

SML SOFTWARE

OPERATION MANUAL FOR VERSION 3.0



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GETTING STARTED

1.1 SML Software Overview

Congratulations on your recent purchase of an ImagePro electronic message center! Your sign incorporates state-of-the-art technology that will enhance the image of your company or organization while increasing your communication capabilities and business opportunities. The SML software package bundled with your display was developed to enable end users to quickly and efficiently send messages to their new sign. It supports text, graphics, and animation for one and two line display configurations. No matter what type of SML-based sign you purchased, this software package will assist you in whatever task you have for it.

1.2 SML Software Package

Once your sign's power and communication lines are hooked up, this manual will help guide you through the installation, setup, and programming of messages for your display. With your package, you should have also received a CD-ROM disk with the latest version of the SML software contained within. If you have not, or find need for the software in 3.5" diskette form, please contact your sales representative and we will have it mailed out to you promptly. For your convenience, you can also download the SML software from our website.

NOTE: You will need to obtain a password from IP in order to make any downloads from our website. Please have your Sales Order and Sign Serial # information ready when contacting us so we can verify your account and registration in the most efficient manner.

1.3 Technical Support

This manual was designed to facilitate you in your efforts as you learn to operate the SML software. If for any reason you find yourself having problems setting up or running your sign or any of its software programs, please feel free to contact ImagePro by any of the following methods:

ImagePro, Inc.
Attn: Service/Support Department
443 Water Street
Manistee, MI 49660 - USA

Service: 1-800-922-2667
Sales: 1-877-723-7906
Fax: 231-723-9365

www.imageproled.com

ImagePro wants to provide you the best in its service and support. Whether you need manuals or software, or just need answers to your questions, we are here to help you in any and every way possible. Once again, please don't hesitate to contact ImagePro for any assistance you might need.

INSTALLATION & SETUP

Make sure your sign's power and communication lines are hooked up properly before attempting to communicate with it through the provided software. Once your installation hookups are confirmed, please turn on your display and proceed as follows in this section.

2.1 System Requirements

The SML software package requires a PC-based computer system running Microsoft Windows 95 or better. PC hardware configurations should at least have a 100MHz Intel Pentium processor or compatible CPU with 8MB of RAM. It is also recommended that your graphics card and monitor support 256 colors at screen resolutions of 800x600 or better.

Direct Communication:

For direct communication methods, please make sure you have a free DB9-Male (recommended) or DB25-Male COM port available on your PC-compatible desktop, workstation, or laptop.

Dialup Modem Communication:

For remote dialup modem communication, please make sure you have an external (recommended) or internal PCI or PCMCIA modem installed in your PC-compatible desktop, workstation, or laptop. Note that if you use an external modem, some require that you have a free DB9 or DB25-Male COM port available to interface the unit with. Please contact your sales representative for information on setup requirements and the particular brands we recommend and approve, as all modems are not compatible with sign-based communication.

NOTE: Some cheaper brands rely on "software" based communication, while your sign's setup requires "hardware" configurable modems. Once again, please speak to your sales representative about your configuration if you have not done so already. They will point you to the appropriate modem for this type of sign communication setup.

Wireless Modem Communication:

For remote wireless modem communication, please contact your sales representative for information on setup requirements and the particular brands we recommend and approve. Please make sure you have a free DB9 or DB25-Male COM port available on your PC-compatible desktop, workstation, or laptop.

LAN Network TCP/IP Communication:

For remote wireless modem communication, please contact your sales representative for information on setup requirements and the particular brands we recommend and approve. Please make sure you have a free DB9 or DB25-Male COM port and NIC (Network Interface Card) available on your PC-compatible desktop, workstation, or laptop.

Apple/Mac Users:

ImagePro, Inc. does not recommend, approve, or guarantee its hardware and software for use on Apple/Mac computer platforms at this time. Some end users running this Operating System have purchased and installed PC emulation programs like *Connectix? Virtual PC* to run our software with successful results. If you choose to do the same, ImagePro will not support any problems that arise from the use of our hardware and software in this manner until we can officially test and certify our software working under such an environment.

2.2 Software Installation

The SML software installation is an easy process to follow and complete. An intuitive and user-friendly “wizard” will guide you through all the steps. All you have to do is read and follow along closely. User intervention is usually not required unless making a custom installation. If you have any problems installing SML, or would like assistance, please feel free to contact us by the means listed under this manual’s “Getting Started” section.

CD-ROM Installation:

Please insert the provided media into your computer’s CD-ROM drive and wait a few seconds for the CD to load and execute the automatic installation program. Once the setup application has been initialized, the wizard will walk you through the rest. For the best results, IP recommends that you accept all defaults.

3.5” Floppy Disk Installation:

Please insert your 3.5” diskette media into your computer’s floppy disk drive. Computers usually see this drive as “3½ Floppy (A:)” under “My Computer”. Open the contents of the disk and double-click on the “Setup.exe” file to continue. Once the setup application has been initialized, the wizard will walk you through the rest. For the best results, IP recommends that you accept all defaults.

Downloaded File Installation:

If you have not received your software with your order, or would like to download the latest version of the SML software package, you can visit IP’s website and get it under the “Support” section of the site’s navigation menu structure.

NOTE: You will need to obtain a password from IP in order to make any downloads from our website. Please have your Sales Order and Sign Serial # information ready when contacting us so we can verify your account and registration in the most efficient manner.

Download the “SML 3.0.exe” file to your hard drive or desktop and double-click on it to run the installation program. Once the setup application has been initialized, the wizard will walk you through the rest. For the best results, IP recommends that you accept all defaults.

2.3 Running SML

While installing the SML software package, the setup program created a “Shortcut” icon called “SML 3.0” on your **DESKTOP** for your convenience. It also produced a “SML 3.0” program folder group under **START>PROGRAMS** where you will also find a “SML 3.0” shortcut along with an “Uninstall SML 3.0” link if for some reason you need to remove the software from the computer.



To run SML, click on one of the two “SML 3.0” shortcut icons located in either of the aforementioned locations. SML should now be up and running. Let’s briefly take a look at what programs make up the SML software package.

2.4 SML Programs

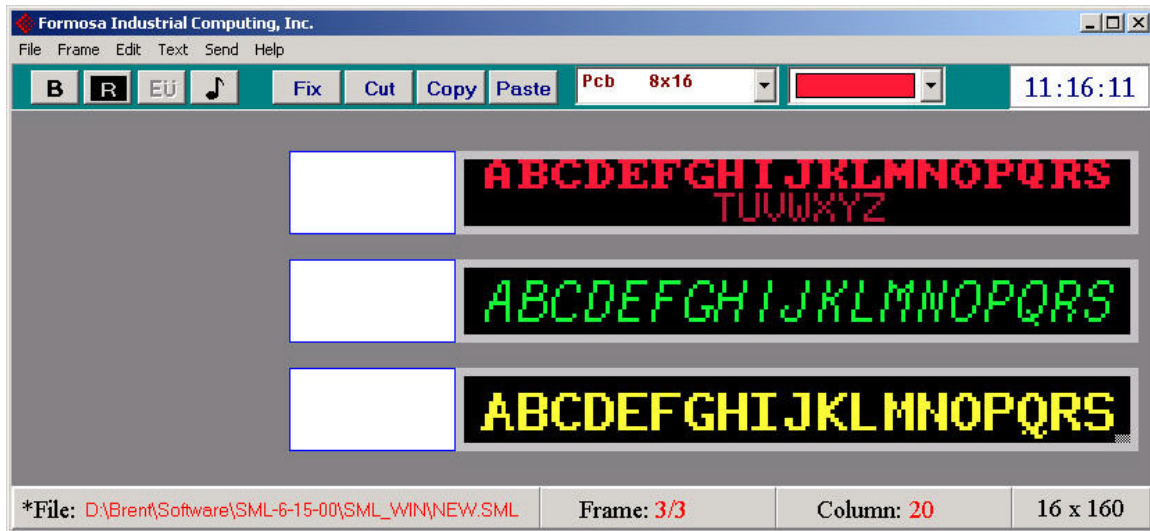


When running the SML software, the first thing you will always see is the **Main Menu** window. Think of this interface as a central hub for all programs to be accessed allowing you to select exactly what you need at a particular time.

Each program has its own unique function and use. They work together to form an all-in-one visual communication studio of programs that make up the total SML software package. These programs and their keyboard initialization “hot-keys” are as follows:

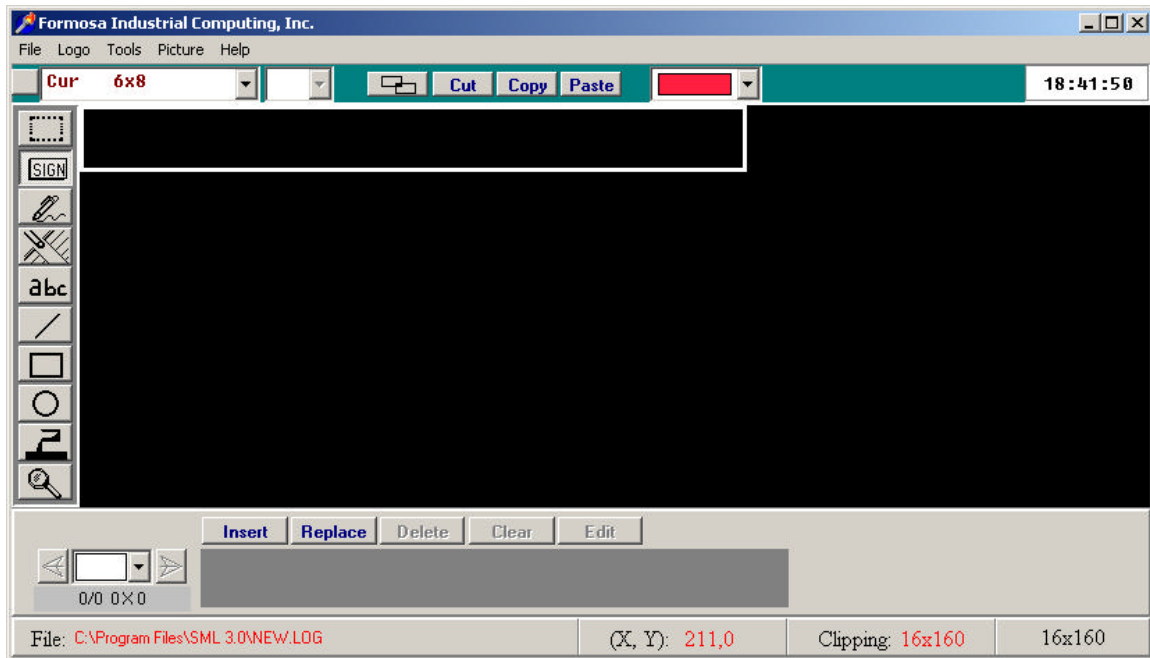
- F1 - Message Editor**
- F2 - Graphics Drawing**
- F3 - Message Scheduling**

The **Message Editor** gives you the ability to create message files for your sign by typing in text, inputting graphics, and assigning animation and display functions to the aforementioned elements. You can also transmit “quick” messages from within the program to the sign (direct connection only), or save them out to a file so they can be used in a sequence or schedule within the **Message Scheduling** program.



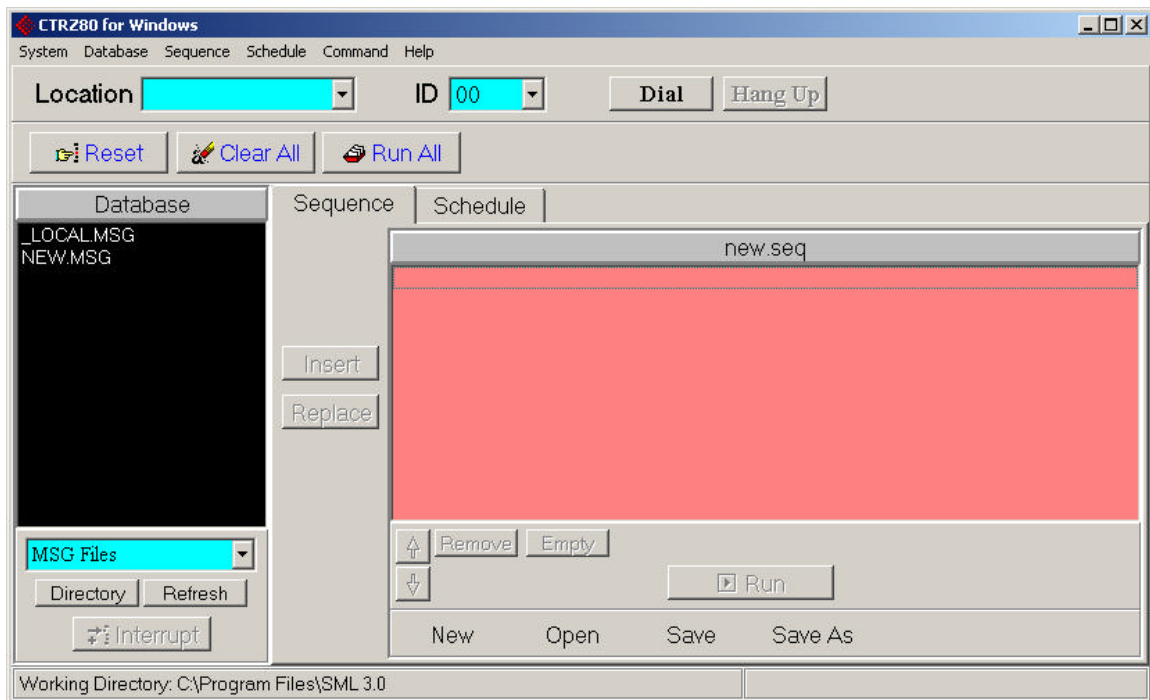
(Message Editor Screen Shot)

The **Graphics Drawing** program enables you to make “Logo” image files that the **Message Editor** can in turn use as graphics and animation stills to output to the sign. You can also import your favorite BMP files to be manipulated for use on your new sign.



(Graphics Drawing Screen Shot)

The **Message Scheduler** enables the user to communicate with their sign via direct, modem, or TCP/IP network connections. From the Database file directory, message files (*.msg) can be imported and arranged into a sequence or schedule of their choice.



(Message Scheduling Screen Shot)

All the program screen shots shown should give you a glimpse into what the SML software package is about collectively. Later on in this manual, we will dive into the fine details of how to use these programs together and what needs to be done to create and send basic messages.

For all first-time LED display users, we recommend for you to read this manual at least once to get a good overview of the capabilities of the SML software. As you thumb through all the sections, we suggest that you try out the various available functions offered by the different programs and view their effects on your messages and display. This will allow you to see the significance of the commands and their corresponding effects on what you create.

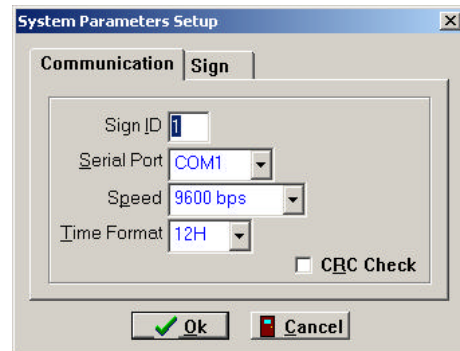
2.5 Setup & Configuration

As a testimate to IP's products and customer service, every effort is made to provide you with a system that is setup specifically to your needs and requirements. Your LED display is just one piece of the puzzle, and the software provided with it needs to be able to explore the fullness of its capabilities. Before you start trying to create and send message files to your new display, we need to properly setup your sign and communication system parameters. To do this, we first need to open and configure the **Message Editor** by pressing the **F1** key from the **Main Menu** window. Select **File** from the menu bar at the top left of the program, and then choose **System Parameter Setup... (Ctrl-P)**.

A window titled **System Parameter Setup** will popup on your screen. The first tab configures the **Communication** side of the display for the Message Editor's "quick" transmission feature.

NOTE: If your sign's communication setup requires a Modem, Wireless, or TCP/IP LAN Network connection, you cannot use the "quick" transmission feature within the Message Editor program. This feature was only designed for direct communication setups. The Message Scheduling program will have to be used for all communication instead.

The **Sign ID** tells the program which display to send the message to. The ID number is most commonly used to differentiate signs when transmitting to multiple locations. Changing the program's ID configuration will enable you to communicate with unique signs within a larger network of displays, or you can select ID#0 to broadcast the same message to all of them. The default hardware setting on most of our displays is ID#1, but if you are not sure what yours is, please consult with your sales representative or installer to ensure that the software matches your sign's setup and configuration.



NOTE: When ID#0 is used, the software doesn't require any feedback to see if the message was sent successfully. This method of transmission generates a universal signal to any and all signs that can understand it. Basically, using ID#0 is a "one-way" communication process.

The **Serial Port** pulldown selection is used to change the COM port that the program sends the message through on your computer. On most newer PC's, this port would usually be a DB9-Male connector with 9-pins sticking out on the back of your desktop, workstation, or laptop. Older PC's might have a DB25-Male connector with 25-pins. If this is the case, you might require a separate converter to interface your sign with this type of connector. The Message Editor program defaults to COM1, but you may find you need to select a different COM port depending on your PC's configuration. If you are having trouble configuring a port to use, consult your Network Administrator or local computer technician for troubleshooting assistance.

The **Speed** or "baud rate" pulldown should be set on 9600bps for most setups. Direct, modem, wireless, and TCP/IP LAN connections interface with your PC using the RS-232 communication protocol. This will not change unless you have a custom sign and system configuration.

The **Time Format** allows the sign to either display time functions in 12-hour or 24-hour format. It is up to the individual user to determine which one meets their needs.

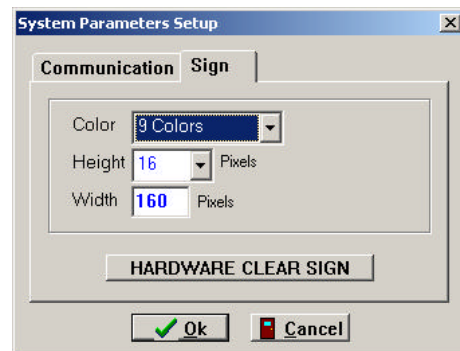
NOTE: The time clock displayed within the Message Editor and Graphics Drawing programs will always show the 24-hour format regardless of what you have selected in the pulldown. Be rest assured though that your sign will update to any time format changes you make next time you communicate with you sign through the “Go To Sign” or “Clear Sign” commands.

The **CRC Check** box should be unchecked. This feature is used by service/support personnel to troubleshoot and test sign systems.

The second tab of the **System Parameter Setup** window controls the **Sign** attributes of the display your purchased. If not known, please check your sales documentation for the following:

The **Color** option can be set to either “Mono” for single color signs, or “9 Colors” for multi-colored displays.

The **Height** and **Width** of your display is expressed as the number of LED pixels high by the number wide, otherwise known as the “matrix” of the sign. If you are not sure what yours is, please consult with your sales representative or installer to ensure that the software matches your sign’s setup. If you have the time, you could also count the number of pixels on the display, but this might be a tedious process depending on how big and wide your sign is.



NOTE: After changing the Color and Size selections to reflect your signs particular attributes, press the OK button to accept the changes. At this time you will have to close and restart the Message Editor program to accept and update both frame & color configurations onscreen.

The **Hardware Clear Sign** button is usually used by service/support personnel to troubleshoot and test sign systems. If for some reason your sign hangs up due to a corrupt message file being sent to it, you might want to try this button in conjunction with the “Clear Sign” command to free the sign’s memory.

Now, the **Message Scheduling** program must be configured so that you can send sequence and schedule files to your sign utilizing message files (*.msg) created from the **Message Editor**. By pressing the **F3** key from the **Main Menu** window, you can configure the **Message Scheduling** program. Select **System** from the menu bar at the top left of the window, and then choose **Parameter Setup... (Ctrl-P)**.

A window titled **System Parameter Setup** will popup on your screen. The first thing visible is the **Sign Table** tab that allows you to configure TCP/IP addresses or Modem phone numbers via the built in database system. Here you can store sign and communication information for multiple display locations that can be called up at a moments notice.

The **Name** column gives you the ability to assign a unique and descriptive label for a signs particular location and communication setup. Just click within the first open field and type the designation of your choice.

The **IP Address** column allows you to specify the unique TCP/IP address that your sign might be connected to via one of our external LAN server boxes. If you are not familiar with IP addresses or computer networking, please contact your Network Administrator or local computer technician and have them set it up properly on your own unique LAN configuration.

	Name	IP Address	Tel.
01			
02			
03			
04			
05			
06			
07			

The **Tel. Number** column provides you a field to enter the dedicated phone number for your sign's remote receiving modem. You will need to type in the phone number as you would if you dialed it by hand along with the dashes. As an example, a local number would be entered as 888-8888 whereas a long distance number would read 1-888-888-8888.

The **Communications** tab under **System Parameter Setup** allows you to select the type of transmission. Each time you change between direct/modem/wireless connections and TCP/IP network setups, you will have to change these settings to accommodate your system protocol.

The **Kind** pulldown menu gives you two choices of possible communication protocols...RS232 and TCP/IP. If you are using direct, modem, or wireless communication methods, you will have to set this to RS232. If you purchased a TCP/IP network sign configuration, make sure the pulldown reads TCP/IP.

The **CRC Check** box should be unchecked. This feature is used by service/support personnel to troubleshoot and test sign systems.

The **Waiting time for CRC echo** should read 1000 (Msec.). This feature should only be used by service/support personnel to troubleshoot and test sign systems.

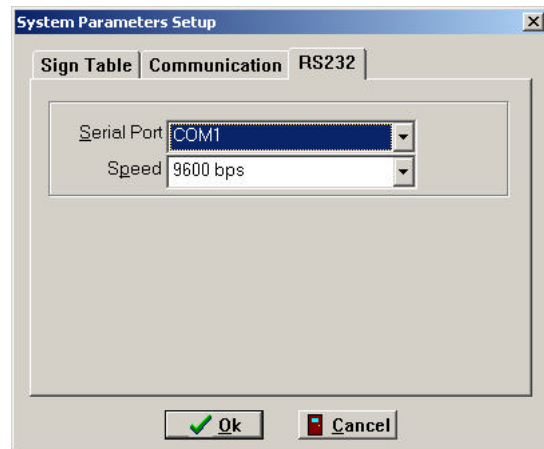
Kind: RS 232

☐ CRC Check

Waiting time for CRC echo: 1000 (MSec.)

The **RS232** tab under **System Parameter Setup** allows you to select communication settings for the RS232 protocol. Most likely, you will need to change these settings if you flip between a direct and modem/wireless connection, as each device has its own dedicated COM port.

The **Serial Port** pulldown selection is used to change the COM port that the program sends the message through on your computer. On most newer PC's, this port would usually be a DB9-Male connector with 9-pins on the back of your desktop, workstation, or laptop. Older PC's might have a DB25-Male connector with 25-pins. If this is the case, you might require a separate converter to interface your sign with this type of connector. The Message Scheduling program defaults to COM1, but you may find you need to select a different COM port depending on your PC's configuration. If you are having trouble configuring a port to use, consult your Network Administrator or local computer technician for troubleshooting assistance.



The **Speed** or "baud rate" pulldown should be set on 9600bps for most setups. Direct, modem, wireless, and TCP/IP LAN connections interface with your PC using a RS232-based DB9 COM port. This will not change unless you have a custom sign and system configuration.

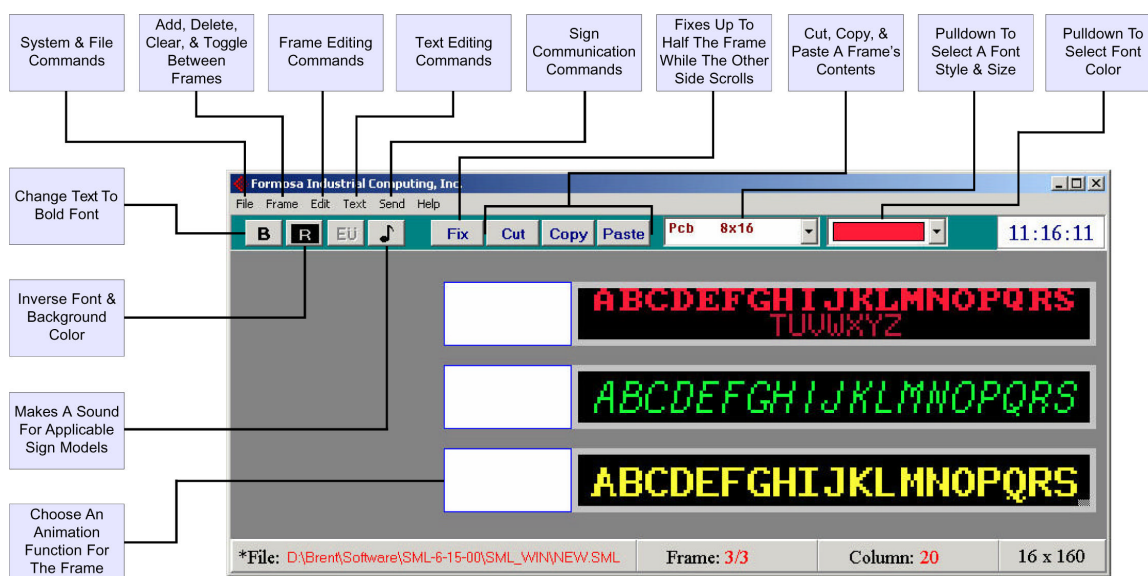
You have now completed the setup and configuration of the SML software for use with your sign. If you are having problems and need technical assistance related to the configuration of these programs, please contact your sales representative or installer. Now, we are ready to create some messages and get them sent out to your new display.

COMPOSING MESSAGES

Now we are ready to get down to the fun part of any software use...the creation of message files that will be sent to your sign. As said before, we suggest that you try out the various available functions offered by the different programs and view their effects on your message files. One learns best through practice and the exploration of the tools at hand.

3.1 The Message Editor

Open the **Message Editor** by pressing the **F1** key from the **Main Menu** window. You will find that a new file and frame is up and ready for your use. Before you start creating your message, lets quickly review the Message Editor and its commands.



The Message Editor menu bar is an array of pulldowns that can be used to adjust the sign system parameters and carry out the functions of the other tool buttons throughout the program. A list of the various menu bar functions and their descriptions are as follows:

File Frame Edit Text Send Help

FILE

New

Open

Save

Save As

System Parameter Setup

Exit

Clears your work area for a new message file.

Opens an existing message file to be edited or sent to the sign.

Saves the changes to the current message file for future use.

Saves the new or existing message file to a new file name.

Sets up sign and communication attributes.

Exits the Message Editor program.

FRAME

New Frame

Inserts a new frame into the work area.

Delete Frame

Deletes the selected frame.

Clear Frame

Removes the contents of the selected frame.

Previous Frame

Selects the previous frame.

Next Frame

Selects the next frame.

EDIT

Function

Allows you to add a transition and/or function to the current frame.

Insert Logo

Allows you to insert a graphic into the selected frame.

Fix

Fix a graphics or text up to ½ of the entire left side of a frame while the other side is animated in frames inserted after it.

Cut

Removes the contents of the selected frame to the clipboard.

Copy

Copies the contents of the selected frame to the clipboard.

Paste

Pastes the contents of the clipboard to the selected frame.

TEXT

Bold

Makes the text bold or thicker.

Reverse

Inverses the text and background color.

European

Allows you to insert European symbols.

Beep

Makes the sign beep for supported sign models.

SEND

Go To Sign

“Quick” sends the messages to the display.

Clear Sign

Clears the display of all messages.

The Message Editor tool bar utilizes both buttons and pulldown menus. A list of the various toolbar functions and their descriptions are as follows:



“B” Button

Makes the text bold or thicker.

“R” Button

Inverses the text and background color.

“EU” Button

Allows you to insert European symbols.

“Note” Button

Makes the sign beep for supported sign models.

“Fix” Button

Fix graphics or text up to ½ of the entire left side of a frame while the other side is animated in frames inserted after it.

“Cut” Button

Removes the contents of the selected frame to the clipboard.

“Copy” Button

Copies the contents of the selected frame to the clipboard.

“Paste” Button

Pastes the contents of the clipboard to the selected frame.

“Font” Pulldown

Choose from 7 different fonts of varying heights, widths, and styles.

“Color” Pulldown

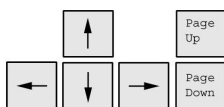
Choose from 8 different font colors and two “rainbow” schemes.

“Time” Box

Displays the time in the 24-hour format.

3.2 Creating Simple Text Message Files

To create a simple text message, use your mouse and click inside a frame to make sure it is active and ready for your input. Go ahead and start typing. If you desire a different font, color, or text height, use the mouse to change each property on the tool bar. As a general rule of thumb, all properties should be assigned before typing the part of the message you want affected. You cannot change the properties of something you already typed after the fact.



Navigation within a frame can be accomplished with the **Left, Right, Up, & Down Arrow** keys on your keyboard. To switch between frames, use the **Page Up & Page Down** keys, or just use your mouse to do the job as well.



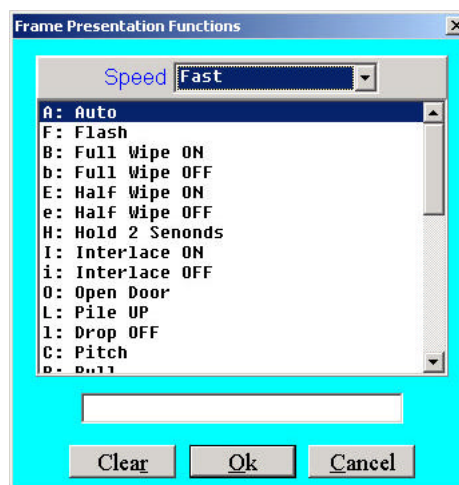
If your display is a two-line model, it is capable of showing two small or one large line of text, but not both at the same time while in a single frame. This feature is controlled by the font height. 6x & 8x fonts are smaller in height allowing them to be used in single-line and two-line signs as shown above. Use your **Up** and **Down Arrow** keys to toggle between the top and bottom rows as you type. Fonts that are 11x or 16x cover both lines to produce large characters seen below.



The white box to the left of any frame is for special animation functions. Use your mouse to click on any part of the white area to bring up the **Frame Presentation Functions** window. When the screen appears, click the functions you want to assign to the current frame. A letter represents each function, and multiple functions can be assigned to each frame. The various functions will animate your text or graphics in different ways. Try each one for yourself and see what they do so you can use them in your messages.

The **Speed** control at the top of the screen determines how fast each function will be carried out. There are only three settings: Fast, Medium, and Slow.

Click **OK** to show your new selections in the white box.



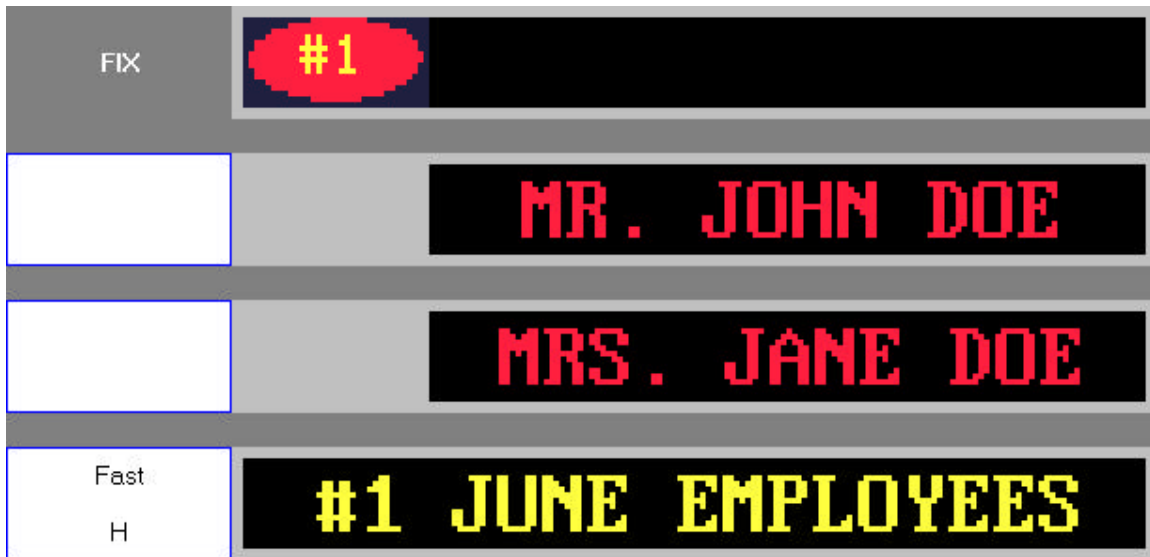
Once you are done, you should **Save** your message so you don't loose all the work you did. To do this, go to **File** in the menu bar pulldown and select **Save** or **Save As**. If you select **Save** after creating a new message, it will store its information to the Message Editor's default name of "NEW.SML". If you want to save your creation to a different name, select **Save As** and a popup window will come up allowing you to create a custom file designation.

NOTE: File names must be no longer than 8 characters and will be saved with the (*.msg) file extension that can be sequenced or scheduled through the Message Scheduling program.

3.3 Fix Message Command

As pointed out in the previous section, you cannot create a message file with two lines of text on one side of a frame, and a single line on the other, but you can do something similar with different results utilizing one of Message Editors special commands.

When the **Fix** button is clicked, the contents of the frame where the cursor is located will be fixed against the left side of the display board. The only restriction for this tool is that any text or graphics used cannot be longer than half of the width of your display screen size. This command causes current and all subsequent frames to display its contents in a fixed state on the left-hand side of the display until you click **Fix** once more in any frame to turn it off. See the example below for better understanding:



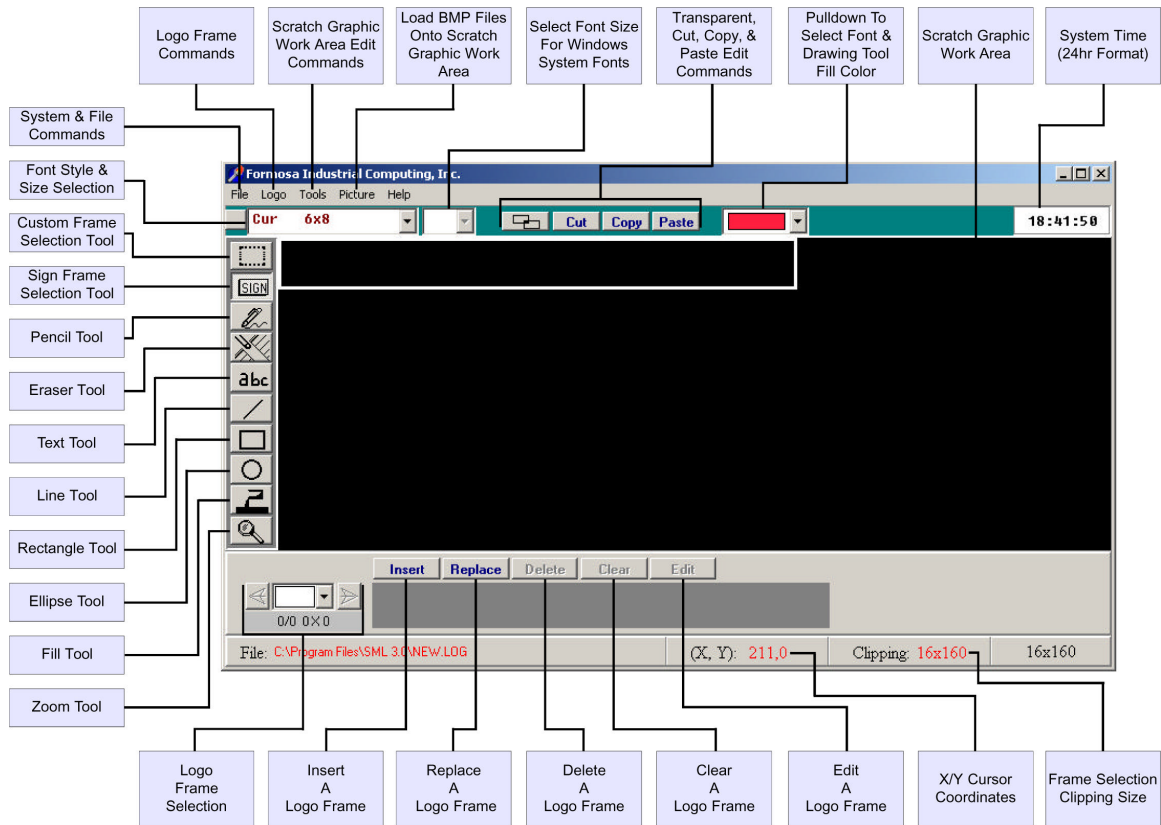
NOTE: It is recommended that you do not use the time and temperature frame functions when a picture has been fixed within a message frame.

As you can see, the graphic has become the “stationary” or “fixed” item that remains the same through each frame inserted afterward. It remained like this until turned off in the fourth frame by clicking the **Fix** button again. The right side of the following frames can be animated or changed to your liking, just as if you had a separate sign hooked to the side of the one you purchased.

3.4 Creating Graphics For Message Files

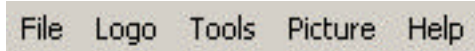
In the previous section you saw a graphic that was inserted from a saved Logo (*.log) file generated in the **Graphics Drawing** program. Lets take a look at how that file was made.

Open the **Graphics Drawing** by pressing the **F2** key from the **Main Menu** window. You will find a blank scratch graphics work area ready for your new creation.



On the left hand side of the program, you will notice several buttons lined up vertically. These are your drawing tools, some of which are similar to programs like MS-Paint. To use these tools, simply click the tool that you want and point your mouse to somewhere on the work area and hold down your left mouse button. Move your cursor around to draw lines, create circles, erase, etc. This program also gives you the ability to import your own bitmap (*.bmp) graphic files from your favorite imaging software packages by selecting **Load BMP Files** from the **Picture** pulldown menu. Use your selection tools to **Insert** graphics into the frame window at the bottom. Here you can actually create an animation that can later be inserted into a Message Editor project file. When done with your creation, **Save** your work!

The **Graphics Drawing** menu bar is an array of pulldowns that can be used to create you graphic files and carry out the functions of the other tool buttons throughout the program. A list of the various menu bar functions and their descriptions are as follows:



FILE

New
Open
Save
Save As
Exit

Clears your frame area for a new Logo file.
Opens an existing Logo file to be edited.
Saves the changes to the current Logo file for future use.
Saves the new or existing Logo file to a new file name.
Exits the Graphics Drawing program.

LOGO

Insert
Replace
Delete
Clear
Edit

Inserts a selected graphic into a frame.
Replaces the frame with a selected graphic from the work area.
Deletes the selected frame.
Clears the selected frame by making it black.
Edit a selected frame in the work area.

TOOLS

Cut
Copy
Paste
Transparent
Clear Scratch

Removes the contents of what is selected to the clipboard.
Copies the contents of what is selected to the clipboard.
Pastes the contents of the clipboard to the selection area specified.
Drop & cut out the black background on fonts and graphics.
Clears the scratch work area of all graphics and text.

PICTURE

Load BMP Files

Inserts bitmap (*.bmp) files onto the work area.

The Graphics Editor tool bar utilizes both buttons and pulldown menus. A list of the various toolbar functions and their descriptions are as follows:



“Font” Pulldown

Choose from 7 different SML fonts of varying heights, widths, and styles. You can also select Windows system fonts installed.

“Font Size” Pulldown

Choose the size of any Windows system fonts selected for use.

“Transparent” Button

Drop & cut out the black background on fonts and graphics.

“Cut” Button

Removes the contents of what is selected to the clipboard.

“Copy” Button

Copies the contents of what is selected to the clipboard.

“Paste” Button

Pastes the contents of the clipboard to the selection area specified.

“Color” Pulldown

Choose from 9 different colors to create graphics with.

“Time” Box

Displays the time in the 24-hour format.

The **Graphics Drawing** tools utilize both buttons and pulldown menus. A list of the various toolbar functions and their descriptions are as follows:



Custom Frame:

This tool lets you designate a rectangular portion of your drawing, and then performs various tasks and functions to it. To use this tool, click on any one of the four corners of the rectangular portion of your drawing you want to edit, and drag your mouse to the opposite corner. Let go of the mouse when the white selection box has completely enclosed the desired part of the picture. Once you have made the selection, you can perform any of the following commands:

- 1) To clear the selected picture, select **Cut** from the Tools menu.
- 2) To enlarge, shrink or copy the selection, select **Copy** from the Tools menu, and then create a new selection box with the dimensions of the new picture. Select the **Paste** option under Tools when done. Make sure that the new selection box does not overlap any existing drawings you might have on the work area, since the pasted picture will replace whatever was within the box.
- 3) To save the selected picture as a picture frame. Select **Insert** under the **Logo** menu. This will insert the drawing within the selection box into the current graphics file.
- 4) You can specify the current transparency for the copy and resize functions mentioned above. The **Transparent** command can be turned on or off by clicking the button on the left side of the **Cut** button. The transparency button will stay depressed while it is activated. Use caution when using this tool. Make sure you are aware whenever the tool is activated or not.

Sign Frame:

This tool inserts a temporary reference frame into the top-left portion of the Graphics Scratch Pad. This reference frame indicates the area within the Scratch Pad that your display will be able to show. Drag this reference onto the portion of your picture and click the **Insert** button to insert your drawing as a graphics frame.

Pencil:

This tool allows you to draw objects freehand. It is probably the most often used tool on this list.

Eraser:

This erases everything that you apply the tool to.

Text:

Allows you to insert text into your drawing. To use this tool, choose the desired color and font size and then select the **Text** button. Once you have done so, you can set the text cursor anywhere within the drawing frame by pointing your cursor and clicking the left mouse button. If the cursor's position is not where you want it, you can move it by clicking and dragging it to a new location. If you want to exit the tool, you can cancel the cursor by clicking anywhere on the work area away from the text field. After proper placement of the cursor, type in your desired text. To type multiple lines of text, press the **Enter** key and input what you want. You can delete typos by using the **Backspace** key while still in an active text window, or use the **Eraser** tool to delete portions or the flattened text image.

Line:	This tool is used to draw lines of any length.
Rectangle:	This tool is used to create rectangles and squares.
Ellipse:	This is a tool that creates circles.
Fill:	This tool is used to fill-in enclosed areas with a selected color from the Color pulldown menu.
Zoom:	Enlarges the image for precision drawing. To zoom-in, click the Zoom button and click on the area within the Graphics Scratch Pad that you wish to enlarge. A close-up view will then appear showing a "dot-matrix" view of the part of the drawing you've selected. We have also provided a zoom-out view of the drawing frame near the top-left corner of the box so you can see the changes you've made with respect to the entire frame. You can move the zoom-in view by clicking and dragging the zoom-out view in any direction you want. You can choose the color, then fill-in any of the dots by clicking on it with your mouse. Note that you can't simultaneously use any of the other drawing tools while you're inside the zoom-in view. To erase a dot, choose the black color from the Color pull-down menu and erase the dot. Select any of the other drawing tools within the toolbar when you exit the zoom-in view.

We strongly suggest that you practice drawing with the above tools and become familiar with them so that you can utilize your LED display to its best potential. Note that there is no UNDO feature, so be sure to save frequently.

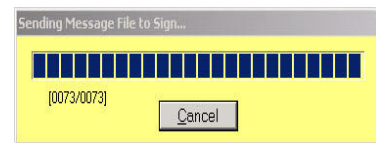
MESSAGE TRANSMISSION

Assuming your sign is properly connected to your computer, and that you have successfully setup all communication configuration parameters, you are now ready to transmit a message to the sign. To do this, let's first use the "quick" transmission feature within the **Message Editor** program. If you are using a modem, wireless, or TCP/IP connection, you will have to use the **Message Scheduling** program instead.

4.1 Message Editor "Quick" Transmission

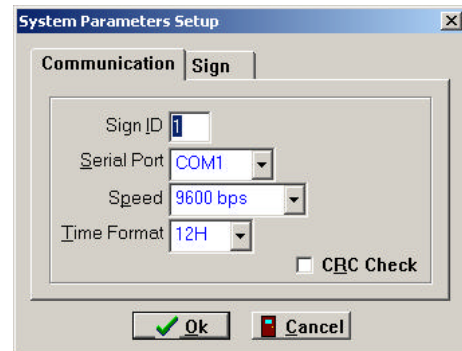
Open the **Message Scheduling** program by pressing the **F3** key from the **Main Menu** window.

When transmitting messages to the sign, it is always a good idea to clear off the existing messages first. To clear the sign, select **Send** from the menu pulldowns, and then **Clear Sign**. A confirmation will appear when the sign has cleared.

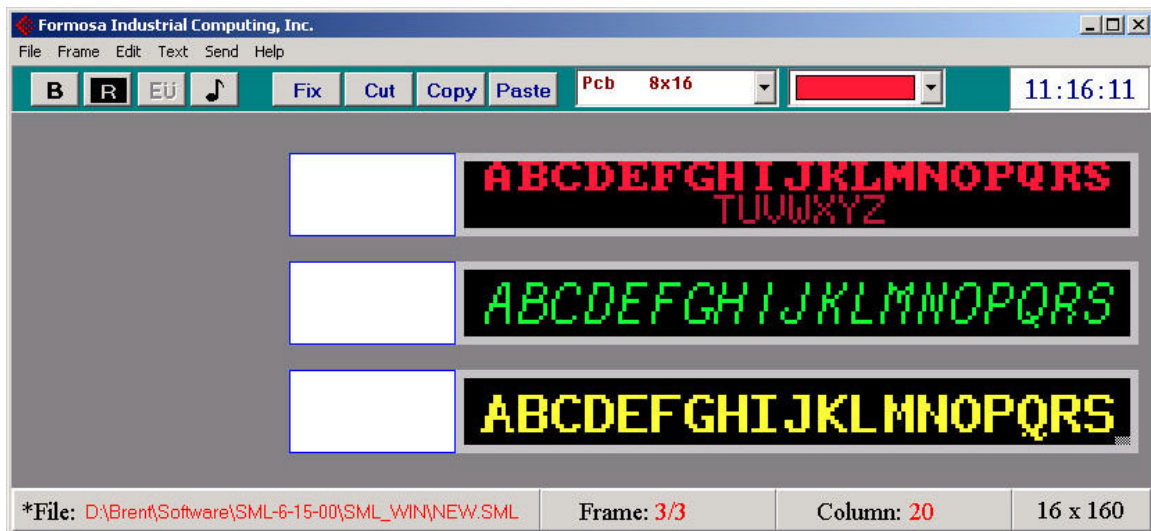


To send the current message to the sign select **Send** from the menu pulldowns, and then **Go To Sign**. A confirmation will appear when the sign has received the message.

Transmitting different messages to multiple signs requires the use of sign ID's. Each transmission to a different sign is addressed by changing the sign ID. Go to the **File** menu and select **System Parameter Setup**. Change the ID to correspond with the desired sign to be transmitted to. After this is complete you can send to the sign as normal.

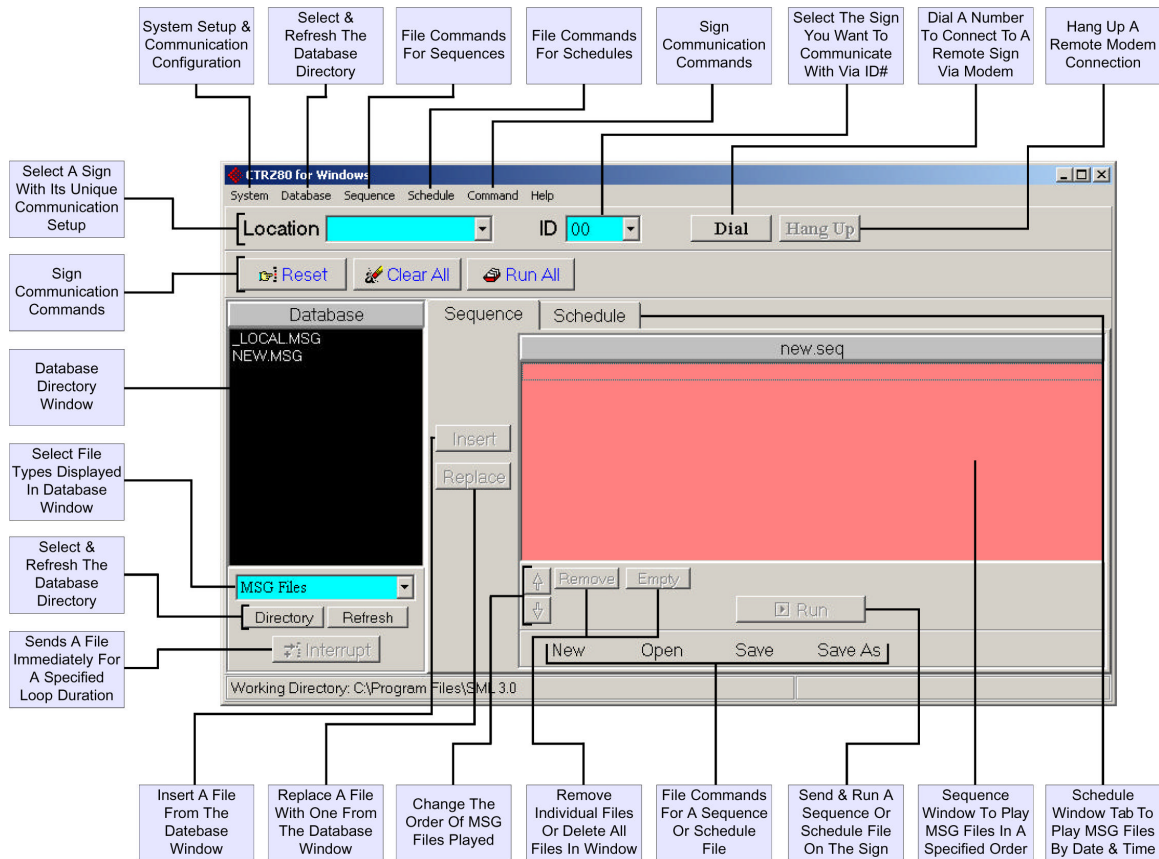


To send the same message to multiple signs with different ID's, choose "0" as the sign ID. This will allow the software to "broadcast" the same message to all displays in your sign system.



4.2 Message Scheduling

Once again, assuming your sign is properly connected to your computer, and that you have successfully setup all communication configuration parameters, you are now ready to transmit a message to the sign. To do this, open the **Message Scheduling** by pressing the **F3** key from the **Main Menu** window. The three major sections of this program that you will see upon opening it are the **Database**, **Sequence**, and **Schedule** sections.

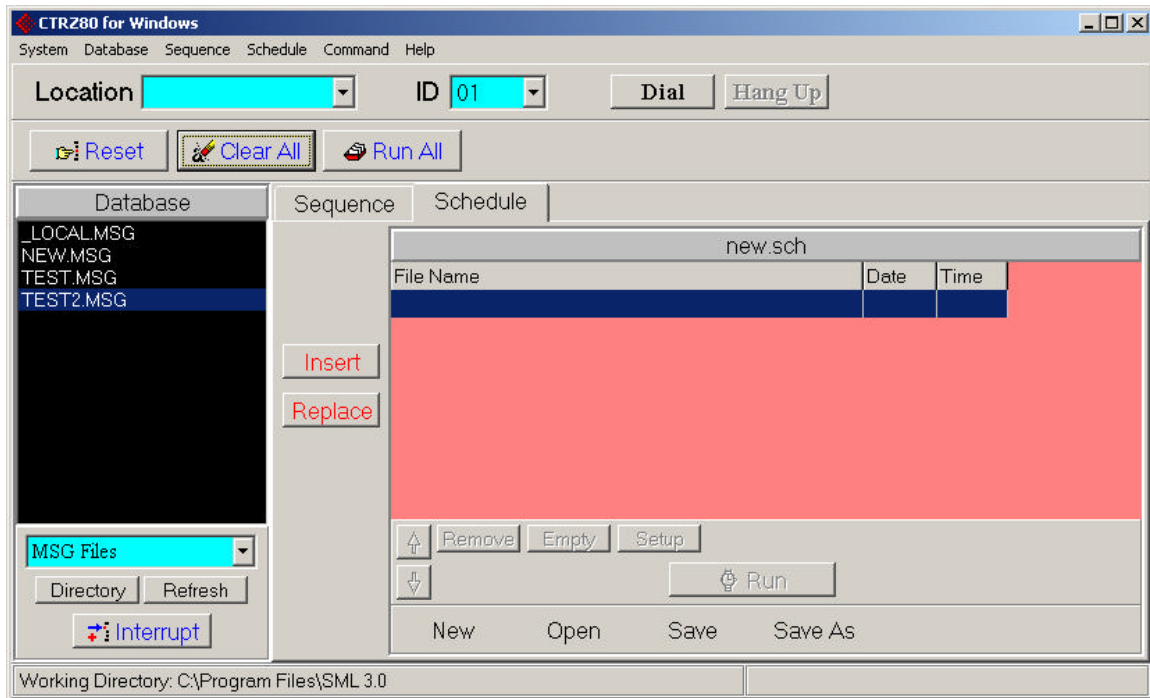


Transmitting different messages to multiple signs requires the use of a unique sign ID and proper communication setup, whether that be by direct, modem, wireless, or TCP/IP means. Each transmission to a different sign is addressed by changing the sign's **ID** and **Location** information. Go to the **System** menu and select **Parameter Setup**. Change the information in the Communication and RS232 tabs to correspond with the desired **Location** and **ID** you want to connect with. After this is complete, you can send to the sign as normal.

To send the same message to multiple signs with different ID's, choose "0" as the sign ID. This will allow the software to "broadcast" the same message to all displays in your sign system.

The **Database** window contains a directory list of message files (*.msg) created in the Message Editor program that can be used in a **Sequence** or **Schedule**.

A **Sequence** is composed of several message files grouped together to make a "succession of files" that can then be transmitted. To create a **Sequence**, select a file from the **Database** window and **Insert** it into the **Sequence** window. Keep on doing this until you have all the message files imported that you want to play on the sign. Also, use the tools below the window to arrange and edit its contents. Once done, **Save** the sequence (*.seq) file and click the **Run** button. This will send the files to the sign in the order you specified.



A **Schedule** is composed of several message files with date and time functions assigned to them to play at specified periods. As done with a **Sequence** file, select the files you want from the **Database** window and **Insert** them into the window. Select one of the listings and click the **Setup** button to set the schedule parameters. Do this for each file imported. Once done, **Save** the schedule (*.sch) file and click the **Run** button. This will send the files to the sign and hold them until they are ready to be played according to the date and time parameters specified.

To delete all your message files playing on the sign, press the **Clear All** button.

We hope up to this point you have grasped the basic concept behind the format of the SML program. We suggest for you to experiment with the program and its various functions further to gain an in-depth understanding of all of its capabilities so you can use your sign to meet all of your needs and requirements. Thank you for choosing ImagePro as your LED solution!