change from year to year.

While some states do not tax income, most do have regulations in place, published within their own documents. These taxes must be collected, and deposited, in accordance with the state guidelines.

A Payroll accounting system must first calculate the gross pay of employees. This may be based on hourly wages, commissions, and/or a salary. Many employers have incentive programs that provide extra income to their employees. The total compensation is known as the gross pay. The taxes, and other monies withheld from the gross pay, are known as deductions. The amount actually received by the employee is the net pay. The accounting system must calculate each of these, for each employee, and maintain records of all amounts.

At the end of the year, each employer must provide every employee with a W2, which is a summary of wages paid, and taxes withheld. A copy is also filed with the state, and IRS. The employee must file copies of the W2 with their personal income tax return.

Other documents are required by the state and federal governments when making deposits of taxes, and for quarterly progress reports.

Accurate payroll tracking is crucial for small businesses, because this is the one area of accounting that is monitored most closely, and on a very regular basis.

6.4.1 Setup of Employee Records

A record must be setup for each employee. MasterLink Shop Writer will post records to the files based on the employee code you assign, but must be used on the workorders for labor and commission tracking.

For new employees, also be sure to set them up in the main Tools - Setup - Costing section for proper tracking.

Be sure to first read the information in the following pages carefully, then apply it to each employee.

6.4.1.1 Payroll Setup Overview

The MasterLink Shop Writer will perform all of your payroll tracking, calculations, and reporting. However, you must first setup the employees in the payroll system. This is done on the following screen, using the Employee - Edit menu option.

Please carefully read the sections on Payroll and become familiar with how the system works. You will want to collect the following information on your employees to be used in the setup process:

- Employee's full name
- A code you wish to identify the employee in the code
- The employee's address and phone number
- The employee's social security number
- The employee's deductions claimed on a Federal W4 form
- Any additional withholding amounts for taxes sought by the employee
- Any obligations (insurance, uniform/tool fees, etc.) to be withheld from paychecks
- The frequency of payments (weekly, bi-weekly, monthly, etc.)
- The method of payment (hourly, flat rate, commission, salary, etc.)
- The amount of payment for the method used

Once you have gathered the information, you can set up the employee's payroll record, and the system will begin to track, calculate, and pay the individual(s) in the system.

The payroll system is not used for the labor job costing. The information provided in the **Tool - Setup - Costing** menu selection is used. Please read the [Costing](#) section of the manual to understand why there is a difference.

6.4.1.2 General Information


Last Name	First Name	Code	Phone
Ducky	Alex	AD	(701) 444-2112


Employee Processing Controls


Employee Data

Because employees are all compensated on a wide range of factors, which are applied individually, and they have a variety of deduction possibilities, they must all be setup on their own records. The Employee Data Editor is used to set the employee's name, address, deductions, and payment methods. It also tracks earning totals.


The EDE has a browse box in the lower part of the window to display the list of employees. Five folders on the top of the window display employee information, withholding criterion, payroll totals, pay calculation methods, and individual notes.


 **Add** Use this button to enter a new employee. Do not overwrite another employee's information if they are no longer employed at your company. Always start a new record to prevent data contamination.


 **Save** Save any additions or changes of data associated with the records for the highlighted employee.


 **Delete** You can use this button to remove an employee. However, it is very important that this not occur during a year in which the employee has worked for the company since the individual's data will be necessary for system reports and various calculations.

 **Re-Calc** - Recalculate the payroll totals for the highlighted employee

 **Edit** You can edit timecards or create manual ones from this button

 **Process** Select from the drop down menu the various processes associated with preparing pay checks for the employees, and handling the accounting.

 **Reports** All of the Payroll Reports can be accessed from the drop down menu triggered with this button.

 **Tools** The tools are utilities used to setup data important to payroll processing. Please read the section on these important features: ***Payroll System Setup/Utilities***

Basic Data

The basic information on an employee includes the name, address and phone number. Each individual is assigned an employee **code** which is a quick means to reference the individual on workorders, and for special reports. In addition, it serves to tie all of the records together regarding the employee's compensation and deductions. Although you may use any characters for the code, it will help when reviewing invoices to use initials or a first name because you will readily recognize the proper technician who performed the work.

6.4.1.3 Employee deductions

To view the withholding information, first highlight the desired employee, and then select the second folder tab.

Employee	Withholding	Totals	Pay Method	Notes	Deductions								
Soc. Sec. #	555-55-5555	Pay Period	W	VACATION	Days / Year 42								
Marital Status	M	Began work	01/01/01	Rate per day	\$ 300.00								
Dependents	16	Review date	01/01/15	Due Date	01/01/15								
<input type="checkbox"/> Exempt		Ended work	//	SICK	Days / Year 12								
EXEMPTIONS	Federal 12	OTHER: Federal	\$ 0.00	Rate per day	\$ 50.00								
State	12 0	State	\$ 0.00	Due Date	01/01/15								
Local	0	Local	\$ 0.00										
<table border="1"> <thead> <tr> <th>Last Name</th> <th>First Name</th> <th>Code</th> <th>Phone</th> </tr> </thead> <tbody> <tr> <td>Adackworth</td> <td>Daffudrak</td> <td>AD</td> <td>(213) 555-1212</td> </tr> </tbody> </table>						Last Name	First Name	Code	Phone	Adackworth	Daffudrak	AD	(213) 555-1212
Last Name	First Name	Code	Phone										
Adackworth	Daffudrak	AD	(213) 555-1212										

It is crucial to maintain the taxpayer information on your employees. The following data is collected:

Social Security Number

The social security number must be on file. It is entered in the first field. All employees must have an SSN.

Marital Status

Your payroll system calculates deductions based on the marital status of each individual to select the proper deduction table. For those who are single, including head of household, enter S. For those who are married enter M. The federal government only utilizes these two categories for withholding, although individuals may file their returns under another status. The field must not be left blank, or processing will revert to single status.

Dependants

The system also asks for the number of dependents. This should reflect the number of actual dependents, not the deduction amount calculated.

Exemptions

The exemptions are calculated on the federal W4 form. Enter the result in the federal field. The state and local exemptions will have up to 2 fields. For example, some states divide the national exemption number into dependents, and allowances for itemized deductions. The amounts may differ. Therefore, they are setup differently. In such a case, enter the dependents allowance in the first field, and the additional deductions in the second field.

Additional Withholding

Some individuals seek additional withholding because it provides for covering the tax liability of a spouse, or other income. The amounts may be specified for federal, state, and local withholding. This will be deducted each pay period.

***** HINT *** Some people will want to withhold extra money only for a short period of time. This amount can be set prior to a payroll processing, and then reset to 0.00. It will not create any problems in calculation, or the maintained totals.**

Pay Period

Each individual must be assigned to a payroll processing period. The codes used by the system are:

- W - Weekly

- B - Bi-Weekly
- S - Semi-Monthly
- M - Monthly

It is necessary to enter one of these codes, because they are used to select the appropriate tax table for processing, and those without a period will not be processed at all.

Begin / End Work

It is important to track the hire, and termination, date of an employee. In addition, it is also good to have a review date. These are defined as follows:

- **Begin** - Enter the date when the employee was first hired. If the employee has worked for varied intervals for your company, you will need to decide if you wish to use the most recent hire date, or the first date of employment.
- **End** - If an employee is still tracked in the system, but has been terminated, enter the last date of employment in this field. Otherwise, leave the field blank.

Review Date

Employees should all have periodic review dates for performance review, and possible pay increases. Enter the date of the next review in this field.

Vacation

The system will calculate, and track, vacation pay due to an employee. It is necessary to set up the basis, by entering the following three items.

- **Days/Year** - Enter the number of days of paid vacation that will be earned each year.
- **Rate per Day** - Enter the amount to be paid for each day of vacation taken. The system will provide this number as a default, but will allow the user to change the amount when calculating the actual pay amount.
- **Due Date** - Enter the date when the total number of days will be earned. This will usually be the one year anniversary of the employee's hiring.

Sick Pay

The system will calculate, and track, sick pay due to an employee. It is necessary to set up the basis, by entering the following three items.

- **Days/Year** - Enter the number of days of sick pay that will be earned each year.
- **Rate per Day** - Enter the amount to be paid for each day of sick leave taken. The system will provide this number as a default, but will allow the user to change the amount when calculating the actual pay amount.
- **Due Date** - Enter the date when the total number of days will be earned. This will usually be the one year anniversary of the employee's hiring.

6.4.1.4 Employee pay methods

The methods for paying employees may be quite complex. The Accountant provides a wide range of payment options. Consider each carefully as you study their implementation. You may use one, or any combination, or payment calculation methods with an individual employee. Therefore, very complex payment methods may be created with this system.

All work is done on the Pay Methods tab option of the Employee-Edit menu selection.

Employee	Withholding	Totals	Pay Method	Notes	Deductions
Hourly Pay		\$ 15.00		Pay by service	\$ 43.00
- Overtime	0.00 x	0.00 hours		Incentive: over	40 units/period \$10.00
- Double	0.00 x	0.00 hours		Incentive: over	50 units/period \$15.00
Yearly Salary		\$ 0.00		Incentive: over	0 units/period \$ 0.00
Employee				Incentive: over	0 units/period \$ 0.00
COMMISSION					
Parts: 0.00% over \$ 0.00					
Labor: 0.00% over \$ 0.00					
Draw per year \$ 0.00					
Based on 0.00 hours					
Excess rate \$ 0.00					

Last Name	First Name	Code	Phone
Adackworth	Dalfudrak	AD	(213) 555-1212

Hourly Pay

Some employees may be paid on an actual time clock basis. Their hourly earnings would be entered in this field (ie. \$4.75 per hour). Leave this blank if it is not to be used.

Overtime / Doubletime

It is required by U.S. Federal Law that individuals who work more than 40 hours per week must be paid overtime. The amount is usually 150% of the normal pay rate.

Under certain circumstances, they may be paid a higher amount, usually 200% of normal. This is known as doubletime. These values may be established in accordance with the shop policy.

In the first space, enter the factor (1.50 is the standard for overtime), and in the second field, enter the base hours beyond which overtime is to be paid. These should be established for all employees who are paid on an hourly basis. Do the same for doubletime.

If you do not pay doubletime, be sure to enter the same rate in the field as is used for standard overtime.

Salary

The salary field is used to enter a yearly amount to be paid to the employee. Although this is normally used for owners, or managers, it may also be used in combination with other fields to provide a base salary. For example, a sales representative might earn \$12,000 a year salary, plus commission. If paid monthly, this would be a \$1,000 base. If they were expected to sell \$5,000 worth of product for this amount, and received a commission for sales beyond this amount, they would have a commission set under parts, with a base of \$5,000.

Employee Type

There are five employee types handled by the system. This is used for identification, and general ledger assignment. It does not affect the manner in which earnings are calculated.

- **M - Management:** Shop management is usually paid on a salary or draw. This category includes the owners, and/or executives of the business.
- **S - Support:** Support personnel would include supervisors, parts managers, and other individuals who do not generate billable labor.
- **T - Technical:** Technical personnel generate labor which may be billed within the system. This includes technicians, testers, and perhaps supervisors who receive their compensation based on commission for work accomplished.
- **C - Clerical:** Secretaries, accounting staff, and other clerical personnel are included in this category.

- **L - Labor:** Casual labor, used as drivers, detailers, and general shop maintenance personnel are within this category.

Commission

A Commission is paid on all parts and labor if amounts are specified. The system will total the parts, and/or labor, for the employee named. If there is a base (amount over which the commission is to be paid), it will be subtracted from the total dollar sales, and become the basis. Then, the percentage entered in the parts and/or labor field will be multiplied by the basis, and applied to the gross earnings. Remember that the base, entered in the over field, is the amount to be subtracted from total sales, not from the commission. Also, if no percentage is entered, there will be no amount calculated for pay.

Pay by Service Units (Flat Rate)

Many shops pay for labor based on a 'flat rate' method. Using this system, each job has an average amount of billable time on which the charge is based. These units may also be the basis for paying an employee. The rate to be paid, per unit should be entered in this field. For example, if a labor rate book says a job should be worth 1.2 units (loosely interpreted hours), and you pay the technician \$20.00 per unit (entered in the unit field), when they are paid, they would receive \$24.

Incentive Pay

When employees are paid by units, you may wish to have incentives for completion of a greater number of units within the pay period. For example, if you pay on a weekly basis, and assume that the employee will accomplish 40 units per week, you can reward up to four levels of excess units. The system will first analyze the total units.

Here is a sample chart:

over 40 units/period + \$ 1.00/unit
over 50 units/period + \$ 1.50/unit
over 60 units/period + \$ 2.00/unit
over 70 units/period + \$ 2.50/unit

If this employee completes 63 units, he qualifies for 10 units from 41 at \$ 1.00 bonus, 10 units at \$1.50 bonus, and 3 units at \$2.00 bonus. If his base pay is \$18.00 per unit, he will earn 40 @ \$18.00, 10 @ \$19.00, 10 @ \$19.50, and 3 @ \$20.00 per unit. If the following week he completes 38 units, he reverts to the \$18 per unit compensation.

The actual rates, and limits, are decided by the shop based on your policies. To not pay incentives, leave the values at 0.00.

Incentive pay is a good way to improve productivity. However, it is vital to have a policy for handling comebacks. If an employee works so fast that shortcuts are used which should not be, the loss of a client may well result.

Draw per year

If an employee is paid on a draw per year, enter the annual rate in the first field. If this covers only a certain number of hours per pay period, ie. 40 hours per week, enter the number of hours in the period in the second field. If the employee has a base, and is paid for extra hours, enter the hourly pay in the excess hours rate field. Then, the system will calculate an additional amount based on this rate.

Calculation methodology

The system detects which of the four categories your employee qualifies for, and then uses that rate as a basis for supplemental pay. If there are multiple rates, the system calculates the appropriate amount for each category.

6.4.1.5 Totals & Notes

Pay Totals

To view the current payroll totals for current employees, select the Totals tab. The browse box lists all of the employees, and the upper portion of the window displays all of the totals for the highlighted employee.

Employee	Withholding	Totals	Pay Method	Notes	Deductions	
Gross Pay		10.00	FICA	0.74	Vacation Accrued	14.0000
Net Pay		5.00	Medicare	0.25	Vacation Used	0.00
Last Payment	11/10/15		FUTA	0.00	Vacation Paid	0.0000
Federal Tax		3.00	SDI	0.01	Sick pay Accrued	3.0000
State Tax		1.00	SUTA	0.00	Sick pay Used	0.00
Cafe Plan		0.00	Advances	0.00	Sick pay Paid	0.0000
			IRA Withheld	0.00		

Last Name	First Name	Code	Phone
Aduckworth	Delfudiak	AD	(213) 555-1212

The display box is provided to show itemized individual deductions. It may be scrolled for a complete listing. This listing is for display only, and the totals cannot be modified and saved.

Notes

All activity of an employer/employee nature should be recorded, and saved for future reference. The note option (tab), provides a pad upon which all notes can be written.

Because this option uses the text editor, it has full word processing capability. Be sure to enter the date and time whenever notes are made. This is always helpful when reviewing your comments and activities. Also remember to select the {button Save, } button to file your notes.

6.4.1.6 Other payroll deductions

You may create additional deductions for individual employees from the final tab on this screen.

Code	Description	Deduct When	Percentage	Fixed Amount	Debit GL #	Credit GL #	Total Paid
AFLAC	AFLAC Insurance	M	0.00	0.00	27000	10240	0.00

Last Name	First Name	Code	Phone
Ducky	Alex	AD	(701) 444-2112

First, you must setup payees (service providers, insurance companies, etc.) for these deductions. You do this under the payroll utilities option [Company](#).

To make an employee deduction, it is necessary to select the employee on the browse menu, press the button to start a new deduction record, and then enter the proper code. When you press the Tab key, the other information will be applied by default, but you can modify it as appropriate. Complete the remaining fields as provided:

When

The system needs to know at which point during the processing the deduction needs to be made. Generally, this is on the Gross, or after Federal withholding is withdrawn, or after State withholding is drawn. Enter the proper code from these options:

- **Gross** - Make the deduction from the Gross pay total
- **Federal** - Make the deduction from the amount remaining after all Federal taxes have been deducted
- **State** - Make the deduction from the amount remaining after all Federal and State taxes have been deducted
- **Keough** - Deduct the amount from the Gross pay, calculate taxes on the balance, and then return this amount to the net paycheck.
- **Ira** - Deduct the amount from the Gross pay, calculate taxes on the balance, and deposit this amount in an Ira account.

On some retirement plans, monies can be withheld prior to any calculations, and then added back to the net of the check after all withholding amounts have been removed. To accomplish this, in the Employee Deduction screen, at the Deduct When ? field, enter the letter K (for Keogh). This amount will be deducted from the Gross Pay prior to processing, and added back to the net pay before writing the check. You may also use I (for Ira), in which case the money is NOT added back into the paycheck.

Amount

It is necessary to enter a method for calculating the amount. If it is a **percentage** of the paycheck (as determined under **When**), enter the value. Otherwise, enter the **fixed dollar** amount to be deducted. This will be applied at each pay period. If an employee is paid twice per month, and the deduction is for a monthly total, take half out of each pay period.

GL Numbers

- **Debit** - The GL account to be debited when this deduction is processed in payroll.
- **Credit** - The GL account to be credited when this deduction is processed in payroll.

Total

The system will also display the total deductions already made for the employee on this account, for this year.

6.4.2 Payroll System Setup/Utilities

The payroll system must have all aspects of data pre-set for it to perform properly.



Review this section carefully and then be sure to setup each area detailed. Only then should you begin handling the processing of payroll.

6.4.2.1 Federal tax data

Taxpayer ID Numbers



The federal and state taxpayer ID numbers are required on many reports and forms. Once this option is selected, you may view, and then edit, each number. Be sure that the entries are correct.

This screen is also used for the state identification. Enter the standard two letter designator for the state table to be used, ie. CA for California.

TAXPAYER IDENTIFICATION NUMBERS	
FEDERAL TAXPAYER I.D. NUMBER	899-00-9999
STATE TAXPAYER I.D. NUMBER	888-99-8888
2 Character State Abbreviation	CA
 	
Accept Cancel	

F.I.C.A.



When FICA is selected, the system will display two sets of boxes. Each permits the entry of the employee, and employer, percentage of contribution, and the earnings limit for deductions. The left column of boxes is for social security, while the right set is for medicare. Please note that these rates are different.

FICA WITHHOLDING CALCULATION	
Social Security Employee Contribution %	6.2000
Social Security Employer Contribution %	6.2000
Social Security Deduction Earning Limit	90000.00
Medicare Employee Contribution %	1.4500
Medicare Employer Contribution %	1.4500
Medicare Deduction Earning Limit	1000000.00
 	
Accept Cancel	

The system is set for the year when the software is first shipped. Updates to the files may be made by the operator, in accordance with Schedule E of the Federal Tax Guidelines.



F.U.T.A.

At the present time, FUTA is paid by the employer. The system will display current values for the percentage of contribution, and the earnings limit. These may be updated by the operator at the beginning of each year in accordance with the values in Circular E, the Federal Employer's Tax Guide.

FUTA WITHHOLDING CALCULATION	
FUTA Employer Contribution %	6.2000
Earnings limit for deductions	7000.00
 	
Accept Cancel	

Federal Standard Deductions

The standard deduction is the amount subtracted from gross earnings of an employee for their pay period, prior to calculating the tax liability. The amounts are found in the Circular E, titled Percentage Method Income Tax Withholding Table.

FEDERAL STANDARD DEDUCTIONS	
Weekly Table Standard Deduction	61.5400
Bi-Weekly Table Standard Deduction	123.0800
Semi-Monthly Table Standard Deduction	133.3300
Monthly Table Standard Deduction	266.6700
 	
Accept Cancel	

The fields displayed on the screen ask for payroll periods which are weekly, bi-weekly, semi-monthly, or monthly. Enter the amount which is found in that table, which is the amount for each withholding allowance. The system multiplies this amount by the number of federal deductions for the employee, and then subtracts the result from the gross pay, to arrive at a taxable obligation.

6.4.2.2 Federal tax tables

The federal tax guidelines are pre-loaded when you receive your software. They may be updated on a yearly basis in accordance with the guidelines, printed in Schedule E, The Federal Tax Guide for Employers.

From the Employees - Utilities - Federal Tables option on the main menu the system will display a table that is identical to that found on the federal level. If values need to be changed (for a new year), simply highlight the entry where the corrections must be made. Make your changes, and select the {button Save, } button to retain the modified values.

All tax tables need to be updated each year. If the tax tables are not accurate, the calculations will be inaccurate and you may be responsible for underpayment and consequent penalties.

Period	Marital	Wages over	but not over	Withhold	Plus %	of excess over
B	M	0.00	500.00	0.00	0.000000	0.00
B	M	500.00	1290.00	0.00	0.100000	500.00
B	M	1290.00	3713.00	70.00	0.120000	1290.00

This table is identical to the charts in the **Schedule E**. You have the options for Period of Weekly (52 payments per year), Bi-Weekly (every two weeks which is 26 payments per year), Semi-Monthly (twice a month for 24 payments per year), or Monthly (12 payments per year). For Marital Status, use Head of Household, Single, or Married. The values to enter are taken directly from the table in the tax guide.

MasterLink Software provides an updated table on its website for downloading. However, it is your responsibility to be sure the newly installed table is correct.

6.4.2.3 State tax data

State tables are not as consistent as federal, and do not often conform to the same standard. Therefore, there is some flexibility in which the system will prompt for deductions in each state. They are outlined in the following paragraphs.

S.D.I.

State disability insurance withholding varies from one state to another. Enter the employee and employer contribution percentages in the spaces provided. If there is an earning ceiling, it may be entered in the third box, as prompted. Be sure to check the state regulations.

Some states have rates which may effectively reduce the FUTA, and require a change. Your state guidelines will provide the necessary information for this setup. If the state has no SDI, the rates should be set to 0.00.

S.U.T.A.

STATE UNEMPLOYMENT TAX WITHHOLDING CALCULATION

State Tax Employee Contribution %

State Tax Employer Contribution %

State Tax Deduction Earning Limit

Accept Cancel

State unemployment insurance withholding varies from one state to another. Enter the employee and employer contribution percentages in the spaces provided. If there is an earning ceiling, it may be entered in the third box, as prompted. Be sure to check the state regulations. Some states have rates which may effectively reduce the FUTA, and require a change. Your state guidelines will provide the necessary information for this setup. If the state has no unemployment tax, the percentage should be set at 0.00.

Standard

State Deduction Table

State Code

	Weekly	Bi-Week	Semi-Month	Monthly	
Estimated Deduction	<input type="text" value="19.00"/>	<input type="text" value="38.00"/>	<input type="text" value="42.00"/>	<input type="text" value="83.00"/>	<input checked="" type="radio"/> Accept <input type="radio"/> Cancel
Standard Deduct Single	<input type="text" value="54.00"/>	<input type="text" value="108.00"/>	<input type="text" value="117.00"/>	<input type="text" value="234.00"/>	
Standard Deduct Married	<input type="text" value="108.00"/>	<input type="text" value="216.00"/>	<input type="text" value="234.00"/>	<input type="text" value="469.00"/>	
Dependent Credits	<input type="text" value="1.44"/>	<input type="text" value="2.88"/>	<input type="text" value="3.13"/>	<input type="text" value="6.25"/>	
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

The standard deductions for the state is divided into three sections. First is the **estimated deduction**. This is an amount allowed by some states for allowances based on estimated deductions on an itemized return. The **standard deduction** is the amount allowed for dependents prior to calculating the tax. This is divided into single, and married, allowances. The third amount is the **dependent tax credits** allowed after the tax obligation has been calculated. If your state does not allow one of these credits, then the value should be set to 0.00. Each section has entries for weekly, bi-weekly, semi-monthly, and monthly.

6.4.2.4 State tax tables

If your state uses a tax table system, they may be updated on a yearly basis in accordance with your own state's guidelines, in their printed tax guide. The system will ask for the state code (use the standard two letter postal code) and then display a table that is identical to that found on the federal level. These tables are identical to the Federal Tax Tables. If values need to be changed (for a new year), simply highlight the entry where the corrections must be made. Enter the change, and be sure to select the **Save** button to retain the result.

All tax tables need to be updated each year. If the tax tables are not accurate, the calculations will be inaccurate and you may be responsible for underpayment and consequent penalties.

If your state is based on a percentage basis, the system will provide a screen with the formula values. Follow the prompts that are shown to update the values.

6.4.2.5 Payroll tax payments

The Payroll system allows the user to make payments to the taxing agency through the computer. This utility option allows the user to specify the name of the Federal and State agencies to whom checks must be made payable.

The screenshot shows a dialog box titled "Tax Payee Names" with a light blue background. It contains three text input fields on the right side, each corresponding to a label on the left: "FEDERAL TAX PAYEE" (value: Internal Revenue Service), "STATE TAX PAYEE" (value: Employment Development Dept), and "SUTA PAYEE" (value: Employment Development Dept). At the bottom center, there are two buttons: "Accept" with a green checkmark icon and "Cancel" with a red X icon.

Simply enter the names in each field displayed, and press the Accept button to save the values.

6.4.2.6 Servicing other payroll deductions

Before setting the individual deductions, you must first establish the vendors from the menu Tools - Company. The following screen is then displayed.

The screenshot shows a "Vendor Deduction Editor" window. The top bar contains icons for Add, Save, Delete, Help, and Exit. The main area is divided into two columns of input fields. The left column contains: Code (AFLAC), Company (AFLAC Insurance), Address (empty), City (Columbus), State/Zipcode (GA 31999), and Phone ((800) 992-3522). The right column contains: Contact (empty), YTD Deducted (1704.30), YTD Paid (\$ 0.00), Last Payment (02/18/05), Debit GL # (24000), and Credit GL # (26000). At the bottom, there is a table with columns for Vendor and City. The first row shows "AFLAC Insurance" in the Vendor column and "Columbus" in the City column.

Companies

Each deduction must be tagged to a company or agency to which the amounts will be paid. The company information includes the name, address, and phone number. In addition, the system must know the general ledger debit and credit accounts. The system will track the total amount credited from employees to the deduction, and the actually amount paid out to the vendor from the withheld monies. The following fields need to be completed.

Code

The code is of your creation ... but use one that is easy to remember. Generally 3 letter codes are the best

Company, Address, City, State/Zipcode, Phone

Enter this information which is then added to checks, and available when checking the status of the account.

Contact

Enter the name of your main contact person at this company.

YTD Deducted, YTD Paid, Last Payment

The system will automatically track these items. YTD (Year To Date) Deducted is the amount taken from paychecks, and the amount Paid is what you have actually sent to the vendor. The date of Last Payment is updated whenever you process a check

When you withhold money from a paycheck for any deductions, either tax or services, it is your responsibility to pay the proper agencies and companies in a "timely manner". The government provides strict guidelines for payments to be posted, and it is wise to use the same policy for your vendor payments. Withheld money is actually the employee's and should be credited to their accounts immediately.

Debit GL #, Credit GL #

Enter the account numbers you want debited and credited when the other deductions are removed from the paycheck. Generally, you will Credit a Liability account and Debit an Expense account. When you actually write a check to make the payment, you will then Credit the bank account and Debit the same Liability account.

Employee

Each employee also requires a deduction record for each item that is to be charged against his payroll. This is performed on the individual employee record as described in the [Other Payroll Deduction](#) section of the manual.

6.4.2.7 Payroll annual closing

At the end of the year, it is necessary to perform a closing. This process will post all employee records to a history file, and clear the master records for the next year.

Select Closing from the Tools dropdown menu. You will be asked to confirm that you want to actually close a year. Then, you will be asked to select the year to be closed. All work will then be performed and records move to a history file.!

6.4.3 Payroll Processing

Data for employees is created when developing workorders, and/or using timeclocks. However, converting that data from its raw form to payroll actionable results is handled in the Processing routines.

Be sure to read all of these sections carefully so you can then properly process paychecks for your employees. If your results are not accurate, it will likely be the result of an error in your setup.

6.4.3.1 Advances

Whenever an employee receives an advance, it must be logged to the system. You can do this in the Payroll Processing menu option for Advance.

A screen will ask for the employee code. Once that is entered, a data entry form is made available to input information regarding the advance.

The screenshot shows a software interface titled "Payroll Advances". It contains several input fields and controls:

- Employee Code:** A text box containing "AD".
- Pending Advances:** A numeric field with "0.00".
- Earned Pay now due:** A numeric field with "0.00".
- Amount of this advance:** A numeric field with "0.00".
- Description (why \?):** An empty text box.
- General Ledger DEBIT:** An empty text box with a small icon on the right.
- General Ledger CREDIT:** An empty text box with a small icon on the right.
- Payment Method:** Two radio buttons, "Cash" (selected) and "Check".
- Buttons:** A green "Process" button with a checkmark icon and a red "Cancel" button with an 'X' icon.

Pending advance

This is the total of all advances the employee has taken against his pending paycheck. It is important to not let employees overextend their credit.

Earned pay now due

This is the total of Gross pay that employee currently stands to receive on the next paycheck. Remember that taxes will take about 25% of this, and there may be other charges which also cut into the paychecks.

Amount of this advance

Enter the amount you intend to provide with this advance

Description

Enter a brief explanation of why this advance is being provide. A common use of advances is to charge employees for parts they wish to use on their own vehicles.

G/L Debit & Credit

Enter the Debit and Credit numbers for the advance.

Cash / Check

Check the proper method of payment. Cash comes from the daily drawer, and will be reflected on the Drawer Report for the day. Selecting Check will actually allow you to write, and print, a check for the employee.

Advances should be used with great caution. It is not unusual for an employee to "need" advances which exceed current earnings, and then to leave the job, shorting the employer. In addition, some employees constantly need advances, and cannot live from one paycheck to another. This can also be problematic. There is no legal need to provide for advances to an employee.

Processing

Advances are held until the next pay period, at which time they are automatically deducted from the Net earnings of the employee.

6.4.3.2 Sick / Vacation pay

To pay an employee for sick, or vacation, pay select the Sick/Vac Pay option from the Payroll Processing menu. The system will prompt for the employee code. Once provided, the system will then display a payment form.

Payment for: Alex Ducky	
Sick Pay	Vacation Pay
0.00	0.00
Available Days	0.00
0.00	# of days to pay
0.00	0.00
0.00	Amount per day
0.00	0.00
<input type="button" value="Process"/>	<input type="button" value="Exit"/>

Sick Pay

This column is used to pay employees for days in which they were absent from work due to illness.

Vacation Pay

This column is used to pay employees for days which are "paid vacation". Sometimes this is done in 1 or 2 day increments (long weekends), or may be paid in a lump sump on an annual basis.

Available days

This field displays the number of days that the employee has "earned" of either sick, or vacation, pay based on the time they have worked since their hiring minus the days for which they have already been paid.

of days to pay

Enter the number of days for which you want to pay on the next payroll processing.

Amount per day

The system will provide the default amount that you have entered for payment. However, you may modify the amount. The system will calculate the total to be paid based on the amount entered in this field.

Processing

The amounts entered in this form will be retained in a payroll record, and will be paid when payroll processing next occurs for this employee.

It is possible to pay sick pay even though it is not earned. This will allow a deficit condition. It is not recommended that any significant amount of this pay be advanced, because it is not reclaimable should the employee terminate their position.

6.4.3.3 Gross pay calculations

When the Gross pay option is selected, the system will prompt for the payment period (Weekly, Bi-weekly, Semi-monthly, or Monthly). Then it will determine the proper dates to be included in the processing, and present them for verification. Once correct, the system will then calculate the complete gross pay for each employee, based on their classification, and available pay records.

The system will ask for the hours worked for employees not paid by salary or commission. It will also verify the number of overtime hours worked.

The system will now display a browse lists of employees for whom payroll checks have been created. As you highlight any individual record in the list, the full data will be shown in the fields in the upper part of the screen.

Employee	Gross Pay	Net Pay
TOM	63.62	-20.84

Be sure to review all of the information for accuracy. The totals will be both the actual amounts (hours, sales, etc) and calculated amounts. You may edit values that you wish to modify. However, it is suggested that you only add money to the "Supplements" field unless you believe an error has occurred in the processing.

The right hand column, which shows deductions, will not display any amounts at this time. The deductions are actually calculated during the next processing procedure.

The following are the categories displayed for editing:

- **Labor Income** - This is the total the shop charged for labor services by this employee
- **Labor Commission** - If a commission is paid to the employee for labor, this is the amount.
- **Labor Units** - These are the total Units (flat rate hours) charged during this pay period
- **Unit Pay** - This is the amount of pay the employee has earned if paid by flat rate
- **Clock Hours** - This is the total time the employee worked based on the timeclock or manual time entry at processing
- **Hour Pay** - This is the amount the employee earns from hourly pay
- **Parts Income** - This is the total of parts sales attributed on workorders to this employee
- **Parts Commission** - This is the commission to be paid to the employee for parts sales.

- **Overtime** - This is the total of overtime hours worked by the employee during this period
- **Overtime Pay** - This is the total pay for Overtime and Doubletime service by the employee
- **Doubletime** - This is the number of hours worked for doubletime pay during this period.
- **Incentive Pay** - This is the amount of pay earned if the incentive scale is applied to this employee
- **Sick Pay** - This is the amount to be paid for sick pay during this period
- **Draw / Salary** - This is the amount of draw or salary earned during this pay period
- **Vacation Pay** - This is the amount to be paid the employee for vacation pay on this check
- **Supplements** - Supplemental pay (ie. bonuses) may be entered at this point.
- **Advances** - This is the amount of advances granted on this check, and it will be deducted from the NET paycheck
- **Ira Withheld** - This is the amount to be withheld on this check for an IRA account

6.4.3.4 Withholding calculations

Once the gross pay is calculated, and edited, you may calculate the deductions. The system assigned a payroll period number when it generated the gross pay records. Enter that number when prompted and the system will process all of the records.

All deductions will automatically be calculated. The system will then display all of the records and permit editing.



If the records have had deductions calculated once, but you wish to review the data, it will allow you access to make changes without re-calculating. The system calculates all tax withholding, and general deductions that are to be implemented in the setup.

If you note any errors on the deductions, it is best to find the source of the problem rather than simply entering new numbers. You may have an incorrect value in your tables and formulas which will continue to calculate incorrectly.

6.4.3.5 Writing payroll checks

To print payroll checks, select this option from the **Payroll Process** menu. You will be prompted for the following information:

Payroll Date

Enter the date you wish to use on the Payroll Checks.

Bank Account ID

Select the bank account against which you want to write these checks

Beginning Check #

The system will display the next check number for the account you have selected. You may change the value if you wish.

The system will then process all of the employee checks. When this is finished, you will be prompted to print the checks.

Reprinting Checks

Checks are all saved in the bank account. To reprint a payroll check, simply go to the Bank - Check menu selection.

6.4.3.6 Performing payroll accounting

Once the checks have been processed, select the Accounting option in Payroll Processing. This will cause the system to perform all of the final processing of the records, and update all totals.

You must perform accounting to maintain proper totals in the payroll, and general ledger, systems. In addition, the system will not allow you to run another payroll period with one still open.

6.4.3.7 Making tax payments

Whenever tax deposits are made to a Federal bank, or the IRS, they need to be logged into the system. When the tax payment is selected, the system will first prompt for a bank account number from which to make the payment, and the date of the transaction.

The system will then display a screen for processing your work. The top portion of the screen shows the current obligations owed to each agency.

The following tax amounts are currently due:	
Federal Withholding	\$ 1,534.68
State Withholding	\$ 521.15
F. U. T. A.	\$ 0.00
S. D. I.	\$ 129.08
S. U. T. A.	\$ 0.00

Current Amount Due:

Pay To:

Reference:

Amount to Pay:

Debit Credit

A series of buttons on the bottom will aid in processing your data. They are:

- **Federal** - For processing Federal Withholding and FICA
- **State** - For processing State Withholding
- **FUTA** - For your Federal FUTA tax

- **SDI** - For your State Disability Insurance
- **SUTA** - For your State Unemployment tax

When you select one of these buttons, the appropriate data will show on the form. You can change the amount if appropriate, but normally the system will display only what is actually due, and must be paid.

View

You can view the actual check by selecting this button. It will be in a popup window.

Process

Once you select the OK button, you will be asked if you wish to process the check. If you answer Yes, the system will print the check and handle all of the accounting.

Exit

Press this key when you finish processing all of the checks that are due.

You will be asked "Is this performed by electronic payment ?" If you answer yes, you will be prompted for a payment ID number. If you answer no, then the next check for the account will be used. If you do make an electronic payment, the check number sequence is not affected.

6.4.3.8 Paying for other payroll deductions

To pay for other deductions, select this option from the Employee Processing menu. You will then see a form with the following information and procedures:

As you highlight each Vendor on the list, you will see the following information provided.

Current transactions

This is a list of companies to whom money is currently owed for obligations related to employee payroll. As you scroll the list, and highlight an individual vendor, full data is provided in the fields above the list.

Vendor information

The system displays information on the vendor, including name, address, amount deducted from employee paychecks for the year, amount paid to the vendor for the year, and the existing balance due. You can also see the G/L account numbers established for transactions with this vendor.

Payment amount

The amount due will show by default. You can change the payment amount if appropriate.

Bank account

This is the bankaccount from which the payment is to be made.

View

Selecting this button will display a check to the vendor for review.

Process

Once you select this button, the system will ask if you wish to process the check. If you say Yes, it will print the check, and complete the accounting tasks.


6.4.4 The employee time clock

Using the Clock

The Time Clock enables employees to punch in, and out, just like a normal mechanical device in the shop. You use the Time Clock by selecting the clock Icon from the mainscreen toolbar, using the **Employees** option .

An employee can start the day by selecting the New button When the record activates, they need to select their name from the Employee list using the down arrow. Then they press the small button inside the Start for the session to record and the clock will begin timing their work. When they take a break, they clock out by re-entering the screen, and pressing the session stop button on the screen. When the break is completed and they return to work, they press the timeclock button on the main screen and press the start button for the next available session ... signing out when they again break. They do this throughout the day. Each day they must create a new record.

The Time Card Editor

 By selecting the **Edit** button option under payroll, the current time cards will be listed in order by employee, and by date order under each individual. These records can be edited as appropriate.

Manual Entries

Time Clock entries can be made manually by entering the **Edit** section. Using the Add button, a new card will be displayed and the employee code, date, and times should be entered as prompted.

Editing

Any current timecard on display can be edited. Simply highlight the desired card on the list, then make the changes. Be sure to select the **Save** button to save the changes. The total time for the day will be recalculated automatically.

Report

A time clock detailed report can be printed in the Payroll Reports section.

Calculations

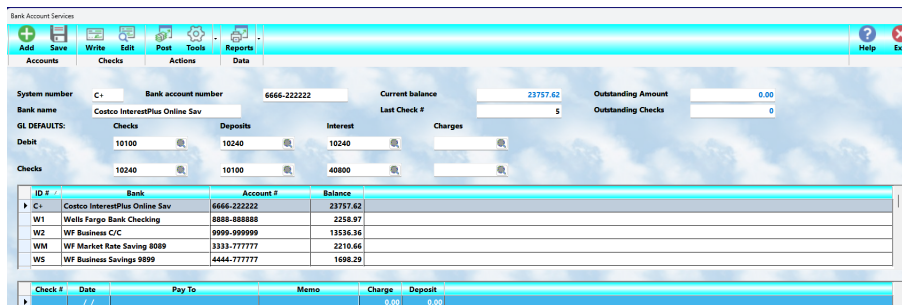
Time cards are automatically calculated, and closed, when performing Payroll Processing - Gross Pay.

6.5 Banking

Banking handles all of your cash, check, and credit card transactions. It is fully integrated with the Invoicing system, Accounts Receivable, Accounts Payable, and Payroll.

Details on what is provided, and how to use it, are in the following sections.

6.5.1 Bank Processing



The Bank Accounts

The Accountant supports 1396 active bank accounts by default. It is highly unlikely that anyone will require more than this number. Each account is tracked separately. You may have bank accounts, credit card service bureaus, savings accounts, and certificates of deposit all tracked separately within the system.


Navigation


By clicking on the ID# or Bank column header, the list of accounts will be ordered alphabetically on the contents of that data field.


Edit Accounts


The system will show a listing of accounts in the browse window, and all of the data in the fields located in the upper half of the window. You can select any account, and edit the data by making changes in the information that is displayed. Be sure to press the Save key when you finish your changes to be sure your information is saved.


Bank Controls


 **Add** To add an account, simply select the Add button and a blank record will be displayed in the screen fields. Be sure to fill in all of the information as appropriate, and select the Save button to save the new data.

 **Save** Save any additions or changes

 **Write** Write a check from the bank (rather than through A/P) See details at [Write Checks](#)

 **Edit** - Edit a completed check, deposit, or charge entry. See details at [Editing / Reprinting checks](#)

 **Post** - Post Deposits, Charges, or Interest See details at [Posting Deposits / Service charges / Interest](#)

 **Reports** - Select and print reports on the bank accounts and balances, plus transactions.

Tools

[Reprint](#) Reprint the highlighted check

[Void](#) Void the highlighted check

[Reconcile](#) Confirm which checks have cleared the bank

[Close](#) Perform a periodic closing which moves all completed work to history for all accounts

[Resum](#) Resum the totals for this checking account to include balance and outstanding amounts.

[View History](#) - View a check from history

[Format](#) - Select a format for the printed check from available options. See [Check formats](#)

[Delete Bank](#) - Delete the highlighted bank account. **This action is strongly discouraged. It is best to retain this information for audit purposes.**

[Defaults](#) - Allows the user to establish default accounts for payables and payroll

Bank Data

System Number

The System Number is the code assigned to a bank account. It may be comprised of letters and/or numbers. It may be easiest to assign the first two initials of the bank's name, ie. BC for 1st National Bank of Credit, as its code.

Bank Name

Enter the full, formal name of the bank in this field.

Bank Account Number

It is important to use the proper bank account number on this record. This is most easily obtained from your statement, because only some of the numbers at the bottom of your checks actually identify your account. Others are used for the bank identification and check number.

Current Balance

The current balance is the amount you have in the account, based on all checks you have written, even if they have not been reconciled. When first initializing the system, be sure to enter a beginning balance in this field.

Last Check Number

The system will track the check numbers separately for each account. If you wish to start your checks at a special number, enter it in this field, and the system will advance from this point.

Debit G/L When checks are written, they are usually for expenses. If one bank is usually used to write checks for a specific expense, ie. payroll, or parts, it may be possible to enter a General Ledger account number for the default Debit value, which corresponds to the banks actual G/L number. Place it in this field.

Outstanding Amount

The system will total the amount of checks that have not yet been reconciled. This does not mean they are not canceled. Most banks only return checks once per month. Therefore, the amount represented here only specifies the amount at the last statement. Please remember that this amount has been used in calculating the balance. Even though the check may still be outstanding, it still represents an obligation against your funds, and has therefore been deducted from your balance.

Outstanding Checks

This is a physical count of the number of checks which are still outstanding, as defined in the previous paragraph.

GL Defaults

When transactions are created that involve the bank, they will draw from one of the displayed default values, and place them in the proper fields automatically. Of course you can change them at the application level. Enter the default numbers (the ones most likely to be used for each process) for both Debit and Credit, using the data from your own GL setup.

6.5.2 Write Checks

Writing checks in the bank account is only for payments that would not be reflected in the Accounts Payable (non- vendor payments). This might include special contributions, non-billed loan payments, etc.



Write Checks

In the main Bank Services screen, highlight the bank you wish to use, then select the **Write** button.

The system will display a check creation screen. Fill in the remainder of the information on the screen, including the amount(s), check number (if it is a handwritten check you are posting), and the G/L numbers.

If the payee is listed in the Vendor file, putting the account number into the specified field will bring up the name, and address information. Otherwise, these will need to be typed in manually. The search button can be used to lookup bank and vendor information. You can also type in detailed information to be printed on the check stub if you wish. When you press the **Exit** button, the information you will be asked if you wish to Process the check. If you say Yes, the information will be stored and applied. You may preview the check by selecting the **View** button.

6.5.3 Posting Deposits / Service charges / Interest

Bank charges, and interest received, may be posted more easily with this option. The system will automatically apply the funds to the proper G/L accounts, and adjust the balances accordingly. To post charges and/ or interest, select the Deposits / Charges option from the Bank menu. When the window appears, post information in the appropriate fields. Select the **Save** button to save the data.

Deposits/ Charges

To make a deposit, select the Bank menu, and then the Deposits/Charges option.

	Amount	Debit	Credit
Deposit	\$ 0.00	10240	10100
Charge	\$ 0.00		
Interest	\$ 0.00	10240	40800

Date: 01/06/23

When making a deposit, or charge, to the bank, the system will first need to know the account to which the money is to be deposited. You may use the down area to the right of the bank code field to look up the proper account if desired.

Once an account is selected, and displayed, you may enter the total amount of the deposit, or charge. Enter it from the deposit slip you have completed. Then enter the deposit slip number, and the source of income if desired. The system needs the date. The current date is shown, and may be accepted, or a new date may be entered. The system will show the default General Ledger account numbers, and you have the option of accepting them, or changing them to other values.

The G/L system tests to see if the number you entered is a valid account and if it is appropriate for that use. If there is no account number that matches, or if you select a Debit account for a Credit entry (or the opposite), the system will pop up the chart of accounts. You may select any account (it will permit posting credits to a debit account and the reverse) at this point.

Once you press the **Save** button, the system will apply the deposit or charge to the bank account, and adjust the totals accordingly.

6.5.4 Reconciliation of the statement

When checks are returned to the bank, after the funds have been paid, and then are returned to you, you should check them off in the ledger.

When you select the Reconciliation option from the Bank menu, the system will display a list of all outstanding checks that have not yet been canceled within the system. You may use the arrow keys to scroll the list, and right click the mouse key to check off the ones returned from your bank.

Once you have completed your work, select the **Exit** button to process your work. The system will automatically flag the checks, and remove them to the history file, updating the master balance for the account.

6.5.5 Editing / Reprinting checks

The Check Editor can be used to reprint a check should your printer become jammed. In addition, you can edit values, or void a check. When looking at the Bank Account Services main screen, the system will display a window with a browse list of all system checks on the lower half, and the details on the upper section.

Edit

You may modify a check by changing any of the displayed values, and selecting the **Edit** button to process the changes. The titles, and messages displayed on the message bar at the bottom of the window, detail what each field represents. It is best to not edit the check number, or to overwrite a significant amount of information.

Void If the check is to be cancelled, simply highlight the browse item, and when the detail is displayed above, select the Void option under the Tools button..

Print Select a bank account, then highlight the check you want to reprint. Under the Tools button, select the Reprint button. The system will reprint the check with all of its original data.

Changing checks can be a complex process. In some cases, changes that are made may require the user to verify that information has been transferred to other areas of the program. For example, if amounts are changed, be sure that the change reflects in Accounts Payable, Payroll, and the General Ledger. Whenever possible, the system will automatically transfer this data. However, experience has shown that sometimes subtle changes have been made which might not trigger the automatic adjustment process.

6.5.6 Check registers

It is always important to print registers for the different checking accounts. The process is really quite simple. First, it is necessary to select the account. Secondly, the range of dates will be requested. Once these are entered, the system will print the ledger as requested.

Printed copies of the ledger are strongly recommended, and they should be stored in a journal on a monthly basis. Registers will include all checks, deposits, and bank charges.

6.5.7 Check formats

The Format option under Tools is for selecting check settings. It contains two criterion: the check style, and the check spacing.

Type

The following are styles currently used by the system. Enter a letter corresponding to the style you wish to use:

- Q = Quickbooks 9209T One per sheet, inkjet or laser

- L = Generic Laser
- N = NEBS 9025
- A = MasterLink Shop Writer 4 & 5 default 7" continuous feed (check plus stub)

Be sure to print a check on plain paper, and hold it against the background of your check form to be sure it matches.

Spacing

Laser and inkjet checks usually print one check per page. Therefore, the spacing criterion is not used. However, dot matrix checks print on continuous feed paper. The spacing option allows you to adjust the number of lines between each check, which will vary according to the style selected.

To test spacing, write a check in the bank account. Once it is printed (on plain paper), use the check editor to reprint the check two more times. Next, hold the printout in front of your check forms, matching the lines on the first check printout to the background. Next, look at the second check, and note the distance (in inches) from where the Pay To line prints, and where it should print.

If the printout, and the form, match, no change is necessary. If the line prints too high, or too low, measure the actual distance. There are six lines in every vertical inch of printing. To lower the printout line, add to the spacing number currently in the system, and to raise the printout line, subtract from the spacing number. For example, if the current spacing number is 13, and the line prints 1/2 inch below where it needs to print, then you would subtract 3 (1/2 inch = 3/6, or 3 lines) from the 13, changing the spacing to 10.

Once you make the change, go to the check editor, and reprint the same check 3 more times. This will allow you to test the match. Make any further adjustments as necessary.

6.5.8 Check history

The Check History report is a listing of all checks that are no longer in the "active" file. These are checks that have been moved to the history file by the Bank History menu routine.

The report shows checks, and deposits, for a specified date range.

6.6 Merchant Services

Merchant Services provides the **MasterLink Shop Writer** user with true credit (and debit) card processing.

The actual contract for services is with a 3rd party vendor. At the present time, MLS 12 supports *Acquirint Services*, and *Charge It Pro*. Both systems are integrated to allow payments by credit cards when the workorder is being processed. In both cases, up to 4 cards may be used to spread the charges on a single workorder.

MasterLink Shop Writer also provides the ability to process credits back to a card (but not to exceed the original charge amount).

Reports of all credit card transactions are provided. You will find this option on the Reports menu, Workorder section.

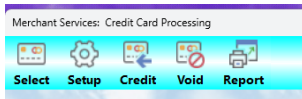
6.6.1 Merchant Service Providers Setup

Credit card processing is an area of importance, yet concern, to all shop owners. Most clients pay with their cards, and MasterLink Shop Writer integrates services to some 3rd party providers.

As a business owner you may be inundated with calls from people wanting to sell their services in this area. Some are legitimate, and others are "hit and miss", with high rates, and poor services, yet loads of promises. At MasterLink Software we are constantly asked by these people to integrate to their systems, but in the end we reject most simply because they do not have a long term track record and proven support capabilities.

Instructions follow on the MLS side of the integration with the companies we do support. We prefer to call their software, pass the important data about the transaction, let their system totally process the charge, and then receive back the information we need to store. We do not store any credit card information itself. We only store transaction ID information that allows you to confirm sales, and process credits when needed.

These credit systems do save a considerable amount of time and money for the shop owner. They use fast internet connectivity, the record keeping is maintained within the program, and the r



The control bar is used for setup, maintenance, and reporting.

You will handle the setup of a credit card processing service in the **Accounting** section, selecting the **Merchants** menu option.

- Select:** Use this to select the Merchant Services Provider with whom you have contracted. Your options are:
- o Gravity Payments (formerly Charge It Pro)
 - o 360 Payments
 - o World Pay (for legacy accounts)

Setup: This option will walk you through setting up the actual account for the provider you have chosen in step 1

Credit: If you wish to issue a credit on an account, you will do it with this option

Void: If you wish to void a transaction, you can do it with this option

Report: This provides you a detailed report of transactions you have processed. Receipt appears on the final invoice. Our providers also pride themselves on very competitive rates and excellent service.

6.6.1.1 World Pay / Merchant Partners




Old System

Acquirint Setup Screen

Your Merchant Services provider will issue an account number, a pin, and perhaps a device code. You will enter them in the Card Setup menu option (under Merchant Services). This information will automatically interface with the equipment provided permitting the transaction.

Credit cards are processed in the Workorder Payment Posting screen. You will access this from the main workorder list, or from the Totals screen in the actual workorder.

To log a credit card payment, press the  button on the menu. You will then be asked if you wish to process a credit card. You will answer Yes. Then you will be asked if the card is present.

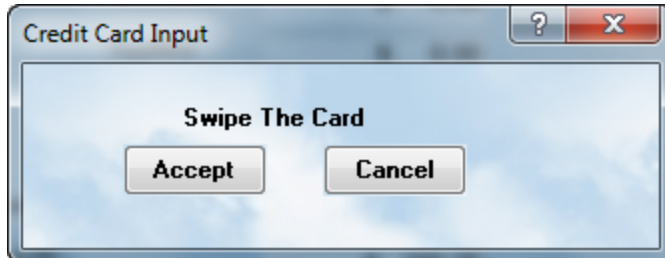
New System

When you select the setup option, a screen will popup that is provided by Merchant Partners. Consult their documentation on what data to enter in which fields.

Credit Card Processing - Old System

Card is Present

If the card is present, you will be asked to enter (confirm) the amount of the charge to be placed on this charge. If you plan to split the payments, change the amount to reflect what is to be applied on this card only. In most cases, the amount shown (the balance still remaining) will be appropriate and you simply Accept the transaction.



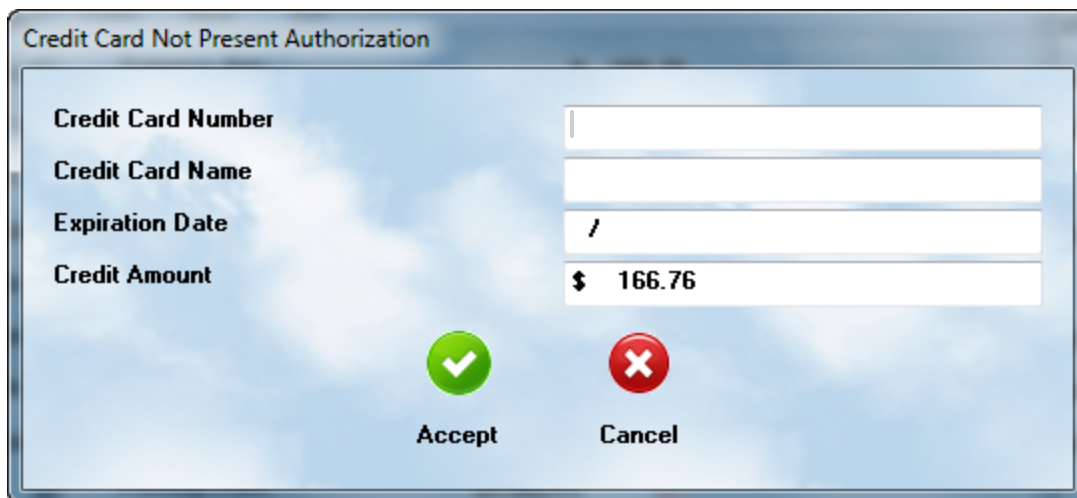
Next you will be asked to swipe the card. Be sure to pull it smoothly through the swipe box. When that is complete, click on the Accept button.

The system will now apply (if accepted), the charge to the payment total.

If you are using multiple cards, the credit card amount will display the total after each payment is applied.

Card Not Present

Sometimes the client will give you a card over the phone (as in cases where they want to pick up the vehicle after hours). When you answer No at the "Is The Card Present ?" prompt, you will see the following screen:



Fill in the correct information in each field, and then press Accept. If the charge is authorized, it will reflect on the totals Credit Card field.

Declined Cards

The system will notify you when a card is declined, and will not place the payment on the workorder. You can still try another card.

Signatures

The system will print the credit card information on the final Invoice. There is a place for the client to sign an authorization for the charge.

Issuing Credits

To issue a credit, go to the Accounting -> Merchant Services -> Acquirint -> Issue Credit option and click on it. A dialog will popup showing you a list of workorders with credit card transactions. Select the charge you want to reference and click on the Accept button. The program will then ask for the amount to credit. You cannot issue a credit greater than the amount of the transaction. MasterLink Shop Writer does not store the credit card information. It has a transaction number, and that is sent to the merchant services computer, and it will apply the credit against that charge.

Be very cautious about issuing credits. This can be a source of costly scams !

Card Processing - New System

The newer processing procedures using the security cards now being issued by banks works with the Merchant Partners software. When you wish to process a credit or debit, select the button and it will popup the dialog provided by your processing partner. Consult their documentation on how to use the screen that is displayed for all of your processing. Signatures made on the credit card device will be saved and printed on the workorder.

6.6.1.2 Gravity Payments

Gravity Payments / Charge It Pro provides merchant services which include credit and debit card processing. Its a fast, and reliable, way to handle your credit card transactions. The software is cloud based with exceptional security. Currently MLS 12 interfaces with their Clover device. This connects via ethernet, or wi-fi and is portable. It supports cards by swipe, chip, or touch to pay. It can also be used to handle card not present transactions.

Setup

The setup is quite simple. Gravity payments will provide you with a Merchant ID, Authentication Code, and Device Name. You will enter them in the fields as shown in the screenshot.

It would be easiest to use copy and paste in windows to transfer the data. The Authentication Code is long and complex.

When you exit these values will be saved. That is all you need to do to complete the setup. Any specific requirements will be provided by your

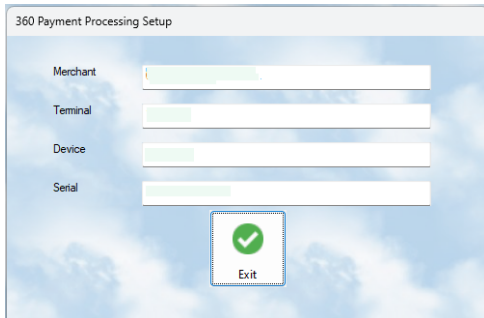
Gravity representative.

6.6.1.3 360 Payments

Setup

360 Payments will provide you with your Merchant ID, Terminal, Device. Type it into the Setup screen found under Tools -> 3rd Party -> 360 Payments. You will then be prompted "Do you wish to pair your terminal. Make sure it is plugged in, connected to the internet, and turned on. The system will then identify the terminal and complete the setup. You will now be ready to transact credit card payments through this merchant services provider.

This is the input screen:



You do NOT need to add the serial number. When you "pair" the terminal (by saying yes to the prompt), the system will obtain the serial number of the device and save it.

You will need to do an install on each terminal where you have a card reader installed.

6.6.2 Signatures and Summaries

Credit Card Receipts

The receipt for a credit card charge prints directly on the invoice. If you are using a signature terminal, when the client signs the device, the image is saved and is printed on the invoice. Otherwise, when a customer signs the final copy of the Invoice, be sure to also have them sign the provided authorization line which follows the details of the credit card transaction. Each credit card transaction (and you can have up to 4 on each workorder) is listed, and the signature provided.


A printed summary of all transactions is available in the **Workorder Reports** option, and the **Finance - Merchant Services** screen using the "Credit Card" report. You will be able to specify a range of dates to be included. The report will break down the transactions by the type of card used.


Estimate and Invoice Signature



The **Sign** button will allow you to use the credit card terminal for the customers signature on the workorder. When in the workorder, simply press the button and the terminal will prompt for their signature. When they press the OK button on the device, the signature will be saved and printed on the final invoice.

6.6.3 Procedure

To process a credit card, on the main Workorder (list) screen, or within a workorder, select the  (Pay) button.

When the payment screen is displayed, select the  (Credit Card) button.

You will then be prompted for the amount you wish to pay. By default, it will show the balance due, but you can change that to any amount you wish. You can apply charges on up to 4 cards for each workorder. This enables a client to spread the charges across multiple accounts.

Payment processing is handled by each company differently.

For **Gravity Payments**, the screen will ask if the client has completed their work on the terminal device. **WAIT** for them to use their credit card, and to then SIGN on the terminal. Once they finish, you can answer Yes and the data will be saved to the workorder.

For **360 Payments**, your work will be handled on the terminal where the client will be prompted for responses.

The final transaction will be saved, and applied throughout the system (workorder, accounting, etc) as appropriate.

Your receipt will be printed on the final invoice, including signatures.

6.6.4 Issuing Credits

To issue a credit, go to the Finance -> Merchant Services. Select the  (Credit) button.

A dialog will popup showing you a list of workorders with credit card transactions. Select the charge you want to reference and click on the Accept button. The program will then ask for the amount to credit. You cannot issue a credit greater than the amount of the transaction. MasterLink Shop Writer does not store the credit card information. It has a transaction number, and that is sent to the merchant services computer, and it will apply the credit against that charge.

Be very cautious about issuing credits. This can be a source of costly scams ! Also, most cards have requirements regarding how recent a charge must be to allow a credit.

6.6.5 Voiding Transactions

To Void a transaction, from the Finance -> Merchant screen, select the  (Void) button.

The system will display a list of transactions. Select the one you wish to cancel, and press the Accept button. The transaction will be reversed.

Please note there is likely a time frame, provided by your processor, for how long ago the transaction may have occurred to be eligible for voiding.

6.6.6 Credit Card Report

The credit card report is run from Finance -> Merchant Services, using the  (Report) button.

You will be asked for a range of dates. These are dates that processing actually took place, not when work was performed.

The report will first print each transaction for the selected dates. Then it will provide totals based on those accepted, and rejected, plus credits and voids. It will also give you totals based on the card type (Visa, Master Card, American Express, etc).

7 The Quickbooks Interface

MasterLink provides a powerful, fully integrated, accounting package that automatically draws data from your daily work, and applies it directly to the proper accounting categories.

Some people, usually at the urging of their accountants, have chosen to use **Quickbooks Desktop** instead, or in addition to the MLS accounting. This chapter will show how to use connect Shop Writer to Quickbooks. It should be emphasized that, unlike other systems which do an "export/import" process, the MasterLink interface, using the Intuit development tools, will write directly to Quickbooks when you complete, and close, a workorder.

7.1 Quickbooks and MLS 12

Although **MasterLink Shop Writer 12** has a fully integrated accounting system, some of our clients also want their data posted to *Quickbooks by Intuit (QB)*. Beginning with version 8.60, MasterLink Shop Writer will post the following information to Quickbooks. Our link is designed for **Quickbooks 2006 Professional** as the minimum requirement.

MasterLink Software does not provide any support for Quickbooks accounting.

You must contact the publisher directly with all questions regarding the operation and results of accounting with Quickbooks.

We will provide answers to your questions about the interface we supply to Quickbooks, and those questions would not be appropriate to address to Intuit.

We also do not provide any training services for Quickbooks accounting.

There are many trained experts available in your location to assist with those questions.

Workorders

Once you have installed the MLS 12 / Quickbooks link, whenever you close a workorder, the totals will be written into Quickbooks to the company you specify. This is accomplished by creating an invoice for the client in QB, and applying the payment if one was made. If the customer is not in QB already, then the link will add the client before creating the invoice. **You must have the interface installed on the computer where Quickbooks is installed, and that is the ONLY computer on which you are to close workorders !**

Receivables

If a payment is not received, that invoice will automatically be left open and appear on the receivables listing.

Vendors and Accounts Payables

At this time we do not post AP information to QB. You would simply create your vendors within QB, and then you can post invoices there as they are received, and make your payments accordingly.

Payroll

We do not currently post any data to the QB Payroll system

Ledger

QB maintains its own ledger based on the information which is posted into the system

Please read the QB Link Initialization / Auto Setup section carefully before attempting a QB setup.

The Quickbooks Interface works only with the QB DESKTOP version, and NOT with the cloud based program

7.2 Quickbooks on a network

MasterLink uses the Intuit Software Developers Kit to provide a transparent transfer of data. At any given time, Intuit might allow for the use of networking computers, but generally it works most effectively when you have Quickbooks installed on the same computer where you will perform the closing of workorders.

Although the MLS Service Writer is natively multi-user, Quickbooks is not, and you may incur extra fees with Intuit for that functionality, if, and when, it is available.

7.3 QB Link Initialization / Auto-Setup

Please follow these steps to install, and use Quickbooks with MasterLink Shop Writer 12 :

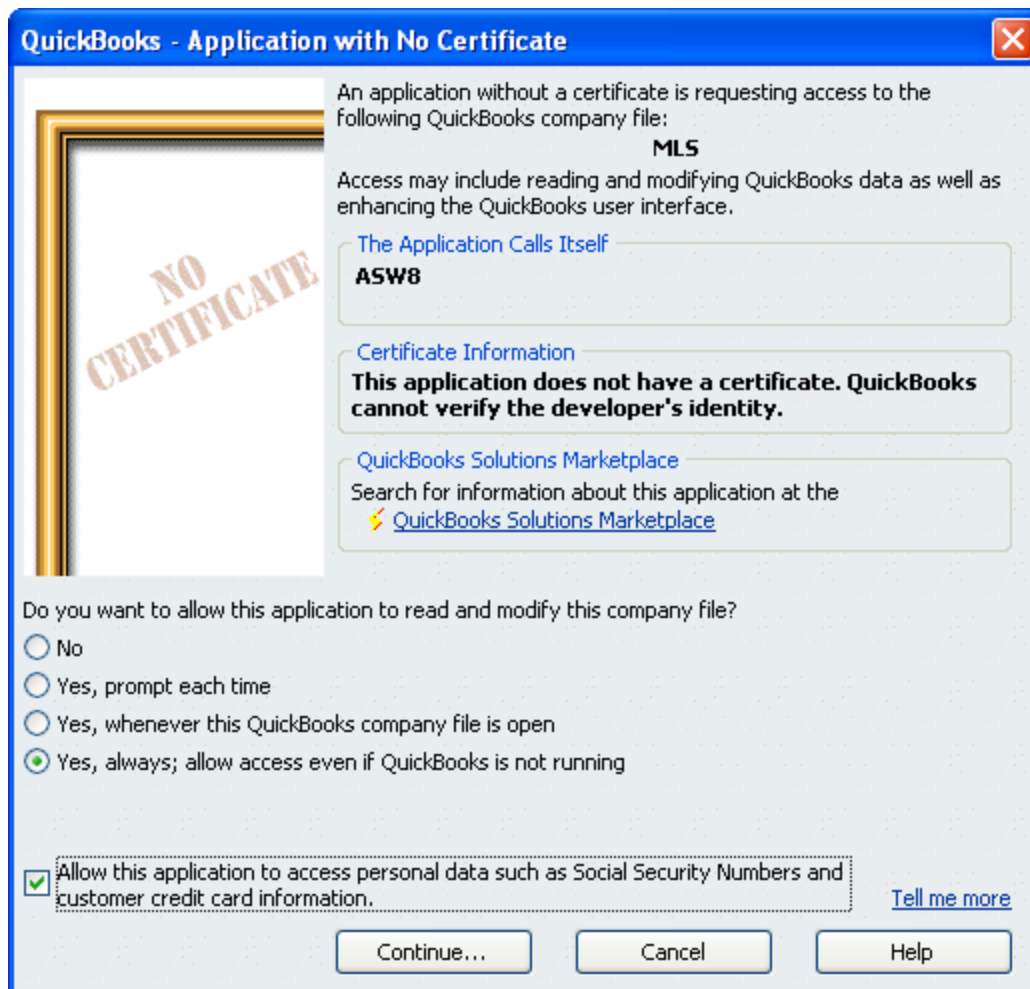
Install the Quickbooks Foundation Class 5 Software

Use the installation CD. Place it into the computer where Quickbooks is already installed. From the main menu, select the installation options, and from there, select the option to **Install QBFC**. Follow the prompts until this is complete.

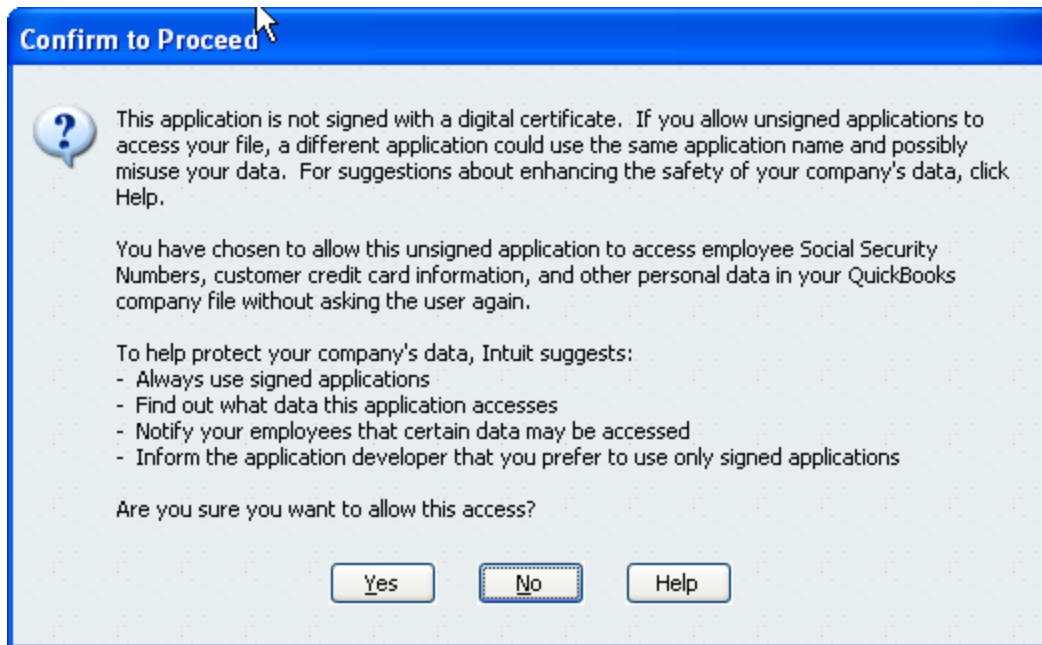
Create a company in Quickbooks

You may use an existing company, or you may want to create a new Quickbooks company. You will use the QB wizard to handle this task. Remember the location where you saved the company file. You will need to find it when establishing the link. If you don't know how to use the Windows Explorer function to find a file, please work with someone who does before proceeding to the next step !

- Run the QB Link Initialization in MLS 12
- Enter MasterLink Shop Writer, and under Tools you will see the option for Quickbooks setup. The procedure is relatively simple. Follow these steps:
- Make sure Quickbooks is open to the company you intend to use.
- Now click on the Quickbooks Setup menu item
- You will be shown a Windows Explorer dialog and asked to select the Quickbooks Company file. You will need to navigate to the file and then double click on it.
- MasterLink Shop Writer 12 will then attempt to establish a link with the company file. It will display the following dialog box. Note the options checked off at the bottom. Be sure you do checkoff exactly the same ones.



- When you select Continue, you will see the following warning. Select the Yes option.



- The system will now connect to Quickbooks, and install data important for the processing of information from MasterLink Shop Writer.

Update the Company data / settings

Enter Quickbooks and check the following:

- We have added Local Tax, Exempt, and FET tax on the Lists:Item Lists. Make sure each one has a vendor (tax institution to whom you make payments) assigned.
- Under File, make sure you are in Multi-User mode. If not, switch to it.
- Your Lists:Accounts file should have a new Income category of Sales, and under that should be Parts, Labor, and Sublet. It should also have a new category Services

Process Workorders


You must close all workorders destined for Quickbooks using MLS 8 on the computer where QB is installed. Once you select **Close WO**, all data will post to MasterLink Shop Writer accounting, and then the totals, client, and payment data will be sent to Quickbooks.

MasterLink Shop Writer is a guest to Quickbooks. If you do not perform the setup correctly, your data will not transfer, and your program may generate errors. MLS 8 provides information in a format that Quickbooks requires, and uses the Intuit Software Development Kit, and follows their standards. Quickbooks will reject anything that cannot be transferred with 100 % success.

8 Reports

Reports provide the organized output of the information contained in your files. Each report is created for a specific purpose and focuses on merging all of the appropriate data. Reports are used to better understand your business, and how it relates to your clients.

Reports can be printed, viewed on the computer, and emailed to anyone.

Reports will be available in the areas of the program where they are related. Look for the  button.

Please read the following sections to understand the available reports, and how to interpret them.

8.1 System report overview

The **MasterLink Shop Writer** provides a set of pre-programmed reports that may be utilized for understanding the activity, earnings, and performance of the shop. These reports are detailed in the paragraphs that follow, with information regarding their interpretation.


Report Overview

It must be accepted that information exists within the system that is of interest to some shops, but not all. Managers may have their own interests regarding the facts they wish to see displayed on a report. For this reason, The MasterLink Shop Writer system provides a file system compatible with custom report, and label, generators (ie. Crystal Reports) that can be used to develop a wide range of special printouts which deal with the needs of the individual manager.

These reports can be saved, and run whenever desired. The preprogrammed reports provide all of the essential information regarding the overall operation of The MasterLink Shop Writer system, and the business it manages. Specific information on clients, inventory, and glossaries are reported.

Most of these reports are date oriented. On some, other pertinent data is requested. Once the report is selected, the necessary information is requested in a popup window. When the information is entered, and the OK button is pressed, then the system will prompt for information on how the printing is to be handled.

The Reports

 Reports are included in their specific processing areas, ie. Workorders, Inventory, Clients, etc. The printer icon will show on the available options in the main processing window for the designated functionality, and when pressed, there will be a dropdown list of the available reports. Expanded descriptions of each one will show on the message bar at the bottom of the MLS window, appearing when you move the mouse cursor over the title. Simply click on the desired report to start it. Descriptions of the main report categories appear in the following sections.

Printer Selection Options Window

You have numerous options when selecting the type of printout, and how it is to be processed. They are displayed in a popup window, and should be handled as follows:

- **Default / Alternate Printer** - The Default printer radio button is highlighted, and if you leave that option, your output will go to the printer which has been set up in windows as the default for your machine. If you wish to send a fax, direct the output to a different printer, or change the number of copies, select the Alternate Printer option.
- **View** - Select this button if you wish to preview the printout on screen first. You can print from the preview display.
- **Print** - Select this button to immediately send the information to the printer
- **Cancel** - Select this button to abort the printout process immediately.

Emailing a report

If you have the email system setup, than anything which can be printed can also be saved as a PDF and attached automatically to an email. This is especially useful when clients would like a copy of an older invoice. To email, run the report, but select the option to View. When displayed, select the @ option on the top bar to begin an email. Fill in the address for the receiver, add a subject line, and any notes you wish to convey. When you select Send, the system will create a PDF document of the report and attach it to the outgoing email.

Faxing a Printout

You may send any printout to a FAX rather than a printer. First, you must have FAX software installed in your computer. When given the Printer Selection Options window, select the Alternate Printer option. Then you will be shown the print setup window. You can select the FAX device from the list of installed printers. Your computer will then activate the FAX software and ask for the number, and any other information you wish to provide. Windows will then take over sending the data to the FAX modem rather than the printer.

If your FAX does not go through, it will be saved in the FAX software and can be resent through that programs control panel.

Printing Multiple Copies

You can print multiple copies of any document by selecting the Alternate Printer option. Windows will then provide the Printer selection window. Select the total number of copies you wish to print and the system will handle your task. The system will then print the report.

Aborting a printout

To abort a report while printing, hold down the ESC key for several seconds. The system will check for the interruption request each time it makes a loop in processing a line of data.

Although this key should cause the report to clear, and to return the operator to the main menu, current computers are so fast that the data has already been passed to the memory in the printer by the time the ESC key is pressed. In such cases it would be necessary to turn off the power to the printer, and then turn it back on, to stop the printing.

8.2 Workorders

Reports in this section will provide detailed results of work performed, and income, plus generate follow up reports for personal marketing.

8.2.1 Daily receipts

Before performing a daily closing, it is vital to obtain a printed summary of the totals for the day. The system will only report on those workorders which have been marked completed.

The report will first analyze the sales by parts, labor, and sublet. These are itemized as taxable, and non-taxable. Then the total for shop supplies, hazardous waste, and tax are listed, providing a grand total.

The system will internally audit the totals to be sure they match. If there is an error, an out of balance statement will alert the operator to review the workorder totals before continuing.

Payments are then logged. The totals for cash, check, credit card, and accounts receivables are listed. These should readily match the total sales. Any discrepancy will be noted.

The Totals report should be run every day, just prior to closing. It is a good practice to run it at midday, and at the end of the day, printing to screen to verify the balance of the items.

A quick review of the figures will help catch any concerns before they become significant. DO NOT perform a daily closing without first checking this report for balance and discrepancies.

8.2.2 Daily drawer summary

The Drawer receipts for any given day can be itemized using this report. The detail information makes it very useful for processing the income, and making proper bank deposits.

The listing first itemizes the checks received. These are checks for workorders, and are referenced accordingly.

After this, the credit cards are detailed. Information entered into the reference field for payment posting will be listed in the report.

The listing will then include all deposits received on workorders in progress. It is important to realize that most states consider deposits to be 'faith' money that is not legally earned until the entire service is completed. Therefore, The MasterLink Shop Writer system will track these amounts separately, and reconcile them at the time the workorder is finally completed.

Items with open balances will also be itemized. **Be sure that the phrase "Posted to A/R" is stated on the right side.** Otherwise, the client does not have an open A/R account, and the balance will "float" in the system until an account is created. Be sure to open the account before performing a daily closing.

The next itemized listing is of payments on Accounts Receivable. These are itemized because the items may be deposited to the bank(s) with the current day's work receipts.

Finally, the system itemizes all amounts paid out during the day from the cash drawer.

To complete the report, the system provides a listing of totals for each area, subtracting the paid out amount, to provide the day's total receipts.

This report should be run every day, and the printed copies should be saved in a monthly file for review and audit at a later time.

8.2.3 Credit Card

The Credit Card report will show you all transactions for a selected range of dates.

Each transaction (Accepted, Declined, Credits) will be displayed and totals are provided for each type of credit card.

8.2.4 Parts sales

The Parts report is an itemized listing of all items which were sold during the specified period of time. All items of like partnumber are combined to provide total sales quantities, and earnings. This report will be particularly useful to the parts manager, who can review it for sales patterns, and fast moving items.

This information is particularly useful when making purchasing decisions, and calculating minimums and stocking levels. A helpful feature of this report is the fact that it marks all non-inventory items with an *. Therefore, as one scans the report, and sees special order items with large quantities, it will seem reasonable that the part so noted might well be stocked in inventory. Such an action results in savings because these items can be obtained at lower prices in volume.

Parts reports can be run for any period of time. It is best, however, to run a report for each month, and store the paper copies in a file for later review and reference.

8.2.5 Labor sales

The Labor report provides a detailed listing of technician's services for any specified period of time. This report is usually used for payroll purposes.

Shops using The Accountant Payroll module will find the information is automatically derived. However, this report does provide sufficient detail to give the technicians a breakdown of the jobs they have completed, and their earnings.

In many shops, the technicians maintain a log of their work, and this report is compared against the log to verify that all work has been entered, billed, and paid.

When the report is run, there is a separate page, or pages, for each technician. The system will generate reports based on who has work entered during the period, and not necessarily who has been entered into the job costing employee chart, or payroll setup.

The report details each service code, its workorder, date, cost, charge, and units (time).

The cost is based on the figure provided in the Technician cost listing, as created in the Setup menu. A total of all costs, charges, and units is then printed.

The system will generate a report for each name, or technician code, found in the labor descriptions.

This report is particularly useful when evaluating earnings for possible raises. If a technician accomplishes 40 units of work in a week, the earnings are average. Below that means that

productivity is not particularly good, and above that, without comebacks, means that the technician is displaying significant expertise.

When comparing employees' performance, it is easy to make fair, and equitable, decisions regarding pay standards, raises, and bonuses. One incentive type of pay is the monthly bonus. Using this report, one could evaluate all technicians performance in the month. By using the formula:

$$\text{Bonus \$ / Total units}$$

the money could be divided easily among the employees based on the work they had actually accomplished, and consequently the amount they had contributed, toward the profit.

8.2.6 The sales journal

The Journal provides an itemized financial detail of each workorder, in numerical sequence. It is your primary accounting document, and may be provided directly to your accountant as your 'books' from which the general ledger may be derived.

The first part of the report is a financial summary that details income from parts, labor, sublets, miscellaneous shop supplies, hazardous waste disposal fees, and tax. Totals are provided for taxable, and non-taxable, sums. It reports the method of payment, whether cash, check, credit card, or accounts receivable.

The second section is the line item detailing of all workorder totals. The ledger style report lists all dates, invoices, account numbers, and totals for parts, labor, sublets, miscellaneous supplies, hazardous waste, tax, and totals. In addition, detail is provided for payments as deposits, cash, checks, credit cards, and the balance due. Non taxable items are also detailed.

This is a critical document that should be printed on a weekly basis, and maintained in a journal cover. This will enable your accounting professional the opportunity to readily review, and audit, your books.

8.2.7 Active workorders

The active report lists all open workorders. This feature was developed as a checklist form to be used at the beginning, and end, of each work day.

8.2.8 Completed workorders

Each day, before running totals and closing, it is suggested that a Finished report be printed. This will provide a listing of all workorders that have been marked completed, and will thus be cleared when the daily closing is performed. When the Daily Closing is performed, all of the workorders on this list will be transferred to the history files.

8.2.9 Job costing summary by date range

Understanding the profit of each job is crucial to knowing how the company is effective with repairs. When this report is run, it itemizes the totals for parts, labor, and sublet. Each is viewed for cost, charge, dollar margin, and profit percentage. A total for all workorders is provided at the end of the report.

The margin and profit do not include costs of operations, and therefore are not the true profit earned by the shop. This information was displayed on screen during workorder development, and should have been utilized to protect the shop from finalizing an unprofitable service. However, the printed format is used as a reminder for reviewing all services, and gaining a perspective about the gross margins being earned.

The percentage field is the key. At some point while setting up the system, a decision was made that the shop should have a minimum margin, ie. 30%. As you scan the job costing report, look for areas where the margin slipped below that figure, and highlight them. Then, review the workorder, and perhaps talk with the technician, to determine why the service was less profitable. In most cases, the job was more complex than what was being charged for the service. By performing this review, it will be possible to adjust fixed charges for some services.

It is recommended that this report be run once per week, and retained permanently. In this manner, you will be able to compare results, and measure progress.

8.2.10 Individual Cost of Services

This report will provide the total cost of servicing an individual unit. It provides a listing of the individual services provided, with their dates and charges. It then summarizes the total cost, and provides ratios to time and usage.

This report is an excellent resource for a client who wants to know when the cost of maintenance is sufficiently high enough to warrant a replacement of the unit itself.

8.2.11 Services by labor code summary

The charge for a particular service should be determined by the amount of time it takes to perform, and the profitability.

To best understand each service, and to have a basis for setting prices, the Code report is used. This lists each service, in order of code sequence, and details the date, workorder number, cost, charge, units, and technician. Once each incidence has been detailed, the system then provides totals for cost, charges, and units.

This report should be run periodically, and the figures assessed to determine if the proper pricing has been set for the service. Although the pricing may have been established initially based on suggested rates, or 'industry standards', review of the actual times required to perform services may show that the charges are insufficient to earn the proper margin.

8.2.12 Recommended services summary

Often shops prefer to call their clients, regarding recommendations, rather than to send letters. The system will list all clients, their phone numbers, and the recommendations that have been made during the period of time specified.

This is useful to have an employee use for personal calls to each individual, offering an appointment time to complete the service suggested.

8.2.13 Summary of labor by service writer

The Service Writer report summary lists all workorders, for a given period of time, that were handled by a specific service writer. This report provides an income analysis for parts, labor, sublet, and total. Each workorder, handled by the designated service writer, will be detailed in the listing.

The system creates a report for each service writer active during the period specified. This report may be used for payroll commissions of service writers, or for tracking their responsibilities. It may be very helpful, when one wants a raise, to demonstrate their work performed relative to other writers.

This is an objective data source to be used when making compensation decisions, rather than relying on impressions and opinions.

8.2.14 Sublet services journal

The Vendors report is a listing of all suppliers that have provided sublet services, and the detail of the services they have rendered. This summary provides a detailed profitability understanding of each supplier, and an exact listing of the services that have been sublet during the period of time specified.

When alternate vendors are used for a similar service, this information provides a basis for comparison to determine which may provide a better value. In addition, this provides totals of the volume with each vendor, which may be helpful in negotiating better pricing should it be felt to be appropriate.

8.2.15 Department

Departments are a category for accounting purposes (General Ledger) but this report will provide a summary of department earnings for any specific date range.

When selected, the user will be prompted for a range of dates. Once these are selected, the report will generate with a summary for each department defined in the system, based on the parts, labor, and sublet entries being tagged with the specific codes.

Even if the departments feature is not being utilized in accounting, this summary will be useful for the shop manager who wishes to know the varied sources of income.

8.2.16 Follow Up

The Call Back report is used to follow up on clients who had vehicles serviced in the shop on a specific date. This report provides information to an employee who is following up with clients to be sure the service was performed professionally and effectively.

This report will be generated by most businesses for the preceding day, and calls will then be made within 24 to 48 hours. Most problems usually occur within 1 or 2 days, so this assures the shop manager the clients who experience an concerns will immediately have them addressed. The public relations benefit from this report can be responsible for continuing, and increased, business from existing clients.

8.2.17 Revisions

Some shops want to reward their staff for "upsales" which are usually reflected in Revisions to the original estimate. This report will provide a list of all revisions, the employee who logged them, and the amounts. It can be run for any desired date range.

8.2.18 SW Average

This report will detail the average invoice total prepared by each Service Writer. It is useful for comparing performance over time and between employees.

8.2.19 Marketing

The Marketing report, like the Follow Up report, provides information on clients who received services at the shop. This report is run for a range of dates.

This report will provide data to a follow up service who, like AAA, who needs to evaluate client views on the performance of the business for ratings and consumer surveys.

8.2.20 Sales Tax

This report will provide a breakdown of the sales tax collected on all workorders during a specific date range.

The system will provide sales totals for taxable parts, labor, sublets, and special items, and the total tax collected. It will then print a summary of the tax and workorder taxable item totals for each tax rate designated on workorders.

The user will simply enter the range of dates (when the payment was posted, and thus when the tax was collected) for the workorders to be included.

8.2.21 Deposits

This report provides all deposits received during a specified date range.

8.2.22 Ratings

This report provides a listing of each Client Rating Code used, the number of workorders, and the income.

The report is filtered by the dates you are asked to enter.

8.2.23 Audit

The Audit report is a very powerful tool that will help you eliminate employee fraud. Here is an example:

Max often processed payments for workorders. Sometimes when a client paid in cash, Max would print the invoice, hand it to the client, then go back into the computer and remove some parts from the listing, or adjust a labor charge. He put part of the cash in the drawer, and the rest in his pocket.

His employer, Susie, suspected there was a problem. So, she started running audit reports on individual workorders and discovered a pattern of cash sales where the totals were adjusted downward. She gathered the evidence, and then observed Max doing this with a transaction. She called the police, had him arrested, and pushed for charges to be pressed. It turned out Max had stolen over \$ 40,000 from the receipts.

The Audit report asks you to select any workorder. It then will show you any changes to the totals, at which workstation they occurred, and if there was an increase or decrease in the total. Increases are expected, and decreases are not. It also shows if the change is in parts, labor, or both.

Some companies run this report, using the view mode, to audit every closed workorder, and print out those with declining totals.

Employee theft is a significant liability for companies, and stopping it provides the honest staff a sense of security knowing the health of the company is considered important.

8.2.24 Labor Audit

Highlight the workorder you wish to review, then select this report.

It will detail ALL of the workorder entries, with technicians, codes, and amounts.

Note: Negative numbers indicate a labor entry that was either modified, or deleted. For example, you assign a flat rate of 1.5 hours to a workorder with no technician. Then you later add the person who did the work. There will be a -1.5 for the blank technician record, and a + 1.5 for the one with the tech's name.

This report allows you to track all entries to any given workorder.

8.3 Inventory

Information about all aspects of inventory control are provided in these reports.

8.3.1 Complete inventory listing

The complete inventory report will provide a detailed listing of each item in the inventory file. Parts are identified by partnumber, and description.

The report may be run in order of either field, and the system prompts for the desired option.

The report will display the current stock, the average cost, and the retail charge.

The computer will also calculate the current value of the parts on hand with the formula:

stocking quantity x average cost

8.3.2 Inventory sales summary

The sales report shows line item summaries of the current stock level, and all sales for the current month, year, and past two year totals.

Items are identified by partnumber and description.

This report enables the manager to track the sales performance as a measure of time, and identify parts which may be declining in need.

Stocking levels may be determined by viewing the actual sales pattern. If an item has a low month-to-date rate, and the current year is less than past years (considering prorated sales based on the time of the year), it may be wise to lower the stocking level of the item. Otherwise, large inventories may develop of unsalable items.

8.3.3 Listing of parts below minimum stocking level

The Below Minimum report is a fast way to identify the parts which need to be ordered. Some shops will print this report, and highlight the items they wish to obtain. Then the items are entered manually into the purchase order system rather than using automatic scrolling. The process may be appealing because a printed report affords more time for review than on-screen scanning.

This report shows the current stock level, and the desired minimum. In addition, the number currently on order with all vendors is listed, plus the suggested restocking level. Finally, the date of last sale is shown so parts that don't move can be flagged.

8.3.4 Inventory report by user specified criterion

A listing of all parts that match one, or more, criterion can be printed, which indicates the part number, description, and stocking information. This report may be quite useful for identifying parts which fall into specific subgroups.

The system selects items based on only those criterion where a value is specified. The criterion for selection include:

Date of last sale range

The range of 'last sale' dates should be entered, with the beginning and ending date desired. Both dates do not have to be specified. Entering 12/01/89 in the beginning field would provide a report for all parts last sold on, or after, December 1, 1989. A report with only an ending date will list all parts sold prior to, or on, the date.

Date of last purchase range

The date of last purchase works in an identical manner to that of last sale, except it refers to the last time one of the items was obtained from the vendors. The beginning, ending, or both dates, may be used to filter the report.

Location range

A report can be run for locations within a specified range. For example, all of the parts in location L-1 could be listed by entering the code in both areas. A report for everything from L-1 to L-4 would include all parts with a location code that matches these items. When specifying a code, remember that spaces also have value. L-1 will not include L-123 because the spaces have a value that is less than a number. Letters have a higher sorting value than numbers, and spaces would be the lowest. Consequently, to run all L's, it would be necessary to have a range from [L]

to [LZZZZ]. Since numbers are higher than spaces, and lower than letters, they would all be included in the report.

Manufacturer

A specific manufacturer may be indicated. For example, all Bosworthy parts would be listed by entering the name in the Manufacturer's field. Correct spelling is crucial to have a complete report.

Vendor

Entering a vendor code will limit the list to only those parts who have the matching code in one of the four Vendor fields.

Code

Perhaps the most useful sort is by code. Review the sort code options listed earlier in this chapter. It is often helpful to review information on just those parts in a particular category, ie. lubrication. At other times it is nice to review all belts, or hoses. The sort code makes very efficient work of this reporting need.

8.3.5 Shelf labels

Your system can print shelf labels automatically which make it easier to locate items in the parts room.

The partnumber is printed on the top line, in expanded size. On the following line is the description. The next line indicates the desired minimum, and the stocking level. On the final line are listed the vendor codes.

Often parts are stored in shelf boxes, and these labels can be placed on the front. Walking the storage rows provides a quick overview of the inventory. When parts are low, the technician, or parts manager, can quickly note the item number to be sure it is ordered, and brought to an acceptable level.

Shelf labels can be filtered by the location code, or code range. Entering the same value in both location fields will limit the labels to only that area specified.

8.3.6 Parts listed by location

The Location report is used to perform a physical inventory. The parts are listed in order of the location code, and are specific to the range specified.

To run the report, the system will ask for a beginning, and ending, range of codes. It is always best to run short section reports, because this is the same order you will use when reconciling stock.

The report provides for the stocking levels, sales history, and actual stock on hand when physically counted.

8.3.7 Price book for distribution to clients

Many shops have found a productive business in the resale of parts, especially if they specialize in a given line of vehicles. Consequently, they need to have a "Parts Catalog" listing their inventory and pricing. This report provides such a document, ready for reproduction and distribution.

The book shows the partnumber, its description, the manufacturer, and the price. Books can be printed for each pricing level. Multiple books may be necessary for different clients.

Be sure to use a good quality printer for this report. Dot matrix 24 pin (or 18) heads are recommended unless laser is available. If selectable, use letter, rather than draft, quality.

8.3.8 Parts on order listing

This is a listing of all parts that are currently on order through the inventory purchase order system.

8.3.9 Quick Totals

It is possible to view totals for Inventory based on the following criterion:

- Date of Last Sale
- Date of Last Purchase
- Location

Fill in the beginning and ending values for each of these categories, and then you may further filter the report by:

- Manufacturer
- Vendor
- Code

The system will then display:

Total count of partnumbers

This is the number of individual items actually in stock for the selected parts

Total of number of stocked items

This is the total unique items (partnumbers) for the selected search

The total cost of current stock

This is the cost of the selected parts based on the average cost

The total value of current stock

This is the value based on the suggested retail value of the selected parts

8.3.10 Catalog of non-stocking parts

This report will provide a listing of all items in inventory classified as "non-stocking". Some facilities may find it helpful to have a printed copy of this information because they may maintain entire manufacturer lines in their system.

The catalog includes all parts that are considered "non-stocking".

8.3.11 Lost sales report

The **MasterLink Shop Writer** tracks lost sales. These are sales that might have occurred if the part were in stock, but were lost due to lack of availability. This report will report the number of lost sales in any given time period. It is useful to have this information when determining which parts should be added to inventory.

One word of caution is needed. Most lost sales are tracked because a potential client calls to inquire about a specific part. However, these are not always "lost due to lack of availability." Often consumers are comparison shopping, and just because they call doesn't mean they would buy the product.

The emphasis here should be on "repeated lost sales", which are parts that are not in stock, but frequently requested.

8.3.12 Outstanding Core

This report will show all Cores that have been charged to an invoice and which were not returned. These will typically be on counter sales since those parts placed on in shop work will normally be credited at the time of the service.

This report will allow the shop to anticipate refunds for cores that will be due.

8.3.13 Core To Return

This report will allow a shop to know which used cores are physically on site and need to be returned to the vendor. This report should be run weekly so core credits do not expire.

The generation of this report requires no additional information. The data is updated as cores are received and returned.

8.3.14 Holdover

When parts sit on the shelves for an extended period, it is a waste of financial resources. This report allows the operator to enter a number of elapsed days (the time between today and the date of the last sale), and then it will print a list of all stocking parts that have not had a sale in at least that period of time.

This report is useful when considering ordering of new inventory, and also when looking at items for a possible return to the vendor for credit.

Because this report may extend over several pages, it may be best to view it first on screen.

8.3.15 Part Track

Use this report to track activity on an individual part.

At the prompt, enter the date range and partnumber you wish to review. The report will show all sales for that part during the selected time period.

8.4 Clients & Vehicles

These are summary reports of clients and vehicles being served in your business.

8.4.1 Listing of clients and their service units

This options will provide a summary listing of each client, and below their name, address, and phone number will be each service unit that is assigned to them. The report provides options for listing just the clients, or just the service units.

8.4.2 Customer labels

Customer labels are now all processed through the [Follow Up](#) system which allows the user to select the clients for whom labels should be printed.

8.4.3 Client service summary

This report provides a listing of all clients, and the total they have paid for services. It is a quick overview for selecting your more active clients.

8.4.4 Client breakout category summary

Clients may be grouped into "breakout" categories by using the Code field on the client data screens. This report will summarize sales, for any given period of time, based on those categories.

This report is particularly useful for tracking clients according to advertising or demographic criterion.

8.4.5 Sales per Client

It is often beneficial to know the work performed for a specific client during a defined period of time. This report provides that information.

When selecting the report, you will be asked for the range of dates. Enter the data requested and then you will see a list of clients. Begin to type in the name until you find the proper account, then double click on it. The report will generate the information you requested with detail and totals.

8.4.6 Spreadsheet

Sometimes it is desirable to manipulate data in a spreadsheet. This report option in clients will actually create an Excel spreadsheet in your normal Documents folder with the following data:

- Company Name
- Date of Last Service
- Year to Date Services Total
- Name
- Address
- Direct & Work Phone

When you select the Client Spreadsheet report option, you will be asked for a date range. The system will look at each client who had at least one vehicle last serviced within that date range, and will add those who qualify to the file. You will be asked for a name for the file. It is good to include the date in the file name since you can save multiple builds. (Example: cli060606). The program will add the file extension for Excel automatically.

8.4.7 Emails

This report will provide a list of clients who have active email addresses entered into the system. It will display the client's name, city, and email address.

8.4.8 XLS Totals

This report creates an Excel spreadsheet for clients. It includes the spending totals for each customer. The report can be run for any specified date range.

8.4.9 Auto Followup

This report will provide a listing of all automatic followup communications that are handled by your system. It is run for the selected range of dates.

8.4.10 Parts Purchased

This report provides a list of all parts purchased by, or utilized on a vehicle associated with, a specific client. It is filtered by the selected date range.

8.4.11 Expense

Select a vehicle in the main list, then select this report. Enter the date range you wish to explore. The report will show you a breakdown of the expenses incurred for maintenance, at your facility, during that time period. This will help owners decide if the vehicle is worth continuing to maintain, or perhaps should be replaced.

8.4.12 Parts Used

This is a listing of all parts utilized in servicing a highlighted vehicle in the master list. It is helpful when a client remembers having an expensive item replaced, but can't remember when.

8.5 Glossary

Glossary reports provide you with hard copies of the codes you have created.

8.5.1 Listing of parts pick lists

The parts pick lists are groups of parts which may be entered onto a workorder using a single Kit code. The report prints all of the codes, and the individual parts itemized under each one.

This is a great report to use when editing the pick lists. It is especially helpful when wishing to add or remove parts from a list. An experienced parts manager will usually recognise those part numbers which have changed, or for which substitutes are now commonly used, and can edit them on the written listing. Later, the changes can then be added into the computer.

8.5.2 Listing of labor glossary codes

This report will provide a listing of each labor glossary item, with the complete text of the description, and the pricing information. It provides your business with a catalog of services which may be referenced by those who do not have computer workstations available, or who want to study the descriptions.

This listing is very beneficial for editing the text of the descriptions, and the prices. It is often easier to work with printed text, make the changes, and then call up the specific codes to edit on the computer. A yellow highlighter will make the selected items stand out.

8.5.3 Kits Listing

Kits are combinations of parts pick lists, and labor glossaries.

The report will show you the kit title, and then all of the parts pick lists and labor glossaries included.

8.5.4 Codes

The Codes report provides a complete listing of kits. This includes the kit title, and code, plus the detail description of all labor items and the parts to be used.

8.6 Receivables

Accounts Receivable reports let you track your credit customers, see how well they are handling the credit you granted, and give you an analysis of your risk through extended terms.

8.6.1 Balances on all A/R accounts

The Balance of All Accounts report provides a summary of the totals for each account. The listing includes the client's name, date of last payment, current balance, and amount overdue.

This is the core report for your receivables system because it provides an overview of the total amount owed. There is no information required to run the report, because it automatically reviews all accounts. It may be run as frequently as desired, without ever affecting any totals.

8.6.2 Summary of an individual A/R account

The Individual Account Report provides a complete listing of the activity for any given account, for any specified period of time.

The system will ask for an account number, and then prompt for the desired date range. The operator should enter a beginning, and ending, date for the period to be detailed on the report.

The printout initially displays the client information, and totals obtained during the last processing (balances and aging). Then an itemized listing of all transactions that occurred during the date range specified will be printed.

This report is particularly useful when a question arises about a bill. Because the report details all transactions for a specific account, it provides the information necessary to locate any errors or omissions.

Should a person call, six months after a bill has been paid, and suspect that an item was double charged, this report can be run, and a copy mailed to the client for verification.

Sometimes an account balance is disputed, and in most systems it is not possible to get a history against which the client can reconcile their records. With the Individual Account Report, the information can be run in moments, and placed in the mail immediately. This will alleviate any conflicts, because error tracking can be accomplished rapidly, and without speculation. Client's will also be impressed with your ability to supply information that other vendor's often cannot.

8.6.3 Listing of all A/R clients

The Listing is a directory of all client's in your receivables system. It includes the client's name, address, phone, billing cycle, terms, and credit limit.

The report does not show any financial status for your receivables clients.

It is suggested that this report be run on a monthly basis, and maintained in a notebook. Although The Accountant is very easy to move about, and to obtain information, there are times when it is easier to look up a client in the directory. For example, if you are running statements, and realize you want to call someone, and need a phone number.

During the holiday season, you may wish to send cards to your clients. Handwritten envelopes are much more personal at such a time. It is easier to hand the list to someone who will address the envelopes than to scroll the information on the computer.

8.6.4 Summary of A/R transactions

The Transactions listing will show all activity currently in the transaction file.

The report lists the account number, transaction date, invoice number, charge amount, and payment amount. A total of all transactions is summarized at the end.

This report is especially useful for finding activity which has not been posted to an account. The system will display the billing cycle for each transaction. If none is shown, it is because the account is not active, or does not have a cycle. By looking at the transaction dates, it is possible to locate items that should have been processed earlier.

8.6.5 Summary of past due A/R balances

The Accounts Past Due Balances and Aging Analysis provides a review of all delinquent accounts.

The report details the account number, client name, date of last payment, present balance, and the aging report (current, 30, 60, 90+). Only those accounts with a past due amount are detailed.

This report is essential for collections, and provides a total of the debts that have not yet been honored. Because it is vital to keep this amount very low, the report should be run after every billing cycle, and follow up with clients analyzed.

It is also important to place clients who are overdue on Hold status, by changing the flag on their account to H. This prevents them from becoming more in debt.

It is also helpful to use this system to review credit limits, and people who typically pay late should have lesser amounts of credit available.

8.6.6 Write Offs

This is a listing of Write Offs you have applied to your Receivables for bad debt, or credits (public relations).

8.6.7 Monthly Totals

Often a business wants to see the receivable totals for all clients based on a specific month. This report provides that information.

You will be asked to specify the month to summarize. Type in the first three letters of the month's name. Then the report will be generated.

This will help you audit your activity for receivables. The report would normally be run at the end of each month when all activity is completed. It provides totals for all accounts that have had activity during that period.

8.6.8 Month Spreadsheet

This option actually creates an Excel spreadsheet with the monthly totals for each A/R account. This is a great tool for calculating cash flow models if you can modify the collection rate on payments due to your company.

8.7 Payables

The Accounts Payable reports will keep you informed about the depth of your flexible liabilities, and help you plan for timely payments of your obligations.

8.7.1 Summary of balances due on A/P accounts

The Balance of All Accounts report provides a summary of the totals for each account. The listing includes the vendor's name, date of last payment, current balance, and amount overdue.

This is the core report for your payables system because it provides an overview of the total amount owed.

There is no information required to run the report, because it automatically reviews all accounts. It may be run as frequently as desired, without ever affecting any totals.

8.7.2 Itemized report for a specific vendor

The Individual Account Report provides a complete listing of the activity for any given account, for any specified period of time.

The system will ask for an account number, and then prompt for the desired date range. The operator should enter a beginning, and ending, date for the period to be detailed on the report. The printout initially displays the vendor information, and totals obtained during the last processing (balances and aging). Then an itemized listing of all transactions that occurred during the date range specified will be printed.

This report is particularly useful when a question arises about a bill. Because the report details all transactions for a specific account, it provides the information necessary to locate any errors or omissions. Should a discrepancy arise, this report can be run, and reviewed with the vendor for verification.

Sometimes an account balance is disputed, and in most systems it is not possible to get a history against which you can reconcile your records with the vendor. With the Individual Account Report, the information can be run in moments, and placed in the mail immediately. This will alleviate any conflicts, because error tracking can be accomplished rapidly, and without speculation.

8.7.3 Vendor listing

The Listing is a directory of all vendor's in your payables system. It includes the name, address, phone, payment cycle, terms, and credit limit. The report does not show any financial status for your payables accounts.

It is suggested that this report be run on a monthly basis, and maintained in a notebook. Although The Accountant is very easy to move about, and to obtain information, there are times when it is easier to look up a vendor in the directory. For example, if you are reviewing worksheets, and realize you want to call someone, and need a phone number, its in the directory.

During the holiday season, you may wish to send cards to your vendors. Handwritten envelopes are much more personal at such a time. It is easier to hand the list to someone who will address the envelopes than to scroll the information on the computer.

8.7.4 Summary of A/P transactions

The Transactions listing will show all activity currently in the transaction file. The report lists the account number, transaction date, invoice number, charge amount, and payment amount. A total of all transactions is summarized at the end.

This report is especially useful for finding activity which has not been posted to an account. The system will display the billing cycle for each transaction. If none is shown, it is because the account is not active, or does not have a cycle. By looking at the transaction dates, it is possible to locate items that should have been processed earlier.

8.7.5 1099 Summary

The 1099 Summary Report provides you the information necessary to correctly report information to the IRS on fees paid to specific vendors. The report provides the data in a format where you can adjust the totals properly and then prepare the 1099 forms as a result.

The system will ask you for the year you wish to process. This will be specific to the Tax year and is usually not the current year. Then it will provide a detailed summary of all activity for your vendors.

8.7.6 1099 Miscellaneous

This option will actually print your 1099 forms for Vendors. You will do this at the end of the year to meet your IRS reporting requirements. Use standard forms which may be obtained at your local office supply store.

8.7.7 Summary of overdue A/P accounts

The Accounts Past Due Balances and Aging Analysis provides a review of all delinquent accounts. The report details the account number, vendor name, date of last payment, present balance, and the aging report (current, 30, 60, 90+). Only those accounts with a past due amount are detailed.

This report is essential for avoiding collections, and provides a total of the debts that you have not yet been honored. Because it is vital to keep this amount very low, the report should be run after every payment cycle.

8.7.8 Worksheets for A/P accounts

Although the system will allow an interactive method for reviewing, and paying, your obligations, most account managers will first review a printed listing of the activity due, and reconcile it against the statement provided by the vendor.

This report, which can be run for any payment cycle, will look very similar to the statement received. Most businesses will cross off any transactions not on the invoice, and then when performing the check processing, those items are left unpaid. If invoices are mis-posted by the vendor, the error will be immediately detected.

This simple report will alleviate considerable concern about verifying statements prior to payment. It should be run for a period of time that clearly details all dates covered by the vendor's closing period. This is done by specifying a closing date later than that used by the vendor. Extra items are simply marked off, and not paid until the next statement arrives, on which they should appear.

8.7.9 Summary of cash paid out

This report will provide a summary, for any specified date range, of cash pay outs. These are items that are paid, in cash, through the Disbursement options.

8.7.10 Monthly Totals

The Monthly Totals report allows you to see a summary of activity for all Payables accounts. You will be asked for the name of the month, and you enter the first 3 letters. (ie. JAN, FEB, MAR, APR).

The report will then print showing you the totals for all vendor transactions during that month in the current year.

8.8 Bank Accounts

The Bank reports will show you the current standing of your deposits, and outstanding checks that have not yet been cleared.

8.8.1 Bank Register

The Bank Register printout will provide all checks and deposits for any selected period of time.

You will be first asked to select a range of dates for your report.

Then you will select the bank account you want to review.

Finally, you can view, or print, the report.

8.8.2 Outstanding Checks

This report provides a listing of all checks and deposits that have not been reconciled. It is helpful to identify payments made, but not yet processed against your bank account.

When selecting this option, you are first asked to select the bank account from your currently active list. Then the report is automatically generated.

8.9 General Ledger

All of your finances tie into the General Ledger. These are the reports that give you the financial health of your business.

8.9.1 Chart of Accounts

The Chart of Accounts provides a sequential listing of all accounts set up in your ledger.

- If installed properly, the title for each section will be printed in BOLD capital letters. Each account will be listed underneath, indented five spaces.
- If a subtotal is specified, it will be directly below the accounts it includes, and will be indented an addition 12 spaces.
- If a marker has been included to begin a subtotal, it is also indented the 12 spaces, and is shown as >>.
- When a section is concluded, a broken line is drawn (), and on the next line, the title for the total is printed in bold capital letters.
- A line is skipped between sections.

If your Chart of Accounts is not set up correctly, it will look different than this format. Print the Chart of Accounts and have your accountant review the entries to be sure it is correct. It is always

good to have a chart saved in a reference book, even though it is readily available on line when using G/L account numbers.

8.9.2 G/L account summary

The Account Summary provides a listing of totals for each account, and the budget / previous totals to be used for comparison. The listing displays the account number, title, year to date total, current period (as selected), budget, percent of budget, and past year.

The report is run by specifying the period for which the report is to be run. It is the amount that will be posted in the Current column.

This report is particularly helpful in analyzing trends. For example, if a month is specified, than the budget amount shown is for that month, as is the past year. If a quarter is chosen, the same rule applies. The figures, then, are balanced by time period for comparison.

The most important information will deal with the income and expense accounts. It will be desirable to see current totals for income increase over the past year, while expenses should be decreased. In relation to the budget, income accounts would preferably be equal to, or greater than, the budgeted amount, while the expense accounts would be less than the budgeted amount. A caution flag should arise in the mind of the financial analyst when income is down, or expenses are on the rise. Further investigation of the cause for such a situation is warranted.

8.9.3 Trial Balance

The Trial Balance is used to check the integrity of the General Ledger, and the accuracy of the posting. It provides a listing of all the accounts, the beginning, and ending, balances, and the debit and credit totals.

This report is run prior to performing a closing, because it permits the evaluation of all transactions. This is considered a safety check for the accountant, and an audit trail for later evaluation should problems arise.

The report may be run with, or without, the detail lines. These are the individual transactions for each account. A summary report might be run first, with a comprehensive detail report run should problems occur. However, we recommend the complete report be run, and saved, for an audit trail.

The report details the status of each account's beginning balance. This is actually the current (ending) balance of the account at the last period closing. It then displays (if requested), and totals all debits and credits. Finally, it provides a new ending balance. The amount is displayed on the balance side of the debit/credit T for that specific account.

When the ledger is out of balance, it is useful to check off all corresponding entries, looking for the error. It will be generally quite easy to find if the ledger is closed on a weekly basis. Then the number of transactions will be relatively limited compared to doing it only once a month. For many people, it is far easier to find difficulties on paper than it is to use the automated computer system for analyzing the ledger.

Many people run the trial balance each week, or more often, and then perform a period closing on the G/L. This makes the number of transactions to validate far easier to control.

8.9.4 G/L transactions listing

The Transaction report provides a list of all transactions in the General Ledger file. Other reports summarize this data by account. However, if transactions have been entered which do not belong to a current account (usually because the account was deleted after the transactions were posted), they will not be totaled properly, and could lead to an unbalanced ledger.

By running this report, the system will display all transactions in the file for the dates specified at the opening prompt.

To evaluate the status of unclosed transactions, print the report for an extended period, ie. 01/01/80 to 12/31/99. This will then print every record in the file.

If performed after a period closing, it will list only those items that did not clear, and they may be evaluated to determine if they are posted to inactive accounts, or simply not in the date range which was processed. Perhaps a series of items were not cleared because a closing was not performed for that date. Once errors are located, they can be modified using the Ledger Posting.

Another use of this report function is to list all items to be processed during a period closing. For example, if a closing were to be performed for February, one would enter the dates 02/01/90 to 02/28/90. The system would print all February transactions. Once the closing was performed, the items would then be moved. If closings are performed on a weekly basis, the operator would still use the entire date range to pick up any other items that may have been posted prior to the actual working dates, but not previously cleared.

8.9.5 G/L Profit & Loss statement

The Profit and Loss Statement provides a detail of the income and expenses for a company. In addition to providing the balance of each account, a percentage is shown. This is the percentage the total represents of the section (income or expense) as a whole. If the total income is \$1,000, and \$100 was from parts, it would be 10%.

The report enables the management to know exactly how much profit has been earned in a given period. By looking at the percentages, it is easy to determine the greatest areas of income, and the leading cause of expenses.

Profit is enhanced when increasing the income while decreasing expenses. Consequently, if it is known that one account is a leading source of income, it may be possible to enhance the performance of that account, or overcome problems that lead to a lesser income from other sources.

When reviewing expenses, some may be out of proportion to the operation of the shop as a whole, and can be evaluated accordingly. Perhaps some reductions may be necessary. A typical example would be Mac's Repair Center. Their accountant has recommended a 10% increase in profits. They evaluate the income and find that it is not really possible to bring in more business. Therefore, expenses must be evaluated. They review the accounts, flagging all of the fixed amounts that cannot be changed (rent, utilities, etc.). By totaling the percentages, they find that 40% of the expenses cannot be changed. Consequently they need to reduce the remaining 60%

to 50%. They find significant expense in advertising, but experience has shown that few customers come because of their ads. They trim 5% off the expenses by running only the directory listing in the phone book. They realize that one employee, who goes to school and works part time, would like fewer hours. 1% is shaved from the total. They have several phone services that are never used. Here goes another 1%. They find that overstocking of inventory is a problem. Suddenly, another 3% is gone. By reviewing the expenses, they have saved a significant amount of money, and increased profits. This money was then saved to be used when the economy hit a downturn, and residual funds would be necessary.

8.9.6 G/L Balance Sheet

The Balance Sheet is the primary document to be used by the accountant when reviewing the financial stability of the business. It displays the totals for each account, and the percentage of the section total that the amount represents.

For example, perhaps the total Cash Receipts was \$5,000. If total Assets are \$50,000, the Cash Receipts amounted to 10%.

When reviewing the Balance Sheet, it is particularly important to look at the cash totals. Often called liquid assets, because they can be accessed immediately, they include the Cash Receipts, Credit Cards, and Bank Account totals. Cash Flow is a vital issue to any small business.

When the economy is soft, leveraged (credit) buying can become a real opportunity for failure. Whenever anything is purchased with an obligation, it involves increased cost. The obligation must be satisfied if the business continues.

Cash assets enable the business manager to make less costly purchases, and to receive goods in a more timely manner. They are also less stressful (no bill collectors will call).

Remember, also, that the Balance Sheet reflects status at any given point in time. It is important to not assume that funds available today are available tomorrow. In fact, the sheet will tend to jump at any given point in time because of periodic expenses that arise.

The Balance Sheet is printed for a given period of time. The standard is to look at the balance when the report is run. However, the system will provide a breakout of totals for any given month, or quarter, if requested.

8.9.7 The G/L account auditor

The Auditor provides a summary of an individual account within the G/L.

Enter a beginning, and ending, date for processing, and the account number to be examined. The system will then create a report of all transactions, for that account, for the date range provided.

8.9.8 General Ledger formulas

The Formulas reports can be run for a month, quarter, or year to date. Ledger data is computed for 8 common accounting ratios used in business. These are calculated from the General Ledger automatically when the report is selected. These reports include:

Current Ratio

The current ratio is very commonly used to measure the financial strength of a company. It measures the ability of a company to pay its current liabilities by using only the current assets. A base ration of at least 2:1 is preferable, but a higher value is considered better.

Quick Ratio

The quick ratio combines the total cash resources (cash + securities + accounts receivable) divided by the total current liabilities. This is another measure of a company's ability to pay its debts. A minimum ration of 1:1 is desired.

Average Collection Period

The average collection period is the average number of days it takes to collect your accounts receivable. It is important that this figure be kept to a minimum. Generally, your average collection period should not exceed 1.33 times your net terms. In addition, small businesses should focus on net terms being kept low, ie. 10 to 15 days from the date of the invoice (not the statement).

Return on Equity

This formula measures the return received on the capital you have invested in the business. Compare this figure to money you would be earning if the capital were invested in other resources, ie. bonds, mutual funds, etc., for a perspective on how well your business is doing for you.

Gross Profit Margin

This formula is usually seen as a measure of how well the business is controlled. Specifically it looks at inventory control, production efficiency, and pricing effectiveness.

Net Profit on Sales

This is a comparison between the total money earned by your company, and what you are spending to operate. You will want to monitor this value across time, and also to seek statistics on how other businesses in your industry fare on this measure.

Return on Assets

This is considered to be an evaluation of how effectively a company manages its assets to generate a profit.

Debt to Net Worth

This value will be important to those who loan you money. It measures the relationship between the capital invested by the owners, and funds borrowed from others. A value of 1.0 or less is desirable. The lower the figure, the stronger your credit rating will be.

8.9.9 Previous Year

This report will allow you to print the General Ledger summary for all accounts in any previous year that has been archived. You will be asked to select the file containing the year's data.

The name of the file will be MLSGL followed by the year, ie. MLSGL2010.dbf.

8.10 Payroll

Payroll reports keep track of your employees and provide the necessary information for handling your government obligations.

8.10.1 Employees listing

The employee report provides a listing of the employees, and their addresses, and phone numbers. The report does not list any pay information, but may be used as an employee directory. No input is required to run this report.

8.10.2 Individual employee summary

The individual report gives a complete status for a single employee.

The initial page provides a summary of the employee's tax status, earnings, and totals.

The second page provides a detailed listing of the employee's payroll for the current year.

This report will be quite beneficial should any discrepancies in pay arise. Combined with the employee's labor report, the manager can readily see the performance, and compensation, of the employee at any given time.

To run the report, the system will prompt for an employee code. You may look this up using the right mouse button.

8.10.3 Payroll period summary

The period report should be run after every payroll. It details the payment for each employee, and the totals for employees and employer.

This report is especially beneficial for determining the amount to be deposited in the tax account, and paid to employee accounts, ie. insurance, etc. If the total obligation is deposited upon payment of payroll, the company will never have any concerns about proper payments of its tax obligation.

To run the report, enter the desired payroll period when prompted. The right mouse key can be used if lookup table assistance is needed.

8.10.4 Payroll quarterly summary

The Quarterly report provides a summary of the payroll totals that have been processed by the management system.

When the report is selected, the system prompts for the quarter (1, 2, 3, or 4), and the year to be processed. The system asks for the last two digits of the year. The program will recognize dates in the year 2000 and beyond. For example, 01 would be interpreted as 2001.

The quarterly report is used to validate totals, and printed copies should be retained for business records.

8.10.5 Year To Date

This will provide year to date totals for all employees. It is helpful to store periodic copies of this printout for later reference.

8.10.6 Employee deductions summary

The deduction report provides a comprehensive listing of each deduction account, and the activity from employee withholding.

The report requests the date range for which it is to be run. Enter the beginning, and ending, dates when prompted.

The system itemizes each account on individual pages so that they may be saved.

8.10.7 Payroll tax report

The tax report is used for reviewing all tax activity, including deductions for all of the employees, amounts withheld, and all payments made to federal and/or state depositories.

The report is run for the current year. The system will prompt for the year to be reported, but the current year will be the default.

8.10.8 W-2 forms

If you wish to print W-2 forms at the end of the year, select this option. The system will verify that you wish to actually print the forms.

Use the IRS standard continuous forms.

It is necessary to complete all payroll processing at the end of the year prior to running the W-2 forms.

Once they have been run, the year end payroll closing can be run.

Be sure the forms are properly aligned in the printer prior to beginning. The print head should be positioned at the top of the form, and will drop the proper number of lines to begin the forms.

8.10.9 Federal tax form 941

Data for completing a federal Form 941 is calculated, and printed, from the report menu. Simply enter the desired quarter for the report when prompted, and the report will be produced.

The information provided is identical to the format of the federal Form 941.

8.10.10 Zone tax summary

This report provides a break out of the employee taxes collected, and paid, with the balances due. The totals are for Federal, State, and Local withholding, plus FICA, FUTA, SDI, and SUTA.

This report should be run on a regular basis to be sure that all monies collected have been paid to the respective agencies.

The report can be run for any date range. Both the beginning, and ending, dates are requested, and the totals are for transactions that occur during that time period only.

8.10.11 Time Clock

The Time Clock report provides a time card for each employee based on their use of the time clock.

When selected, you will be asked to specify the date range. Usually this will be the dates included in the payroll processing you are about to perform.

You then have the option of having the time cards printed continuously, or a separate sheet for each employee.

The printout will provide the check in / check out times, and the total labor times.

If you have concerns about the results, you can edit the time cards directly in Payroll.

8.10.12 Labor Times

The Labor Times report prints a log of the check in / check out times for each employee who uses the Labor Time Clock (2). The total time actually accumulates to the individual labor entry in the Actual field. This report is an excellent audit tool.

You will be able to select a date range for this report, and then it will print automatically. The dates will usually coincide with a specific payroll period.

8.10.13 W-2 Transmittal

This option prints the transmittal forms for your W-2's. This is the summary sheet that must be included when submitting the W2 forms to the IRS.

8.11 System Graphs

The **MasterLink Shop Writer** has the following graphs included in the program. By selecting Graphs on the Report Menu, you will see these options listed. Simply point and click at each graph you want displayed. The system will then calculate the data and display it automatically. You can select multiple graphs at one time, and each will be displayed in sequence.

It is important to compare the monthly totals to determine earnings consistency. However, months where income is down may reflect factors beyond your control, ie. seasonal work, bad weather, or an extensive number of holidays. Be sure to evaluate your business performance based on the charts, but also maintaining an awareness of the mitigating factors that offset income.

Graphs that are displayed in a monthly format automatically calculate the data for the current year. Each monthly total is shown.

Income Total

The income total displays two sections of data, the total income, and the direct costs. The totals are grouped for each month of the year. This gives you a quick view of your gross profitability, but this does not include all of your costs of doing business. It only represents the costs for parts, labor, and sublet services.

Income Types

This graph displays the monthly totals of income for labor, parts, and sublets. It represents the dollar income, but not the profitability, for each of these revenue sources.

Payment Types

This graph displays the method of payment used each month for the income. It is categorized as cash (including checks), credit cards, and balances posted to receivable accounts.

Employees

This is a chart of employee efficiency, and compares the flat rate unit charges for all workorders completed in each month versus the actual time. If actual time is not posted to each workorder, then this information will not be as valuable. However, it will still accurately display the total flat rate time charged per month.

Profit / Loss

The Profit or Loss figures are taken directly from the General Ledger monthly totals. The G/L represents the total expenses for your business, and if maintained properly, this chart will represent the actual relationship between total income and expenses for the business.

Payroll

The payroll chart shows the total compensation paid to employees each month. This graph does not, however, include costs for employer taxes and fringe benefits.

Once the graph is displayed, you can use the tools detailed in the next chapter to modify the appearance of the information.

9 3rd Party Interfaces

Interface products allow you to pass data to 3rd party companies with whom you contract. This service is continually expanding as our clients inform us of people with whom they would like to work.

Specific details are provided in the following pages.

9.1 CRM - Customer Follow Up Services

MasterLink Shop Writer has a powerful Customer Retention Management system built in. However, some business owners prefer to use 3rd party service providers for this task. The following pages discuss integrated programs currently built into the system.

All 3rd party services are contracted directly with the company that has the CRM program. MLS feeds the data to their system, under your control, so they can serve you in accordance with the agreement you reach.

9.1.1 DemandForce

Demandforce seamlessly integrates with MasterLink Shop Writer to turn your customer base into a powerful social network. It only takes a few minutes to setup and then the systems runs itself. Each night we make sure your data is effortlessly uploaded so you can relax and watch the revenue roll in.

Demandforce uses a combination of social campaigns, customer referrals, automated communication, custom reminders, appointment confirmations, satisfaction surveys, and postcards to achieve your goals.


Demandforce also provides cross channel online marketing which provides a presence for your business on the sites of other, non-competing, service providers in your vicinity.

Setup

As the following screen demonstrates, setup is very simple. You only need to provide basic information in the blanks, and select the Use Demand Force checkbox. Once it is Accepted, DemandForce will be working for you every day. Of course, this step is completed after you have obtained a DemandForce account. This is a 3rd party service, and the fees for services are determined by your shop and DemandForce directly.

Demand Force Setup

Shop Name	MLS Auto Repair				
Address 1	PO Box 740				
Address 2					
City	Trabuco Canyon	State	CA	Zipcode	92678
Phone	[949] 589-3186	Fax #			
Website	www.autoshopwriter.com				
Email Address	sales@masterlinksoftware.com				
<input checked="" type="checkbox"/> Use Demand Force ?					


Accept

How it works

When you close a workorder, the necessary information is immediately written to special files created for DemandForce. Each day, after normal business hours, that data is uploaded to the DemandForce servers where it is processed in accordance with the services you are purchasing from them. There is nothing you need to do. The process is all automatic.

9.1.2 Kukui

From the **Tools - 3rd Party** option, select Kukui. You will be asked if you wish to turn on the service. Say Yes, and from then on everything will be handled automatically.

Kukui places a submission program on your server that will take files MLS prepares and sends it directly to their servers, identifying your company in the process.

Contact Kukui directly to contract for their services.

9.2 Parts Ordering and Labor Guides

Most of our clients use a diverse set of parts ordering programs online. We have integrated a few and are quite willing to add more whenever the vendor would provide us with their integration guidelines.

MasterLink Software has been very successful at implementing integrations with co-operating vendors.

9.2.1 World Pac

The World Pac interface allows you to purchase parts on line from WorldPac, and have that information added automatically to your workorder. It is an integration interface with the Dial system which World Pac customers already use to order parts.

Setup in MLS is very simple. In MasterLink Shop Writer, on the Tools menu, select WorldPac Activate. You will be asked if you want to activate the program, and answer Yes. That's all it takes.

Workorders

- Each day, first start the Dial program on the workstation, and leave it running. Remember, on each computer where you wish to order parts from WorldPac, you must have Dial installed and running. If MLS is already running, it's no problem. Start Dial before you attempt to place an order.
- Open a workorder. Be sure you have setup the proper vehicle (including the accurate VIN number) in the workorder. MLS transfers this to Dial to make the process simpler.
- Click on the Services tab. You will see the World Pac Dial icon and a down arrow next to it on the right. Click on it and select Order Parts. Dial should now come up on your computer and be already set to the proper vehicle information.
- Look up your parts and place them on an order in Dial like you normally would. When you are finished, do the checkout. When that completes, minimize Dial (do not close it) (in the upper right corner of the Dial window, select the _ symbol).
- In MLS, you can now click on the same down arrow symbol and select Edit Order. Double click on the Apply box for items you want placed on the workorder. You can click on the Delete box to remove items from MLS (but you must cancel with WorldPac separately). You can change the quantity, description, part number, and pricing from this screen.
- In MLS select the Apply Order from the down arrow. The parts will now be added to the workorder using the values you set in the Edit mode.

What this does:

This system interfaces with your Dial program to allow you to order parts, and have them placed on the workorder. It also adds the part to the inventory tracking system (but not as stocking parts), and updates totals for sales. It also adjusts the totals on the workorder appropriately to reflect the new parts.

What else you must do:

Just like any non-stocking part that you type in, this interface does not enter the amounts into accounting. When you receive the actual invoice from the vendor, you would go to Accounts Payable and post it as a charge. Everything else will work as normal.

Purchase Orders

You can use the Purchase Order system to obtain parts for multiple workorders at the same time.

- Open a Purchase Order. You can start one at the beginning of the day and continue to add to it all day long. You can even keep it open for a week if you want.
- Inside the purchase order, when you want to order from World Pac, select the button. You will see a list of open workorders. Find the correct one and select the Accept button.
- You will now be ready to search for the parts for that vehicle. Complete your search, and process the order in Dial. Then minimize Dial.
- You will now be prompted to add the parts to the Purchase Order. The interface remembers the workorder number you selected, and the parts will be on the list.
- When the parts arrive, go to the Stock Input function in Inventory. Select the open PO and process the parts that have arrived. You simply enter / modify the quantity that actually arrived, leaving the others on backorder.

- Process the Stock Input as you would normally. The parts will be added to the workorders specified, and the accounting will be performed.
- You may return to that PO until all parts specified have been processed.

Thats it ... really quite simple, especially if you are used to using the PO system..

9.2.2 Real Time Labor Guide

The **Real Time Labor Guide** can provide data to **MasterLink Shop Writer 12**. The product, however, must be purchased separately, and is not included as part of the management system. MLS 8 has an installed interface to this product..

If the **Real Time Labor Guide** is installed, from a workorder labor entry screen, click on the (Guides button and the guide will start. Select the vehicle, and then build your Real Time Estimate.

You will need to use the menus in the labor guide to enter the vehicle, and select the service(s) you wish to quote. When complete, the quote (the name data is not important) and exit the program. When you are returned to the MLS8 you will be prompted to import the data. Answer Yes and the, the labor items from the quote will be added.

At this time it is not possible for RTLG to recognise vehicle data. In addition, you may wish to enhance the descriptions provided by the guide to be more detailed for your clients. Type in the data, and be sure to SAVE your changes.

The labor code for all imported labor items is RT so you can recognize the source of your data and description.

9.2.3 Alldata

The Alldata option on the Services tab of an individual workorder will provide a quick connection to the 3rd party website. It passes the vehicle coding information so you can quickly lookup relevant data from your Alldata account.

The process does NOT return the information into the Service Writer program. It has been our experience that the Alldata information is very useful to technicians, but is not an effective description for invoices to be provided to clients. Because the data is provided in a separate window, open to the website, it is suggested that the shop use the Glossary system to make client appropriate descriptions, and use this lookup for reference to times and charges appropriate for the service.

9.3 CARFAX Services and Utilities

CARFAX is a FREE service for your shop. You agree to submit service descriptions to them, and they provide you with VIN lookup/decoding, and detail, service histories, and free marketing.

This section describes the programs, and setup. This product is for automotive repair shops, and is provided at no cost to you, or your clients.

The data is automatically collected, and transmitted, by the auto updater system. It only includes the VEHICLE VIN (for identification), and the labor descriptions. No parts, or pricing, information is sent. The Shop Writer system submits the data safely to the CARFAX servers, and no computer can gain access to your system.

9.3.1 Carfax VIN Services

Decoding VIN numbers has become a very complex process, and the accuracy of the results is dependent on the data provided to the decoder. We have found that Carfax provides an outstanding database, used by our decoding system, and we in return can provide information about the vehicle, and its configuration. As with any vehicle, it is always possible that the owner has made modifications, so you will want to verify the data provided automatically by the system.

Carfax will provide you with access to their VIN database in exchange for you keeping their records up to date on vehicles you service. There is no charge, and you also can benefit from free advertising of your business because you can have your shop information appear on every Carfax report.

You may turn on the VIN decoder by agreeing to the following license of useage. This is done under Tools from any workstation running MasterLink Shop Writer. Please read this license carefully.

License

I understand that by joining the CARFAX Service Link program, I authorize the release of information, including VIN or license plate with state, date, mileage, and repair order information, from my service records to CARFAX directly or through my SMS provider for perpetual use in CARFAX Vehicle History Services. In return, my business will receive FREE advertising after CARFAX receives my applicable contact information to create it for me. I understand that the advertising may be delayed for records I provide without a VIN.

CARFAX will only use vehicle specific information and does not collect personal information about my business or my customers. I acknowledge that my business location's name, address, telephone number, and website address (if applicable) shall be published on CARFAX reports in connection with the information provided as described above so long as I continue in the Service Link Program.

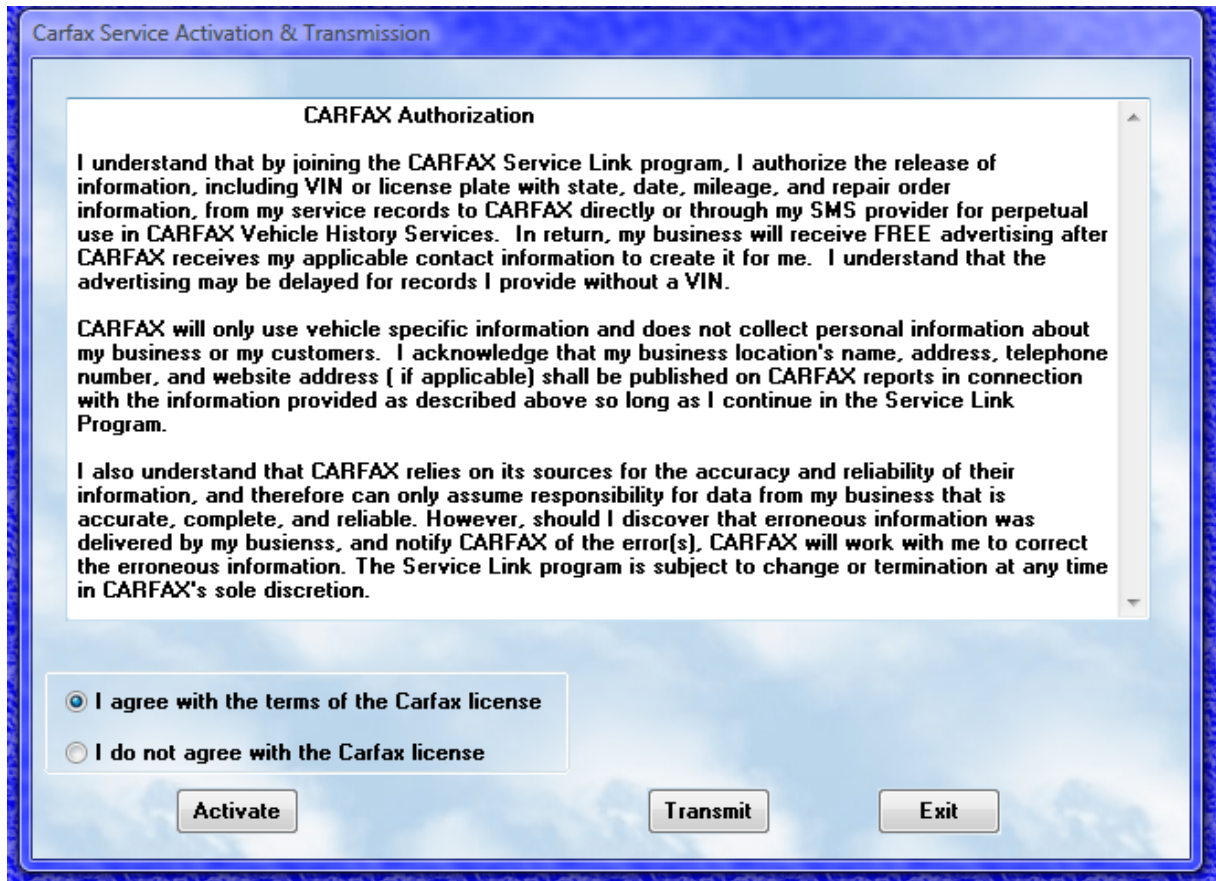
I also understand that CARFAX relies on its sources for the accuracy and reliability of their information, and therefore can only assume responsibility for data from my business that is accurate, complete, and reliable. However, should I discover that erroneous information was delivered by my busienss, and notify CARFAX of the error(s), CARFAX will work with me to correct the erroneous information. The Service Link program is subject to change or termination at any time in CARFAX's sole discretion.

In essence you are agreeing to the following:

You agree to transmit to Carfax, via an internet connection, on a weekly basis a summary of services provided on each vehicle that has visited your shop. This information includes the vehicle identification information the service description of each task performed, and your shop ID. Information about the client, pricing, or other workorder data is not transferred.

In return, Carfax grants you the right to use their VIN database in our decoder. Furthermore, Carfax will provide a tag with your shop information on their Carfax reports, which can be a great source of future revenues for you.

The Carfax Window



There are two parts to this window. The first is Activate. If you select the Agree option, then the Carfax VinDecoder will be available to you whenever you use the program. If not, then the Carfax database will not be active. Once you select your option, press the **Activate** button.

Once a week, you need to send your service data to Carfax. The system does this automatically using MLSUpdate on the server (which should be running 24/7). It keeps track of what needs to be sent, when it is due, and does the work automatically.


Quick Vin

Your MasterLink Shop Writer program is also equipped with Quick Vin, which allows you to translate a license, and state of registration, to a VIN. When adding a new vehicle, you will be prompted for the License, State, and VIN. If you just fill in the license and state, the system will connect to the Carfax server, obtain the VIN, and then return it, asking if the Year / Make / Model is correct for the vehicle you are seeking. If it is, then it will decode the VIN and save the information in the MLS files.



Selecting this icon with a vehicle selected in the editor, will take the installed License and State, and obtain the VIN from the Carfax server, then decode it and save the data.


Decoding VIN numbers

 Once you have entered the actual VIN into the proper field, simply press the lookup icon,, and the system will pop up a box showing you the vehicles appropriate for that code. There may be several models, or just one. Double click on the proper submodel, and the system will automatically decode the data and put it into the proper fields.

Carfax collects service information from any repair facilities willing to submit them. They then become a central repository for vehicle information which is useful to customers when buying a selling a car. Buyers benefit by seeing that a car has been serviced, and if there were any significant repairs, they can consider that in their decision. Sellers will find they command a much higher price for their car when the full service history is available, either in a direct sale, or as a trade in.

Service History

For any vehicles in the Carfax database, which is built based on voluntary submissions of service centers, a full history of services performed is available.

In the Auto Shop Writer program, this can be obtained in many ways. Look for the  button on the Vehicle editor screen (under Clients on the main screen), or on the top bar of any open workorder. The system will obtain the service history, if available, via the internet, and provide a scrollable popup for viewing the data. In addition, clicking on the Analysis option (General tab of the open workorder screen), will provide the service history data as part of the full vehicle information display.

9.3.2 CARFAX Service Histories



The Carfax button on the workorder screen provides instant access to their database, and will display the service history for the vehicle on which you are working. This is a brief summary of all services provided, at all locations reporting.

Service histories (and VIN decoding) are provided at no charge to you IF you are submitting the labor descriptions on the vehicles you service each day.

9.3.3 CARFAX Loyalty Program

CARFAX has a customer loyalty program that actually provides your clients with the ability to view their service history on line, timely recall notices, and reminders of pending services.

As a participating service center, your information is included on their reminder emails. This is provided to you at no cost.

Contact your Carfax representative for complete details.

9.4 Credit Card Processing

Credit Card Processing In MasterLink Shop Writer

MasterLink Shop Writer has integrated an online credit card processing system into the program. This allows you to simply swipe a card, or enter the information on a credit card screen, and the payment will be processed and posted to the invoice. You may also use it for accounts receivable posting.

To utilize this service, contact MasterLink Software (949 589-3186 or Sales@MasterLinkSoftware.com) and we will provide the two Merchant Services companies who can handle your account. Once the processing company has setup your account we will help you activate it in MLS

MasterLink Shop Writer is integrated with two different Merchant Services providers: Gravity Payments and 360 Payments.

Benefits

- The terms offered by these companies are competitive.
- MasterLink Shop Writer tracks all credit card transactions and will provide reports of all transactions.
- The credit card transaction is printed on the final invoice for the customer.
- You can use up to 4 credit cards on a single workorder.
- You can post a credit back to a card that was previously charged.
- Use of a Merchant Account with MasterLink Shop Writer is done on the internet. This frees a phone line in your shop.
- All information is printed on the invoices, so you do not need a separate card machine/printer, nor do you waste money and time with paper rolls.
- Processing time is very fast, usually in 2 to 4 seconds, and it eliminates the need for a modem to dial in, negotiate, and connect before transferring data.
- Support is available 24/7/365 in 163 languages.
- The prices will likely beat your best deal. If the terms are not what you want, you need not proceed.

Account Setup

On the **Finance** menu in MasterLink Shop Writer, select the **Merchant Services** item, and then **Select**. Click on the provider you wish to use. Then go to the **Setup** button and you will be asked to complete the information necessary for the selected provider.

Setup is handled by the individual providers, using their utility. Thus, you will want to consult their documentation and your agreement papers for the proper information to enter.

Transactions

All transaction posting is discussed in the appropriate areas (Workorders, Accounts Receivable) of this manual. Also review the information supplied by your provider for completing their user interface forms.

Reports

The Credit Card item on the Workorders report tab will give you a complete listing of all transactions for the date range you select. Enter a beginning and ending date, and you will get a list of all sales, credits, and rejections, plus appropriate information to identify where the transaction applied.

Setup and use are discussed in the [Merchant](#) option of Accounting

10 SMS Text Services

This service package is integrated for OUTGOING TEXT messages only.

If our clients utilize the service sufficiently, and have a need for two way messaging, we will expand the service accordingly.

10.1 SMS Best Practices

Text messaging has become a very popular method of communication, especially among our mobile, younger adult generation. For this reason, many businesses now incorporate texting as one option for keeping customers updated on the status of their service, and to remind clients of upcoming appointments.

We suggest the following considerations when using SMS text messaging:

- Keep it brief. When possible, use less than 180 characters. Texts are intended to be short, quick, communications.
- Encourage a phone call if the client has questions
- Do not advertise. Consumers find marketing texts to be annoying.
- Do remind clients of upcoming appointments (automatic in our appointment scheduler)
- Do keep clients updated when the status of their service changes (ie. waiting on parts, needing an approval, the work is complete and ready for pickup).

Why use a text message when you need to have a discussion ? Your client may be busy, and not see an email, or be able to answer your call. Your text message lets the client know they should call you at their earliest convenience. This type of communication is generally appreciated, and shows the client you respect their time.

10.2 Twilio

MasterLink Software has searched for a reliable, reasonably priced, SMS text messaging service for a number of years. While many companies claim to be "the best choice", often they go out of business leaving their clients without service, or they are bought out by someone else.

Twilio has a very extensive SMS service in addition to a variety of other offerings. The Service Writer system contains an interface to this 3rd party provider. The integration allows the system user to create scripts, and select one, or enter their message "on the fly". It provides controls to send the messages from within workorders, on the Client editor screen, or even from the systems Home screen. Also, the Appointment Scheduler has a checkbox that will allow text (or email) reminders to be sent automatically the day before a scheduled appointment.

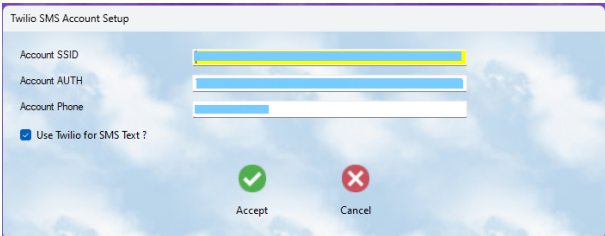
It is your responsibility to contract with Twilio if you wish to use this service. You simply go to their website and setup an SMS account. For more information:

<https://www.twilio.com/en-us/messaging> . You can skip all the information about programming. That is already completed. Simply sign up for an account (SMS Messaging) and go to the next step in this manual, [Account Setup](#).

10.3 Account Setup

To setup SMS through Twilio, first go to their website and obtain an account. This will provide you with an Account SSID, and AUTH code, and a unique Phone number.

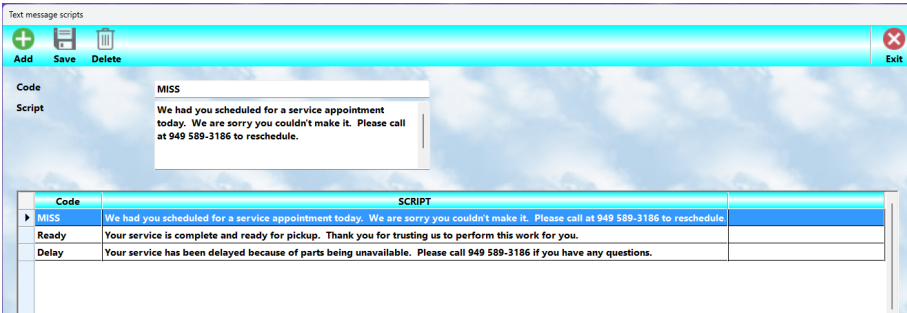
Then, go to the **Tools** button menu on the main screen, use the drop down icon (v), and select the **3rd Party Setup** option, and then **Twilio**. You will see this screen displayed:



Add the information provided by Twilio to each of the three fields, click on the Use Twilio checkbox, and select Accept. At this point you should be able to send SMS Text messages to your clients.

To send text messages, you must have a phone number, including area code, in the Cellular field on the client's record. You do NOT need to specify their mobile carrier.

10.4 Creating scripts



Many of your messages will be repetitive. To send them easily, you can create a file of scripts. Then, from the popup to send texts, you can select a script.



is the button on the main screen that provides several Text options.

- Send Text
- View Text Log
- Create Scripts

To build your script library, select the last menu item. This will activate the screen shown above.



Use this button to add a new script record.

Then, assign a "code" (whatever makes sense to you), and then write the script. Be as brief as possible.



Once complete, press the Save button. If you want to Edit a script, simply highlight it on the lower browse (list), make your changes, and again press the Save button.



If you no longer want a script, highlight it, then select the Delete button. It will be gone.

Scripts can be very helpful, but they are not necessary. You can always freely enter any information you wish on the text popup, or modify any script.

10.5 Sending Text Messages

A screenshot of a software dialog box titled "Text Message To Send". The dialog has a light blue background with a cloud pattern. On the left side, there are four input fields: "To #:" (with a yellow highlight), "Account:", "Order:", and "Script:" (with a dropdown arrow). On the right side, there is a large text area labeled "Message:". At the bottom center, there are two buttons: a green "Send" button with a checkmark icon and a red "Cancel" button with an 'X' icon.

When you see this button, you can send text messages. On any screen where you have a client record highlighted, pressing the button will automatically provide the cellular number in the **To #** field (if there is one on the client record). It will also provide the account number (for your tracking log). If you are in a workorder, it will also bring in the WO number for the log.

If you would like to use a script already built, click on the down arrow in that field and select the one you wish to use. You can then modify it if desired.

The message field will display a script text (if selected) which you can edit, or you can simply type in your desired message.



Click this button to send the text.

11 Support Services

MasterLink Software is committed to providing direct, human, communications with our clients, even the technology industry is turning over the work of support to Automated Intelligence (recorded messages).

It is our goal to provide the assistance you need to run your business smoothly, with delay or frustration. So please, use our support channels.

11.1 Automatic Updates

MasterLink Shop Writer 12 includes an automated update service that allows users to always have the most recent version of the software. The programs are included automatically with your CD or online installation program.

The programs require an active internet connection to work, and we strongly recommend that this be provided through a broadband service.

MasterLink Shop Writer runs a program on your server which checks the MasterLink Software update server for new releases. That computer will automatically download updates to which you are authorized.. *If your account is not current, then updates will not be available.* This status will be saved on your company server. When you start AutoShop Writer on a workstation, it automatically checks your server, and transfers a newer version if one is installed. This only takes a few seconds. If you do not have a full time internet connection, then this service will not occur.

Updating services are only for those who have paid for support and update services. If your account is behind, or you have elected to not pay for support and updates, do not perform these steps. MasterLink Software can not help you roll back your version, but if your account does not authorize the update, and you install the software, your system will not operate until you pay the past due fees and have your authorization updated.

11.2 Update Log

The Update Log menu option (under the Help menu item), displays a list of items addressed in each version. It is your quick reference to see if specific issues you have referred were addressed.

The log begins with version 9.30.00. It will continue to be updated even if you have not received the current version.

Update Logs usually don't reflect all changes. "Fine tuning" may involve many different areas of the program and are usually based on issues of alignment of fields, or using different internal commands that improve performance but have no visible changes on what users must do to perform a task.

The Update Log may also reflect changes that have been made to a version pending release. It is maintained as work is performed, and updates to our servers automatically.

11.3 Email Support

From the Help menu, you can send an email to technical support. Use these for general observations, program requests, and other non-specific communication. We will respond to you at the earliest possible opportunity.

It is important to realize that the internet is swamped with junk email, and sometimes your transmission could get lost. If you don't hear back from us shortly, then resend the email.

The email program does attach the error log file when transmitting. If you are reporting a problem, this allows us to see the detail of what actually occurred and we can pinpoint the exact cause and help you resolve the problem.

Error Log

When an error occurs, a dialog pops up and displays the status of the system at the time it happened, and the specific location of the error. On the lower right corner of this dialog is a button that you can press to email tech support with the problem. Please use this, and fill in a brief description of what you were doing when the error took place. You should send this every time an error happens in the system.

With our automated updates, we are able to fix errors quickly and provide them to you promptly. For bugs, we do not wait for a normal "update cycle". We fix them, and get them out. Sometimes fixes are on your machine within a few hours.

Email should be used whenever possible because we are able to track the problem and respond directly.

11.4 Bug/Enhancement Reporting

Under the Tools menu, you will see an option for Bug / Enhancement Report. Selecting this option will start an email to technical support. This is the option you should always use when you encounter a program failure because it includes the error log which gives us specific information on how, and where, the problem occurred.

You should always use this from the workstation where the problem occurred. In the subject field, be sure to put in the area of the program you were working in when the error occurred. In the description, please tell us as much as you can remember about what you were doing leading up to the time you received an error message.

Bug repair is handled with the highest priority, and fixes are made available almost immediately for internet download. There is no reason to "tolerate" bugs ... let us get them eradicated right away !

11.5 Tech Connect

What is the advantage of a direct connection ?

Imagine that a computer expert took over your keyboard and mouse, and equipped with all the necessary tools, proceeded to assist you with training, fixing damaged files, or installing an upgrade. You realize that sure makes your life easier, but obviously the cost would be high for the tech's time, and the fee for coming to your shop, plus the task of carting around software tools and getting enough space to work !

Our Direct Connection support provides you with the benefit of an onsite technical expert, but we don't need to charge extra for the service. It is provided as part of our Developer's Partnership Program to which you subscribe annually after your initial year of purchase.

Our technicians have been providing remote connection services for years, and among the tasks performed are:

- Installation of new MasterLink Shop Writer systems
- Updating older versions to current versions
- Configuring new computers added to an existing MLS installation
- Providing specific instruction on tasks our clients find confusing
- Testing problems reported by clients and helping resolve them
- Repairing damaged data files
- Deleting unwanted data

Currently we use an online service to enable the direct connection. It is easy to use for our clients, requires no special configuration, and works through firewalls. Of course, it can be utilized from any server or workstation in the network.

Why not use Windows Remote Control, VPN, or Terminal Services ?

If you know how to activate the Remote Control option in Windows, you can send a Connection Invitation to Support@MasterLinkSoftware.com. However, this option does not support file transfers so we would be unable to update, or repair, files. It is far too complicated for most users.

Text for Support

Our phone number also receives text messages. Some people like to communicate this way from their phone. Just send your text to 949-589-3186 and you will receive a quick reply.

Please state your shop name, and problem. The technician will answer your questions. If it is necessary to connect to your computer to assist, you will be asked to go to the webpage: <http://sos.splashtop.com> on the internet, follow the prompts, and then send us the 9 digit code. We can then connect directly to your computer.

We cannot connect to your computers unless you are physically present. You must start the connection process, then grant the access. Except for the files we might transfer (with your permission), you will see everything we do. In fact, we will be talking to you during the whole process.

Our clients have been thrilled with this method of support. It is truly **Frustration Free** and allows us to meet needs immediately and quickly. We encourage you to take advantage of this option.

11.6 Frequently Asked Questions

From the Help menu, you can select the option for Frequently Asked Questions. The system will then connect to the **MasterLink Software** web server where this information is stored and updated regularly based on client inquires.

Before submitting a question, you may find it beneficial to check this list to see if an answer is available. The FAQ is updated frequently based on questions from MasterLink clients.

11.7 Notes & Bulletins

MasterLink Shop Writer began its life in 1982 based on the input from shop owners in Southern California. Since then it expanded throughout the US and into Canada. However, the product has always been defined, and refined, based on the input of those who use it to manage their business on a daily basis.

Suggestions are emailed to MasterLink, and the development team constantly translates these into features and refinements of the software. The Auto Updating system allows clients to always have the latest features within days of their development.

New features, refinements, bug fixes, and general information are posted for all to check on the BLOG. These are simply quick notes posted when features are added to the product, or when new versions are released. Check the blog on a regular basis to keep informed on the most recent developments.

To read the BLOG, simply select the option from the Help menu in MLS8, or select it from the menu at www.MasterLinkSoftware.com (or www.AutoShopWriter.com)

11.8 Video Training

Its so much easier to understand a process when you can see it performed. The MasterLink Shop Writer training videos do just that.

Each video is short, and on a specific topic. The maximum length is 10 minutes, but most are shorter. They are organized so that all aspects of operations in MLS 8 are covered, but split so you can "dial in" to your specific needs.

The training videos are hosted on the MasterLink website. You can reach it from the Help menu Video Training option.

The subjects are constantly under development and re-development, so if you don't find the topic you want today, check back next week.

The use of the server based training allows your staff to benefit from instruction without ever leaving the program.

For MasterLink Shop Writer users who want to access a video from home, they can be found in the Support section at www.AutoShopWriter.com

12 MLS 12 System Data Files

The following pages explain the structure of our data files, and how to work with them. This is technical information that may be helpful to people comfortable with computers, but is only for those who have a strong comfort level, and who approach the tasks cautiously.

Before doing any work with the File Editor, make sure you do a complete backup of your files.

Changes made using the file editor cannot be automatically undone. If you make changes, and want to revert to previous data entries, you must do it manually, or restore from a backup. There are no exceptions here.

We have not provided the data file structures in this document. If you have a task you wish to perform on a file, please email a detailed description of the task, and what result you wish to attain. Send it to Support@MasterLinkSoftware.com. You will receive a reply that explains the specific files, fields, and procedure so you can perform the task accurately. We do this because a simple error, in just a minute or two, can create problems that take many hours to undo.

Please read the following pages carefully before trying to use the powerful File Editor we have provided within MasterLink Shop Writer.

12.1 Working with data files

All of your shop information is stored within the data files. These are listed in the file structure listing of this chapter. In addition there are several memory files, with an extension of .MEM, but these should not be modified.

File Structure

Files are long listings of information. If you took a piece of tape, stretched it out for a mile, and then started on the left end writing data, you would have a sample file. Whenever new data is added, it fits at the end of the current information.

The first part of the file is called a header. It stores the format of the file, how many "fields" are included, their type, and their size. A field is space for information. Each field has a name, type (date, character, numeric, or logical), and a size. There may be many fields for a file.

Information that is written to a set of fields is called a record. When you add parts to a workorder, each item is stored in a record. As you will see, the part file has many fields. Each stores a specific fact about the part you have added to the workorder. The information entered into these fields makes 1 record.

The MasterLink Shop Writer writes the information end-to-end, with no dividing marks. The header tells the computer how to break the information into records, and fields. When you look at the file structure listing, you will see the file title.

All files have an extension of .DBF which is the standard for xBASE compatible file structures. In some cases, you will see a memo field listed. This data is stored in another file, by the same name, except with a .FPT file extension. If you open Windows File Explorer to the **\MLS12s\DATA** subdirectory, you will find all of these files listed.

The purpose of each file is specified on the first information line below the name. You will find that some jobs have been divided across multiple files, ie. workorder information. This permits system speed and efficiency. **The MasterLink Shop Writer** files use special indexes to find records more quickly. These files, sometimes referred to as "keys", have an .CDX extension. The structure listing shows indexes as front/back. The front name is the field name within the file on which the index is built. The back name is the actual name of the index file. Sometimes these will be the same. The workorder file has a key file built on the workorder number. The data is located in the wrkord field, and the index is stored in a file called abaord.ntx. Every field has a name, type, and size. The names are chosen by the programming staff, and relate to their purpose.

The MasterLink Shop Writer field names are usually six characters in length. There are four types. The most common are Character, which stores text, and Numeric, which stores numbers which may be calculated. You will also see some Date fields, which hold dates in the format month/day/year. The Logical fields hold a Yes (true) or No (false) value. Finally, the Memo fields call a special memo file, which stores all of the special notes you have written. A brief statement follows each field's size indicating the type of information stored. This should be helpful should you choose to work with your files using other access programs.

File Maintenance

Files can be maintained using the File Editor included in the program. Instructions are provided for its use.

It is important to exercise great care when working on data files using external programs. It is important to first create a backup of a file before making any changes. In addition, it is vital that the person working on the file fully understand the purpose of all fields, and the data contained therein, to be sure to avoid breaking links or making data inconsistent.

Extracting Data

It is possible to copy data from a system file to a special file which can then be used for reporting and research properties. For example, using the File Editor, one might copy workorder records for a fiscal year to a special file which can then be opened by a spreadsheet program (ie. Excel). Projections can then be made based on manipulating data within that spreadsheet.

To extract data, one would first open the data file with the editor, and then build a query to isolate the desired records. Then the selected records would be copied to another file, but they would also remain in the system file.

Never use the system files to provide information directly to other programs.

Working With Other Programs

Any program which can interface with a .DBF/.FPT/.CDX format can be used with data files from The MasterLink Shop Writer.

Many spreadsheets and word processors also will directly import, and convert, .DBF file data for their usage. Consult the package details to see if they will work.

You should always work with copies of your data files. Some programs will actually damage your file structure, making it unusable. This is because they do not support the "FOX Pro data drivers". They may end up modifying the headers of the file, thus losing data, or full access.

Custom Reports

Custom Reports can be created using special programs that read the .DBF/.FPT file structures used within **The MasterLink Shop Writer**. Consult the documentation for these products for specific guidelines for extracting the data and constructing the reports.

12.2 Data File Structure / Content

The File Editor provides access to all data files included within the system. These files are provided in the industry standard .DBF format, and are readable by other software programs.

CAUTION: Although other programs can read .DBF files naturally, it is vital that you never modify the data directly. Many programs that can "edit" .DBF files may, in fact, corrupt the data. Consequently it is important to always work with a copy of a file rather than the one used by the system.

What is a data file ?

A data file contains all of the information entered into the computer by the operator(s). Any program will usually contain many data files. Sometimes these are all contained in one large file, called a database, and divided into smaller groups named tables. In the case of **The MasterLink Shop Writer**, all data is maintained in independent files. Each has a name that ends with .DBF. These are often referred to as dBase files because they were originally created in a format using the dBase program. However, these files actually are 32bit data files, and use what are known as FoxPro compatible memo (text) fields and indexes. Programs that cannot properly process DBF/.FPT/.CDX files will damage the data stored within these databases and may completely lose your information.

These files have the following elements:

Header

The first section of a file contains "Header" information, which describes the structure of the content of the file. It includes the names, types, and size, of each field, plus the count of records in the file.

The program reads the header, and then uses the information provided to determine where records are located, and how to interpret the data.

Records

Data files are divided into individual records. However, all of the information is written in "one continuous stream" on the hard disk, and divided into the individual records based on the information contained in the header.

A record contains the information specific to one "data entry", ie. one part in inventory, or one client in the customer file. Each data file may contain a single record, or may contain thousands of records.

Fields

Each piece of information is stored in a "field", and there are numerous fields in a record. Each field is defined with a type, and a length. When looking at a field on a data entry screen, the type and size is not specified, but in the actual file definition it is very clear. There are several data types used in The MasterLink Shop Writer:

- Character - Character fields contain letters and numbers, and are usually of a fixed length. They contain names, addresses, descriptions, and other useful information.
- Numeric - A numeric field contains only numbers, and may be used for calculations
- Logical - A logical field may be either True or False, Yes or No. It is like a toggle, and contains no data.
- Date - A date field holds a date which can be used to match against other dates, or to perform calculations, ie. elapsed time.
- Memo - A memo field contains Character data, but is of variable length. It is used to contain longer sections of text. Because it is variable length, one record may take up a little, or no, space, while another record may have a very long entry.

Each field also has a specified length, except for the memo field. Date fields are always a size of 8, while logical fields are always 1. All other fields may vary in size. The Memo fields have a reference length of 10, and numeric fields specify the overall length, and the number of digits to the right of the decimal place.

Possible supplemental uses of MLS data files

Merge Data

Information from data files can be copied to other files which can then be read by a word processor and used to merge the information into documents. This is typically used for sending out mail information, but may be used to build custom reports, or to build custom worksheets.

Spreadsheets

Spreadsheets are used to look at the data in table form (rows and columns). Also, if the data in the spreadsheet is built with special files created as a "subset" of **The MasterLink Shop Writer** databases, then the user may elect to manipulate some of the numbers to "project" various scenarios, ie. what would happen if part prices were increased by 3%. Spreadsheets are very useful analysis tools, and the ability to extract data from the management system and plug it in directly eliminates the need for repetitive data entry.

Graphics

Many times custom graphs can be created from a commercially available spreadsheet program. Once the data is extracted from the data files, and presented in tabular form, a graph can be designed.

Custom Reports

There are programs available that permit the creation of custom reports. One of the best known is Crystal Reports which can be obtained at most software stores. Full instructions for creating special reports would be included within the product itself.

12.3 The MLS File Editor

The File Editor is used for editing the core data files of the MasterLink Shop Writer system.

Access should be given only to the most senior executives who understand how the data is stored, and the consequences of making any modifications.

12.3.1 Overview - Editing Files

The File Editor found in the MLS 12 client (workstation) program is also found in Datamanager. It has the following capabilities:

- All new programming using the latest libraries and methods available in MLS 12.
- Easier to find and replace data
- Provides an ability to select only data meeting criterion and to display only desired columns
- Outputs current display to a printed report or an Excel spreadsheet
- Strong Find and Replace Utility
- Allows easy selection of system indexes
- Ability to import and export files
- Ability to modify the structure of a file
- Ability to create new files
- Ability to work on files from your workstation
- Ability to work on files while others continue to use them, and the MLS program.
- Ability to "pack" files and remove deleted records
- Ability to "recall" records marked as deleted
- Ability to work directly with .ADT and SQL databases.
- Ability to print selected data from files

The editor is a very powerful tool. However, using it contains risks if you don't understand exactly what you are doing. You must remember that the files are interrelated and changing a value in one record could cause it to lose a valuable link to other data. The structures of the data files are provided in this manual, (System File Structures book), but new changes may not include some critical field additions or modifications. When in doubt, email MasterLink Software for specific guidance on your specific needs, and how to do it. **DO NOT ASSUME you can figure it out. The results may be catastrophic.**

Always make a backup before performing any file editing.

12.3.2 Editor File Controls


The following controls are used in the main File Editor running within the MLS Client:





Create a new file



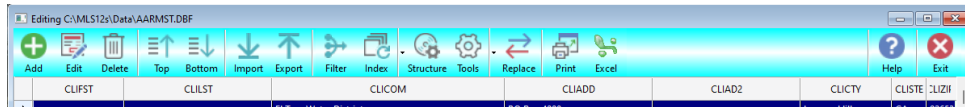
Open an existing file


 Modify the structure of an existing file. (Do not use this unless instructed to do so by an MLS support staff member)


 Open the Manual and view the help options


 Exit the File Editor program (master) or the individual file editor


These controls are used for an individual file





 Add a record to the opened file

 Edit the highlighted record in the displayed file


 Delete the highlighted record in the displayed file


 Move to the first record in the file


 Move to the last record in the file


 Import all records from another file (must match the structure exactly).

 Export the displayed records to a new file


 Set a filter to display only records matching your specific criterion

 Select the Index you wish to use for this file

 View the structure (fields, sizes, types) of the selected file

 Tools to view all records (including deleted, and to recall any), remove all deleted records from the file, or empty it of all records.

 Replace a specific field variable in ALL records based on your selected criterion

 Send the displayed data to a printed report





Send the displayed data to a new Excel Spreadsheet

12.3.3 Editing a Record



When you press the edit button on the file view, this screen will open with the data display that goes with the record you have highlighted. The field name will be in the left column, and the data in the right.

Fields	Data
▶ ACPNUM	
ACPPDT	/ /
ACPINV	
ACPCHG	0.00
ACPCRD	0.00
ACPPAY	0.00
GENPST	
GENDBT	
GENCRD	
COMPLE	
ACPBAL	0.00
CLSBAL	0.00
ACPPTI	0

 Exit Edit
 Save Exit

You can double click on any value you see, and that field will be opened in Edit mode. Some values will show .T. or .F. for True or False. To change the value just enter a T or F without the dots. Some fields have a lot of text, and clicking those fields will popup a box for editing the text.

Make your change and then press the **Tab** key. Your changes will show up on this form as modified. When you complete your changes to this record, press the Save _ Exit button. You can use the Exit Edit button to leave without making any changes.

12.3.4 Replacing Data File Wide



When you have a file opened, you can select the Replace command to change selected data. Please be careful because these changes do not automatically reverse if you don't like the result.

Here are the steps to follow:

1. Its always a good idea to have a backup, at least of the file you are modifying, before you begin. If you make mistakes, the easiest solution is to restore the file from the backup.
2. If you wish to change the same value in every record in the database, check the statement *Replace value in All records.*
3. If you wish to only replace data when a specific value already exists, then you must go to the second option. First select the Field you are evaluating. It does not have to be the same field in which you are changing data. Then you must select the operator. Most often it will be = but sometimes it may be for values >, or <, or a combination. Finally put in the data you want to match. This must be exact. An example line might be: **ACRNUM = 10001**

4. Now select the field you are going to replace. It can be different from the selection value. Finally put in the exact value to be inserted in that field for every match. In this case you might have **ACRCHG 100.00**
5. In the above example, when you Process Replace, the system will look for every record where ACRNUM = 10001, and replace the ACRCHG field with 100.00.
6. The system can sense the field type, and it will convert the data you enter into the proper type before putting it in the field.

This is a very powerful tool, but must be used cautiously.

12.3.5 Selecting Data To Display

Looking at the initial display of a file can be rather intimidating. Often it includes far more data than you actually want to see, and it can be tiring scrolling back and forth across the screen to see the information. For this reason, the File Editor provides two methods for filtering your display data, and they can be combined to give you a great result.

Selecting Records (rows) to View



When you select this filter button from the main file editing view, it will provide the popup dialog box that lets you filter the data, and show only what meets your requirements. All other records will be hidden from your view.

The image shows a screenshot of a dialog box titled "Search/Filter the Database". It has a light blue background with a cloud pattern. At the top, it says "Enter a filter statement:" followed by a large text input field. Below this is a separator "- OR -". Underneath, there are three sections: "Select Field:" with a dropdown menu, "Operator:" with a dropdown menu containing "<", and "Data:" with a text input field. At the bottom, there are two buttons: a green button with a white checkmark labeled "Process Filter" and a red button with a white 'X' labeled "Exit_Clear Filter".

Enter a filter statement: This is a complex programming statement, and unless you understand the available xbase commands, you will not likely use this option. However, MasterLink technicians may use this to quickly locate specific information in a large database. For repetitive operations, we can provide you with statements to use. It is suggested you keep them logged into your system Notebook on a "Commands" page.

Select : Here you will build the filter statement by selecting the following information -

- **Field** = The particular "cell" where the information is stored. Each field has a name as discussed in the System File Structures section of this manual.

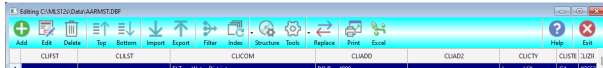
- **Operator** = The operator is a "comparison" tool. It will match the field to the specified data. The available operators are:
 - = Equal
 - < Less then
 - <= Less then or equal to
 - <> Does not include
 - >= Greater then or equal to
 - > Greater then
- **Data** = The actual value you wish to use in the filter. This must be an exact value. Close is ignored by the computer.

When you press the Process Filter button, it will apply the filter and then you will only be viewing the selected data.

When you re-enter this option and press the Exit - Clear Filter button, your filter will be removed and all data will once again be displayed.

The filters do not change data so feel free to experiment with this feature.

Selecting Fields (columns) to View



Below the edit bar icons you will see the "column headers". This is actually a very powerful control that allows you to organize, and view, the data easily. Here are it's features:

- Right click on the header bar to see a popup of the columns. On the left of the list you will see a checkbox. Uncheck those items that you do not want to be displayed.
- Left click on any column, and if it is indexed, you will see an up or down symbol (^) next to the field title. This sets the focus of the database to that field, and places it in ascending or descending order. You can then start typing to find the record you want.

Combining the filters

By setting both the Filter, and the Column display, you can fine tune your view and make it very easy to see the information you want without a lot of distraction. Resetting one does not reset the other. So, if you have selected only a few columns, and then you change the filter, the column selection remains in place until you change it. The "View" you have created with these filters is also in place when you export to a Report or Excel (see next topic). This process allows you to create some custom reports from a single database.

12.3.6 Outputting Data

Its nice to view the data on a screen but sometimes you want to take it a bit further. Once you have refined your view to meet your needs, you can output the visible information in two ways:



Using this option, the program will create a report, and then display it in a View screen (just like any other report when you select that option). You can then send it to a printer, You can even email the report (as a PDF) just like any other report.



Using this option, the data, as viewed, will be exported to, and create a new Excel spreadsheet. To use this option, you need to have Excel installed on your computer. The spreadsheet will include all the data shown in the selected view. You can then enhance the spreadsheet, and even use it to make projections based on your current data.

13 Trouble Shooting

For the fastest resolution, and better understanding of the problem you are encountering, please check the included Trouble Shooting topics.

13.1 Viruses # 1 Problem

The number 1 problem we hear about relates to viruses. This is both devastating, and avoidable. It is also the most costly, and MasterLink Software DOES NOT do any virus work !

There are many anti-virus programs on the market, and they will prevent most intrusions. They all require active subscriptions to the virus database, and if you don't keep that current, you won't be protected against new viruses. Be sure you have a good program, have it installed, and have it updated at least once per day (automatically).

The best defense against viruses is common sense. If you follow these rules, you will not likely get contaminated.

- Only go to websites you know, hosted by sources you know, for specific purposes related to your work.
- Do not accept unsolicited downloads when visiting a site. Know what you are getting before you go there.
- Do not visit websites with any type of media to download.
- When you receive emails, do not click on the links provided
- Look at the content carefully. Virus authors are smart when it comes to causing destruction but their spelling and grammar are usually terrible.
- Don't be fooled. No one died and left you millions, no "friend" sent you a postcard, and you won't get a Rolex at a very low price. All of these will lead you to trouble.

Lay down the law with your employees and tell them they will pay for any virus cleanup if you find them on any site not related directly to the exercise of their duties assigned by the job.

Mean it, and enforce it.

13.2 Initial diagnostics

First Steps

Some common problems cannot be resolved except by a hardware service technician. Problems with the mother board, chips, hard drive, printer, or monitor may need an authorized service center. Software based problems can be resolved by the user.

The following procedures could be followed to diagnose, and resolve, problems without calling a technician:

Perform A Physical Inspection

The logical first choice when problems occur is to perform a physical inspection of the computer, printer, monitor, and cables. 50% of all problems can be detected with this inspection. Look for buildups of dirt, especially around the cooling system, which would interfere with proper air

circulation. In addition, it is important to see that no foreign objects are stuck in the machine, or keyboard. Paperclips tend to destroy, rather than repair, computers.

Run A Systems Diagnostics

Your hardware vendor probably supplied a diagnostics diskette. When problems occur, use the vendor supplied tests. In addition, there are several packages on the market place that will diagnose problems, or provide comparative data to machines which are similar in construction and configuration. The diagnostics test will detect problems and recommend solutions.

Evaluate The Hard Disk

The hard disk is the most susceptible part in the computer to failure. There are several good disk diagnostic programs.

SCANDISK supplied with Windows, provides the most elementary tests, and is OK as a first indicator. However, more sophisticated packages can locate, evaluate, and correct more errors, and return the system to operation more quickly. Files become fragmented over time, as a nature of the way Windows handles them when adding new data.

The standard Disk Optimizer utility (in Windows Accessories) will improve performance by combining files in successive sectors, eliminating the fragmentation. This should be run at least once every two weeks.

Often these tasks are offered in popular packages which group diagnostic, and repair, tools. Two packages currently enjoying popularity are Norton's Utilities, and First Aid. Both of these are available from almost any software supplier, or discount store. Care must be exercised, however, in that these may not be compatible with your hard drive. This should be confirmed with your hardware vendor before using any package.

Reformat / Restore

If you have continuing problems, your computer will provide guidance on the need to perhaps revert to an earlier "state" (some point several days previous when the computer may have been fine). You will be prompted on how to perform this depending on the version of windows you are using.

In some cases, you can actually revert the computer to it's original factory settings and condition. While this may seem extreme, doing so actually re formats the main drive, restores the original operating system (or latest one available), and then updates it to the most current version of the operating system. Many systems that have operated for months and are aging will seem like new after the process. Once that is complete, the Masterlink software will need to be reinstalled, and the data files restored from the most recent backup. Other programs will also need to be reinstalled.

Sometimes techs will want to copy a drive to a backup, reformat the drive, and then copy all of the software back. While that may seem faster, it has risks of software not running because some files are not seen by the program (they needed to be registered with the System, and only an install does that), or bad files / data that were copied to the alternate drive are brought back to the newly formatted drive, and thus the same problem/infection exists.

13.3 ASW Error Log File

All errors that are recorded in the system are saved in the file ERROR.LOG. The information may be quite detailed, but it does provide MasterLink with the specific information necessary to find the exact problem encountered.

Here is a sample of an error message in **The MasterLink Shop Writer**:

Application

The information provided in this section tells us the location the program, when the error occurred, and its type.

Path and name: D:\VERSION6\V6WIN\WEMS6.EXE

Size: 652,800 bytes

Error occurred at: 04/27/99, 20:16:16

Error description: Error BASE/1110 Argument error: SUBSTR

Args:

[1] = U

[2] = N

[3] = N

Stack Calls

This is the most critical section. It tells us exactly which "subroutine" and line of the program had the error. It may seem misleading because the first two lines of this example refer to the error handling routine. However, on line 3 we see that the error actually occurred in the function PARSCH, on line 1260. Based on the information from the Application section, we know it is a SUBSTR error. The program staff can now determine exactly what caused the error, and advise the user how to work around the problem.

Called from LOCKERRHAN(0)

Called from (b)INITHANDL\$(0)

Called from PARSCH(1260)

Called from (b)PRO1040(161)

Called from TBUTTON:CLICK(0)

Called from TBUTTON:HANDLEEVEN(0)

Called from SENDMESSAG(0)

Called from TDIALOG:COMMAND(0)

Called from TDIALOG:HANDLEEVEN(0)

Called from DIALOGBOX(0)

Called from TDIALOG:ACTIVATE(0)

Called from PRO1040(359)

Called from (b)PRO1000(172)

Called from TBUTTON:CLICK(0)

Called from TBUTTON:HANDLEEVEN(0)

Called from SENDMESSAG(0)

Called from TDIALOG:COMMAND(0)

Called from TDIALOG:HANDLEEVEN(0)

Called from DIALOGBOX(0)

Called from TDIALOG:ACTIVATE(0)

Called from PRO1000(205)

Called from (b)PRO100M(103)
 Called from TWBROWSE:LDBLCLICK(0)
 Called from TWBROWSE:LDBLCLICK(0)
 Called from TWBROWSE:HANDLEEVEN(0)
 Called from DIALOGBOX(0)
 Called from TDIALOG:ACTIVATE(0)
 Called from PRO100M(108)
 Called from (b)MAIN(110)
 Called from TBTNBMP:CLICK(0)
 Called from TBTNBMP:LBUTTONUP(0)
 Called from TBTNBMP:HANDLEEVEN(0)
 Called from WINRUN(0)
 Called from TWINDOW:ACTIVATE(0)
 Called from MAIN(162)

DataBases in use

It is also helpful to know exactly which databases are in use, the indexes that are available, and which one is active. In this case the file EPRORD was being used, and the pending work index was being used. We also know that there are 11 open data files, plus all of their associated indexes.

1: => DB001 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
  1    20263   .F.  .F.
```

Indexes in use	TagName
upper(ordcom)	EPRCOM
upper(vehlic)	EPRVLI
upper(vehlic)+wrkord	EPRALI
paydat	EPRPDT
=> wrkord	EBAORD
wrkord	EPRORD

2: DB002 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
  1      1   .F.  .F.
```

Indexes in use	TagName
----------------	---------

3: DB003 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
  17     20   .F.  .F.
```

Indexes in use	TagName
=> charge	ERFLAB

4: DB004 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
  1     19   .F.  .F.
```

Indexes in use TagName
 => upper(cstmec) ELACST

5: DB005 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
  8    98985   .F. .F.
```

Indexes in use TagName
 => wrkord+STR(relpos,4) EPRPLM

6: DB006 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
  5     250   .F. .F.
```

Indexes in use TagName
 acpnum AAPVEN
 => upper(acpcom) AAPCOM

7: DB007 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
1451   22970   .F. .F.
```

Indexes in use TagName
 => upper(glscod)+ glsyer + UPPER(glsmEGLSLT

8: DB008 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
  1     249   .F. .F.
```

Indexes in use TagName
 => upper(glscod) EGLSLA

9: DB009 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
1149   10810   .F. .F.
```

Indexes in use TagName
 => upper(invnum) EINNUM
 upper(invdes)+upper(invnum) EINDES
 upper(invcod) EINCRS
 upper(invnum) EINSTK
 upper(invdes)+upper(invnum) EINSDE
 upper(invloc)+upper(invnum) EINLOC
 upper(invnum) EINCAT
 upper(invdes)+ upper(invnum) EINNDE

10: DB010 RddName: _DBFCDX

```
=====
RecNo  RecCount  BOF  EOF
   8    56212   .F.  .F.
```

Indexes in use	TagName
wrkord	EPRPAR
=> filnum	EPRPAL
upper(parnum)	EPRIPA
wrkdat	EPRIPD

```
11:  DB011                      RddName: _DBFCDX
```

```
=====
RecNo  RecCount  BOF  EOF
   1    42773   .F.  .F.
```

Indexes in use	TagName
wrkord	EPRLAB
=> filnum	EPRLAL
wrkdat	EPRLDT

13.4 Reporting Bugs

The **MasterLink Shop Writer** has a special process for reporting bugs, and also making requests for new features. Simply select the Email Tech Support option on the Help **Menu**. Your use of this system will greatly help us in handling issues in a timely, and accurate, manner.

Bug reports are submitted by email. Use the following steps:

- Select the email option on the Help menu. A popup screen will appear.
- In the top box, enter your company name, and the area you were working, ie: "Smith Service Center: Workorder, Labor entry"
- Fill in a description of the problem that occurred, including the steps you followed. You do not need to enter anything from the error message that displayed because the file will automatically be attached to your message.
- Select the Send button. Your bug report will be on its way.

Bug reports should be submitted immediately after they occur. Delays will lose information. Thank you for reporting any bugs, or enhancement requests, to our development department.

13.5 Common user errors

It may seem unfair, but the vast majority of errors will be the result of not using the system properly. This manual explains, in detail, how to use **The MasterLink Shop Writer**.

Some people find their own little "tricks and techniques" or use a non-standard method for using the system. While these techniques may work sometimes, they are used at the operators risk, and may lead to problems.

If data is entered incorrectly, take time to research the proper method for correcting the problem. This program has been designed to trap most errors before they occur.

User errors are most common during times of stress, or when rushing to complete a job. Take time to breath before you start entering information.

If you feel you have hit a snag, take time to review what you have done, and to think through a solution. Pulling the plug, or hitting random keys, will only cause grief.

Finally, be sure to read the documentation. Clearly 90% of the phone calls received concern issues covered within this file, and the answers can be found quickly without the cost of a phone call, or the stress of waiting for an answer.

Frequently Reported Errors:

Contamination suspected

When new information is to be added, first press the Add button. This is most critical on parts and labor on a new workorder. It becomes obvious when data is already in place, but in the case where there is no data entered, people often forget to press the Add button before typing information. This will result in a corrupted data error message. The solution is to reindex the files.

Data is missing

The **Save** button is CRITICAL !!!!! If you do not press the save button after entering information, it simply will not be there !

13.6 Environmental factors for errors

Systems often fail because of problems in the "environment."

- A cord laying across a traffic area gets stepped on frequently, and a wire breaks. This leads to the intermittent failure of a network workstation.
- Funny symbols appear on the monitor whenever the dispatcher calls a service vehicle on the radio.
- Data is distorted when playing the stereo (the network cable runs by the speaker's electromagnet).
- When dusting the computer, someone spills coke in the keyboard.
- There are demons in your shop by the name of Murphy. They loosen cable connections, pile dirt around the cooling fan in the computer's power supply, and chew wires in your cabling so the mice can use them for nests.
- You have a compressor that shrinks the video display everytime it kicks on.

These all affect your data. You can eliminate many problems by doing the following:

- Make sure your cables are well grounded, attached to the wall, away from magnetic fields, and have nothing pressuring them.
- Have your computer system on a dedicated power source. This means, you should have a line from your main switch box with its own breaker, which is used only by the computer. Check you daily voltage with a monitor.
- Use an Uninterruptable Power Source if you are liable to have failures, or brown outs.
- Check your cables regularly.
- Empty your mouse traps.
- Keep the drinks away from the keyboard.

- Cover your equipment at night.
- Wash your computer cases down weekly with a dampened cleaning cloth. Automotive liquid cleaners do a nice job on the cabinet.
- Use a small hand vacuum to pull out the dirt and lint inside the computer, and especially the vent holes for the power supply.

13.7 System error messages

The Error Display

When working with The MasterLink Shop Writer, there will be occasions when the computer will display an error box, alerting the user to call MasterLink. It is vital that the exact error message be copied down, and then any key may be pressed to return the operator to the Windows Desktop.

Errors do occur. However, it must be realized that errors need to be addressed as soon as they occur, not several hours later. A small problem, if caught immediately, can be prevented from becoming a major problem.

Prolonged usage of the system after an error has occurred may lead to a total system failure, damage to the data files, and perhaps the necessity of completely restoring the system from a backup.

Error Messages

The error system in The MasterLink Shop Writer will provide you with the nature of the problem and most probable cause. Solutions may be suggested. If you have an option to continue, and the failure re-occurs, exit the system, and then re-enter, trying the procedure again. The error system will print messages in a special pop-up box. There are some very common errors which you can resolve.

The Error Log

Whenever your system has an error, it writes a lot of information to a file called error.log. It would certainly help if you send an email to support@mstrlink.com explaining what you were doing when the error occurred, and then select error.log as an attachment to your message. This way our engineering staff can know exactly what took place in your computer when the error occurred and provide you with a very accurate solution to the problem you have encountered.

General Windows Errors

Operating system errors may be recognized because they usually have a message displayed at the top of the screen which always ends (A)abort, (R)etry, (I)gnore). These are generated by the operating system, and have nothing to do with The MasterLink Shop Writer. Usually they indicate a problem with hardware.

Divide overflow

Your processor has suffered a failure, either in its operation, or with a memory chip. Sometimes this is transitory, and rebooting (turning the power off, then on again) the system will clear the problem. However, this may also lead to a total failure of the computer. See your hardware technician for assistance.

Unable to access drive C

Drive C (or any other drive) cannot be read by the system. This may be caused by a bad hard disk, or controller. If you are on a network, it may also indicate a network card, cable, or software

failure. Before you panic, your drive may be salvageable. Hopefully, you have a great, recent backup.

There are several excellent utilities available that can recover a drive, or reformat it without even losing the data. Check with a systems expert before trying anything. Before your drive is replaced, an attempt to reformat the system should be made by a qualified technician.

Sector not found

The computer expected to find a disk address that wasn't there. Its like the problem a postman faces when he needs to deliver mail to a house destroyed by a tornado. Again, several utilities can mark this spot, and clean up the problem. Consult your systems expert for a resource. This does not mean a major hardware problem in all cases - just a need to do some cleaning.

There are several utilities available to "optimize" a disk drive. These re-arrange all of the files so that all of their data is written sequentially, not fractured all over the drive (which is the result of normal operation). Optimizing your drive once a week, after that day's backup, is highly recommended.

Unable to write device prn

Your printer is hiding. Usually this means that the printer is "off line" (check the light in front), or your cable has come loose. If this is not the problem, check to be sure someone didn't redirect the printer to another port. If all else fails, try the printer on another machine to see if it works. If so, you may have a defective printer port card - an inexpensive item to replace.

Otherwise, you may have a bad printer. Send it to the printer hospital for a quick repair.

CDX Errors

The **MasterLink Shop Writer** utilizes index files to keep track of the location of certain records. These permit quick look-up of information. The .CDX error messages indicate an index has been damaged. The most likely cause of a "blown index" is someone turning off the power without exiting the program. However, power glitches, and computer "hiccups" can also create a problem. Also, if you receive an error message indicating "File Corruption", it may also be a blown index.

Your system will create a new set of indexes when you select the INDEX option from the Tools menu. You will not need to clear the old indexes, or perform any "recovery" process. The new indexes will contain all of the data necessary, and will be written over the old copies.

Record/file lock failure on xxxxxx -or- xxx.DBF(5)

Your system tried to lock a record, or file, and found that it could not complete the task. This is usually because someone else has the file already locked. The system will try to lock the file, or record, 10 times. Then it will display this message. On a multi-user system, check to see who is using the file. Once they are finished, press RETRY, and you should gain access.

If this message occurs and you are sure no one is using the same file, then you may have a network locking difficulty. Some networks do not release the locks immediately when a file is released. Some also do not have 100% accuracy when releasing locks. In such a case you may have to quit, exit the program at all stations, and then power down the system, and bring it up again. The lock table is usually stored in memory in the server, and only is released when the power is turned off.

13.8 Windows error messages

Many people think they no longer have DOS if they are running Windows '95 or Windows '98. In actuality, they are using DOS 7. Therefore, even windows programs will still encounter DOS errors.

DOS Errors are displayed in brackets in the error message line. For example:

```
PROC PRO1020 LINE 84 EBRAND.NTX (2)
```

DOS Error 2

When a DOS Error 2 message is shown, it means that a file, necessary for the operation in which you are engaged, can not be found. This usually results from a disk crash, or someone tampering with the files and/or directories. The first step is to reboot the computer, and try again. If the problem continues, then do a listing of the The MasterLink Shop Writer subdirectory to try and find the file. If it is truly gone, run a disk drive diagnostics to see if the FAT table has been damaged. Usually the file will still be on the drive, but its pointer information will be missing from the FAT. You may wish to use some commercially available utilities to recover the file, or you can restore it from your last backup.

DOS Error 4

In your CONFIG.SYS file, you must have files set to at least 101. If you have a number less than this, you will most likely incur the DOS Error 4. DOS normally provides for opening two files. You must set the limit higher when using The MasterLink Shop Writer. The recommended number is 101, but other programs may need more, so a higher number will not cause problems.

DOS Error 5

Your network has denied access to the file you need. There are several reasons. First, perhaps you need the file exclusively, and someone else is using it. Once they exit from the file, you can go back and perform the task.

More frequently, someone aborted the program while a file was open. This means that the network server still has the file locked in its "lock table". To fix this problem, you must exit the program on all machines, and actually shut down the server (power off completely) to erase the lock table from memory.

Divide By Zero

The **MasterLink Shop Writer** must perform many calculations when handling data. Among these is division, which is used when calculating averages and percentages. Computers do not like to divide by the number 0, and provide this error message. Although every attempt is made to trap 0's in the denominator, occasionally an operator will not enter all of the necessary data. This leads to the error. No harm will be caused to the system with this problem, nor will any data be changed or damaged.

Numeric Overflow

In this case, the computer has a number which is too large to fit into the record space allocated in the file. For example, your system has a workorder that totals \$10,463,297.88. To conserve storage space, The MasterLink Shop Writer assumes that workorders will not exceed \$99,999.99. The large number will not fit in the space set aside, and you will have the error message. Usually you will find that this problem occurs because you have entered erroneous data. Charging \$12,000 for each of 80 spark plugs is probably not accurate on an 8 cylinder vehicle.

If you get this message, quit the program, and restart it again. Then go to the workorder, and find the part with **** in the price location of the parts listing. Enter the correct information.

Insufficient memory / Memory fault error

Your system is complaining that you do not have enough memory available to run the program. In today's computers, this is a rare occurrence. However, you may have been running some windows programs that did not clean up after themselves, and they left a lot of garbage open in memory which is wasting space. By shutting down your windows system, and then restarting it, you will have clear memory, and your problem will probably quit occurring.

General Protection Fault

The most common message when Windows has a problem is a GPF error message that yields virtually no helpful information. Generally these will occur when another program is somehow conflicting with The MasterLink Shop Writer. If you encounter this message, exit the program, re-enter the program, and see if it occurs again. If not, it was "transient" and cannot be traced. If it does occur, then completely shut down Windows, and start the computer again. If the problem goes away, it was caused by garbage left in the system by another program. If it still exists, send us an email with as much description of the problem, and how it occurred, as you can remember.

13.9 Hardware and network difficulties

Common Problems With Hardware

Hardware failures lead to frustration, and often a loss of data, but they can generally be fixed, and data restored, in a reasonable amount of time. While these problems are probably best handled by a certified technician, the following information is presented so that you may understand the problems that can arise.

Hard disk failure

When you see the message "Unable to access drive C" you know you have a hard disk failure. This may be repaired electronically, through reformatting, or may require the replacement of the hard drive.

In a computer system, most parts work electronically, with no physical movement. The hard disk drive is the exception. It has metal platters which spin on a shaft, with bearings at the top and bottom. These spin at very high speeds, for the entire duration of time during which the machine has power. Consequently, there will be a small degree of friction, and ultimately wear. In addition, the heads move back and forth across the surface of the platters at a very high rate of speed. Ultimately they will have their alignment changed.

Finally, the magnetic media on which data is written is like recording tape. It is written, and re-written thousands, of times. Eventually its recording accuracy may become insufficient. As a result of any, or all, of these factors, the drive will ultimately fail. There is no predictable time when this may happen. The same model drive, by the same manufacturer, may have life spans that last from one, to five, years without difficulty.

Memory Chip failure

Each time your computer is turned on, the system will check the memory chips. Occasionally one will fail. If your machine passes the initial test, but DOS gives a memory error while operating a program, you may be able to use diagnostic software to find the problem. These programs may be supplied by the manufacturer of the machine, or are commercially available.

If your machine fails the initial test, you will not be able to obtain the DOS prompt or see Windows start. To repair memory problems, you will need to remove, and test all chips with a special tool, or replace each chip and try to reboot the machine.

Chips are located on strips, called SIMMS. The entire strip must be removed and replaced. Although there are machines for testing chips, very few computer companies will have them available.

Power supply failure

Power supplies can fail. This is most often caused by overheating, or a major surge of voltage on your electrical circuits. The power supply contains the cooling fan for the system. It should be cleaned out periodically. Should dirt be allowed to accumulate in the fan inlet, or if the computer cabinet holes are blocked, the system will overheat. This will add a strain to the power supply, and it will eventually die.

Power supply repair calls for replacing the unit. This is the most economical fix, regardless of the problem. When a power supply goes, it may also cause damage to other cards in the system, including the mother board. Since it supplies voltage to the whole system, if a regulator were to short, and the circuits received 110 volts, instead of 5, they would become crispy quite quickly. While this doesn't happen very often, it certainly could.

Keyboard failure

Keyboard contacts can fail, rendering them useless. This will always happen when you spill drinks in the keyboard, or allow a lot of dust to accumulate. The better keyboards use sealed switches while the less expensive units use surface contacts. The keyboard also has some controlling chips which may fail. These are usually soldered into the circuitry, and are not easily replaced. Keyboards are usually replaced, rather than repaired.

Monitor/video card failure

Monitors are like televisions. The most common cause of trouble is the power supply. Once it starts providing irregular voltage, the system shuts down. The video tubes rarely fail in monitors. Consequently, it is a good investment to have the monitor repaired should the screen become fuzzy, dark, or fail to display.

Video cards will fail more frequently than monitors. If you are not sure where the problem lies, take the monitor to another computer. If it works, then the video card is at fault. The board itself may not be plugged into the motherboard "bus" completely, or the contacts may have oxidized. A pencil erasure will clean the contacts quickly. Checking the board's seating is also a good idea. Simply press down on the top left, and right corners, simultaneously. Tilted boards (with the back up in the air) are not making clean contact.

Motherboard failure

Sometimes one of the chips on the motherboard will fail. There are two types of service. The "board level repair" facility takes out the old motherboard, and puts a new one in its place. The old one is sent out to be rebuilt, and you pay a fixed charge for the "swap." Realistically, this is often more economical than the "chip level repair" facility, because there is very little labor time. The chip level repair person will find the defective part, and replace it alone. This may take more labor time, plus the cost of the part. If your repairs are performed by the manufacturer, they will utilize board swapping. If the manufacturer is no longer in business, you will need to find a chip level repairman.

Lost Data:

The most common problem with Hardware is the result of an operator turning off the power before fully exiting the program. The Disk Operating System (DOS) stores information in memory, which is only active when the power is turned on. When time permits, this information is then written back to the hard disk. When someone turns the power off before fully exiting the program, and waiting for about 1 minute so DOS can perform its cleanup task, they will contaminate the data files. This occurs because only part of the information was saved to disk, and the rest was lost when the memory was turned off with the power. The lost material must be reentered because the system has no information available to correct the problem.

Common Problems With Networks

Network Connection Lost:

Sometimes the computer will display a message that it has lost its network connection. This can result from:

- The server has been turned off
- The interface card in the server or workstation has gone bad
- The cable is loose or damaged
- The boot up disk is defective in the workstation
- A computer virus

Check each of these items to see if they may have contributed to the problem. Once you find the difficulty, and resolve it, reboot your entire network, starting with the main server.


Cannot log into the program from a workstation:

This occurs when the workstation cannot see the data server. Often the problem results because the server requires a username/password when being accessed from another computer, even on a LOCAL network. The easiest solution is in the Network Control Center, turn off the password requirement. The other alternative is to create a "mapped drive" on the workstation to the MLS12s folder on the server. These startup when the computer is turned on, and if setup properly, remember the login credentials. Set the Service Writer configuration path to the mapped drive, ie. M:.

Of course, if the network connection no longer exists, then you won't be able to log in. Usually these issues are best resolved by someone with solid networking IT experience.

13.10 Common problems when you can't enter the program

This occurs most frequently when someone signs into the program and does not sign out. So, even if you can't see it, the program may still be running on the computer.

First, look at the bottom of your screen (the task bar) for the  icon. If you see it, click on it and see if the program displays on the screen.

If that fails, press the **Ctrl-Alt-Del** buttons simultaneously, then select **Task Manager**. Click on the left tab of the window that pops up (Processes). If you see **Shop Service Writer** displayed, highlight it, then click on the **End Task** button. That will close the hidden, running, program.

You should now be able to enter the program. If you get an error message, call for support.

13.11 Common problems with setup

The popup lists keep showing every time I add information to a workorder

The lists only popup when there is not a data match. Apparently the Lists were not setup prior to operation. Take a few minutes and fill them in - they are for the users protection against errors.

The job cost for labor is always 100%

The technicians were not setup in the SYSTEM-TECHNICIAN menu.

The cost of parts and labor do not show

The flag to 'Display Cost' has been left off or blank. Go to the security entry for the user who signed in, and change the Display Cost flag to Y.

Optional programs do not work from the hot keys

You must be sure that you have the proper path entered, and that the name of the proper start command is entered.

13.12 Common problems with writing workorders

How do I delete a workorder ?

Actually we recommend you DO NOT delete a workorder. If you get audited, it will appear that you may have pocketed the cash and removed it "for tax avoidance purposes". We've seen some heavy fines levied because of this ruling by state and federal auditors.

You can delete the information (parts, labor, etc) if you want. However, our suggestion is to add a labor item, in all capital letters, which states: "THE CUSTOMER DECLINED TO HAVE THIS WORK COMPLETED AT OUR SERVICE CENTER". Then have them sign it. Thus, you can provide this if the "missing" invoice is ever questioned.

Also, if you start a workorder in error, you can always use it by assigning it to the right vehicle/customer, and putting in the correct entries (parts, labor, etc.)

13.13 Common problems with inventory


Attached parts don't come up


To run attached parts, you must use a Parts Pick List. Many people just enter a part number. Please see the discussion on Attached Parts in the Inventory section.

13.14 Common problems with client management

I get the service unit, but the computer loses the client

This occurs if you do not properly link the client to the vehicle. Follow these steps:

- From the main menu, select the Client screen. Then find the correct client and highlight it.
- Click on the vehicle tab. Find the vehicle and highlight it.
- At the top of the vehicle screen, find the Account box. Click on the  symbol in the box.

- You will be asked if you wish to attach the client (which you already selected on the first tab screen, and who's name appears in the question) to the vehicle. Answer YES.
- Click on the  Save button.
- If you started this process in the Workorder (Add/Edit Vehicle option), then when you exit the Client/Vehicle screen, you will be asked if you want to attach the vehicle to the workorder. Say YES and both the client and vehicle fields will display the correct values. Be sure to SAVE the workorder to be sure it gets written to the file.

How do I transfer a unit to a new owner

First, enter the new owner in the system using the Client Editor (Option 1 on the Client Menu). Then go to the unit account (Option 2 of the Client Menu) and find the proper unit. Change the account number to the new customer's account. Everything else remains intact.

13.15 Common problems with glossaries

New glossary items entered don't show on the lookup list

If you create new glossary items, you must:

- 1) Enter them using the lookup scheme (System - Group - Service) -or-
- 2) Modify the glossary lookup scheme to include them - or -
- 3) Type the first letter of the code, triggering the Glossary Browse mode

Otherwise, you will not see them when doing a lookup. However, they will still be in the system, and if you know the code, it will work every time.

13.16 Common problems with reports

Reports are very straight forward, and are run simply. The most common problem involves the entry of the wrong data, or selecting the wrong report. These do not run unless the OK key is selected, so it is easy to uncheck a report that was selected without it being run.

Reports are all predefined, and tested, and they simply display data that is already in the system.

13.17 Common problems with Accounts Receivable

A workorder did not show up on an account

When posting the workorder totals, the system did not find the account and therefore marked the item as an unposted balance. If the operator watches the warning flags on the computer screen, or checks the report, this will not escape their attention. If the operator is warned that the account does not exist, when posting the payment, first check for the account. If you are sure it does exist, then reindex the A/R files. This will usually fix the problem - THEN repost the payment to A/R on the Workorder menu.

If the workorder has been closed, if you create the account in A/R, the transaction will automatically be attached to the account, and a statement can then be run.

My totals and balance due do not seem to add up on some accounts

Timing is crucial with A/R. The operator should run statements and close the account at the same processing time. Even though the system allows an earlier closing date, it should not be used unless you are absolutely sure that no PAYMENTS have been posted to a date following the entered closing date. For example, if you post a payment on July 5, then on the 10th you close, but set June 30 as the closing date, your statement will look strange. This is because the system sees the effect of the payment on individual items, but does not show the payment because it occurred after the 'closing date.'

The system will accurately track the totals in this case, even though the numbers look funny on the statement. However, if the closing date of the statement was July 10, then everything on the sheet will be perfect.

13.18 Common problems with Accounts Payable

An error occurs when scrolling the list of invoices for payment

This occurs when there is not enough room for all of the invoices. It is usually the result of not closing the previous month(s) work. It will be best to perform a closing, then continue the work.

If you only want to close the one account, change the **Payment Cycle** code to something unique, like H for help, close the H cycle, and then put it back to match others in its group.

13.19 Common problems with the General Ledger

The accounts were in balance before closing, and out afterwards

This occurs when items in the current transactions are assigned to incorrect account numbers. The system sums debits and credits and finds them to be equal, but when closing, only those items associated with valid account numbers are moved. The result is that items with invalid account numbers remain in the transaction file. When you run the Analyst, it will give you the dates that are out of balance. Use the Transaction Posting to go to those dates and view the entries. You will quickly spot the wrong items.

You can fix this in two ways:

- 1) Enter \$0.00 for the value, negating the entry. This, of course, will not show you the information you want in history. Also change the account number to the correct value. - - or -
- 2) Using the file editor, mark the items in AGLTRN and copy them to another file, then go to AGLTHS and append them from the other file. You can mark them by changing the COMPLETE flag to .T., and moving those items that are TRUE. (You may want to call for help on this process).

Items can only get wrong account numbers when you change a Ledger number, and don't make the corresponding change in the defaults. In all other cases they are protected by the account validation methods provided in the system.

13.20 Common problems with Payroll

The most common problems with payroll are all the result of the operator failing to check current information before moving to the next step. For example:

- Once Gross Pay is calculated, the totals should be checked, and verified, by each employee, or against a manual system.

- Once Deductions are calculated, the totals should be checked for omissions, or possible errors in calculation. Problems here will usually be readily apparent.
- Checks should not be prepared until the figures for Net Pay (after deductions are checked) are clearly correct.
- Accounting should not be performed until the checks are correctly printed.

When people rush these steps, they will encounter errors which are hard to correct later.

The other primary problem area for payroll is incomplete employee data. For example, the state tax is calculated based on the employee's state of residence. If it is not filled in on the employee data screen, the state deductions will not be figured. In addition, employee withholding numbers must be accurate.

Finally, when payroll is based on work entries within the system (commission or flat rate), if the data is not entered in during the pay period, it will not be calculated.

13.21 Common problems with the Bank Account

The computer runs out of memory when I browse a register

If this occurs, you probably have too many checks in the register. Its time to move them to history. The system needs to allocate memory for every single check in the current file, and several years of checks will certainly exceed the computer's limits.

13.22 Common problems with file indexes

The system reports problems with the CDX files

There are many error messages associated with the file indexes. The most common are reported in the form PROxxx LINE xxx XXXXXX.CDX (19) Anytime an CDX name is shown, it means that an index has been fouled.

Indexes are pointers that allow the system to find data very quickly. They are usually kept in memory buffers, with a copy stored frequently to the hard drive. If someone turns off the power (by switch, powerfailure, or CTRL-ALT-DEL), the information in memory is immediately lost. It cannot be recovered. The master index is stored on the data server, but maintained by the workstation on which the file has been opened and accessed. A failure of the workstation to send back the updated index information to the server results in corruption.

If the information included in the index data that had not been updated on the disk copy, a mismatch will occur between the index, and its data file. When you attempt to use the file again, the error will occur, and the program will abort.

Indexes are easy to recover, because the utilities in the program will make new ones for all of the data files. It is, however, a nuisance to reindex files. High speed computers will make this work proceed more quickly.

It is not necessary to reindex on a regular basis. You will usually know when the indexes are incorrect. If you perform a lookup, and what you get is not what you asked for, then the index is out. If you get an .NTX error message, then the index is gone. You need to reindex.

***** WARNING *** Do not try to continue processing work with bad indexes. If you suspect an index is out, you must rebuild it immediately. Do not try to add data or you will have continuing problems.**

Re-indexing files does not solve the problem

If you try to rebuild the indexes, and you still can't find your data, then you may have a "false end of file marker" in the data file itself. This is one of the many useful fix routines in dSALVAGE, which is the most effective file repair utility you can purchase. Run any of these programs on your affected file, and then reindex again. This should cure your problem.

If you still can't find your data, its reference marker may be missing. For example, you find the vehicle but can't find the client. Check the vehicle to be sure the client's account number (its reference marker) is in the proper place.

If not, you may need to re-add the account number. If problems still exist, you will probably want to talk to Technical Support.

14 Special Topics

Each of these subjects is brief, but provides helpful knowledge gained from over 40 years serving small, service oriented, businesses.

14.1 Business Principles

What is the purpose of your business ? We certainly can't define this for you, but you should have your specific goals that you wish to accomplish. Without goals, all businesses fail, and 85 % of new companies fail in the first three years. You may find it helpful to create a business plan which is a blueprint for how you wish to build your enterprise. Even if you take over an existing operation, it is now your business, and how well you do depends on how well you work toward your specific interests. There are excellent books on writing a plan, and you can even buy software that will help you format and prepare a written document detailing your goals and strategies.

You wouldn't build a new house without a blueprint, and you won't be successful with your new business if you operate without a clear design !

Working with employees

In most businesses it is not possible to do all of the work yourself. You will need employees who share your vision and contribute to the success of your company. [Here are some thoughts about employees that may be helpful.](#)

- Your best employees will always be those who identify with the company as active contributors
- Employees give their best performance when the stress is lighter. Programs you provide to help employees, ie. health insurance, paid vacations, company outings all build a less stressful environment
- Employees work better with good tools. This applies to the setting in which they work also. If it is clean, bright and professional it will show in the quality of work
- Employees contribute more when it is in their best interest. Incentive programs really do help
- Employees respond to fairness
- Employees respond to honest praise. Remember to thank someone for a particularly hard task goes a long way
- Have people perform tasks that match their ability level. Working below ones capability is just as difficult as working above ones skill level.
- Technology advances and skills will only keep pace through continuing education.

Working with clients

Here are some thoughts about clients.

- You need to define the type of client you are seeking and reflect that in the manner you run your business.
- Quality always costs
- There is no such thing as a discount, only a reduction of services which results in a reduction of fees
- The key to resolving a customer concern is listening so you truly understand their viewpoint
- Never be afraid to make a business decision and say NO to a customer

- A person who won't pay for services is not a customer
- Competition is not always about price
- You are a solution provider but you can't resolve the concern if you don't take time to understand it
- Not all problems can be resolved and not all clients can be satisfied
- People rarely share their good experiences with a business but can be counted on to vent their frustrations
- Sometimes clients simply have a bad day !
- Mistakes can be corrected
- Comfortable clients are more satisfied when waiting

Controlling Inventory

How about some ideas on inventory control

- Stocking often used parts will increase profits by cutting your cost
- Waiting for parts is expensive because often your service area (bay) is not producing while a vehicle sits awaiting part delivery
- Stocking seldom used parts may tie up money in inventory that could be better used elsewhere
- Parts don't disappear. They are either placed on workorders, and not billed (a loss), or they are removed from the shop by employees (a loss).
- When employees are accountable for missing parts, fewer tend to stray. (Some shops give their employees a quarterly profit sharing, but the amount shared is directly reduced by the cost of missing parts. Employees are not likely to allow their peers to take items that reduce their income)
- Location codes allow you to find parts quickly. Not finding a part that is on the shelf may mean buying another one to save time ... and that increases costs.
- It may be cheaper to pay a restocking fee than to stick a rarely used part on the shelf.

Staffing Ratios

Too few employees means overwork, and a loss of efficiency, which adversely affects employee satisfaction and performance. It also places stress on the staff, making the workplace a negative setting. Too many employees usually cuts the amount of work available to each. Since most employees are on a commission structure, their income is adversely affected by overstaffing. Balance may be hard to attain, but it is essential that you carefully consider the staffing needs of your business and plan accordingly.

Profitability

Every business wants to be profitable. However, to many owners, this means taking home a big paycheck from the very beginning. Most analysts indicate businesses are underfunded. This means they start with too much debt, fail to reinvest during the early years in growing the enterprise, and do not maintain reserve funds.

The most profitable businesses are the ones that can compete through "thick and thin", or "lean times and abundance." Be sure to plan for the long term and stick money aside. Then when your competition is short on funds, you can continue to shine in your operations, and this will show professionalism to your clients.

The most profitable clients are those who return. Invest in communicating with them, and providing quality service, and your profits will soar.

14.2 Keeping in touch

At **MasterLink Software**, we want to hear from you. Hopefully, you will be able to run **The MasterLink Shop Writer** without any further assistance. However, we are sure you have some great ideas to improve this product, and to make your life easier. Perhaps you have a great dealer, and want us to know how much you appreciate that person. Perhaps you don't like the way something operates. In all cases, we would like to hear. These are the ways to communicate with **MasterLink Software**.

Telephone Calls For Support

The telephone number for technical support is (949) 589-3186. When you call, please be advised that you will be billed at the rate of \$2/minute, with a \$20 minimum charge per call. You may provide the technician with a MasterCard or VISA number for billing purposes.

**Support agreements are available, and those who participate in
The Developer's Partnership Program to receive updates also may
obtain technical support at no charge.**

MasterLink Software never charges for problems related to a software "bug." What frustrates you, or doesn't work the way you expect it to, does not constitute a bug. Instead, the pesky critters include incorrect formulas, screen display errors, and system halts due to incorrect code. Bugs are fixed, and updates are available to **Auto Shop Writer** users at no charge!

MasterLink Software can link to your computer, and do an evaluation of your problem, if you are using remote control software, and have a properly installed modem. MasterLink utilizes PC Anywhere32 for Windows! You must have the program installed and running in Host mode. The best performance is obtained if you have a high speed internet connection.

Using the Internet

MasterLink Software has a tremendous presence on the Internet. We use email, FTP file download capability, electronic updating, user chat groups, and our own technical support newsgroups. You can find out about all of these services by visiting the Support section at www.mstrlink.com

Your program has two "instant connect" buttons. The first button will automatically connect you to our user group. You can post messages there for response from our tech support department, and other users. This is the proper place to submit your views about features that should be included in the software, and to discuss business principles.

The other button will start a private email message to our support department. Simply fill in the subject, the details, and press the send button. This is the most appropriate method for obtaining personal support on issues that you feel are not relevant to the group.

Both of these options require you to have an internet connection already installed on your computer.

In addition, **MasterLink Software** has a forum at www.masterlinksoftware.com which is used for posting questions in a variety of topic areas. It is very well organized, and it an excellent resource to check for answers before making a call to tech support.

FAX Messages

The **MasterLink Software** FAX is always ready to receive your transmissions at (949) 589-3185. It is very helpful to see the printouts with which you are experiencing difficulty. This helps us to assist you in the fastest way possible.

Writing Letters

We love letters. They are far preferable to phone calls because we can read them, and review them, until we implement what is stated. We want you to give us input. No product is ever perfect. We do not generally write back specific responses, but we incorporate the questions asked into our quarterly newsletter. If you are unclear about something, the odds are that 100 other users may have the same question. This way we share with everyone.

Letters should include specific examples whenever possible. If you want to see a new section added to the program, send diagrams, suggested screen layouts, etc. ***We want your input - please !***

All correspondence should be addressed to:

MasterLink Software,
P.O. Box 740
Trabuco Canyon, CA 92678

MasterLink News

MasterLink Software occasionally publishes a newsletter, with articles about shop management, our client's, and of course, **The MasterLink Shop Writer**. Guest articles are highly desirable, and may be submitted by anyone for publication consideration.

More frequently, you will find Articles of interest on our web site at www.MasterLinkSoftware.com. When you began your business, you had special ideas, plans, or a vision that would make your shop successful. Your colleagues also had similar visions. However, our success corporately (meaning all of the shops in the repair profession) is based on quality work by many people. Consequently, sharing your ideas does not give advantage to others, but realistically sets a higher level of professionalism by which the repair industry will be viewed, and judged. Many good people have spent years enhancing the image of technicians and repair facilities. Please feel free to use the MasterLink news to communicate with, and enhance, your colleagues in a manner which assists everyone. Articles should focus on a single main idea. Although you may have several points to make, it might be best to have a series of articles rather than placing all of them in one shot. It is helpful, but not required, to have the articles submitted on disk. If they are written with a word processor, they can be uploaded via email to support@mstrlink.com, and will be reviewed. In some newsletters we may desire to follow a central theme, and will hold your article for later publication.

If you have a special supplemental service that you can provide to other shop managers, please let us know. We would like to grow the MasterLink family, and your input will certainly assist us with this goal.

14.3 Why communicate ?

[Reminders mean added income, and more profit.](#)

Customers often complain that their repair shops really don't care if they come back. The fact is, many shops do act as if they don't care !

It is also a fact that less time is spent on returning service units the staff is familiar with the client, and the item being serviced. Consequently, it is often easier to pinpoint problems. In addition, the client knows you.

If the initial work was performed correctly the first time, customers are more likely to invest additional dollars to have non-critical services performed.

If return clients are beneficial, the task is to get them to come back. In national surveys, many clients did not return to a repair facility because of the indifference they perceived on the part of the shop management. "If they wanted my business, why didn't they act like it when I was there, or let me know they wanted me to come back ?"

You communicate your desire to retain their business through the followups you send. Thank you cards, or letters, are a great idea. Even more important, in our busy society, is the need for reminders. Dentists send out cards about checkups - so why not you ? When that card arrives, it reminds the client that they are due to have their unit serviced - and your name and number is right in front of them.

One automotive repair shop told us that they didn't stop parking cars for a week after the reminders were mailed.

If you don't remind your clients of impending services, they will forget. You can be sure that they will remember when something goes wrong - which Murphy's law says will occur when they are near some other shop. Guess who will get the work ? Why lose out ? Use your reminder system - and it will pay for your computer system all by itself.

14.4 Your Windows Operating System

Many of our clients are from the DOS generation where problems were few and far between. Now, as they move to windows, they experience more difficulties and frustrations. This should not be too surprising ... since most of these people will testify long, and rather unhappily, about the onslaught of problems in computerized vehicles, it is not surprising that the new business computers will also have problems.

DOS programs did much of the work within the program, rather than in the operating system. Windows seeks to do much of the work with its own files which are called by the various programs. Also, because several programs run at the same time, they may often share the same windows functions (known as resources). This can obviously lead to problems when one program falsely shuts down a file needed by another program.

Your best performance will be provided by a computer running Windows 10 or 11

In the general plan for windows, a file is shared when an individual opens it on one computer, works on it, and then puts it back to the server. With MLS 8, we defy normal windows operations by allowing several people on different computers to access the files, and update them, at the same time. Although this is "legal" in windows, weaker hardware can often have problems maintaining the files as they should.

Information is not always written immediately to the hard drive in windows. It is stored in buffers, and written to the hard drive when there is available time. The end result is that contamination can occur when one machine doesn't get its "buffers flushed" to the server in time for another computer to get the latest copy of the data.

Because of the many viruses being sent via the internet, computers now must have virus checking software installed. However this can sometimes interfere with the operation of the programs which are running. Spreadsheets, word processing, and other such programs may not be as prone to problems, but a constantly interactive database program like MLS 8 will see some performance degradation as a result.

What does all this mean ? First, make sure you invest in quality equipment. If you plan to use several computers, make sure that the server is properly configured. Microsoft recommends plenty of RAM be available for Windows. Don't choke the engine ... make sure you have at least 8 GB of RAM on each computer. Do not run any utilities that supposedly increase performance ... they won't.

For your virus software, stick with the standard Security provided in Windows 10/11. Only the executable files (its an option) need to be checked. Be sure you run a Scan Disk, and Defragment your hard drive once a week, unless your system is setup to perform this automatically. You will like the performance result. Also, be sure you have plenty of space on your hard drive. If you use an older machine with lots of programs installed and a smaller drive, you will have problems.

You can also save some grief by the following:

- **Always complete an operation. For example, open a workorder on one computer, work on it, and then exit that workorder when you finish the immediate task. It is fine to open it on a second machine, but as a rule, don't open it on two machines at the same time. The software does allow this, but what usually happens is someone just leaves the older version hanging on one machine while updating on the other. Use this rule all of the time ... open / work /close ... any activity.**
- **Always index your files on the server and be sure all other computer are out of the program.**
- **Don't start the program and leave it in the login screen.**
- **Run one report at a time. Although multiple checkboxes are available, the intent is to only check one report and run it !**
- **If you encounter a problem, immediately go to the Bug Enhancement option under tools, and send an email. This option grabs the error log file. Be sure to write a complete description (step by step) of what you did and the problem it created.**

IF WE DON'T HEAR FROM YOU WE CAN'T KNOW WHAT PROBLEMS NEED TO BE FIXED.

- **Run network diagnostics on a regular basis. Network cables come loose or are damaged. Network cards become spodic. Connections at hubs / routers can become corroded. Power to hubs and routers can be sporadic. An overnight diagnostic test run once a week may help you find many problems before they become significant.**

14.5 Improving MLS 12

Our goal at **MasterLink Software** is to constantly improve our products. It is very important to us that you communicate your ideas, needs, and especially problems, to support@MasterLinkSoftware.com.

We often hear from people that they were disappointed we did not make some improvement, or address some issue, in their current version. We actually would like to do so, but unless you communicate your specific observations, we have absolutely no way to know what you would like to see added to the program.

We ask for email because it gives us the opportunity to efficiently save your idea. If we don't understand, or need more information, we will write back, or even call you.

So ... **please send us your input.**

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