ImageMaster® Users Guide

ImageMaster®
TECHNOLOGY

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Introduction

ImageMaster® is a graphical software package for creating messages for the Eagle printer using a PC. It allows you to manipulate Eagle message elements on-screen with easy-to-use layout tools and a display that is practically what-you-see-is-what-you-get. You may also setup system and print properties for the Eagle using ImageMaster®.

All messages and setups may be sent directly to the printer if you have the Ethernet version of the Eagle and are connected with TransEagle® software. You may also save messages and setup information to a floppy and load them to the Eagle from the A: drive.

This manual is current for ImageMaster® version 4.22.

Basic Message Creation Quick Start

Launching ImageMaster®

This section will quickly get you started creating messages for the Eagle in a step-by-step fashion. First, launch the ImageMaster® program. You will be given a new document titled "IMaster1" (See Figure 1).

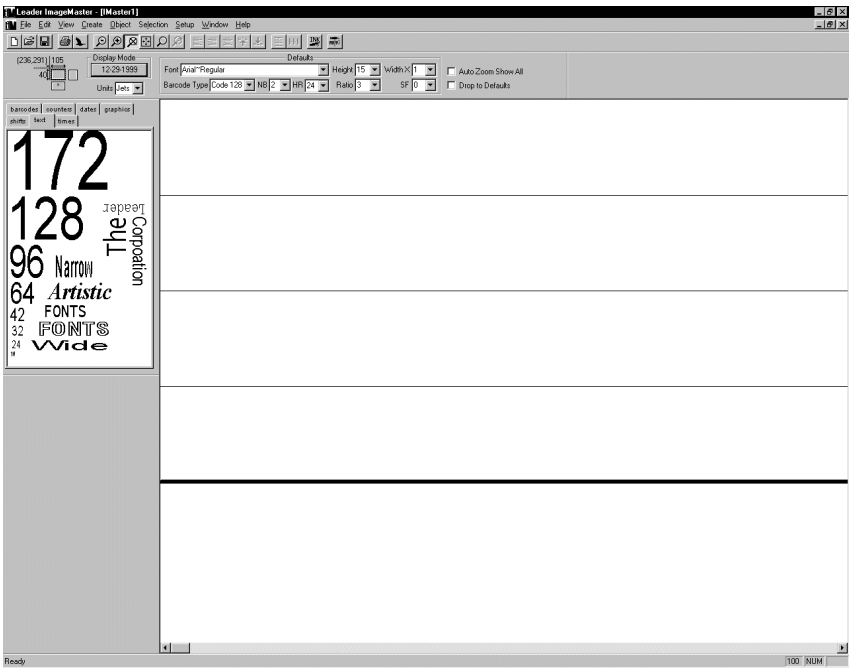

Figure 1
Start Up Screen With New Document

The large white area with the black lines highlighted in yellow and red is the main view. This is where the message you will be creating will be displayed.

Creating a Text Object

Now, click on "create" in the menu across the top of the screen. You will see the create menu as shown in Figure 2.

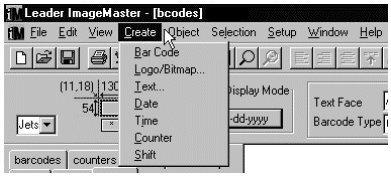

Figure 2
Create Menu

Select "text" from that menu. The Text Attributes dialog box will appear with the default text string "Leader Eagle Series" highlighted (see Figure 3).

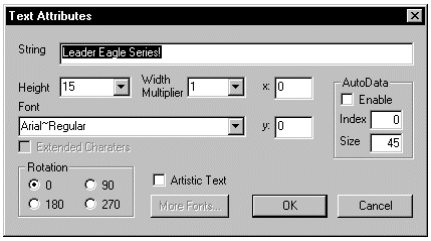

Figure 3
Text Attribute Dialog

Type any text that you might want to print and click OK. The text you typed will appear in the upper left corner of the main view. You may double click on this text or any other message element to change its properties in one of the attributes dialogs. (Try changing the font or width multiplier, for example).

Creating a Barcode Object

Next, open the create menu again and select "bar code". You will see the Barcode Attributes dialog as Figure 4 shows.

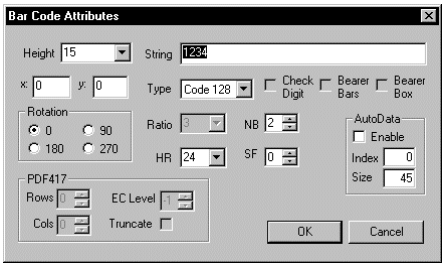

Figure 4
Barcode Attribute Dialog

The "string" text box will appear highlighted. Type some numbers, etc., that you might want to encode in a barcode. Click OK and you will have a newly created barcode displayed under the text that you previously created.

Try repositioning the barcode to the right of the text by clicking on the barcode and dragging it to a new location. Also, experiment with changing the height by clicking and dragging the bottom center selection handle. This will work with the text as well.

Creating a Bitmap Graphic Object

Open the create menu once again and select "logo/bitmap". This will bring up a creation dialog like the one shown in Figure 5.

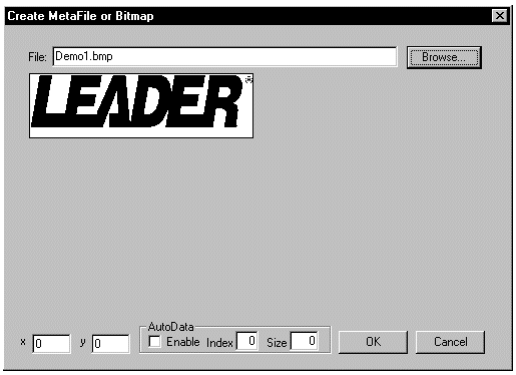

Figure 5
Bitmap Attribute Dialog

The default logo is shown in the display window. Press "browse" to bring up a file dialog showing all .bmp files in the default directory. Select any file and click OK. The display window will now show the file you selected. Click OK.

The graphic you have just created will appear on top of your text. Click and drag it to the right of the previously created barcode. If there doesn't appear to be room in the display, you may need to zoom out to see more of the print area. To do so, repeatedly press the button with the magnifying glass containing the minus sign  until you are zoomed out sufficiently. The button is located on the icon bar just below the main menu at the top of the screen.

Saving and Printing the Message

You have completed designing a message with three of the most commonly used message elements. Now save it by going to the file menu and selecting "save". Type a name with eight characters or less and click OK. Figure 6 shows an example of what your message might look like.

Figure 6
Example of Message Elements in Main View

ImageMaster® files are saved in the same format as Eagle messages created on the hand-held terminal. Thus, they have a ".txt" extension. If you are currently connected to an Eagle printer with TransEagle®, you can simply press the green Eagle Print button on the icon bar to automatically send your file to the printer and begin printing. Or, you may select "save as" from the file menu and select the "A:" drive to save your message to a floppy. You can then copy your message and all bitmap graphics embedded in it to the Eagle by using the File Copy screen on the hand-held terminal. The message can then be recalled from the Message Recall screen on the terminal and then printed by the Eagle.

Objects, Views and Status Bars

An ImageMaster® **object** is any simple element such as a single line of text, a barcode, or a bitmap graphic that is displayed on screen. This section will give an overview of objects and describe how to create, move, size, and delete objects in ImageMaster®. Also, the two ImageMaster® **views**, or windows in which objects reside on the screen, will be introduced. **Status bars** are areas of the screen that give feedback about the state of objects and views. They, too, are described in this section.

Views

The Main View

The central area of the screen where objects are displayed is called the **main view**. (See Figure 6 above.) The lines represent the division between up to four installed printheads. Thus, if you wanted to create a message for only one printhead, you would place all of your message elements (text, barcodes, and graphics) in the upper quarter, above the first yellow highlighted line. Each section represents .7 inches of print height.

The main view is both scrollable and scalable. This means that the view window may be moved and zoomed into any portion of the print area. The **print area** is the physical region in which printing will occur on the Eagle printer. The current horizontal location in the print area that is being displayed in the main view is represented by the location of

the slider in the horizontal scroll bar near the bottom of the screen. The same is true of the vertical scroll bar if it is displayed. The current zoom level is shown in the bottom-right corner of the status bar at the bottom of the screen. (Figure 7 shows the display for 100% zoom)

Figure 7
Status Bar With Zoom Percentage

The Palette View
The **palette view** is the smaller view window to the left of the main view with tabs at the top as shown in Figure 8.

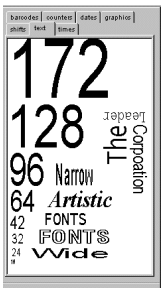

Figure 8
Palette View

You may move the palette view to anther location on screen, if you wish, by clicking and dragging the very edge of the view. The palette view is not scrollable and always scales itself to a zoom level necessary to fit all the objects in the palette into the view. A **palette** is a special ImageMaster® document file that contains a selection of objects that are usually related in some way. The purpose of a palette is to place at your disposal a selection of objects that may frequently be used in your application's messages. You will discover later how to make a custom palette in the section "file/save as palette". When ImageMaster® is first started, a default compliment of palettes is loaded into the palette view. You may select between any loaded palette by clicking on one of the tabs at the top of the palette view.

The Defaults Bar

Besides the status bar at the bottom of the screen where the zoom level is shown, there is another status bar just below the row of icons at the top of the screen. This is the **defaults bar** and is shown in Figure 9. This bar contains useful information as well selections that affect the ImageMaster® environment.

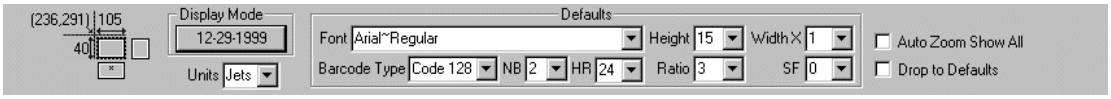

Figure 9
Defaults Bar

The Locator and Units
One of the selections is "Units". **Units** may be set to inches, mm or jets (128 jets per printhead vertically by 200 jets per inch horizontally). The selection you make here will determine what units are used to display the coordinates in the locator. The **locator** is the entire section around the crosshairs on the far left side of the defaults bar. If no object is selected, it gives a readout of the current location of the mouse cursor in the print area. Otherwise, it shows the location of the upper left corner of the currently selected object. This information is found in parenthesis with the first number being horizontal position and the second number being vertical position. The other numbers at the top and left of the rectangle adjacent to the cross hairs are the width and height of the currently selected object (or last selected object), respectively.

The Display Mode Button
Also in the defaults bar is the display mode button. Repeatedly clicking this button will toggle between the three display modes. The current **display mode** is used to determine how ImageMaster® displays variable data elements such as dates, times, counters, and shifts. They will be shown as *real-time*, a representation that closely mimics how they will actually print such as "12/29/99"; *windows format*, such as "mm/dd/yy"; or in *Eagle format*, which will show the corresponding Eagle formatting characters, if any, such as "AB/IJ/ST". The display mode only affects the screen display and has no bearing on how the message will actually print.

Defaults
The section of the defaults bar labeled at the top "**Defaults**" contains a set of object parameters that you may set. These parameters will be matched as closely as possible when a new object is created using the create menu. In other words, the parameters that initially appear in the attributes dialog box for creating a new object will come from the default settings in this portion of the bar. These setting will also be used when making a copy of an object or dragging an object from a palette (discussed later) *only* if the **Drop to Defaults** check box is checked.

Other Features of the Defaults Bar
Lastly, the **Auto Zoom Show All** check box is used to cause the main view to scale itself to a zoom level where all the objects in a message will be visible in the view. This takes effect whenever a message file is loaded or when certain changes are made to a message. All changes to settings made anywhere in the defaults bar will be remembered and used in subsequent ImageMaster® sessions.

Objects

Object Creation and Deletion

All objects in ImageMaster® are created in one of three ways. The first is to use the create menu as was demonstrated in the quick start section. Just set the attributes in the dialog box and click OK. The second is to make a **copy** of an existing object. To copy an object in the either view, hold down the *control key* and then click and drag an existing object to another location in the same view or even to another view. You will then have dropped an exact copy of the original object once you release the mouse button. (Or, *if* you have Drop to Defaults turned on, your "copy" will pick up the attributes in the Defaults.) You may also copy objects from the currently displayed palette by simply clicking and dragging an object from the palette view to the main view. The third method for creating an object is to manually enter a new message element in to the WinEagle property pages (discussed later). When you wish to delete an object, simply click on the object and press the *delete key* or select "delete" from the "edit" menu.

Changing or Moving an Existing Object

Once an object has been created, it may be altered or moved in one of several ways. The first is by bringing up a dialog box containing the object's attributes, changing them and clicking OK. This **properties dialog** may be displayed for any object by simply double clicking on the object. You may change settings such as location, size, font, barcode type or graphic name, as well as an object's text string, to name a few. (See "**Object Types and Attribute Dialogs**".)

The simplest method for moving and resizing objects is to use the mouse. For example, any object in the main view may be moved by simply clicking any where on the object and dragging it to a new location. (For overlapping objects, see notes below on multiple objects). In the palette view, objects generally remain stationary, but may also be moved, if desired, by holding the *shift key* and *control key* at the same time, then clicking and dragging the object. Resizing any object, except bitmap graphics, in either view can be accomplished by clicking on the object to **select** it, and clicking and dragging one of the square dots that appears around the object called selection handles. (See Figure 10).

Figure 10
Selection Handles

Click and drag any of the top, left, bottom or right selection handles and you will observe that the height and width attributes of an object may be altered as you drag the handle. Release the mouse button to finish resizing the object.

Object attributes also may be altered by clicking the *right* mouse button on an object (or by right clicking anywhere in the view while an object is selected). This brings up a popup menu of properties as shown in Figure 11.

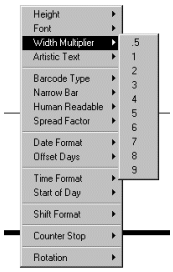

Figure 11
Right-Click Popup Menu

Place the mouse over any of the properties you wish to change and another popup menu will appear with possible values for that property. Select the value you want from the menu by clicking on it and the object will be altered accordingly. Another method of altering objects, using the alignment and spacing functions, will be discussed under the "selection" menu. A final way to change objects is by using WinEagle properties. This will be discussed later.

Multiple Objects

Situations involving multiple objects may also be handled in several ways. For example, if you would like to move or copy several objects at once, while maintaining their relative positions, you will first need to perform a **multiple selection**. You can do this one of two ways. The first is to click on an open space in the view that is diagonally offset from the area where the objects you wish to select are. Then drag the mouse until the resulting selection box *completely* contains all the objects you wish to select before releasing the mouse button. See Figure 12 for an example of selecting two objects with a selection box.

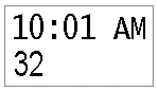

Figure 12
Selection Box

You will see selection handles around all objects you successfully selected after releasing the button.

In conjunction with using the selection box, you may also select multiple objects at any time by holding the *shift key* and clicking on an unselected object. This adds the object to any existing selection. Conversely, you may remove an object from a multiple selection by holding the *shift key* and clicking on a *selected* object that you wish to unselect. Note that in cases where multiple objects overlap each other, you may find selecting the object(s) you want is a little tricky. In those cases, clever use of shift selecting and/or selection boxes may get you the selection you want. For easier selecting, you may then want to move an object or objects to the "front" or "back" by selecting the appropriate menu item from the "object" menu (more later on the object menu). Objects in "front" of

other objects receive preference when they are clicked or *shift-clicked* for selecting purposes.

Once you have selected multiple objects, you may move or copy them together in the same manner as described above for single objects. Resizing via selection handles is still handled on an object-by-object basis even if multiple objects are selected. You can, however, change one property of all the objects in a multiple selection at once. Simply make your multiple selection and then use the right-click popup menu as described above. All objects in your selection to which the property applies will be changed. When you wish to delete multiple objects, simply select all of the objects you want to delete and press the *delete key* or select "delete" from the "edit" menu.

Menus and Icons

Many ImageMaster® commands are accessible from the main menu that is located at the top of the screen. Also, a row of icon buttons is located just below the main menu for convenience in quickly applying many of the menu commands. This section will take you through all of the menu commands and explain their function. Figure 13 shows the main menu and icon bar and tells what menu command each icon button represents. Pressing an icon button is identical to selecting the corresponding menu item so you may refer to the description of the menu item for the function of the icons.

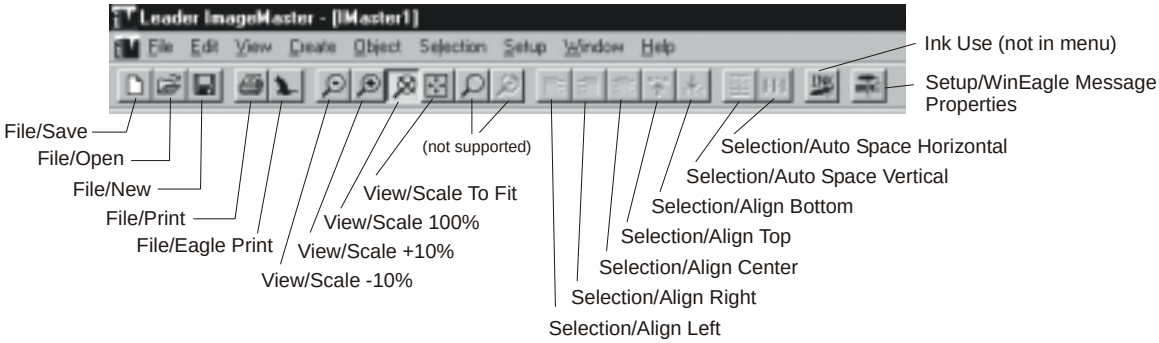

Figure 13
Main Menu and Icon Bar

A picture of equivalent icon buttons as well as any equivalent keystroke for implementing each menu item is shown next to its description in the following sections.

File Menu

The **file menu** has commands for storing, retrieving and printing message files, palettes and system settings. It is shown in Figure 14.

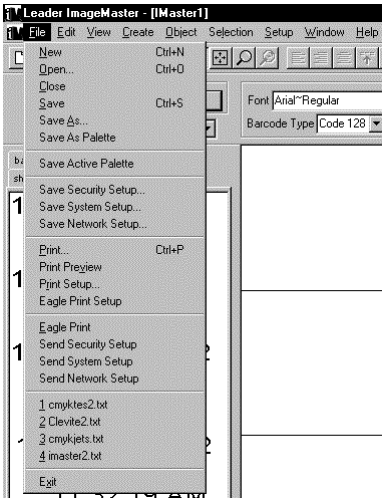

Figure 14
File Menu

File/New
(*Control*-N)
Will open a brand new empty document into the main view with a name like IMaster1. You will need to save the new document, at some point, in order to give it meaningful name. Note that the printhead settings for the new file will be loaded from the file "defaults.hds" (see "head config" under "WinEagle Message Properties"). If "defaults.hds" does not exist, then the factory defaults will be used for the head settings.

File/Open
(*Control*-O)
Brings up a dialog box allowing you to select a previously saved message file to open into an ImageMaster® document in the main view. The dialog box will default to the directory where TransEagle® and ImageMaster® expect to find message files for the purpose of transferring them across the Ethernet connection. That directory is currently "Program Files\Leader Corporation\TransEagle Network\Eagle1". You may change directories to open files located in other places, such as the floppy drive. Palette files may also be opened in to the main view by selecting files of type ".imp" and then selecting the location and palette file you wish to open. The current compliment of loaded palettes resides in the working directory, which is "Program Files\Leader Corporation\TransEagle Network" at this time.

File/Close
This simply closes the active document in the main view. If you have performed any actions in the document since last saved, you will be asked if you would like to save changes before the document is closed.

File/Save
(*Control*-S)
After prompting for verification, will save the current document in the main view to the disk location it was loaded from or last saved to. The filename used is the title of the

document, which is shown in brackets to the right of the words "Leader ImageMaster" on the very top bar. If a name has not been previously given to the document, "save" functions the same as "save as" described below. (Note: you will receive a warning if you attempt to save a file that contains more of a particular message element than the Eagle allows – more than 10 *unique* barcodes, for example. Some objects will not be saved to the file in this case. Also note that using the "save as palette" command, which is discussed below, *will* allow you save extra elements to a palette file.)

File/Save As

Brings up a dialog box allowing you to choose a disk location and type a file name for saving the current document in the main view. The program will alter any name that is not a valid message filename for the Eagle printer, such as a name with more than eight characters, and display a message box informing you of the new name. (The same is true of graphics contained in the file that have invalid names). The filename will then become the document title shown in brackets to the right of the words "Leader ImageMaster" on the very top bar. It is not necessary to include the extension in the filename you type, as the program will automatically add the ".txt" extension of Eagle message files to the filename that is written to disk. The dialog box will default to the directory where TransEagle® and ImageMaster® expect to find message files for the purpose of transferring them across the Ethernet connection. That directory is currently "Program Files\Leader Corporation\TransEagle Network\Eagle1". If you choose to save your message file to a different directory, such as the "A:" drive, for example, then all bitmaps (".bmp" files) used in your message will automatically be saved to that location as well.

File/Save As Palette and How to Remove a Palette

"Save as palette" is the same as "save as" above, except this command will save the document in the active view into a new ".imp" palette file. The dialog box will default to the working directory where ImageMaster® expects to find palette files. That directory is currently "Program Files\Leader Corporation\TransEagle Network". If you save your file as a palette to this directory, the file will appear in the palette view as new tab that will be labeled with your file's name *the next time you launch ImageMaster®*. Conversely, if you move any ".imp" files out of that same directory to another location for storage, those files will no longer load into the palette view the next time you launch the program. You may use windows explorer, for example, to move files in this manner and thus remove palettes from the view. (Note: palette files allow for many more of each message element to be saved than an ordinary message file, which is limited by the maximum number of each element on the Eagle printer.)

File/Save Active Palette

You must use this command to store any changes you make to any existing palettes during your ImageMaster® session. Otherwise, any changes you make to a palette will not be permanent. To save a palette, click on the tab of the palette you want to save to make it the active palette, select the menu command "save active palette" and click "yes" when it asks you to verify.

File/Save Security Setup
You may make changes to the Eagle's security setup under "Setup/Eagle Security Properties" (more on that later). Any changes to security you might make will not be stored or have any effect on the Eagle unless you give a save or send command. The "save security setup" simply gives you the chance to save your setup changes to a file in case you do not have the option of sending them over the Ethernet connection right away or you want to transfer the settings manually to the Eagle on a floppy disk. The default filename and location are set to those used by Image Master® to *load* the security settings when you launch the program. ("Program Files\Leader Corporation\TransEagle Network\Eagle1\super.pwd") You may also save the file to a floppy and copy it to the Eagle using the File Copy Screen on the hand-held terminal. Note that in the case of *security settings only*, you must also copy another file to the Eagle, which is simply a flag that enables security on the printer. That file is named "eagle.egl" and will be automatically saved to the same location as you saved "super.pwd" to.

File/Save System Setup
This command functions identically to "save security setup" described above, except that it refers to saving the "Setup/Eagle *System* Properties" settings (more on those later) instead of security settings. The default filename and location on the PC of these settings is "Program Files\Leader Corporation\TransEagle Network\Eagle1\eagle.ini".

File/Save Network Setup
This command functions identically to "save security setup" described above, except that it refers to saving the "Setup/Eagle *Network* Properties" settings (more on those later) instead of security settings. The default filename and location on the PC of these settings is "Program Files\Leader Corporation\TransEagle Network\Eagle1\network.ini".

File/Print
 (*Control*-P)
Brings up the standard print dialog for setting up your desktop printer and printing the active document on it.

File/Pint Preview
Brings up the standard print preview dialog for previewing printing on your desktop printer.

File/Print Setup
Same as "file/print" in that you may setup your desktop printer here, only without actually printing.

File/Eagle Print Setup
This dialog allows you to change the internal values for all the default directories used by the program. Never change these values unless directed by a Leader technician.

File/Eagle Print

This command will automatically transfer the active document to the Eagle printer for immediate printing if you are connected to the Eagle with TransEagle® software. If connected, then TransEagle® will also save a copy of your message file to the "Program Files\Leader Corporation\TransEagle Network\Eagle1" directory when you activate this command. If you are not connected, then this command only has the effect of placing a copy of your file in the "auto" folder, whose full path is "Program Files\Leader Corporation\TransEagle Network\Eagle1\auto" at this time. If you later start TransEagle®, any message files left in the "auto" folder will be sent immediately to the Eagle for printing.

File/Send Security Settings

You may make changes to the Eagle's security setup under "Setup/Eagle Security Properties" (more on that later). Any changes to security you might make will not be stored or have any effect on the Eagle unless you give a save or send command. The "send security setup" is the command to use if you wish to immediately change the security settings on the Eagle printer you are connected to. As with "eagle print" above, you must have TransEagle® running to have the settings take immediate effect. If not, then the settings files "super.pwd" and "eagle.egl" (or "-eagle.egl if removing security) will be saved to the "auto" folder until TransEagle® is launched and you successfully connect to the Eagle.

File/Send System Setup

This command functions identically to "send security setup" described above, except that it refers to saving the "Setup/Eagle *System* Properties" settings (more on those later) instead of security settings. The associated filename for system settings is "eagle.ini". Also note that when you execute this command, a message is displayed reminding you that system settings (unlike security and network settings) do *not* take effect on the Eagle after they are successfully sent *until* you power cycle the Eagle off then on again.

File/Send Network Setup

This command functions identically to "send security setup" described above, except that it refers to saving the "Setup/Eagle *Network* Properties" settings (more on those later) instead of security settings. The associated filename for network settings is "network.ini".

File/Recently Used Files (1-4)

These (up to) four menu items will automatically open the recently used file that is named in the menu item. The list is constantly updated as you open and save new and differently named files.

File/Exit

Close the ImageMaster® program. You will be asked whether to save changes in any open documents that might need to be saved.

Edit Menu

This short menu, shown in Figure 15, currently only has commands for deleting objects.

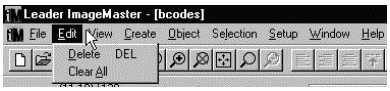

Figure 15
Edit Menu

Edit/Delete
(*Delete*)
Permanently deletes all selected objects in any view.

Edit/Clear All
Permanently deletes *all* objects in the main view.

View Menu

The **view menu** is shown in Figure 16. It contains commands for displaying certain tool bars and for affecting the zoom level of the main view.

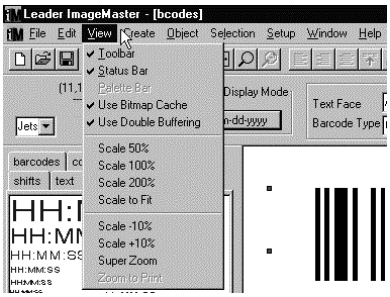

Figure 16
View Menu

View/Toolbar
This checkable menu item will toggle the display of the icon buttons below the main menu.

View/Status Bar
This checkable menu item will toggle the display of the lower status bar where the zoom level is displayed.

View/Palette Bar; Use Bitmap Cache; Use Double Buffering; Super Zoom
These items are either not supported or should be left alone.

View/Scale 50%; Scale 100%; Scale 200%
 = 100%
These commands will change the zoom level of the main view to the given level.

View/Scale To Fit

Scale the main view to a zoom level such that all the objects in the document (i.e. everything you are printing) will fit on the screen at the same time.

View/Scale –10%

Subtract 10 percent from the current zoom level of the main view.

View/Scale +10%

Add 10 percent to the current zoom level of the main view.

Create Menu

This menu lists all the possible types of objects that you may want to insert into an ImageMaster® document. Each item on this menu brings up a dialog box with attributes specific to the type of object being created. See "**Object Types and Attribute Dialogs**" for more information on creating each type of object. Usually, the new object will appear on the screen with an x coordinate of 0, just below the last object you created. See the menu in Figure 17.

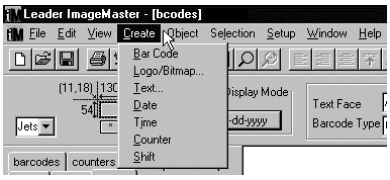

Figure 17
Create Menu

Object Menu

The **object menu** is shown in Figure 18. It contains a collection of commands having to do with objects and their relationships.

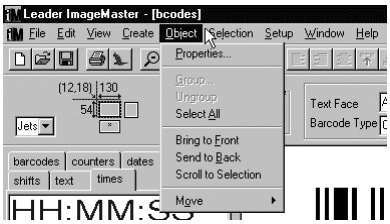

Figure 18
Object Menu

Object/Properties
(Same as double clicking on an object)
Only available when a single object is selected, otherwise grayed out. Will bring up an attributes dialog by type of object like the dialog displayed when creating that object from the create menu. The only difference is that you are changing an existing object, instead of creating a new one. See "**Object Types and Attribute Dialogs**" for more information.

Object/Group
Grayed out unless more than one object is selected. There is only limited support for this option at this time as grouping is currently temporary and not savable. Selecting this command while you have a multiple selection of objects will group them together into one object allowing you select and move them as a unit.

Object/Ungroup
Grayed out unless a single group of objects is selected (see "group" above). Causes an existing grouping of objects to be dissolved back into an ordinary multiple selection. All objects that were in the group may once again be selected and moved individually.

Object/Select All
A useful command that allows every single object in the document, whether or not they are visible in the main view, to be selected into a multiple selection.

Object/Bring To Front, Send to Back
Grayed out unless one or more objects are selected. All overlapping objects in your document have an inherent "stacking order" that determines which one is selected if you click on an area where they overlap. This command will bring all selected objects to the front (or to the back if you choose "send to back") in this "stacking order". See also the section called "Multiple Objects" in an earlier part of this manual.

Object/Scroll to Selection
Grayed out unless one or more objects is selected. Choosing this will cause the main view to scroll to the place where the left-most selected object is visible on screen.

Object/Move
(Same as using arrow keys with a selection)
Nudges any selected object(s) in the direction you select from the submenu.

Selection Menu

The **selection menu** (Figure 19) contains commands used to manipulate the position of objects in a multiple selection. All menu item will be grayed out unless more than one object is currently selected. Note that every multiple selection has one object called the primary selection. The **primary selection** will be the first object you click on if you are using *shift-click*-selecting or may be any object if you are using a selection box. Its

selection handles will often appear with a red color to help you identify it. It is used for justification as mentioned in the following sections.

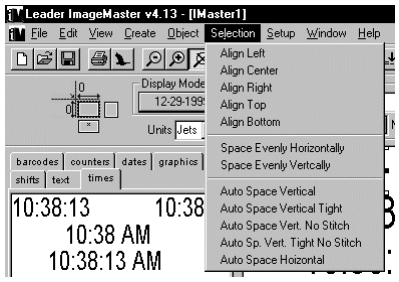

Figure 19
Selection Menu

Selection/Align Left

This will align the horizontal position (the left side) of all selected objects to the position of the primary selection.

Selection/Align Center

This will change the horizontal position of all selected objects so that the horizontal center of each object will line up with the center of the primary selection (as close as possible).

Selection/Align Right

This will change the horizontal position of all selected objects so that the right side of each object will line up with the right side of the primary selection (as close as possible).

Selection/Align Top

This will align the vertical position (the top) of all selected objects to the position of the primary selection.

Selection/Align Bottom

This will change the vertical position of all selected objects in so that the bottom of each object will line up with the bottom of the primary selection (as close as possible).

Selection/Space Evenly Horizontally

This command will leave the left-most and right-most objects in a multiple selection stationary while changing the horizontal position of any other objects so that they will be spaced between the left-most and right-most objects with equal distance between each object.

Selection/Space Evenly Vertically
This command will leave the top-most and bottom-most objects in a multiple selection stationary while changing the vertical position of any other objects so that they will be spaced between the top-most and bottom-most objects with equal distance between each object.

Selection/Auto Space Vertical

This command will leave the top-most object in a multiple selection stationary while changing the vertical position of all other objects so that they will be stacked below it with no extra space between them.

Selection/Auto Space Vertical Tight
Same as "auto space vertical", but will attempt to space lines of text even closer than "auto space vertical" does. You can often stack more lines of text on a print head with "tight" spacing than with regular, although any descenders of lower-case letters may be in danger of touching the object below.

Selection/Auto Space Vert. No Stitch
Same as "auto space vertical", but will push down any object in the stack (and all objects below it) that cannot fit completely onto one of the four printheads. Effectively tries to eliminate the need for "stitching", or perfectly aligning two or more printheads and their delay values to accommodate printing an object that is partially on one head and partially on another.

Selection/Auto Space Vert. Tight No Stitch
Same as "auto space vertical", but with both the "tight" and "no stitch" features described above.

Selection/Auto Space Horizontal

This command will leave the left-most object in a multiple selection stationary while changing the horizontal position of all other objects so that they will be lined up to the left of it with no extra space between them.

Setup Menu

Figure 20 shows the **setup menu**. This menu lists four property dialogs each having settings for the Eagle printer. These four dialogs represents four files that define all the possible settings on the printer at any given time. Any changes to these Eagle settings that you might make will not be stored or have any effect on the Eagle unless you give a save or send command (see the "File Menu" for information about sending and saving Eagle settings). See also "**Setup Properties Dialogs**" for more details about each dialog.

Figure 20
Setup Menu

Setup/WinEagle Message Properties

First is the "WinEagle message properties" page. This is a set of dialogs containing all the message information and settings (in a format that corresponds to the Eagle's hand-held terminal) that are associated with the current message (".txt") file you are editing in the main view. The dialog of interest to most users in this set is the first page, where all of the printhead configurations are found.

Setup/Security Properties
This properties dialog has security settings for the Eagle that are stored on the printer in the file called "super.pwd". Also, the file "eagle.egl" is saved to the printed to enable security, or removed to disable security.

Setup/System Properties
This properties dialog has system settings for the Eagle that are stored on the printer in the file called "eagle.ini".

Setup/Network Properties
This properties dialog has network settings for the Eagle that are stored on the printer in the file called "network.ini".

Window Menu

The **window menu** contains commands for arranging and switching between document windows that are currently open in the main view. (See Figure 21.)

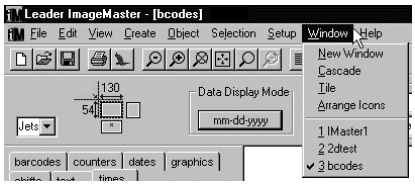

Figure 21
Window Menu

Window/New Window
Open another window in the main view showing the active document.

Window/Cascade
Arrange all open windows in the main view in a diagonal cascade from the top-left down.

Window/Tile
Tile all open windows so that they are visible in the main view at the same time. This can be useful if you want to copy objects from one open document to another. Simply open both documents, make a selection in one document, select "tile" from the "window" menu, and *control-click-and-drag* the selection from the first document window to the target document window.

Window/Arrange Icons
Neatly arranges any minimized document windows you have in the main view.

Window/Open Document(s)
The remaining selections in the window menu allow you to switch between all open document windows. The document you select from the menu will become active and visible.

Help Menu

The **Help Menu** (Figure 22) only has the "about ImageMaster®" dialog at this time.

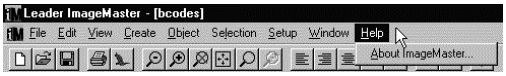

Figure 22
Help Menu

Ink Use

Pressing the "ink use" icon button will give you a dialog box *estimating* how many prints you should be able get out of a given size of ink bag. The default size is the standard 350ml bag, but you may enter any quantity of ink in the "size of ink bag in ml" field (see Figure 23). The standard 200 dpi print engine is also selected by default, but you may choose the 360 dpi print engine if you are printing with that head. The readout is given per head in number of prints per bag. A value of zero indicates there are no objects (or parts of objects) on that printhead. This command is not currently on the main menu and must be accessed from the icon bar.

Figure 23
Ink Usage Dialog

Object Types and Attribute Dialogs

This section will present the seven types of Image Master® objects and describe their attributes. The attributes dialogs introduced here may be accessed either by creating a new object of a certain type from the "create" menu or by double-clicking on an existing object to edit its attributes.

Two of the object attributes are common to all dialogs, and thus will be described here. They are the x and y coordinates of and object. An object's x coordinate (a non-negative value) refers to the location of the left side of the object in print columns (200 per inch). An x value of zero refers to the left side of the print area or the place where printing can begin after the delay value of a given printhead has expired. An object's y coordinate, which refers to the location of the top of the object, is represented in ImageMaster® attribute dialogs differently than on the Eagle hand-held terminal. The y values in the dialogs range from 0 to -512 (representing all four possible heads) instead of 0 to 128 for each individual head. Thus, the units for y coordinates are (negative) jets (128 per head) with 0 being the top of the first head, -128 being the top of the second head, and so on.

Text Objects

A text object is a single line of text characters that is usually constant data. Some of the attributes discussed in this section, namely height, width multiplier, font, and extended characters, apply also to all variable data objects, namely counters, dates, times, and shifts. The "auto data" attributes also apply to the barcode and bitmap graphic objects. "Rotation" applies to all objects except bitmap graphics. Figure 24 shows the text attributes dialog box.

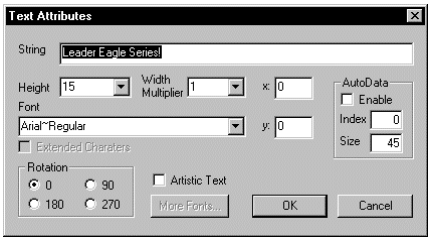

Figure 24
Text Attributes Dialog

String
The **string** field allows you to type the actual line of text you would like to print. You may print practically any "standard" characters that appear on a PC keyboard, with the exception of the "=" character and the "^" character, which cause abnormalities when printing (except that the "^" character may be used to embed variable data as mentioned below). You may also print certain foreign, etc. characters if you are using a font with "extended characters" (see below).

It is allowable to "embed" variable data elements into text objects by typing the appropriate control characters into the string field. You will find a list of those characters in the Eagle manual. An example of a string with embedded variable data is "Count: ^N1". Go to the WinEagle Properties page for variable data (more on that later) to set the attributes of the embedded element.

Height
This dropdown selection box has the available "jet" heights for the currently selected font face as options in its dropdown list. "Jet" heights do not reflect the exact number of jets a given character in that font will print, because some white space is included in that number. A basic conversion chart from jets to inches is given in the Eagle manual to give you an estimate. Any value entered here that is not on the dropdown list will be rounded to the nearest available value when you click OK (except when "artistic text" is checked – see below). Can also be adjusted by dragging the top and bottom selection handles of a text object.

Width Multiplier
Simply stretches or crunches text by multiplying the width of a text object by the number you select. Any value entered here that is not on the dropdown list will be rounded to the nearest valid value when you click OK (except when "artistic text" is checked – see below). Can also be adjusted by dragging the left and right selection handles of a text object.

Font
Select a font that you wish to use for your text from the dropdown list. See "**Font Management**" for more information.

Extended Characters
The state of this check box is determined by what fonts you have on your Eagle. If you have two font files on your system that are identical fonts, except for the fact one has extended characters (foreign, etc.) included in it, then you will have the ability to check or uncheck this box to choose which Eagle font file will be used. Otherwise, the check box will be grayed-out and defaulted to the appropriate value for the font you have selected. (Basic characters are ASCII values 32-127, while "extended characters" also include ASCII values 161-255.). You may accomplish typing of extended characters by using another word processor (which supports inserting those characters) to key in your text and then copying (*control-C*) from the other software and pasting (*control-V*) your text into the "string" field (see above).

Auto Data – Enable
Checking this box causes the object you are editing (text, barcode or graphic) to become sensitive to external data from a database. Typically, the "string" value (see above) that you type for the object is merely some default value that you don't normally intend to print, such as the name of the database field, for example. The procedure for using auto data, in brief, is as follows. Enable auto data for all objects in your message file whose string you want to be read in, print by print, from a database. Prepare a text file with the

extension ".bin" containing your data. (See documentation on Eagle auto data and associated Eagle database utilities for details.) Eagle print your message file over the Ethernet to the printer. Transfer the auto data ".bin" file(s) to the printer by dropping them into the auto folder or using one of the Eagle database utilities. You will now be printing database fields from the ".bin" file in place of the default string for all auto data objects. Once the last record of the database has been printed, no more printing will occur until more ".bin" data or a fresh message file is sent to the printer.

Auto Data – Index
When you first enable auto data in the text attributes dialog, Image Master® will select the next available auto data index into the "index" field. You may then change that value if you wish. The indexes you use for auto data objects must run consecutively from 1 to the total number of auto data objects in your message. They must also have the exact order that your data base fields occur in each record. For example, if you are printing addresses with the fields "Name", "Address" and "City" occurring in that order in your database, then you might create three text objects, designate them with the string values "Name", "Address" and "City", and enable them for auto data giving them index values 1, 2, and 3, respectively.

Auto Data – Length
This field is used in certain cases to designate the exact length of the data field that will be sent to the Eagle for a given object. (See documentation on Eagle auto data and associated Eagle database utilities for details.)

Rotation
Click on the angle in degrees you wish to rotate an object in the counter-clockwise direction. (Note: there are currently some limitations to the what-you-see-is-what-you-get functionality of some rotated objects.)

Artistic Text and More Fonts
Checking "artistic text" changes the way a text object will print on the Eagle. Artist text does not use native Eagle fonts, but automatically converts your text object into a bitmap. This allows you much greater flexibility in choosing "height" and "width multiplier" values (you may now type in practically any value into these fields) as well as allowing you to select almost any true type font you have on your PC. To do so, click the "more fonts" button, after checking the "artist text" check box, and pick a font from the list. You may also select any available font options here such as bold, italic, etc. Note that artistic text objects will appear dark red in the display to distinguish them from standard text. Also note that "auto data" and variable data elements embedded in the string (see above) do not function with artistic text.

Barcode Objects

A barcode object may be of many different barcode types and will have various settings whose functionality depends on the type. This section will briefly touch on those settings as given in the barcode attributes dialog. (See Figure 25.)

Note that Image Master® barcodes have two fundamental types: normal and bitmap. Normal barcodes are printed by being generated on the Eagle printer in real time, thus giving them the capability of containing variable data and being used with auto data. Bitmap barcode symbols are generated in Image Master® and sent to the Eagle as bitmaps. This allows you the advantage of being able to print several symbologies that are not supported on the Eagle, but without the option of variable data or auto data. The barcode types that are "bitmap barcodes" are: datamatrix, maxicode, PDF417, MSI, and codabar. All other types are normal.

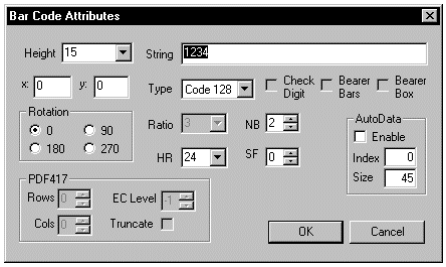

Figure 25
Barcode Attributes Dialog

Height
The height in jets of the barcode. Note that this value *includes* the height of any human readable characters beneath the actual barcode symbol. Thus, you must enter a value that is greater than the human readable (HR) height (see below). Doing otherwise will produce a warning and automatically have the height adjusted up to a valid value. Height can also be adjusted by using the top and bottom selection handles of a barcode object.

String
This is the actual data that is encoded in a barcode symbol. It is also used to print the human readable value beneath any barcode that supports human readable, assuming you have not selected human readable (HR) size of 0. Any invalid characters (or invalid *number* of characters) in the string, for the currently selected barcode type, will not be displayed in the barcode object on the screen. However, for all "normal" (see above) barcode types, such anomalies *will* still be a part of the string that is sent to the Eagle. Thus, care must be taken to enter a valid string. It is also allowable to "embed" variable data elements into a barcode string in the same manner as that of a text object (see above).

Type
Select the barcode symbology that you wish to use for your barcode.

Check Digit; Bearer Bars; Bearer Box
These check boxes are only available if you have selected barcode type ITF (I 2 of 5) in the "type" dropdown. Selecting "check digit" requires you to enter an odd number of digits into the "string" value (see above). The final digit is computed automatically and

added to the barcode data. Bars and boxes may be added to the barcode by checking the appropriate box.

Ratio
The ratio of a barcode's narrow bar to its wide bar. Available only in certain types.

NB (Narrow Bar)
The width in print columns of the narrowest bar (or block, in the case of datamatrix). Can also be adjusted by using the left and right selection handles of a barcode object.

HR (Human Readable)
This is the jet height of the font to be used for a barcode's human readable characters. Only for certain types. A value of zero indicates that you would like no human readable characters. (Note that what-you-see-is-what-you-get is not supported for barcode type UPC-A, which will not display the correct human readable size in this version.)

SF (Spread Factor)
Tries to compensate for ink spread, or dot gain, on certain substrates, such as some corrugated boxes, for example. Experiment with higher values when your ink is spreading to improve the scanability of a barcode. Zero means no spreading. Only for certain types.

PDF417 – Rows; Cols (Columns); EC Level (Error Correction Level); Truncate
These setting only apply to barcode type PDF417 and should be left at the defaults, unless you know that you need to use custom values for your application.

Auto Data; Rotation
See the related sections under "Text Objects" for details.

Bitmap Graphic Objects

"Bitmap graphic" refers to a Windows bitmap (".bmp") file that may be loaded and printed on the Eagle. You may select any ".bmp" file in the bitmap dialog (Figure 26) provided that the bitmap has a height in pixels that is a multiple of 32, that it is a monochrome bitmap (not color or grayscale), and that it is rotated 90 degrees counter-clockwise. With some applications that you might use to prepare a bitmap, it is also required that you invert the colors – you will have to experiment with your favorite graphics package to see if this step will be necessary.

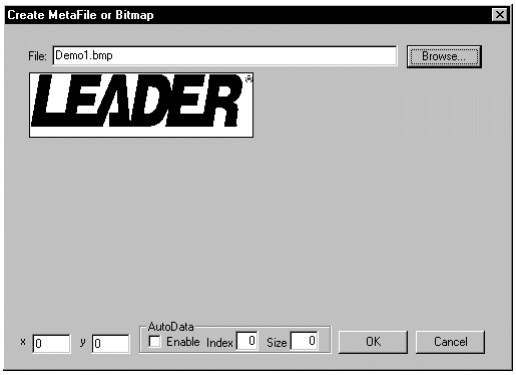

Figure 26
Bitmap Graphic Attributes Dialog

File
This field contains the name of the bitmap (".bmp") file you would like to insert into your message. You may type the name of a bitmap graphic that resides in the designated "graphics" directory ("Program Files\Leader Corporation\TransEagle Network\Eagle1\graphics"), or you may click the browse button to locate a graphic anywhere on your system. If you do select a bitmap via browse that is not already in the "graphics" directory, then a copy of your ".bmp" file will be stored in that directory when you select it. If you are typing your filename, it is not necessary to type the ".bmp" extension when you enter the name.

Auto Data
See the related section under "Text Objects" for details. With graphic auto data, the data field refers to the *filename* (you must include the .bmp extension) of the bitmap that is to be loaded in conjunction with a certain database record, rather than the "string" data. All bitmaps that might be requested by an auto data field must already reside on the Eagle printer. You can copy them to the printer by dropping them in the "auto" folder while connected to the eagle with TransEagle® or via FTP.

Date and Time Objects

Date and time objects are covered together here due to the fact that they are formatted in an identical manner on the Eagle. Thus, formatting characters shown in one dialog can be typed into the string field of the other, and visa versa. The dialogs are separated in ImageMaster® for clarity and convenience. Figure 27 shows the dialogs.

Use these attributes dialogs to set up real-time clocks/calendars/expiration dates for printing on the Eagle. Note that dates and times display in a blue color on the screen to distinguish them from non-variable text items. Also note that these objects can be displayed on the screen in several formats (see the section entitled "The Display Mode Button"). Toggle to the real-time format to display the closest representation of what will actually be printed.

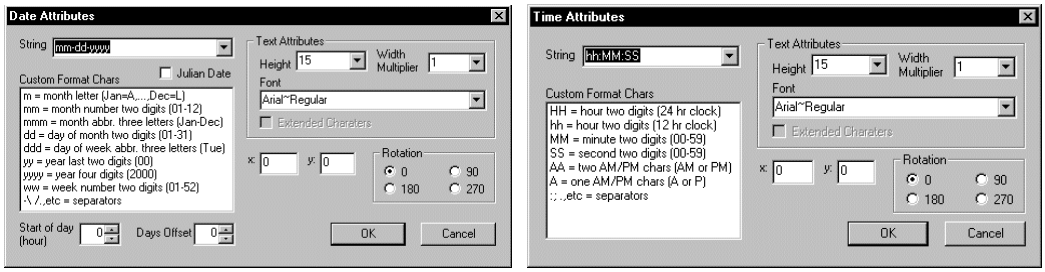

Figure 27
Date and Time Attributes Dialogs

String
This field is where you will select or type characters for defining the content of a date/time object. You may choose a pre-designed format from the drop-down list or you may type your own format. The character combinations that you may choose from to create a custom format are listed in the "Custom Format Chars" portion of the dialog. Spaces as well as practically any separator characters may be used in the date/time string for custom formatting.

Julian Date
Check this box if you want this date object to be a Julian date (i.e. the day of the year).

Start of Day
When you are in the date dialog, you may designate the hour of the day (0-23) at which you wish the date to roll over to the next day. The default of 0 is the standard setting of midnight.

Days Offset
This is the field to set if you want to print an expiration date. Set the offset to a value representing the number days from the current date that you want to print. Only available in the date dialog.

Height; Width Multiplier; Font; Extended Characters; Rotation
See the related sections under "Text Objects" for details.

Counter Objects

Use this dialog (Figure 28) to set up real-time item counters for printing on the Eagle. Note that counters display in a blue color on the screen to distinguish them from non-variable text items. Also note that these objects can be displayed on the screen in several formats (see the section entitled "The Display Mode Button"). Toggle to the real-time format to display the closest representation of what will actually be printed. See the Eagle manual for more detail on any of the following counter options.

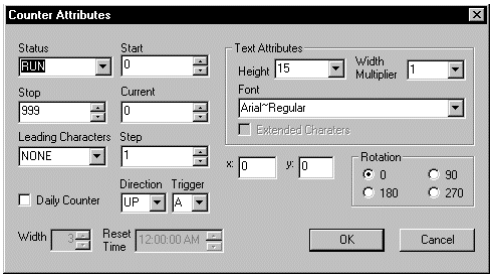

Figure 28
Counter Attributes Dialog

Status
Set the run mode of this counter (generally set to "RUN").

Start
Set this field to the number *previous* to the first number you wish to print. For example, leave the value at 0 if you want the first number printed to be 1.

Stop
This is the value at which a counter will "roll-over" and return to the start value. Also used to determine field width. For example a stop value with four digits such as 9999 will cause a counter set up for leading zeros (see below) to always print four digits, i.e. "0001".

Current
Will default to the same as the start value. Only change this if you desire to have a value *other* than the start value come up as the first number for printing whenever you Eagle print (see "File/Eagle Print") or load this message on the hand-held terminal.

Leading Characters
Used for formatting the counter. For example, counters with NONE, ZERO and SPCE would print as "1", " 1" and "00001", respectively. The number of spaces and/or digits in a counter is called **field width**, and is usually determined by the stop value (see above).

Step
The number by which the counter moves by each time a trigger is detected. Default is 1.

Direction
Either "UP" or "DN" (down). Determines whether the counter *increments* (up) or *decrements* (down) by the step value each time a trigger is detected. Use a start value that is *greater* than your stop value if counting down. The *start* value is then used to determine field width (see "Leading Characters") is this case.

Trigger
"A" and "B" refer to the two possible triggers (usually photo cells) that may be installed on the Eagle. "A" is the default. Values 1-4 may produce unpredictable results in this version of ImageMaster and should be entered using the hand-held terminal.

Daily Counter
Check this box to convert your counter to the optional "daily counter". It is the same as a normal counter except, instead of having start and stop values, this counter starts at 0 and counts until a given time each day, at which time it resets to 0.

Width
For daily counter only. Used to determine the field width of the daily counter (see "Leading Characters").

Reset Time
For daily counter only. Determines the exact time of day when the counter will reset to 0 each day.

Height; Width Multiplier; Font; Extended Characters; Rotation
See the related sections under "Text Objects" for details.

Shift Objects

You may set up real-time work shifts for printing on the Eagle in the dialog shown in Figure 29. Shifts are displayed in a blue color on screen to designate them as variable data objects. Also, the screen format of the shift is determined by the display mode (see the section entitled "The Display Mode Button"). Set the mode to real-time to display what will actually be printed.

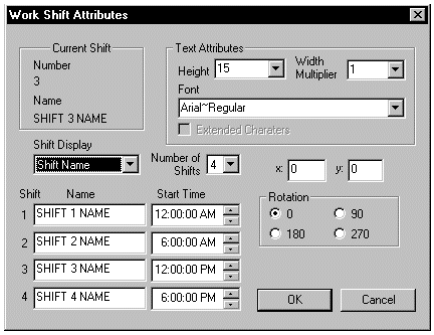

Figure 29
Shift Attributes Dialog

Shift Display
You may select either the number or the name of the current shift to be printed.

Number of Shifts
Select how many different work shifts you need to designate. Up to 4.

Name (Shift 1, 2, 3, 4)
In these fields, you may give names to each of the shifts you are printing. Start with your first shift that begins at or after midnight in shift 1, and proceed chronologically through the day with the remaining shifts.

Start Time (Shift 1, 2, 3, 4)
You will need to designate shift changes by entering the start time of each shift in these fields. As mentioned above, they must be in chronological order, starting at or after midnight.

Setup Properties Dialogs

This section will present the Image Master® setup dialogs and describe their functionality. These four dialogs correspond to the four types of configuration files that are used to set up everything on the Eagle printer from global system settings to the message data that is currently loaded for printing. Data displayed in these dialogs is presented in a manner that corresponds closely to the way it is actually stored in the Eagle printer. For example, the ImageMaster® objects in your current document will be translated into *Eagle* message elements with *Eagle* coordinates and control characters. Note that when you make changes to these setup dialogs, nothing is saved to disk or sent to the printer until you select the appropriate save or send command (see the "File Menu" section).

WinEagle Message Properties

This dialog is an "Eagle formatted snapshot" of the message (".txt") file that you are currently editing in the main view. You will find a set of pages that you may switch between by clicking on the tabs at the top of the dialog. It's pages contain all the information that will be saved in the ".txt" file, including many setups for printheads, etc. that are only available here. Any changes you make to these pages that would affect any of the on-screen objects will be displayed as soon as you click OK. Click Cancel to discard your changes. The dialog may be accessed from the appropriate item in the Setup menu or by clicking the icon with the picture of tools.

As when saving a ".txt" file (see "File/Save"), you will receive a warning if you access this dialog when your document contains more of a particular message element than the Eagle allows – more than 10 *unique* barcodes, for example. Extra objects will not be editable in this dialog, although they will remain a part of your document and may be saved later in a palette file, if desired.

Head Config
The head configuration (Head Config) tab is the tab you will probably be using most frequently. That is due to the fact that it is the only place in Image Master® to enter printhead-specific settings for your message such as print delay, spit and clock source. See Figure 30.

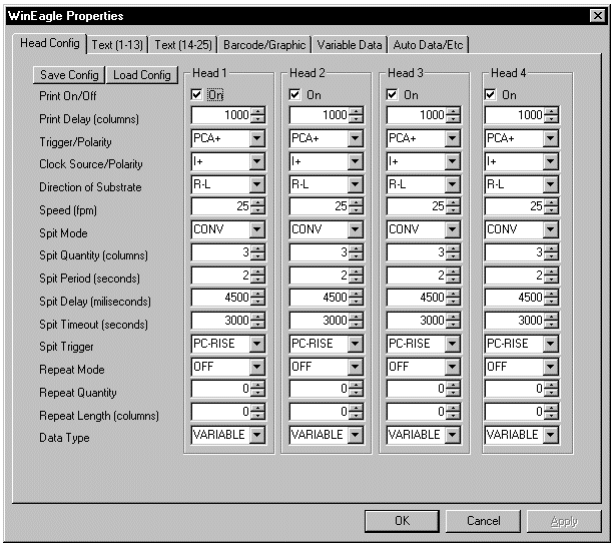

Figure 30
WinEagle Properties Head Config Dialog

The settings are repeated in four columns that allow you configure up to four installed printheads. Use the text entry, up/down arrows and/or drop-down boxes to configure each head that you have installed on your printer. The printer will ignore configuration settings for a head that is not physically installed on your Eagle printer. See the appropriate sections in the Eagle Manual for a full description of each of the parameters on this page.

Also on this page, there are two buttons that allow you to save printhead settings to a file and load them at a later time. Press the "Save Config" button, and you will be given a dialog for selecting a filename and location to save all the settings on this page (".hds" is the file extension used). It is recommended that you save your file to the default directory, which currently is "Program Files\Leader Corporation\TransEagle Network". If you save your settings here with name "*defaults*", then Image Master® will used those settings as the default printhead settings from that point on when you launch the program or create a new document. Pressing "Load Config" brings up a dialog that allows you to load any settings you may have saved previously to a ".hds" file. The file you load will immediately become the printhead settings for the current message you are editing.

Text (1-13 and 14-25)
These two pages are identical except for the fact that one lets you look at the parameters for Eagle text fields 1-13 while the other gives you access to fields 14-25. You will not ordinarily need to modify these two pages, since it is easier to manage your text objects in the main view and in the Text Attributes dialog (see "Text Objects"). However, the settings for message modifiers (see below) can only be accessed from bottom of these two Text pages as well as at the bottom of the Barcode/Graphic page. Figure 31 shows the Text 1-13 page.

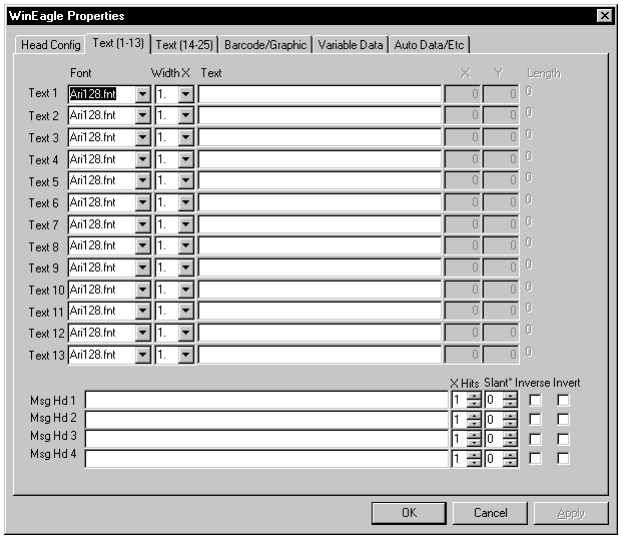

Figure 31
WinEagle Text Dialog

These pages will initially come up filled-in with settings derived from any text objects in your current Image Master® document. The font, given as an Eagle font filename, the width multiplier and the string (see "Text Objects") for each object will be listed in one of the 25 text fields. You may make changes to any of the settings for your text objects, if you wish, and even create new text objects by entering text into a blank text string field. Your changes will not show up in the main view until you click OK. Note that *artistic* text objects are sent to the Eagle as graphics, and thus will not appear on these pages (see "barcode/graphic").

The *coordinates* of each text element are given in the message line of the appropriate head next to "Msg Hd 1 (2, 3 or 4)" at the bottom of the dialog. **Message modifiers**, i.e. multiple hits ("X hits"), slant, inverse and invert are displayed here for each head also. (See the Eagle Manual for more about constructing a message line and the function of message modifiers.) Note that having *different* slant angles for each head is not currently supported on the Eagle printer as of Eagle version 6.00. Simply enter one slant angle value in head one and all four heads will automatically use the same value.

Barcode/Graphic
This Page contains settings for Eagle barcodes as well as bitmap graphics. Again, you will not ordinarily need to modify this page, since it is easier to manage your barcode and bitmap objects in the main view and in attributes dialogs (see "Barcode Objects" and "Bitmap Graphic Objects"). However, the settings for message modifiers (see above) can only be accessed from bottom of this page as well as the bottom of the two Text pages. See Figure 32.

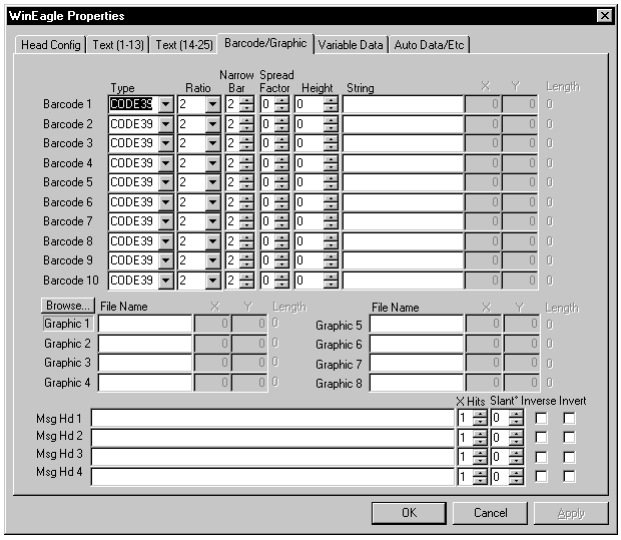

Figure 32
WinEagle Barcode/Graphic Dialog

This page will initially come up filled-in with settings derived from any barcode or graphic-based objects in your current Image Master® document. "Graphic-based" objects include bitmaps, artistic text, and bitmap barcodes. They are listed in the graphic fields 1-8 by the associated Windows bitmap filename. Artistic text and bitmap barcodes are assigned a filename *automatically* by Image Master®. Note that Image Master® has the capability of allowing more than eight graphics to be printed. This is accomplished by combining all extra graphics (up to 79 total) in to one ".bmp" file that is sent to the printer as Graphic 9. If you do use extra graphics, there will be a note displayed under Graphic 8 informing you of the filename assigned by Image Master® to Graphic 9. Note that TransEagle 3.03 or above is required to use this feature across an Ethernet connection.

The barcode settings (see "Barcode Objects") for Eagle barcodes 1-10 are given in their respective fields. You may edit these setting in any way you wish. You may also create a new barcode by typing data into a blank string field or create a new graphic by typing a filename in a blank field. Alternatively, you may create a new graphic by clicking on a graphic field to highlight it and clicking the "Browse" button to select an Eagle ".bmp" file. The *coordinates* of barcode and graphic objects are embedded in the message line for each head displayed at the bottom of the page. See the text section above for notes about message lines and message modifiers.

Variable Data

The variable data page is shown in Figure 33. Here you will find the Eagle settings and formatting for date, time, counter, and shift objects (see the sections for each type of object). Also, if you embed variable data into a text or barcode object (see "string" under "Text Objects"), you will need to use this page to setup those embedded variable data items. For example, if you type "Date: ^C2" into a text string, you could then come to this page and enter the Eagle formatting for your date element into the Clock/Calendar 2 field. See the Eagle manual for Eagle formatting characters.

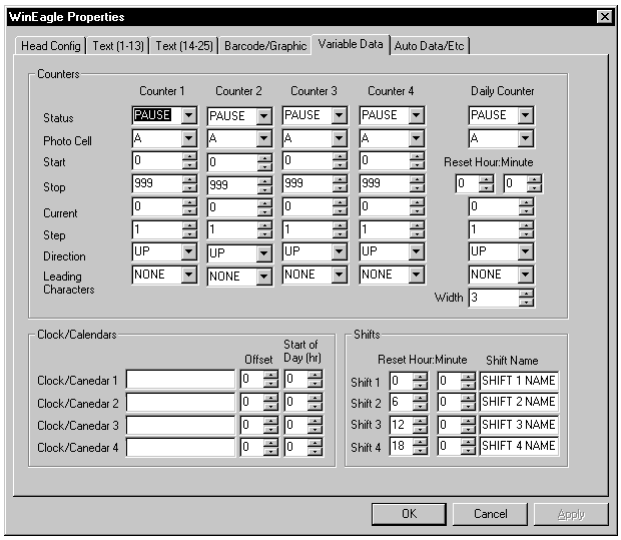

Figure 33
WinEagle Variable Data Dialog

This page is initially filled-in with the settings from any variable data objects you might have in your document. As with the other WinEagle pages, you may edit the attributes of those existing objects or cause new objects to be created by typing data into unused fields. Note that all Image Master® variable data objects are actually represented on the Eagle as text elements; thus, attributes such as font and width must be found in the corresponding text fields in one of the Text dialogs (see above).

Auto Data/Etc

This page (Figure 34) has several settings that can only be configured here. They are the "Length of Item" and "Relay Control" settings. See the Eagle manual for a description of those settings. Here you will also find the auto data settings. Any objects in your document that you selected an auto data index for (see "Text Objects") will be referenced, in order by index, in the list of Field IDs under auto data. You may make any changes to which objects are selected for auto data, and their length settings, here. See documentation on Eagle auto data and associated Eagle database utilities for details. (Note: The field change selection and field change offset character are grayed-out unless you select trigger type "FLD CHNG" under "Relay Control".)

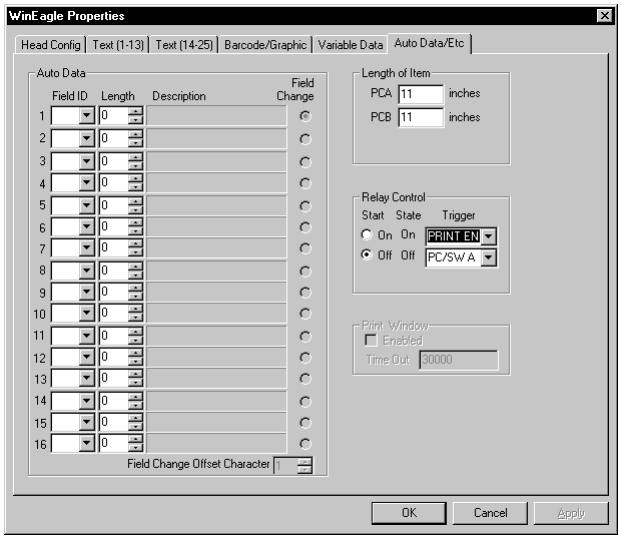

Figure 34
WinEagle Auto Data/Etc Dialog

Eagle Security Properties

This dialog allows you to easily setup the security options for your Eagle printer. You can then send them to the Eagle by selecting the menu item "File/Send Security Setup" if you have TransEagle® running and connected to your Eagle printer. The files that are actually sent to the Eagle are "super.pwd" (configurations) and "eagle.egl" (enable security). The dialog is shown in Figure 35.

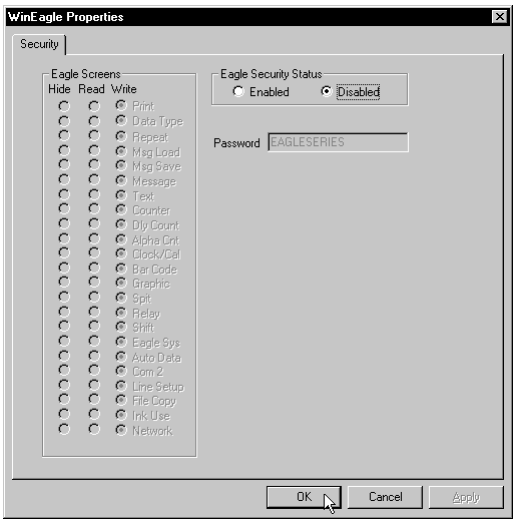

Figure 35
Eagle Security Properties

You will see, in the "Eagle Screens" section, a listing of all the screens that are normally accessible from the Eagle's hand-held terminal. There also you will find options to make each screen (or group of related screens) either inaccessible ("Hide"), read-only ("Read") or read/write ("Write"). Eagle Security Status must be "Enabled" for security

to function on the Eagle. Selecting "Disabled" will cause all Eagle screens to be accessible and the Eagle to never prompt for a password. A password (case sensitive) can be entered so that the user may bypass security lock-outs and enter supervisor mode on the Eagle hand-held terminal (see the Eagle manual for more details).

Eagle System Properties

Figure 36 shows this dialog. Here, there are global system settings that will be sent to the printer in the file "eagle.ini". You may send these settings to the printer by selecting the menu option "File/Send System Setup" while connected to the printer with TransEagle®. You will have to restart the Eagle after giving the command to send. Also, there are some command buttons that will affect the Image Master font lists as well as the way text objects are displayed. See the "**Font Management**" section for more details about these buttons.

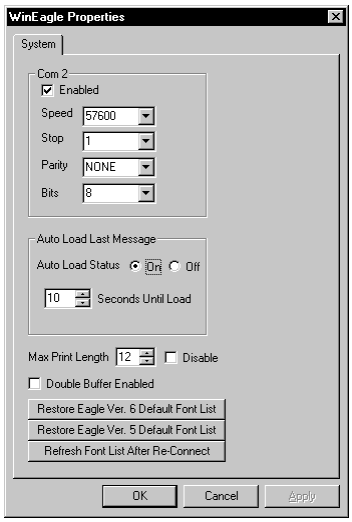

Figure 36
Eagle System Properties

You may setup the second serial port (Com 2) of the printer in the top portion of the dialog. Below that there are settings allowing you to control the Eagle's function of loading the last saved message automatically on start-up. Normally, the printer will wait a short time while giving you the chance to cancel the auto load by pressing "N" on the hand-held terminal. Here you may set the number of seconds the printer will wait, or even turn off auto loading altogether. "Max Print Length" can be set to a value just a little longer than your message length (in inches) to decrease the build time, allowing more frequent printing. Enabling "Double Buffer" may also reduce the build time. Normally, these two items are disabled.

Eagle Network Properties

This dialog only has two settings and they are sent to the printer in the file "network.ini". The two settings are the network IP address of the printer and the TCP Port (see Figure

37). You may send these settings to the printer by selecting the menu option "File/Send Network Setup" while connected to the printer with TransEagle®. Note that if you change the printer's IP address, you will need to enter the new address in TransEagle® next time you connect to the printer.

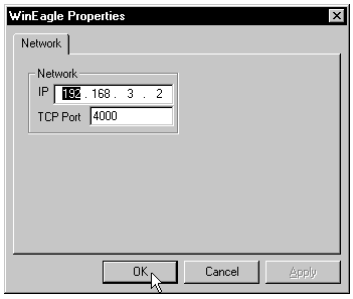

Figure 37
Eagle Network Properties

Font Management

Normally, ImageMaster® and TransEagle® work seamlessly and behind the scenes to keep the font lists and the what-you-see-is-what-you-get display of fonts in the ImageMaster® environment as accurate as possible. This section is included to give you a better understanding of how that goal is accomplished, to help you deal with font abnormalities, and to give you some instruction regarding successfully integrating new Eagle fonts (created in FontMaster®) into ImageMaster®. We will start with a brief tour of Eagle and ImageMaster® fonts.

Eagle Fonts

Eagle fonts are stored on the printer in ".fnt" files. Each file contains data for one typeface at one size only. There are two distinct "versions" of Eagle font files. Eagle software version 5.18 and below (press *control*-E on the hand-held terminal to check your version number) must use the "**version 5 fonts**" and Eagle version 6.00 and above must use the "**version 6 fonts**". The biggest difference is that version 5 fonts are all mono-space fonts. That means that that every character in the font is the same width as every other character. Version 6 fonts have character spacing that may vary according to the characters. An "i" will not be the same width as a "w", for example. This is done simply to make text look better. You may choose a font face that is *inherently* mono-space, such as Lucida or Courier, if you should need a mono-space font in version 6. You printer comes with a default set of font files that are of the appropriate version for your Eagle software.

Fonts.ini

The Eagle printer sends a list of all the fonts that are installed on it to your PC every time you connect to the printer with TransEagle® or when you place a new font in the "auto" folder while TransEagle® is running. The location and filename of the font list is

"Program Files\Leader Corporation\TransEagle Network\Eagle1\fonts.ini" at this current time. This file is used by ImageMaster® to fill every drop-down box in the program where a list of Eagle fonts is given, as well as to fill the font height drop-downs. The format of "fonts.ini" also tells ImageMaster® whether the fonts are version 5 or version 6 fonts. This is a big factor in how ImageMaster® displays the fonts on-screen. If "fonts.ini" is corrupt or missing IM will automatically use the default settings for version 5 fonts.

ImageMaster® Fonts

ImageMaster® uses TrueType fonts that are installed locally on your PC to represent text on-screen. Thus, with text, there will always be some degree of discrepancy between what you see on the screen and what is actually printed on the Eagle. The software does do some transformations to the display fonts to make them look as close as possible to what you will be printing. When ImageMaster® detects version 5 fonts in the fonts.ini list, the program will distort the screen fonts to make them approximately the same length and height as they will print. If version 6 fonts are detected, the same is true, but there is an added dimension; The program will look in a specific directory (currently in "Program Files\Leader Corporation\TransEagle Network\Eagle\Fonts") for a copy of each ".fnt" file that you have on your Eagle to get information about the length and positioning of characters. The ".fnt" files for the default version 6 font list are automatically installed in the aforementioned directory upon installing the latest ImageMaster® CD. Note that if you attempt to use a font that is installed on your Eagle, but, for some reason, you do not have that same TrueType font face installed in windows, the font will be substituted with some other font on-screen, but it will still print on the Eagle with the correct font.

Font List Buttons and Repairing Font List/Display Problems

There are three commands in ImageMaster® that can affect the font lists (see "fonts.ini" above) in the program environment. They may be accessed by going to the "Setup" menu and selecting "Eagle System Properties". At the bottom of this dialog, you will see three buttons for changing the ImageMaster® font list (Figure 38).

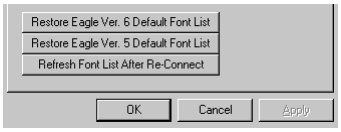

Figure 38
Font List Buttons

The first two "Restore" buttons are useful in correcting a corrupt or wrong font list. This may be the case if you are having problems seeing some fonts/sizes in ImageMaster® drop-downs, or if there is a large discrepancy between the text lengths you can see on your screen and what you are actually printing. However, you should only need to use these buttons if you are in a situation where you are not able to successfully connect to the Eagle using TransEagle®. The act of connecting to the Eagle will generally repair your font list automatically.

To use the restore buttons, first check which version of Eagle software you are running on your printer by pressing *control*-E on the handheld terminal. If you have version 5.18 or below, press the "Restore Eagle Ver. 5 Default Font List" button. Otherwise, if you have version 6.00 or above, press the "Restore Eagle Ver. 6 Default Font List" button. After confirming your action, this should revert your font and size selections to those of the appropriate version as well as causing the screen display of fonts to be changed accordingly. If you are using ImageMaster® in conjunction with an Eagle printer that is *not* connected to your PC, then it is recommended that you go to the system dialog and click the appropriate restore button for your printer's software version after first installing the ImageMaster® CD. Note that using the restore button will only restore to your font list to the standard fonts that come with the printer. You can only add custom fonts to the list by when connected to the Eagle.

The third "Refresh" button is used to apply any changes that may have been made externally to the font list (in the "fonts.ini" file) while ImageMaster® is running (see "Adding a Font" below).

Adding a Font

The current procedure for adding a font to the Eagle and being able to access it in ImageMaster® is as follows. First create your new Eagle font(s) in FontMaster® (see FontMaster® documentation). Then locate the font files you just created. They should be in the same directory from which FontMaster® was run. While connected to the Eagle printer with TransEagle® software, copy all your new font (".fnt") files to the "auto" folder, whose full path is "Program Files\Leader Corporation\TransEagle Network\Eagle1\auto" at this time. TransEagle® will display a message saying "font struct complete" when the transfer is successfully completed. If you already have ImageMaster® running, then click the "Refresh Font List After Re-Connect" button in the system dialog (see above). Otherwise, simply launch ImageMaster®. You should now be seeing the new font in all font selection lists, and thus be able to create text objects with that font. Remember that if you need a custom font for text that is not variable data, using "artistic text" and the "more fonts" button (see "Text Objects") is a much simpler way of creating text objects in a custom font.