Venus 1500 Controller
Version 2

Operation Manual

ED-12717

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DAKTRONICS, INC.

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Section 1: Introduction

The purpose of this manual is to assist in the installation and operation of the Venus® 1500 Display Network. Refer to **Appendix A** for the system riser diagram for a multiple display hookup.

1.1   System Requirements

The Venus 1500 operating software has the following requirements:

- ✓ Personal computer running Windows® 98, Me™, NT® 4.0, 2000 or XP Home/Professional with the most current updates installed.
- ✓ Personal computer using a Pentium® 233 class or higher microprocessor (Pentium II 400 recommended)
- ✓ 32MB RAM (64MB RAM recommended)
- ✓ CDROM Drive
- ✓ Mouse or other pointing device
- ✓ One or more Venus 1500-compatible displays installed
- ✓ 12MB hard disk space (Additional space may be required for message and schedule storage)

1.2   Using the Mouse

The following terms are used to describe various mouse actions:

- CLICK means quickly press and release the primary mouse button.

- DOUBLE-CLICK means quickly press and release the primary mouse button twice.

- HIGHLIGHT means to click the mouse button over text. The text will have a colored bar placed over it.

- SELECT means to click the mouse button over text. The text will be marked, such as by a check mark ✓, in a nearby box.

1.3   Using the Keyboard

Many of the options in the Venus 1500 software can be accessed with the keyboard. Where applicable, both mouse and keyboard actions will be given to accomplish a command. Many screen buttons have labels which have a letter underlined. Pressing the <**ALT**> key on the keyboard and then typing the underlined letter will activate that particular button.

An uppercase word in brackets (such as [**OK**]) represents a *button* on the screen. The names or letters of *keys* on the keyboard will be given enclosed in arrows (such as <**ENTER**>) to differentiate between the screen commands. For two or more key combinations, such as <**ALT**><**E**>, <**CTRL**><**HOME**> or <**CTRL**><**SHIFT**><**SPACE**>, hold down the first key (and second key, if applicable) as the last key is pressed.

1.4   Definitions

The following are terms and definitions used throughout the manual and software.

Apply: Clicking [**APPLY**] on some screens allows changes to take effect without closing the box; an alternative to [**OK**].

Attributes: *Attributes* are various characteristics and options applied to *frames* and text. Attributes can include color, justification and flashing text, as well as various entry and exit effects.

Baud Rate: *Baud Rate* refers the speed of serial communications.

Cancel: Clicking on [**CANCEL**] cancels the last command and closes the window. This icon can also be activated by pressing <**ESC**> on the keyboard.

Com Port: The *Com Port* is the serial port in the PC that is used to communicate with the display. The ports shown are installed in the operating system.

Configure: *Configure* refers to programming the size and display type of a display or specifying parameters for a network or group of displays within the software.

DataTrac™: Daktronics family of text-only (alphanumeric) LED displays; they are offered as single-sided units and show 5x7, single stroke character fonts.

Dial Up: *Dial up* refers to the type of communication the main controller has with a display. Dial up indicates that a dialing modem is required to communicate with the display.

Direct: *Direct* refers to the type of communication the main controller has with a display. Direct indicates a dedicated wire connection between the PC and display(s).

Display Address: *Display address* is a number in the range of 1 through 240 that identifies an individual display. Each display on a network must have a unique address.

Display Type: *Display type* refers to the type of display (DataTrac, InfoNet, Galaxy, SunSpot or Glow Cube), display color (monochrome, tricolor or RGB), number of lines and characters per line. Messages and schedules are based on display type–not the individual display. Knowing the display's type is required for configuring the software.

Effect: An *effect* is a "moving" characteristic applied to line of text or graphic frame to create interest and variety in a message.

Ethernet: A local area network (LAN) protocol using a bus topology.

Event: *Event* refers to a message displayed within a schedule or a scheduled brightness change.

Frame: A *frame* is a "page" of text on the display. Text and/or characters are typed onto the frame to create messages. A message can be composed of one frame or multiple frames.

Galaxy™: Daktronics trademarked name for matrix-based LED (light emitting diode) displays; technologies are available for monochrome red or amber, tricolor (red, green and amber) or RGB (red, green and blue).

Glow Cube®: Daktronics product line of reflective, electro-mechanical display technology; consists of cube-shaped pixels with faces that rotate 180 degrees to show either a yellow or black side.

Group: A *group* is a collection of displays of the same display type. The group may be selected instead of the individual displays. When displays belong to a group, the displays will have the ability to receive the same commands when the group is selected. For example, if a group of cafeteria displays are to have the same message, a group called CAFETERIA could be created. Groups are time saving.

Hold: *Hold* refers to the length of time a frame will remain on the display once all the entry effects have been completed.

InfoNet™: Daktronics product line of line-based monochrome LED (light emitting diode) displays.

ITF File: *ITF files* consist of multiple RTD fields that are generated by the source program to simplify the creation of data frames.

Library: A *Library* is a group of messages or schedules of similar type. For example, a series of Christmas messages could be saved in a library called CHRISTMS. Libraries are stored based on display type.

Monochrome: *Monochrome* displays are capable of displaying only one color.

Network: A *network* consists of multiple displays connected to each other. Up to 240 Venus 1500 controlled displays can exist on one network.

OK: Clicking on [**OK**] executes a command and/or closes the window. This icon can sometimes be activated by pressing <**ENTER**> on the keyboard.

RG: *RG*, or tricolor, displays are capable of showing red, green and amber colors. Red and green LEDs combine to create the amber color.

RGB: *RGB* (red, green, blue) refers to the colors of LEDs used on this type of display. These colors combine to create a full-color display.

RTD: <u>R</u>eal <u>T</u>ime <u>D</u>ata; *RTD* fields allow information from an outside source (such as a timer or counter) to be inserted into a message.

Schedule: A *schedule* is similar to an appointment book for a display. It allows the user to tell a display what message to display when and sets the brightness of the display. These instructions can be set on a day to day, hour to hour or minute to minute basis. For example, a display can be told to start a message called BIGSALE at 1:33pm on 1/3, and at the same time set the brightness level at 32 (50%). Refer to **Section 6:** for more information.

Shell: When the Venus 1500 software program starts, a *shell* program loads. Each component of the software (Message Studio, Schedule Studio, etc.) is launched from this program. Refer to **Section 1.6** for an illustration of the shell.

Status: When communicating with a display, sometimes it is helpful to know the *status* of the display. Status refers to the display's name and version number, the date and time running on the display, last reset time, temperature, display brightness and running messages.

SunSpot®: Daktronics registered trademark name for matrix-based, monochrome, incandescent (lamp) displays.

TCP/IP: Abbreviation for **T**ransmission **C**ontrol **P**rotocol/**I**nternet **P**rotocol; the suite of communications protocols used to connect hosts on the Internet or Local Area Network (LAN).

TCP/IP Connection Type: Display connection across an Ethernet network using the TCP/IP protocol. This type of connection requires a serial server device connected to an Ethernet network for communication to displays.

TCP/IP Socket: Software communication component within the TCP/IP protocol used for sending and receiving data across the network.

Tricolor: RG, or *tricolor*, displays are capable of showing red, green and amber colors. Red and green LEDs combine to create the amber color.

Venus®: Daktronics registered trademark name for a family of message/animation display control software systems. The higher the *Venus* controller model number, the larger the matrix it can control.

1.5   Help

Help is available from the *Help* pull-down menu. Two options will appear: **Contents** and **About**.

Contents
Press <**ALT**><**C**> or click on [**CONTENTS**] to access the *Contents* help screen. This screen can also be accessed directly from the main screen by pressing <**F1**>.

About
Each area of the software (Message Studio, Schedule Studio, etc.) contains a Venus 1500 About dialog box that can be accessed from the *Help* pull-down menu. The Venus 1500 About box contains information about the software, including the software version, and Daktronics' contact information. Click on [**OK**] or press <**ENTER**> to exit the Venus 1500 About box.
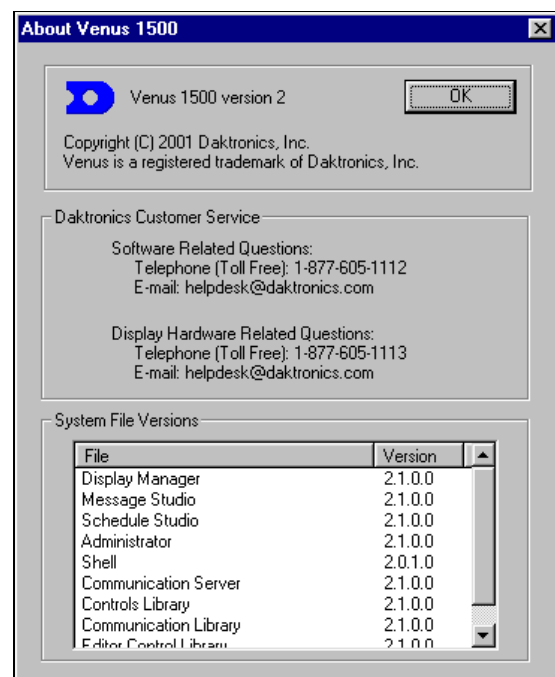
1.6   Navigating the Venus 1500 Software

When the Venus 1500 software program starts, a "shell" program loads. Each component of the software (Message Studio, Schedule Studio, etc.) is launched from this program. Click on the appropriate shell button to activate the desired component.

Venus 1500 Shell Program

Messages and schedules are saved as files within the Venus 1500 software. The files are stored within directories known as "libraries." Libraries are created for each type of display.

When creating a new or opening an existing message/schedule, a small box will be visible to the left of each display type. When the box is filled with a "+", libraries exist for that type that are not currently visible.

1. Click on the "+" or double-click on the display type name to expand the directory and view that type's libraries. The "+" will change to a "–".
2. Click on the name of the desired library to access the list of messages or schedules located within it.

☞**Note:** The Venus 1500 Shell program defaults to "Always on Top," placing it on top of any other programs that may be displayed on the desktop. To turn this feature off:

1. Right-click on the shell's Venus 1500 logo. A popup menu appears. **Always on Top** should have a check mark next to it.
2. Click on **Always on Top** to remove the check mark.

1.7   Basic Steps to Using the Venus 1500 Controller Software

This manual is laid out in basic chronological order to create and display a message. In summary, the steps you will need to follow are:

1. Install the Venus 1500 controller software if it is not already installed on your computer (**Section 2**).
2. Configure the display type(s) and communication method (**Sections 3** and **4**).
3. Create the message(s) (**Section 5**).
4. Create the schedule(s), *when desired* (**Section 6**).
5. Send the message/schedule to the display (**Section 7**).
6. Run the message/schedule (**Section 7**).

This book will walk you through the steps necessary to help you use your display system to its full potential.

1.8   Contacting Daktronics

If any problems or questions arise that are not discussed in this manual, contact Daktronics using any of the following methods:

Mail: Daktronics, Inc., Customer Service   **Customer Service Fax:** 1-605 / 697-4444
          PO Box 5128
          331 32nd Avenue   **e-mail:** helpdesk@daktronics.com
          Brookings, SD 57006

Phone: Daktronics Help Desk: 1-877 / 605-1112 (toll free)
          or 1-605 / 697-4033

          Keyframe™ Software Support: 1-877 / 605-1118 (toll free)
          or 1-605 / 697-4003

Section 2: Installation

The Venus 1500 software must be installed to a hard disk before use. To install the software onto a computer, follow these steps:

1. Place the Venus 1500 installation compact disk (CD) into the appropriate CD ROM (presume drive D:).

2. The installation should begin automatically within a few seconds. If it does not, click on the *Start* button and select *Run* from the menu. Type "D:\SETUP" and press <**ENTER**>.

3. Follow the instructions on the screen. SETUP will copy the files necessary to run the Venus 1500 software to the hard disk and create Venus 1500 in the *Start* menu. **Note:** The Venus 1500 software installs to the C:\Program Files\Daktronics\Venus 1500 directory by default; this is the recommended location.

4. The Venus 1500 control software is now installed and ready to be configured for use with the Venus 1500 Display Network.

Section 3: Configuring the Venus 1500 Controller for First Time Use

☞This section is intended to provide *basic instructions and examples* to configure the Venus 1500 Controller. More detailed information and instructions on installing other network and display types can be found in **Section 4**.

After installing the Venus 1500 Controller software on the computer (refer to **Section 2**), the individual displays and networks must be configured. The three basic steps to configure the software consist of the following:

1. Adding a network
2. Adding the display type
3. Adding the display

Once these steps are complete, you can proceed to **Section 5** to create messages for the display.
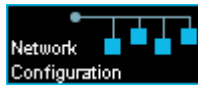
The Venus 1500 Administrator is used to configure networks and displays. Click on from the Venus 1500 Shell to start the Administrator.
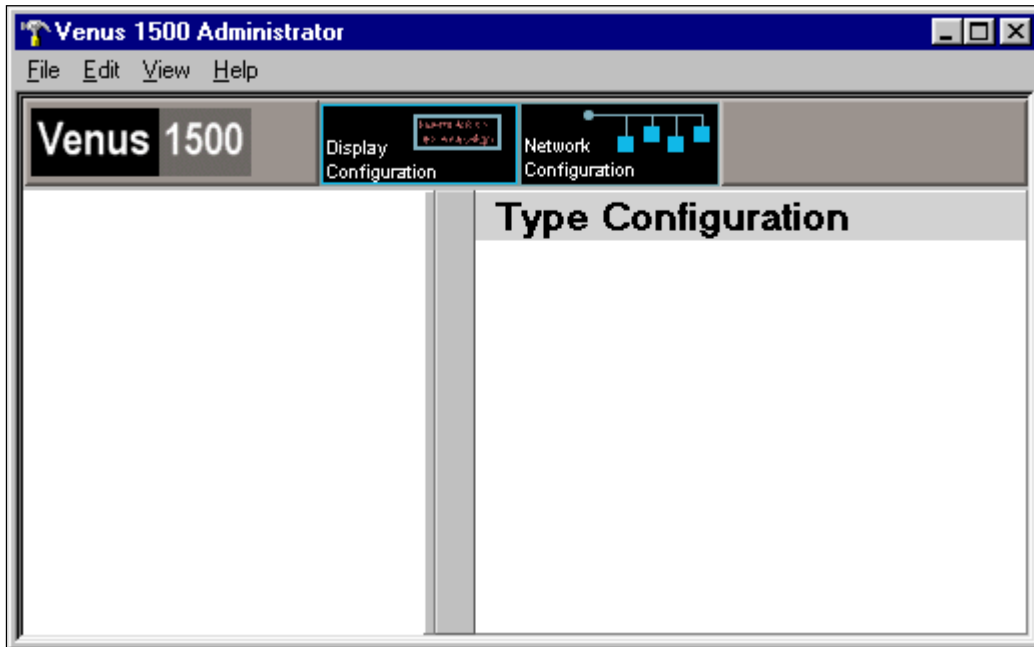
3.1 Adding a Direct Connection Network

The simplest type of network to use is a "direct" network. On this type of network, a dedicated wire connection is used between the control computer and display(s). (No modem is used.)

1. Click on **Network Configuration** at the top of the Venus 1500 Administrator to activate the network configuration screen.

2. Right-click on **Direct Networks** on the left side of the screen. A popup menu appears. Click on **New…**

3. In the **Description (name)** field, enter a name for the new network.

4. Select **Direct Networks** in the **Network Type** field, if it is not already selected.

5. Click once on the down arrow next to **COM ports**. A listing of installed ports for your computer appears.

6. Select the desired serial port for display communications. (The default is COM1.)

7. Click on [**OK**] to save the changes and close the Network Configuration dialog box.
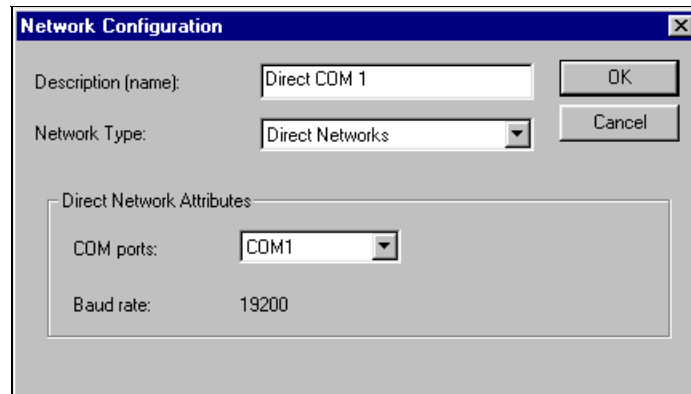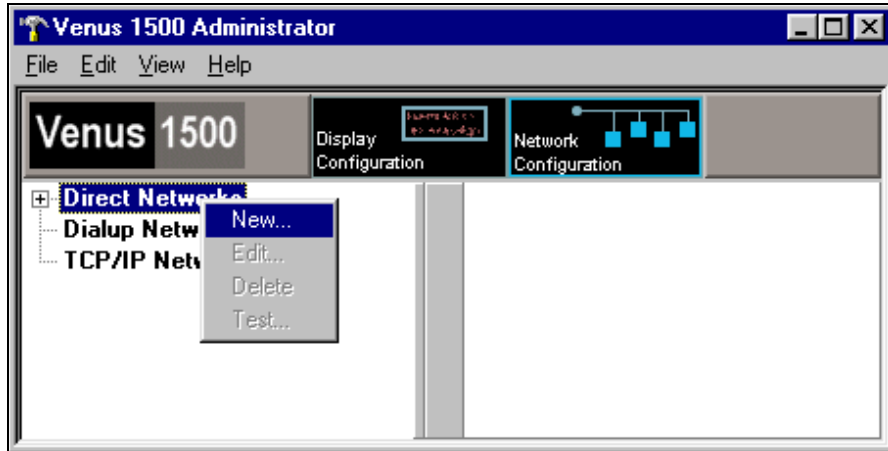
3.2 Adding the Display Type

The display type refers to the basic description of the display and the technology (line, character or matrix display, LED, reflective or incandescent, color depth, etc.). In this section, we will assume a tricolor (red, green and amber) LED matrix sign will be used (a Daktronics Galaxy display). The display is 64 pixels high by 120 pixels wide.
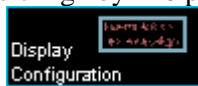
1. Click on **Display Configuration** to activate the display configuration screen.

2. From the *Edit* pull-down menu, select **New** and then **Display Type**. The Display Type Configuration dialog box appears.

3. Click on the down arrow next to the **Technology**
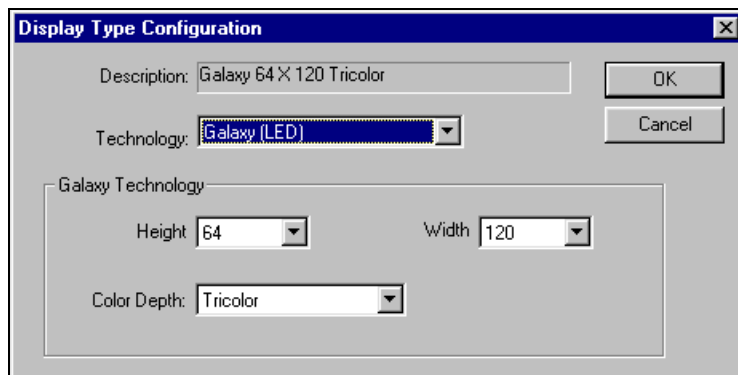
box. Select **Galaxy (LED)**. The fields in the lower half of the dialog box will adjust based on the selected type of technology.

4. Use the drop-down menus to select "64" for the **Height**, "120" for the **Width** and "Tricolor" for the **Color Depth**. *Only valid sizes and colors for the current display technology will be available for selection.*
5. Click on [**OK**] to save the settings.

3.3   Adding a Display

We will assume a Galaxy display of the type setup in **Section 3.2** will be added in front of the office building. The address of the sign (as shown in the display's boot up initialization information [refer to the display's maintenance and troubleshooting manual]) is eight (8). The sign will be placed on the network configured in **Section 3.1**.

1. Be sure the Display Configuration button is selected in the Venus 1500 Administrator.
2. From the *Edit* pull-down menu, select **New** and then **Display**, The Display Configuration dialog box appears.
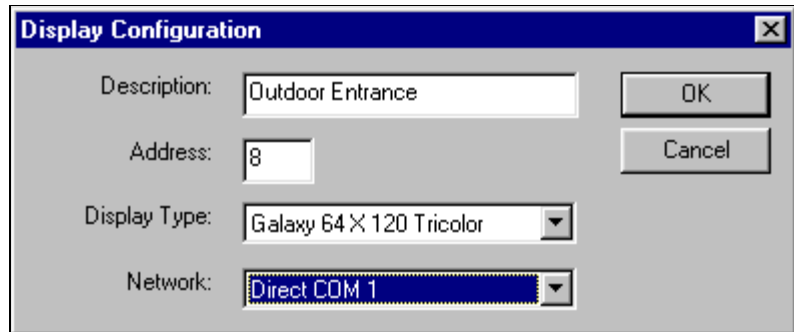
3. Enter a **Description** for the display. It can be a number or a brief description of its location. In the example, the sign was named "Outdoor Entrance."
4. Enter "8" for the display's network **Address**.
5. From the drop-down menu for **Display Type**, select "Galaxy 64x120 Tricolor."
6. Select the Direct network configured in **Section 3.1**.
7. Click on [**OK**] to save the new display configuration.

3.4   Proceeding to Create a Message

Once the steps outlined in **Sections 3.1, 3.2** and **3.3** are complete, close the Venus 1500 Administrator by selecting **Exit** from the *File* pull-down menu.

Return to the Venus 1500 Shell program and click on to activate the Venus 1500 Message Studio to create a message (refer to **Section 5**).

Section 4: The Venus 1500 Administrator

The Venus 1500 Administrator is used to configure the various displays, display types, display groups and networks, or test the network.

To activate the Venus 1500 Administrator, click on [icon] from the Venus 1500 Shell.
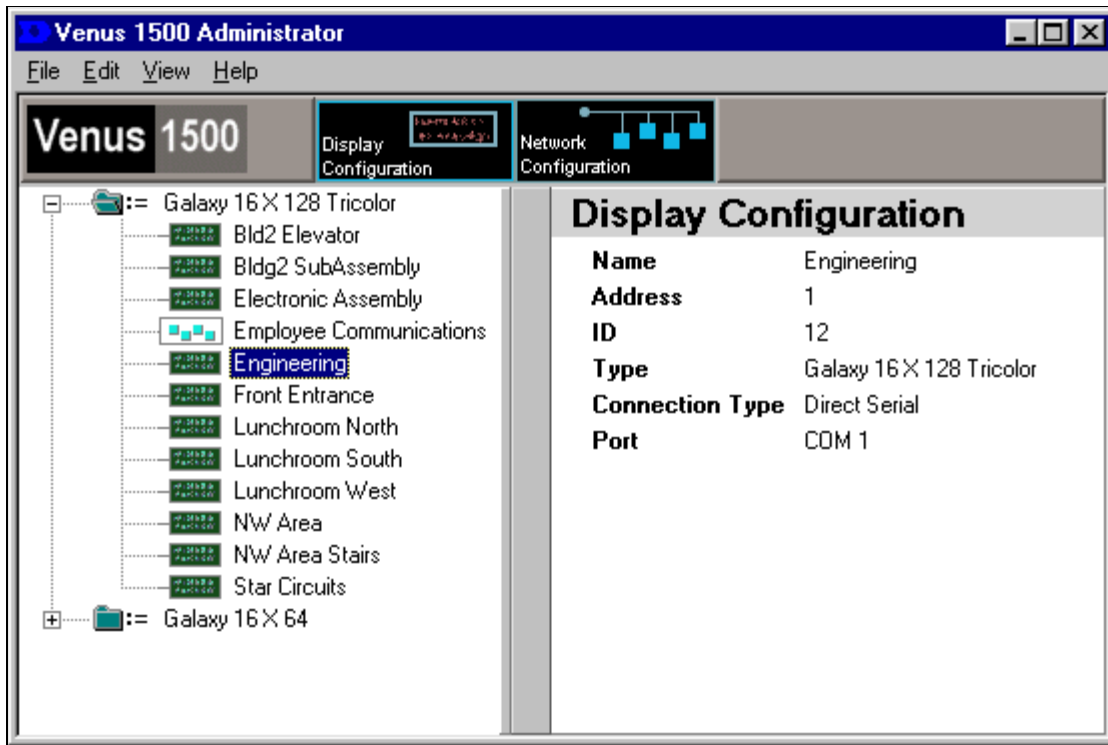
The screen is divided into two basic areas. At the left are all the currently configured display types (when **Display Configuration** is selected) or networks (when **Network Configuration** is used). The right side of the screen displays the configuration details for the currently selected display or network.
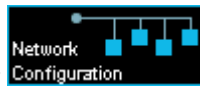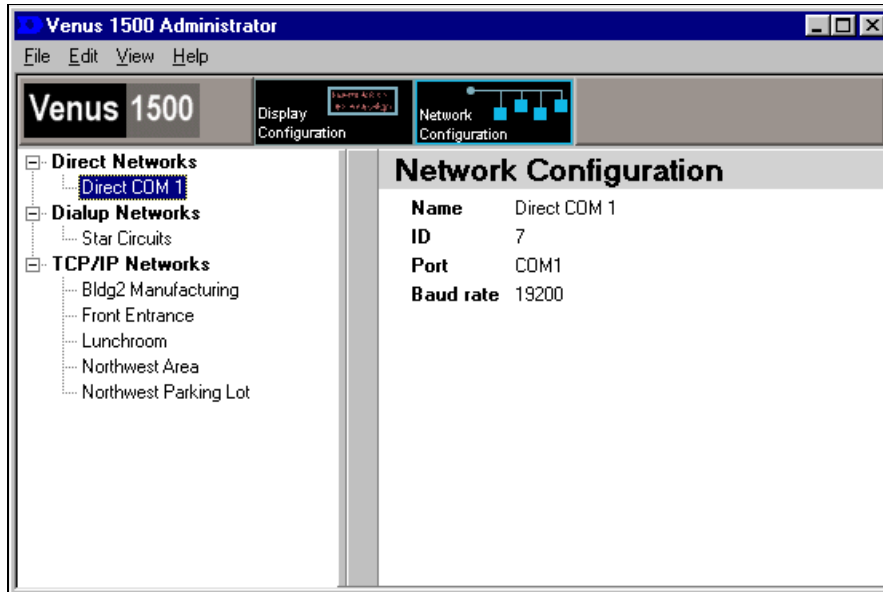
Activating [Network Configuration icon] configures a network for communicating with displays. The Network Configuration screen allows the user to add a network, edit an existing network or remove a network.
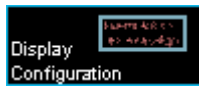
Selecting [Display Configuration icon] enables the user to add and/or delete display types, or edit displays and groups for display types.

The number of display types that can be configured in the system is virtually unlimited.

4.1 Adding a Network

Click on to activate the network configuration screen.

Right-click on any of the network names listed on the left side of the screen. A popup menu appears. Click on **New…**

Or activate the *Edit* pull-down menu and select **New** and then **Network**.

There are three connection types that can be used for a display: direct, dialup and TCP/IP. Whenever a new network is configured, you must give it a name (entered in the **Description (name):** field).

Direct Connection

A direct connection indicates a line of communication directly from the operator's computer to the display or network.

1. To use this type of connection, select **Direct Networks** in the **Network Type** field, if it is not already selected.
2. Click once on the down arrow next to **COM ports**. A listing of installed ports for your computer appear.
3. Select the desired serial port for display communications. (The default is COM1.)
4. Click on [**OK**] to save the changes and close the Network Configuration dialog box.
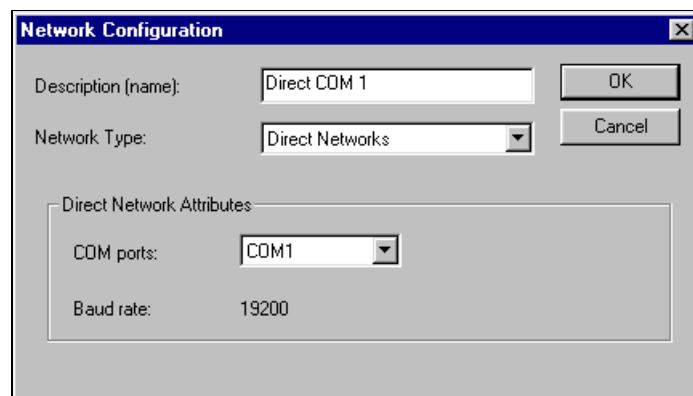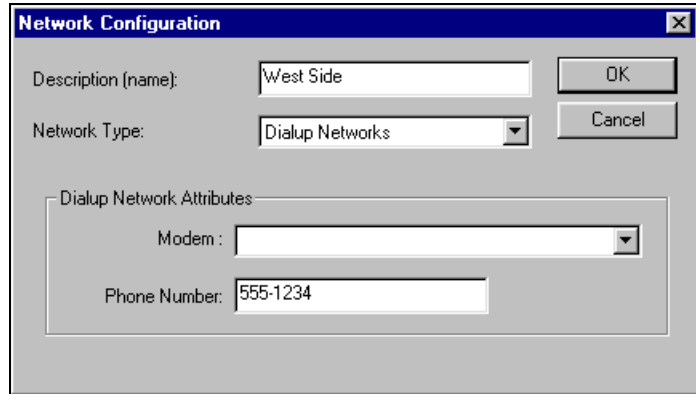

Dialup Connection

A dialup connection uses a modem to communicate with the display or network. It is assumed a modem is already installed and operating properly prior to selecting a dialup connection type. For more information regarding modem installation, consult the manual accompanying the modem or contact the modem's manufacturer.

If you are having modem communications problems, ensure that the most recent modem drivers for your operating system are installed and are properly configured.

1. To use this type of connection, select **Dialup Networks** in the **Network Type** field, if it is not already selected.
2. Click on the down arrow next to **Modem**. A list of currently installed modems appears. Select the modem you wish to use.
3. Press <**TAB**> or use the mouse to click once in the **Phone Number** field. Enter the phone number of the display. The use of commas and dashes between numbers are permissible but not necessary.
4. Click on [**OK**] to save the new network and close the Network Configuration dialog box.

TCP/IP Connection

A TCP/IP network uses an Ethernet™ network and a serial server device to establish a connection between the Venus 1500 controller and the displays.
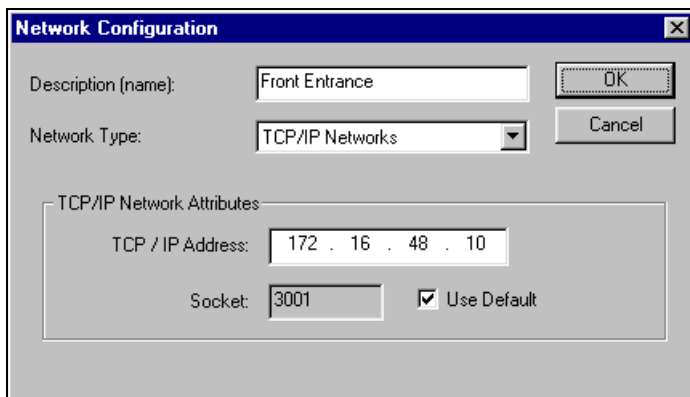
The **TCP/IP Address** is the address of the serial server device on the Ethernet Network. If you are using a Lantronix™ serial server, this is the address that was set on the device when it was configured. Refer to Daktronics manual **ED-9623** for instructions on configuring the serial server and assigning a static IP address.

☞**Note:** This address must match and be configured on both the Venus 1500 software and the serial server.

Use Default should always be checked ✓ when using the Lantronix serial server.

The **Socket** number is only accessible when **Use Default** is not checked. This field is used to interface to another serial server device. For information on the socket number, refer to the serial server's operation manual to find which socket is used for raw data or RS-232 communication.

☞**Note:** TCP/IP *must* be installed and correctly configured for the computer the Venus 1500 software is installed on. The TCP/IP protocol must also be bound to the Ethernet packet/ODI driver. DHCP is not used. The address of the serial server must be static. Contact your system administrator to obtain a static IP address and to configure the computer as needed for the display network.

1. To use this type of connection, click on **TCP/IP Networks** in the **Network Type** field, if it is not already selected.
2. Use the mouse to click once in the **TCP/IP Address** box.
3. Enter the correct address for the network.

4. If a Lantronix serial server is being used, click on **Use Default**. Otherwise, enter the socket number in the corresponding box.
5. Click on [**OK**] to save the new network and close the Network Configuration dialog box.

4.2   Editing an Existing Network

To modify the settings of an existing network, either right-click on a network name at the left side of the screen, and then click on **Edit…** on the popup menu, *or* activate the *Edit* pull-down menu and select **Edit,** and then **Network**. The Network Configuration dialog box appears. Edit the information as needed.

4.3   Deleting a Network

To remove a network, right-click on a network name at the left side of the screen, and then click on **Delete** on the popup menu. A dialog box appears requesting a confirmation of the deletion.

Click on [**OK**] to delete the network or [**CANCEL**] to leave the network intact.

☞**Note:** Performing this action can leave displays unusable.
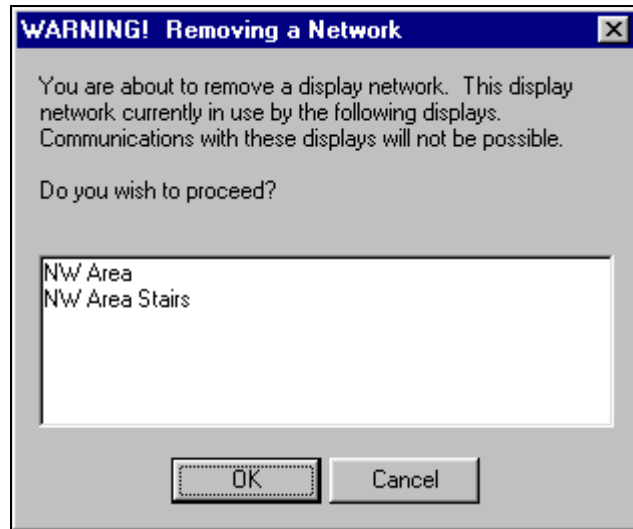
4.4   Remote Database

For locations that have multiple computers with Venus 1500 capability a remote database can be configured for storing messages. This allows messages to be shared between machines without needing to copy them from one machine to another.
1. Select Venus 1500 Administrator from the Venus 1500 shell
2. Click on the [**Edit**] drop down menu and select **Database**.
3. Select the Remote Database location by clicking on the browse button.
4. Browse to the new database location and click OK to select it.
5. Click on OK to close the Remote Database dialog. You will be prompted to move the contents of the local database to the remote location.

Note: This is simply a sharing function and does not synchronize computers or displays in any way. Any existing messages with the same names will be overwritten. It is best to perform this configuration immediately before configuring your displays and messages are created.

4.5   Communication Defaults (Networks)

The operator can specify default settings for timeouts, maximum retries and disconnect time for each of the network types.

From the *Edit* pull-down menu, select **Defaults**. The Communication Defaults dialog box appears.

Change the settings as desired using the arrows next to each field, or by highlighting the number and entering the new value from the keyboard.

Click on [**APPLY**] to save the settings but keep the Communication Defaults dialog box open. Click on [**OK**] to save the settings and close the dialog box. [**CANCEL**] will abort all changes and exit the dialog box.

The minimum value for all fields is 1. The maximum values for each field are as follows:

| **Communication Timeouts**	**Maximum Retries**	**Disconnect Time**
Direct: 60 Sec	**Direct:** 10	**Direct:** 90 Sec
Dialup: 30 Sec	**Dialup:** 10	**Dialup:** 30 Min
TCP/IP: 30 Sec	**TCP/IP:** 10	**TCP/IP:** 90 Sec

4.6   Display Type

Adding a New Type of Display

☞**Note:** Confirm your display size, technology and color before configuring the Venus 1500 controller. Incorrect configuration settings may cause unwanted display results.
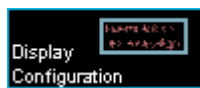
Click on to activate the display configuration screen.

1. From the *Edit* pull-down menu, select **New** and then **Display Type**. The Display Type Configuration dialog box appears.
2. Click on the down arrow next to the **Technology** box. Select

the technology for your display (DataTrac, InfoNet, Galaxy, SunSpot or Glow Cube).
3. The fields in the lower half of the dialog box will adjust based on the type of technology selected. Use the drop-down menus to select the correct display size and color. *Only valid*

sizes and colors for the current display technology will be available for selection.

If the display is a DataTrac, enter the color (monochrome or tri-color), number of lines in the display and the number of characters per line; if the display is an InfoNet, enter the color, line height and width and total number of lines in the display.

The matrix displays, Galaxy, SunSpot and Glow Cube, require the number of pixels high and wide be entered. Galaxy displays may be configured as monochrome, tri-color or RGB (red, green, blue). SunSpot and Glow Cube displays are available only as monochrome.

The **Description** field will reflect the current settings and lists how the display type will be presented in the Venus 1500 software.

4. Once the configuration is complete, click on [**OK**] to save the settings. [**CANCEL**] will discard all changes and return you to the Venus 1500 Administrator.

☞**Note:** Once a display type has been created, add other types by highlighting the existing display type and then right-clicking the mouse to activate the popup menu. Select **New** and then **Display Type**. The Display Type Configuration dialog box appears. By default, the technology listed will initially match that of the existing display type. Setup the new display type as desired per the above instructions.
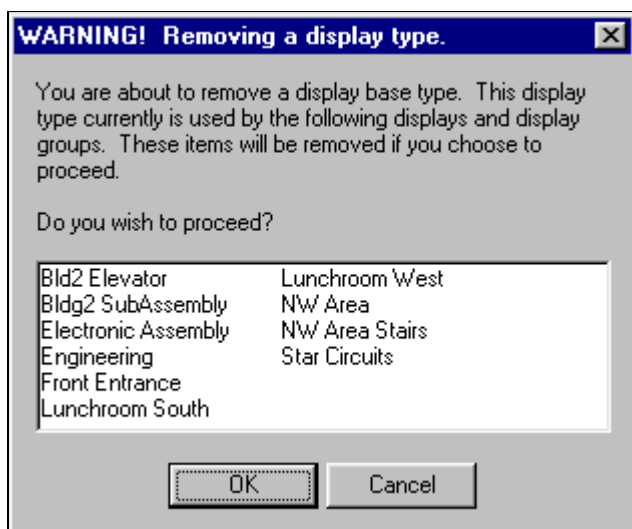
Removing a Display Type
To remove a display type, highlight the type in the left side of the Venus 1500 Administrator. Right-click to active the popup menu and select **Delete**. A dialog box appears requesting a confirmation of the deletion.

Click on [**OK**] to delete the display type or [**CANCEL**] to leave the type intact.

☞**Note:** Performing this action can leave displays unusable.

4.7   Displays

Once display types and networks are configured, you can begin configuring the individual displays.

Adding a Display
To add a display to the software, first be sure the Display Configuration button is selected in the Venus 1500 Administrator.

1. From the *Edit* pull-down menu, select **New** and then **Display**, or right-click on a display type or another existing display name and select **New** and then **Display**. The Display Configuration dialog box appears.

Display Configuration

Description: Bld2 Elevator

Address: 2

Display Type: Galaxy 16 X 128 Tricolor

Network: Bldg2 Manufacturing

OK   Cancel

2. Enter a description for the display. It can be a number or a brief description of its location.
3. Enter the display's network address. (The address of the display appears as part of the boot up initialization information. Refer to the display's maintenance and troubleshooting manual for more information.)
4. Specify the display type. Lists of currently configured display types are available from the drop-down menu.
5. Select the appropriate network on which the display is located.
6. Click on [**OK**] to save the new display configuration.

☞**Note:** A display cannot be programmed if a network is not configured.

Creating a Group of Displays

A group is a collection of displays of the same display type that can receive various communications commands simultaneously. *A group is not required for display communications.*

☞**Note:** Display types must be configured and displays added before this option can be used.

Display Group Configuration

Description: Employee Communications

Display Type: Galaxy 16 X 128 Tricolor

Available Displays
Engineering
Lunchroom West
Star Circuits

Member Displays
Bld2 Elevator
Bldg2 SubAssembly
Electronic Assembly
Front Entrance
Lunchroom South
NW Area
NW Area Stairs

Add >>   << Remove

OK   Cancel

1. To create a new group, select **New** and then **Display Group** from the *Edit* pull-down menu. The Display Group Configuration dialog box appears.
2. Enter a name for the group.
3. Select the group's display type. A list of available displays appears in the left half of the dialog box.
4. Highlight the display(s) you wish to be included in the group and click on [**ADD>>**]. The display(s) are added to the **Member Displays** list. (To pick more than one display at a time, press and hold <**SHIFT**> while using the mouse to select a range of displays, or press and hold <**CTRL**> to pick out individual displays.)

   Remove a display by highlighting its name under **Member Displays** and click on [**<<REMOVE**].

5. Click on [**OK**] to save the display group or choose [**CANCEL**] to discard all settings and exit the dialog box.

Editing a Display's Configuration

To modify the settings of an existing display or display group, either right-click on a display or group name at the left side of the screen, and then click on **Edit…** on the popup menu, *or* activate the *Edit* pull-down menu and select **Edit,** and then **Display** (to edit a single display) or **Display Group** (to modify a group). The appropriate configuration dialog box appears. Edit the information as needed.

Deleting a Display from the Network

To remove a display or group, right-click on the name at the left side of the screen, and then click on **Delete** on the popup menu. A dialog box appears requesting a confirmation of the deletion.

Click on [**OK**] to delete the display or group or [**CANCEL**] to leave it.

4.8   Enabling the Text Filter (Profanity Protection)
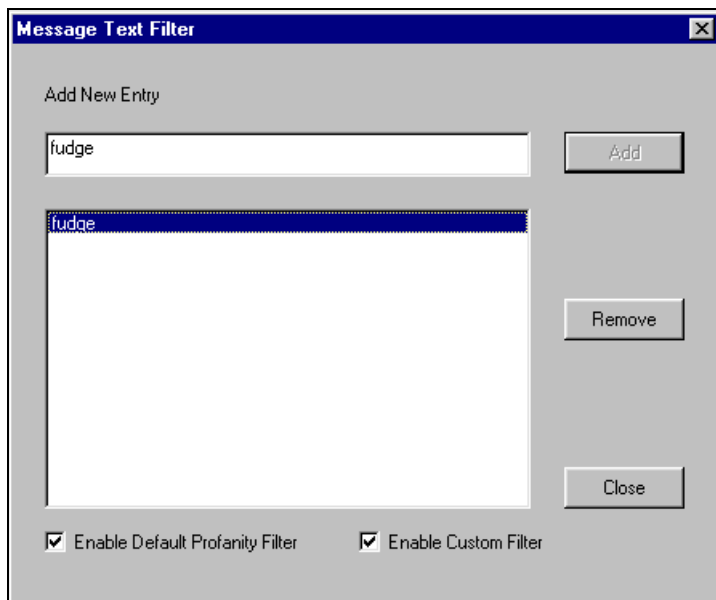
The Venus 1500 software's text filter prevents specified words from appearing on the display(s).

To enable or modify this filter, activate the Venus 1500 Administrator *Edit* pull-down menu, and select **Message Text Filter**.

Two filters can be enabled, the Default Filter and the Custom Filter.

The *default* profanity filter protects against words identified in the *FCC vs. Pacifica Foundation (438 U.S. 726 [1978]) legal case*. The *custom* filter protects against words identified by the operator.

To enable protection against words in either filter, click on the box next to the desired filter. A check mark indicates the filter is turned ON.

Adding New Words

To add new words to the custom filter feature, type the new word in the box titled **Add New Entry**. Click on [**ADD**]. The word is added to the box below.

Removing a Word

To remove a word from the list, highlight the desired word and then click on [**REMOVE**]. It is immediately deleted.

Click on [**CLOSE**] to return to the Venus 1500 Administrator.

4.9   Time Zone Offset Configuration

This allows the time that is sent from the controlling PC to be offset according to Greenwich Mean Time (GMT) if the display is in a different time zone. This should be set to the current time zone that the display being controlled is located in.

4.10   Network Testing

Network testing requires the use of a loopback box or adapter. This box/adapter connects the serial port transmit and receive pins to determine if the serial port is working and there are no physical breaks in the communication cable. **It will not determine signal polarity.** So it is possible for the loopback test to work and *still not receive communication* resulting from improper wiring.
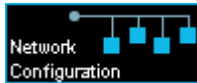
1. In the Venus 1500 Administrator, choose .
2. Right-click on the desired network to activate the pop-up menu and then select **Test…** The Network Testing dialog box appears.
3. Click [**TEST**] after attaching the loopback box/adapter to begin testing the network. In the **Received** area of the dialog box, the following results may be returned:
   a. "No response" – indicates a break in the cable, bad serial port or bad signal converter (if used.)
   b. "Connection failure" – indicates the test was unable to connect to the serial server if connecting to the display via a TCP/IP connection.
   c. The test was successful if the same text appears in both the **Sent** area and in the **Received** area.
4. When the test is complete, select [**CLOSE**] to return to the Venus 1500 Administrator.
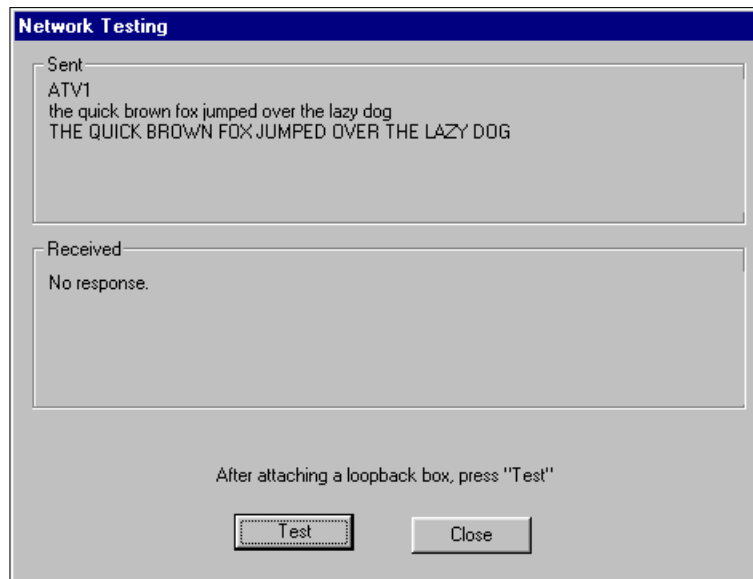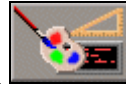
4.11   Venus 1500 Administrator Keyboard Shortcuts

Command	Shortcut Keys
Activate Display Control	**<F3>**
Activate Network Control	**<F4>**

Section 5: The Venus 1500 Message Studio

The Venus 1500 Message Studio creates the messages that will appear on the displays. Text and graphics are entered into "frames." One or more frames create a message. When working in the Venus 1500 Message Studio, thumbnails of existing frames for the current message are displayed along the right side of the screen.
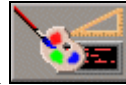
To activate the Venus 1500 Message Studio, click on [icon] at the Venus 1500 Shell.

Venus 1500 Message Studio

There are five basic types of Venus 1500-controlled displays, listed below.

- Galaxy (LED technology)
- DataTrac (LED technology)
- InfoNet (LED technology)
- SunSpot (Incandescent)
- Glow Cube (Reflective)

Different options will be available in the Venus 1500 Message Studio based on the type of display for which the message is being created. Variances will be addressed where applicable in this section.

5.1　Opening an Existing Message

To open an existing message,

1. Click on the open button ![open icon] or select **Open** from the *File* pull-down menu. The Open Message dialog box appears.
2. Select the desired display type and library. A list of messages contained within that library appears in the right side of the screen.
3. Double-click on the name of the message, or highlight the name and then click on [**OPEN**]. The message is loaded into the Message Studio for editing.
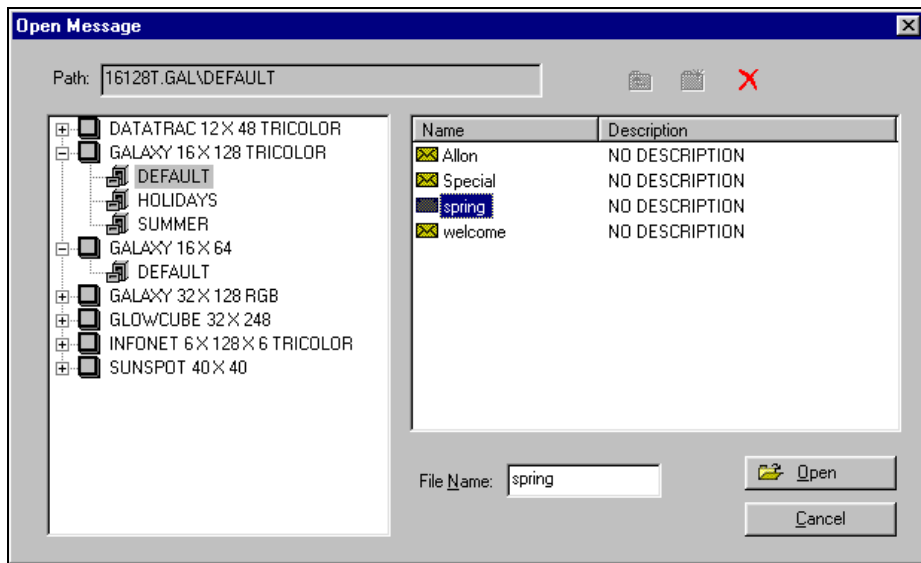
Multiple messages and messages for more than one display type and size can be open for editing at the same time.

5.2　Creating a New Message
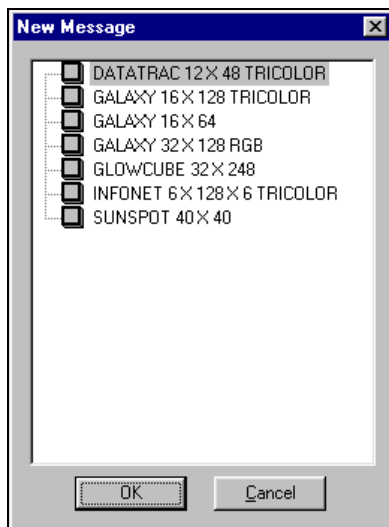
To start a new message:

1. Click on the new button ![new icon] or select **New** from the *File* pull-down menu. The New Message dialog box appears.
2. Double-click on the name of the display for which the new message is being created, or click once on the name of the display and then click on [**OK**].

A new, blank *text* frame configured for the selected display size is placed in the Message Studio. Refer to the following subsections to add text, graphics and data fields.

*The new message will be named when it is saved. Refer to **Section 5.16**.*

Undo/Redo In Message Studio

This tool can be used during the creation of a message to quickly undo an action up to the last ten steps. The Redo command can be used to reapply a step that was taken up to ten steps ago.

To undo an action:

Click on the ↰ button or go to the *Edit* pull down menu and select **Undo.**

To redo an action:

Click on the ↱ button or go to the *Edit* pull down menu and select **Redo.**

5.3   Importing an Existing Message from Venus 1500 Version 1 Software

If you have upgraded from Version 1 to Version 2 of the Venus 1500 software, you may have messages that were created in Version 1 that you wish to use in the new version. These messages will need to be imported into the updated software.

1. Select **Import** from the *File* pull-down menu. The Venus 1500 Message File Import Utility dialog box appears.
2. Click on [...] next to the **Input File Path**. The Open dialog box appears.
3. Navigate to the location on your computer or network where the Version 1 messages are stored.
4. Select the desired file and then click on [**OPEN**]. The file's name will be added in the **Input File Path**.
5. Repeat steps 2 through 4 for the **Output File Path**, except navigate to the location where the message should be stored as Version 2.
6. Click on [**IMPORT**]. The message will be converted to Version 2 and placed in the specified directory.
7. Click on [**CLOSE**] to exit the Message File Import Utility dialog box and return to the Venus 1500 Message Studio.
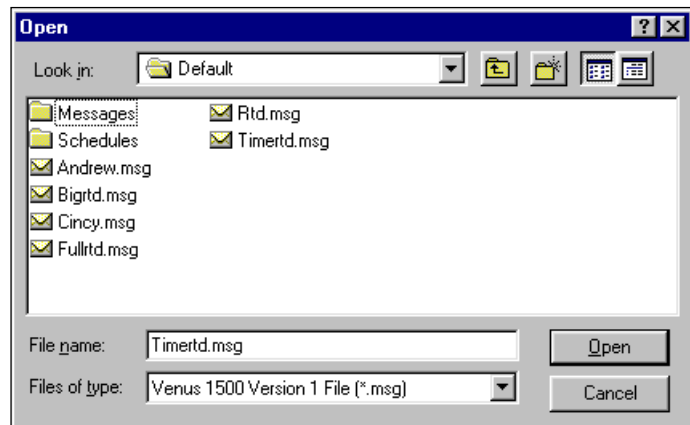
5.4   Frames

A frame is a "page" of text or graphics on the display. Text and/or graphics are entered onto the frame to create messages. A message can be composed of one frame or multiple frames.

In the Venus 1500 software, there are two types of frames, text frames and graphic frames.
Text Frames are used to display text using various fonts. The operator can use the justification buttons to center the text or align it to the left or right. Whenever a new message is created, the first new frame is a text frame.

Graphic Frames are used to incorporate drawn images into the message. By using a grid, not visible on text frames, a combination of both text and graphics may be entered. *Only Galaxy, SunSpot or Glow Cube displays can use graphic frames.*

Adding & Removing Frames from a Message

On the toolbar above the Message Studio editing area, four buttons are used to add and delete frames.

If either a new graphic frame or new text frame is added, the frame is placed at the end of the message.

"Insert Copy" duplicates the current frame and places the copy immediately after it.

"Delete Frame" will remove the current frame from the message.
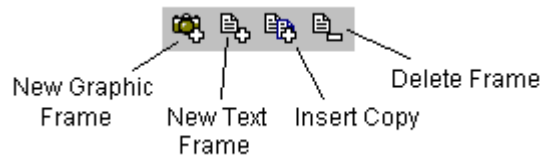
Moving Between Frames

The lower right corner of the frame editing area lists the current frame number out of the total number of frames that are in the message (represented as a fraction, shown at right).
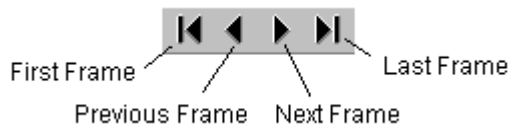
To move from one frame to the next, click on the appropriate button. "First Frame" will move to Frame 1 of the message. "Last Frame" will move to the final frame.

Alternately, you can jump directly to a specific frame by clicking on its thumbnail at the right side of the screen.

Frame Duration

The length of time a frame remains on the display, once all of the entry effects have been completed, is set in the **Frame Duration (Sec)** box. Increasing the number will hold the frame longer, while decreasing the number will cause the message to move to the next frame at a faster rate. Values must be between 0.0 and 99.9.

The frame duration is measured in tenths of seconds. For example, if a frame's duration is set to 2.2, the frame will hold 2.2 seconds before going to the next frame.

☞**Note:** A separate number can be set for each frame in a message. When frames are added or copied, the hold time for each new frame behaves as follows:

- When added, the new frame's duration takes the default from the Editor defaults box (refer to **Section 5.14**).
- When copied, the new frame's duration is the same as the original frame.
- Due to the mechanical nature of the Glow Cube displays (the cubes actually flip over), the frame duration for their messages *cannot* be less than 0.5 seconds. Lower frame durations may result in irreparable damage.

Clear Frame

To remove all text and graphics from a frame, select **Clear** from the *Frame* pull-down menu.

Invert Frame

To invert the colors of a frame (red pixels turn green while green pixels turn red, etc. depending on display color), from the *Frame* pull-down menu, select **Invert. Note:** *This feature does not apply to text frames.*

5.5   Text Frames

The method for entering text onto a text frame is the same for all display types. Position the cursor at the desired location on the frame and begin to type. Press <**ENTER**> to move to the following line. The currently selected font, justification setting, flash (or no flash) effect and color are carried to the next line.

Selecting a Font & Entering Text

Select the desired font using the font name box. The font names correspond to their pixel height and line thickness. "Fixed Width" fonts are ideal for use with time and temperature fields. "Graphic" indicates a graphic character font. Available fonts will vary with display type and size.

Example: "Normal 7" is seven pixels high, a typical character is 4 pixels wide and the line thickness is one pixel.
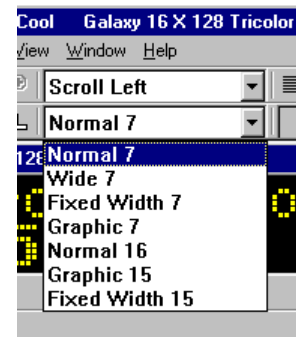
To use more than one font height:

1. Enter all of the text on the frame using the default font ("Normal 7").
2. Highlight the text that requires a font change, and then click on the down arrow in the font name box.
3. Select the desired font. The text line will automatically adjust for the font height.

CAUTION: Selecting large fonts for a line of text can "bump" following lines off the display. Text on these "bumped" lines will automatically be removed from the frame.

Color

Tri-color and RGB (red-green-blue) displays have the ability to use more than one color to relay information. Colors can be applied to the entire frame, a single row, or to individual letters. If the display type is monochrome, the color buttons will not appear.

To select color other than the default, click on the box containing the desired color at the left side of the screen. The "A" above the color boxes reflects the chosen color.

To add colored text to the frame, either click on the desired color and then immediately begin typing, or highlight existing text and then click on the new color.

Specifying the Entry Effect
For text frames, eight entry effects are available: Instant, Scroll Left, Scroll Right, Scroll Up, Scroll Down, Roll Up, Roll Down, Roll Left and Travel. To set an entry effect, place the cursor on the desired line and then choose the desired effect from the drop down window.
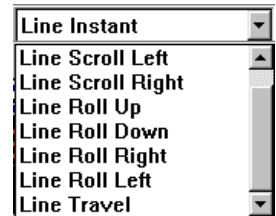
Line Justification
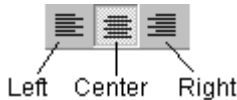
Lines of text can be centered, left justified or right justified. To justify a line, place the cursor anywhere on the desired line and then click on the justification button.

Flashing Text

Text can be set to flash by highlighting the desired text and then clicking on the flash button. Selected text will appear on a gray background. To turn off the flash, highlight the text and click on the flash button again. The rate of flash is set in the Frame Properties dialog box (refer to **Section 5.8**).

5.6   Character Map

The character map allows Extended ASCII characters and graphic font characters to be inserted into a message without knowing the keystrokes.

1. To access this feature go to the *Text* pull down menu and select **Character Map.** A character map window will appear.
2. Make sure that the size of the character on the character map matches the size that you want displayed in the message.
3. Place your cursor in the place that you want the character entered and then click on the desired character
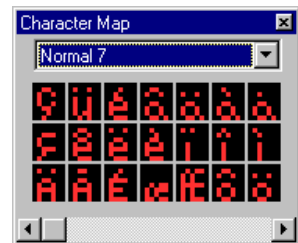
5.7   Graphic Frames

Only matrix display types, Galaxy, SunSpot and Glow Cube, can use graphic frames. Add a graphic frame to your message by clicking on the new graphic frame button , or selecting **Insert** and then **Graphic** from the *Frame* pull-down menu. The graphic toolbar should now be active.
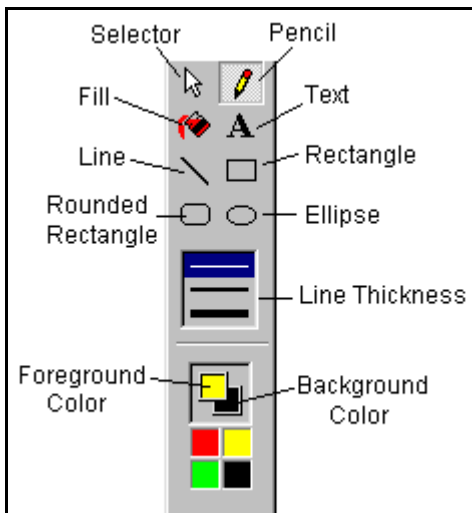
Graphic Toolbar

You may notice that a grid is visible on the graphic frame. Each box represents a pixel on the display. The pixel dimensions of the frame *must match* the matrix size of the display.

Creating a Graphic

Initially the graphic frame will be blank. To create an image, click on the desired tool on the graphic toolbar, and then use the mouse to draw inside the frame. The primary mouse button will use the foreground color. Clicking with the secondary mouse button will use the background color.

Inserting a Graphic from Another Program

The Venus 1500 Message Studio allows you to add a logo or graphic from another software source (such as MS-Paint™ or the Internet).

1. Select the graphic and click on **Copy** in the host program (i.e. MS-Paint).
2. Return to the Venus 1500 Message Studio. Be sure the current frame is a graphic frame.
3. Click on [image] or select **Paste** from the *Edit* pull-down menu. The Message studio automatically sizes the graphic to fit the display and inserts it in the graphic frame if the automatic resize option is selected in Preferences under the *File* menu. You can select the entire graphic window by double-clicking on it. At this point, you may either copy or cut the image or move it with the arrows keys. You can paste into another graphic frame after copying or cutting.

Importing a Graphic

This feature in Venus 1500 Message Studio allows you to add other Venus 1500 logos or graphics that are saved on an outside source such as a floppy disk by allowing you to navigate to that file rather then using the cut and paste method described previously.
1. Click on the [**File**] drop down menu and select **Import**.
2. From the Import menu select graphic.
   Note: A matrix display must be selected for editing and a graphic frame inserted for this option to be enabled.
3. Navigate to the appropriate file location and complete the importing process. For the best results the image to be imported should be the same pixel dimensions as the display.

Importing Animation Kits

This feature in Venus 1500 Message Studio allows you to import animations from the Venus 1500 CD.
1. Click on the [**File**] drop down menu and select **Import.**
2. From the Import menu select **Animation**. You will be prompted to insert the Venus 1500 installation CD if it is not in the drive. Cancel the Autorun for the Venus 1500 installations if it starts.
3. When prompted with a dialog box select the display type that the images will be imported for. Click **Ok.**
4. A progress monitor will appear while the files are being copied.

5. Once the progress monitor disappears the import is complete.

Adding Text-Objects

To place text on a graphic frame:

1. Select the Text button from the graphic toolbar and then click on the frame. A text-object box appears.

2. Enter the desired text, and then click on ☒ to close the text-object box. The text should now be visible in the frame. Note: Text overlaid on a background image will not be copied if inside of a "select" box. Think of the text as a second "layer" that is not combined with the background until it is sent to the display.

Entering Text on a Graphic Frame

3. Click and drag the text to the desired location in the frame. You can also use the arrow keys to move pixel by pixel.

4. Click on the desired color for the text (if other than the default).

This is also the time to choose a different font. Select the desired font type and size from the drop-down menus. Displayed fonts are those installed for use by the operating system. You may also set justification (left, center or right) for multi-line text.
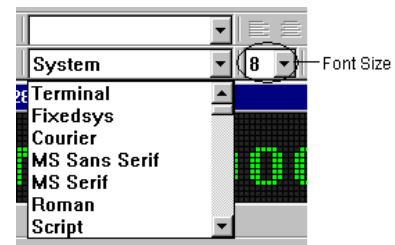
Note: In graphic frames, the font size may not directly correlate with the height of the font in pixels. This is due to the difference between point sizes and actual pixels.

Specifying the Entry Effect

For graphic frames, eleven entry effects are available: Instant, Scroll Left, Scroll Right, Scroll Up, Scroll Down, Roll Up, Roll Down, Roll Left, Roll Right, Wipe Left and Wipe Right. Select the desired effect from the drop-down menu.
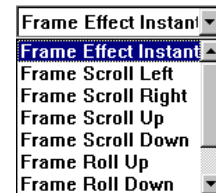
5.8   Frame Properties

Frame properties enables the operator to choose the speed at which the chosen entry effects occur, set up line by line entry effects, set an entry effect for graphic frames and set the frame's duration.

From the *Frame* pull-down menu, select **Properties** or press <**CTRL**><**ALT**><**P**>. The Frame Properties dialog box appears.
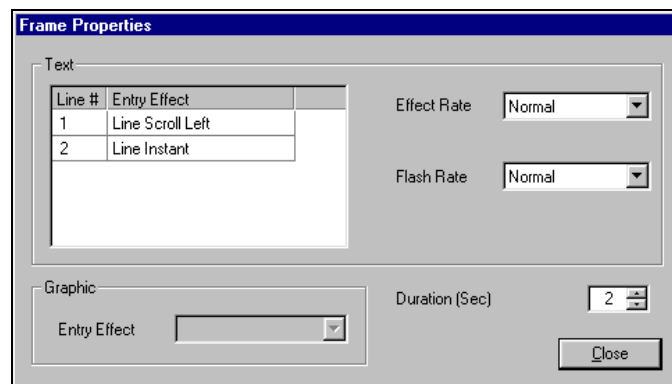
The top portion of the dialog box applies to text frames. The lower left applies to graphic frames. The appropriate area will be active depending on the type of frame selected.

To change the entry effect for a line of text, click once on the entry effect of the line you wish to change. Click on it a second time to activate a drop-down menu. Select the new entry effect.

The **Effect Rate** is the speed at which the frame entry effects occur. The **Flash Rate** is the speed at which flashing text will flash. Set either of these rates using the drop-down menu next to the field. The default speed is "Normal." **Note:** This does not apply to graphic frames.

Eleven entry effects are available for graphic frames: Instant (default), Scroll Left, Scroll Right, Scroll Up, Scroll Down, Roll UP, Roll Down, Roll Left, Roll Right, Wipe Left and Wipe Right. When this field is enabled, choose the desired effect.

The **Duration** is set just as described in **Section 5.4.**

When the settings are complete, click on [**CLOSE**] to exit the Frame Properties dialog box.

5.9   Preview
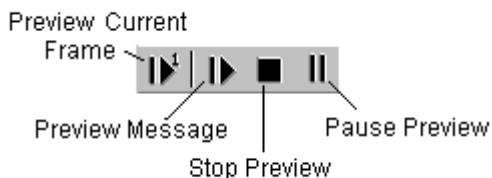
The preview option previews the entire message, or the current frame, as it will appear on the display.

The message or frame will begin to preview as soon as the appropriate button is activated.

Pause the message by clicking on the pause button.

Printing In Message Studio
To print the frames from the message studio:
1. Click on the **File** pull down menu and select **Print**. A print pop-up window will appear.
2. Click on [**OK**] and the frames will be printed in the order that they will appear on the display

5.10   View

Use the zoom tool to get a better idea of how a frame or message will appear from a distance. Click on the Zoom Out button to reduce the scale of the editing area. Use the Zoom In button to increase the scale. **Zoom In** and **Zoom Out** can also be selected from the *View* pull-down menu.

5.11   Drag and Drop

This allows the frames of a message to be rearranged in the thumbnail viewer.

To rearrange frames:
1. Click on the frame to be moved.
2. While holding down the button on the mouse drag the frame to the new location within the message. The new location will be shown by a line across the thumbnail viewer.
3. Release the button on the mouse. The frame has now been moved.
Note: The thumbnail viewer is capable of being resized based on the size of the display.

5.12 Date, Time & Temperature Data Fields

You can insert data fields into a message to display the date, time, temperature (if a temperature sensor is present), or other real time data (RTD). The data fields hold a place in the message for displaying the desired data. *Data fields can be placed only in text frames.* Select the desired data field from the *Data Fields* pull-down menu.

The field will appear enclosed in a yellow rectangle. The text can be manipulated as regular text (effect, color, flashing and justification). Any attributes chosen will affect the entire field and cannot be applied on a character-by-character basis.

Notes:
- Some displays do not have enough pixels to accommodate all of the date, time or temperature field options.

Date   **Time**   **Temperature**
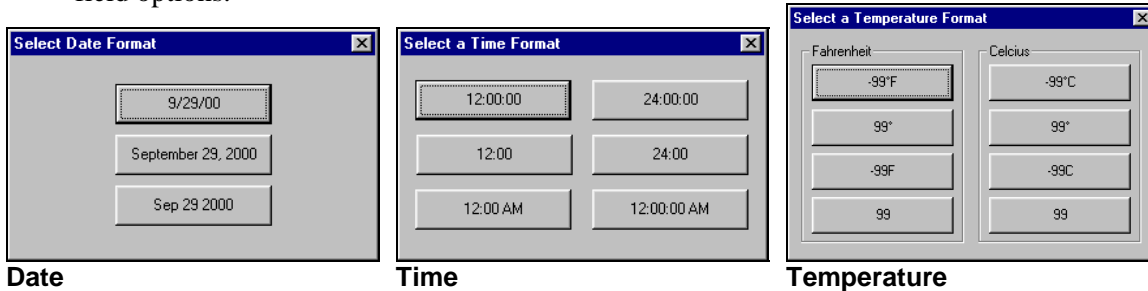
5.13 Real Time Data (RTD)

RTD fields allow information from an outside source (such as a timer or counter) to be inserted into the message.

To insert an RTD field:

1. Position the cursor at the desired location in the Message Studio.
2. Select **RTD** from the *Data Fields* pull-down menu. The Real Time Data dialog box appears.

Once the desired ITF file or field type and parameters are chosen, click on [**OK**] or press <**ENTER**> to exit the Real-Time Data dialog box and add the field to the frame. [**APPLY**] adds the

Real-Time Data Dialog Box

field to the frame, but keeps the Real-Time Data dialog box open so you can continue adding fields. [**CANCEL**] will close the Real-Time Data dialog box without adding the RTD field.
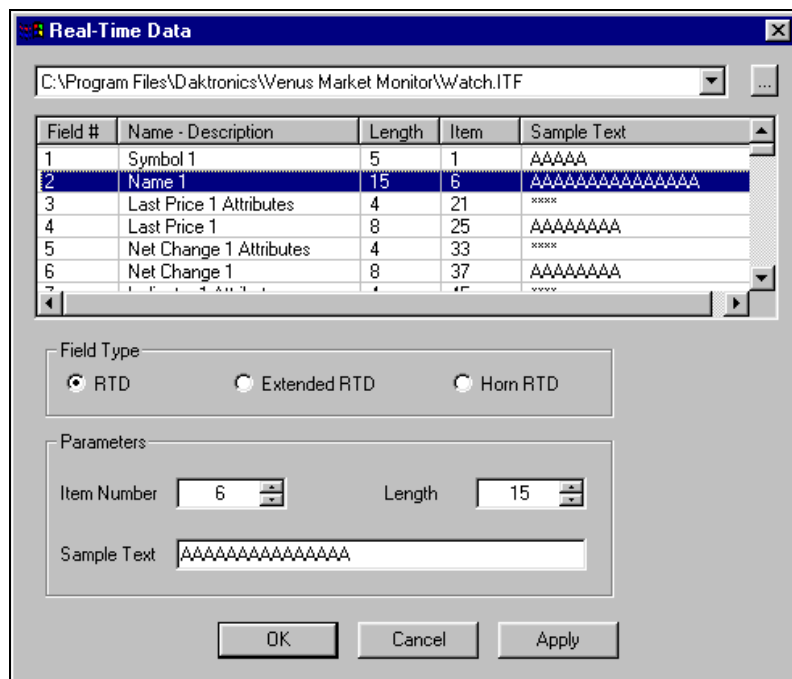
ITF Files

The top half of the dialog box is reserved for ITF files. ITF files consist of multiple RTD fields usually generated by the source program (such as the Venus Market Monitor) to simplify the creation of data frames.

To select an ITF file, either click on the down arrow at the top of the dialog box and select the desired file from the corresponding list, or click on [...] and browse to the desired file's location. Once selected, the data from the ITF file will be placed in the Real-Time Data dialog box.

To insert individual fields from the ITF file into the Message Studio:

1. Highlight the desired field number. The associated parameters for that field appear in the **Parameters** box at the bottom of the dialog box.
2. Click on either [**OK**] or [**APPLY**] to add the field.

RTD Field Types

If you choose not to use an ITF file and intend to setup the RTD fields individually, there are three field types to choose from: RTD, Extended RTD and Horn RTD.

RTD

RTD fields allow information from an outside source (such as a timer or counter) to be inserted into the message.

- **Item Number:** The item number is the location in the display's RTD buffer where the information to be displayed will begin.
- **Length:** The length is the number of characters to show in the display's RTD buffer, starting from the item number. The length may be a number between 1 and 50.
- **Sample Text:** Shows the number of characters that will be used for RTD in the message based off the *length.* This text can be modified to "name" the field.

Extended RTD

Note: Extended RTD fields are used for custom applications. Refer to the Venus 1500 Software Developers Kit for details.

Extended RTD fields are used for changing RTD fields' font, color and flashing parameters without the need to edit and resend the existing message. The fields are updated in the same manner as the RTD information being displayed.

CAUTION: Extended RTD utilizes the four bytes prior to the displayed RTD information to store attribute information. Caution must be taken to avoid overwriting this information.

- **Item Number:** The item number is the location in the display's RTD buffer where the information to be displayed will begin.
- **Length:** The length is the number of characters to show in the display's RTD buffer, starting from the item number. The length may be a number between 1 and 50.
- **Sample Text:** Shows the number of characters that will be used for RTD in the message based off the *length.* This text can be modified to "name" the field.

Horn RTD Field

The **Horn RTD** field controls the display's horn, if one is installed. It is displayed for use with sporting applications, receiving RTD feeds from some external Daktronics sports controllers. This field appears as Hs in the Message Studio, but when the message runs, nothing is visually displayed. Due to this action, it is recommended to place the horn field at the end of a line in a message.

- **Item Number:** The item number is the location in the display's RTD buffer where the information to be displayed will begin.
- **Length:** *Disabled*
- **Sample Text:** "H"

5.14   Changing the Editor Defaults

The Editor Defaults define the default settings in the Message Studio. The Editor Defaults dialog box is divided into two areas, General and Type Specific.

Default settings listed under General apply to *all* display types. Those settings listed under Type Specific apply only to the type of display listed in the **Display Type** box.

To edit these defaults, go to the *File* pull-down menu and then select **Preferences**. The Editor Defaults dialog box appears.
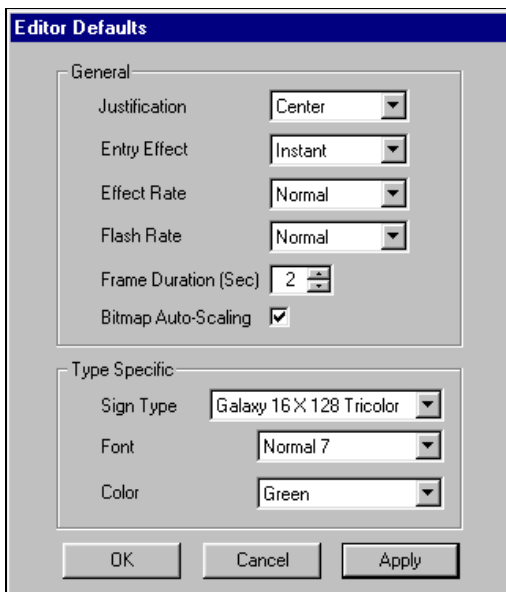
1. Choose the desired default options by clicking on the down arrow next to the appropriate fields, and then highlighting the selection.
2. When checking Bitmap Auto-Scaling, images that are placed in a frame are automatically re-sized to fit the sign. If this is not selected, the image is placed on the sign according to its original size.
3. When it's finished, click on [**OK**] or press <**ENTER**> to save the changes and return to the Message Studio. [**APPLY**] will save the settings but the Editor Defaults dialog box will remain open.

[**CANCEL**] will leave the Editor Defaults as they are and return to the Message Studio.

Changes to the settings will only be applied to new messages and frames added after the defaults have been altered.

5.15   Adding a Description

The operator can add a description to a message to better explain or define what the message consists of or shows.

From the *File* pull-down menu, select **Set Message Description**. A dialog box appears. Enter a short description for the message. Click on [**OK**] to apply the description or [**CANCEL**] to cancel and close the dialog box. After the message is saved, the message description will appear next to the message's file name in the Open Message dialog box (refer to **Section 5.1**).
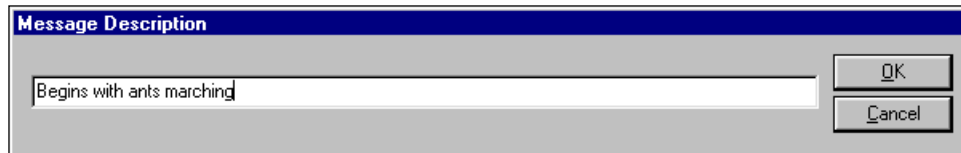
5.16   Saving & Renaming the Message

☞**Note:** You cannot save messages for one display type within the directory of another display type.

New Message
Before you can save a new message, you must give it a name and determine the library (folder) it should be saved within.

1. From the *File* pull-down menu, select **Save** or **Save As**. A dialog box similar to that shown in **Section 5.1** appears.
2. Select the name of the library (folder) under which the message should be saved, or create a new library by clicking on the Create Folder button , and then entering a name for the new library.
3. With the name of the preferred library highlighted, enter the name for the new message in the **File Name** field. Up to eight characters may be used.
4. Click on [**SAVE**].

Existing Message
Saving an existing message is even easier. From the *File* pull-down menu, select **Save**, or click on the Save button .

If you try to close a message before saving, a pop up window appears asking you to save changes.

Renaming a Message or Saving to Another Location
Follow the steps listed for saving a new message to rename a message or save it to another location. The previous name will still exist at the current location, and will need to be deleted if it is no longer needed.

5.17   Deleting a Message

To remove a message from the Message Studio:

1. From the *File* pull-down menu, select either **Open** or **Save As.** A dialog box similar to that shown in **Section 5.1** appears.
2. Highlight the name of the message to delete.
3. Click on the delete button. A verification dialog box appears.
4. Select [**YES**] to delete the message. [**NO**] to cancel this command.
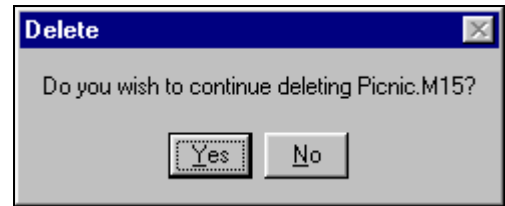
The message will be removed from the library.

5.18   Exiting from the Venus 1500 Message Studio

To close the Venus 1500 Message Studio, select **Exit** from the *File* pull-down menu. If any messages have not been saved, a dialog box appears. Click on [**YES**] to save the message, [**NO**] to exit without saving, or [**CANCEL**] to stop the exit command.

Upon exiting the Message Studio, you are returned to the Venus 1500 Shell.

5.19   Venus 1500 Message Studio Keyboard Shortcuts

Command	Shortcut Keys
Add New Graphic Frame	**<CTRL><W>**
Add New Text Frame	**<CTRL><A>**
Insert a Copy of the Frame	**<CTRL><INSERT>**
Delete Frame	**<CTRL><DELETE>**
Previous Frame	**<F11>**
Next Frame	**<F12>**
Frame Properties	**<CTRL><ALT><P>**
Clear Frame	**<CTRL><Q>**
Selector (Graphic Tools)	Keypad **</>**
Pencil (Graphic Tools)	Keypad **<+>**
Fill (Graphic Tools)	**<CTRL><F>**
Text (Graphic Tools)	**<CTRL><T>**
Line (Graphic Tools)	**<CTRL><L>**
Rectangle (Graphic Tools)	**<CTRL><R>**
Rounded Rectangle (Graphic Tools)	**<CTRL><D>**
Ellipse (Graphic Tools)	**<CTRL><E>**
New Message	**<CTRL><N>**
Open Message	**<CTRL><O>**
Save	**<CTRL><S>**
Cut	**<CTRL><X>**
Copy	**<CTRL><C>**
Paste	**<CTRL><V>**
Preview	**<F5>**
Preview Frame	**<F6>**
Stop Frame	**<ESC>**
Close Message Studio	**<ALT><F4>**

Section 6: The Venus 1500 Schedule Studio

The Venus 1500 Schedule Studio is used to configure schedules for the display(s). Messages and display brightness can be set on a day-to-day, hour-to hour and minute-to-minute basis. Up to 40 entries can be inserted into a schedule. Schedules for more than one type of display can be open for editing at one time.

Click on [icon] from the Venus 1500 Shell to activate the Schedule Studio.
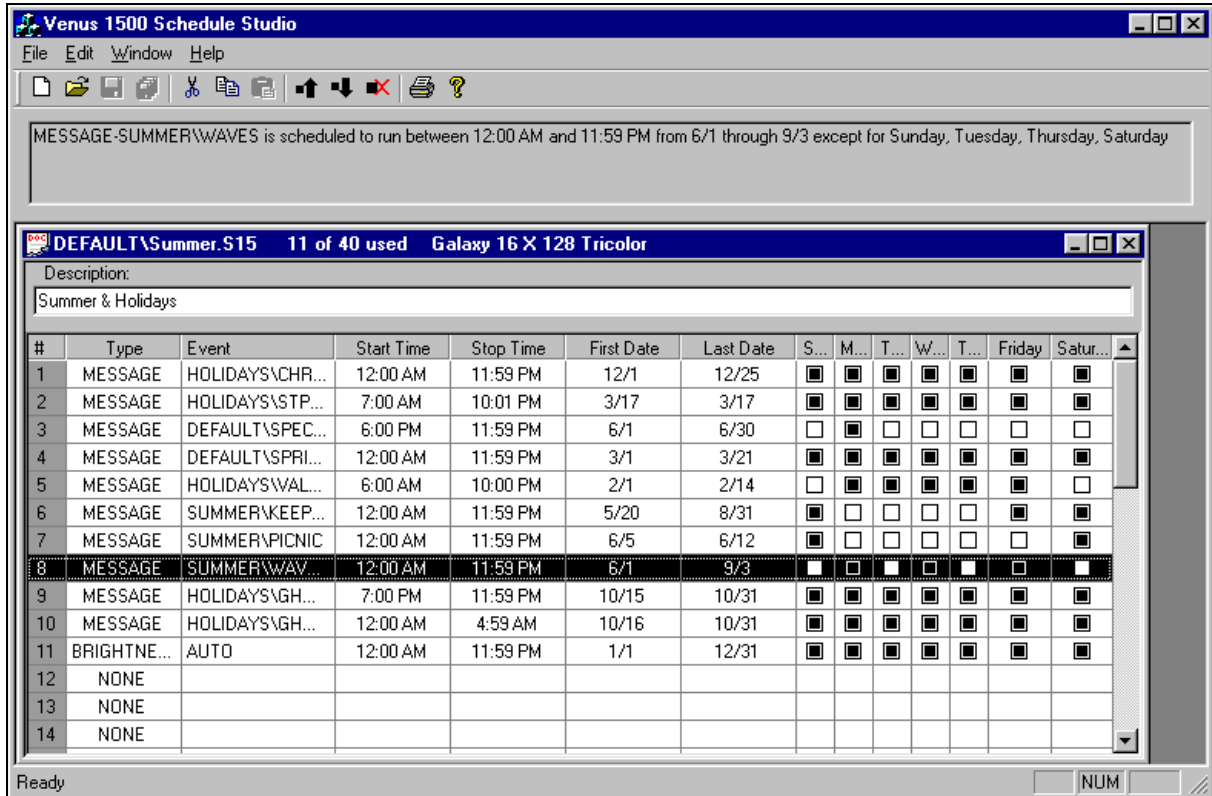
Venus 1500 Schedule Studio

A toolbar, located below the pull-down menu at the top of the Schedule Studio, can be used to simplify some commands. **Note:** Some buttons may not be active unless an entire line or group of lines are selected. The buttons are listed below.
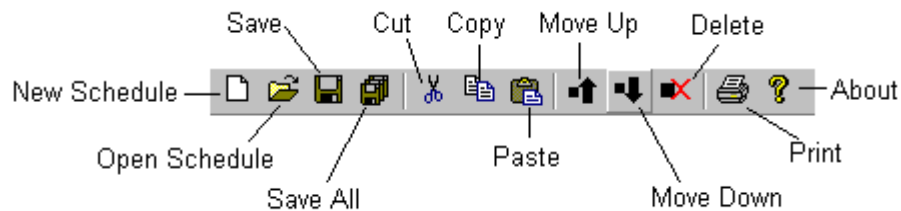
- To select a line, click on its number (1 through 40) at the left side of the screen.
- To select a range of lines, press and hold <**SHIFT**> while using the mouse to click on the first and last lines of the range.
- To choose several non-consecutive lines, press and hold <**CTRL**> while clicking on the desired lines.

6.1   Starting a New Schedule

To start a new schedule:

1. Select **New** from the *File* pull-down menu or click on ⬚. The New Schedule dialog box appears.
2. Double-click on the type of display for the new schedule, or highlight the display type and click on [**OK**].

A new, blank schedule is opened in the Schedule Studio.
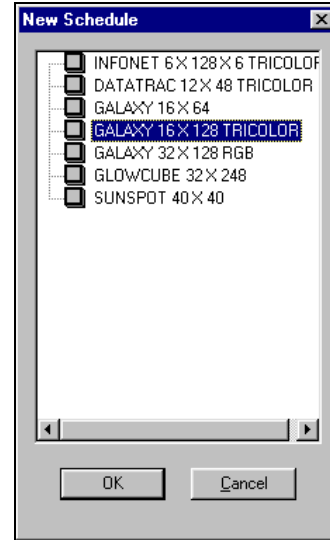
6.2   Opening an Existing Schedule

To open an existing schedule for editing or viewing:

1. From the *File* pull-down menu, select **Open**, or click on 📂. The Open Schedule dialog box appears.
2. Select the display type and library containing the schedule.
3. Highlight the schedule name and click on [**OPEN**].
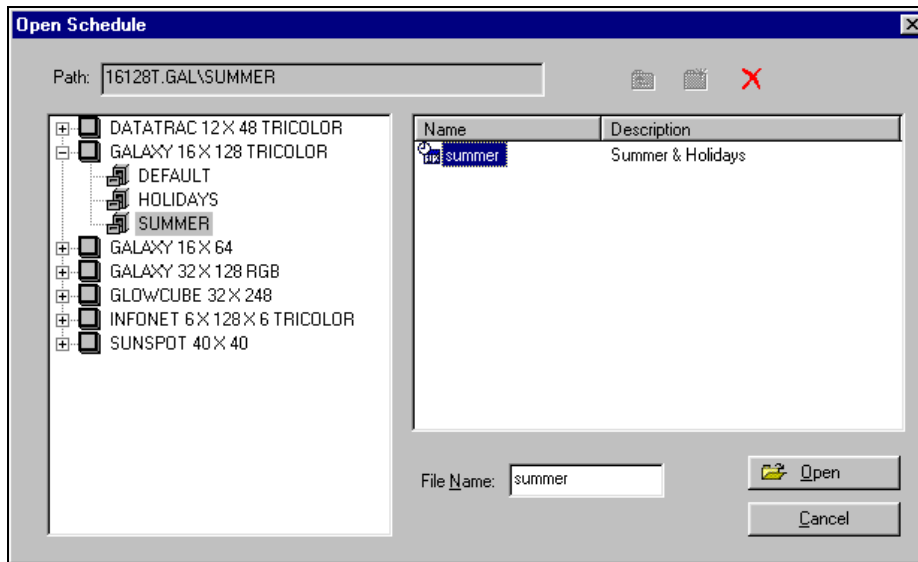
6.3   Using the Schedule Studio

When creating or editing a schedule, there are a few things to keep in mind.

- Messages scheduled to run during the same time frame will appear in the order they are listed in the schedule.
- The schedule is limited to 40 entries. This includes both messages and brightness commands.
- When setting Start and Stop times and dates, the start time/date *must* be earlier in the day than the stop time/date. If the start time/date is greater than the stop time/date, the event will never begin.
- The year is not adjustable. The software will automatically advance to the next year at the appropriate time.

Choosing the Type of Event
To choose which message to display or to set the display brightness, double-click on "NONE" in the desired line. Select "MESSAGE" to schedule a message, or "BRIGHTNESS" to set display brightness.
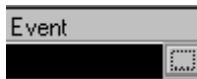
Message
Once "MESSAGE" is selected, click once in the Event box in the same row. The box will turn black and a small button at the right side appears. Click on the button. This activates the Open Message dialog box. Highlight the library and then the preferred message.
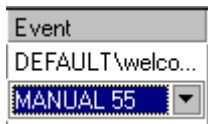
Brightness
"BRIGHTNESS" can be set to either auto or manual. *Auto* will adjust the brightness of the display's LEDs or lamps based off readings from an installed light sensor. *Manual* is used to set a specific value for the brightness of the display at a particular time. Possible values range between 0 (complete dimming) and 63 (full brightness).

Setting the Start Time/Stop Time
Each event will begin running at the **Start Time** where the day of the week is checked beginning on the **First Date**. Each event will stop running at the **Stop Time** where the day of the week is checked ending with the **Last Date**.

Start Time	Stop Time
12:00 AM	11:59 PM
7:00 AM	10:59 PM
6:00 PM	11:59 PM
12:00 AM	11:59 PM

Highlight the digit to be changed and either enter the desired number using the keyboard or click on the up and down arrows.

The **Start Time** is the first minute of the selected day when the event will run. The **Stop Time** is the last minute of the day when the event will run. The event will run until the *end* of the minute (i.e. a **Stop Time** of 11:59 will actually stop running at 11:59:59).

For example, to run a message for one minute at 12:00 noon, both the **Start Time** and the **Stop Time** will be 12:00 PM.

☞**Note:** The **Start Time** for an event *must* be earlier in the day than the **Stop Time**. If the **Start Time** is greater than the **Off Time**, the event will never start.

For example, if a message is to run from 11:00 PM to 1:00 AM, two events need to be entered. Event 1 would run from 11:00 PM (Start Time) to 11:59 PM (Stop Time) and Event 2 would run from 12:00 AM (Start Time) to 1:00 AM (Stop Time).

Setting the First Date/Last Date

Events may be set to activate only during a specific range of dates. Highlight the digit to be changed and either enter the desired number using the keyboard or click on the up and down arrows. The day and month will increment/decrement accordingly.

First Date	Last Date
12/1	12/25
3/17	3/17
6/1	6/30
3/1	3/21

The **First Date** is the first day of the year when the event will run. The **Last Date** is the last day of the year when the event will run.

☞**Note:** The date is like the time in that it does not wrap around. The **First Date** must be earlier in the year than the **Last Date** or the event will not run.

Special Note: The year is *not* adjustable. The software will automatically change to the next year at the appropriate time. For example, if a message is to be displayed for the New Year right after midnight of December 31, set the **First Date** as January 1. The computer will automatically change to the next year and display the message.

For example, to run a message on both December 31 and January 1, Event 1 would have a first and last date of 1/1 and Event 2 will have a first and last start date of 12/31.

Setting the Days of the Week

A blackened box under a day of the week indicates that the event will run on that day. This option allows individual days of the week to be selected without creating multiple entries with Start/Stop times and dates in the schedule.

S...	M...	T...	W...	T...	Friday	Satur...
■	■	■	■	■	■	■
■	■	■	■	■	■	■
☐	■	☐	☐	☐	☐	☐
■	■	■	■	■	■	■

By default, all days are selected. To deselect a particular day, click on the box underneath it. (This box is a toggle. Click on it again to select the day.) In the third line, above, the event will run only on Mondays during the specified first and last dates. All other entries shown will run every day of the week.

Adding a Description

DEFAULT\Summer.S15
Description:
Summer & Holidays

At any time you can enter a description of the schedule. This description does not change if the events change. The schedule description will be visible in the Open Schedule dialog box.

6.4   Naming & Saving the Schedule

To name (or rename) the schedule, click on the *File* pull-down menu and select **Save As**. The Save Schedule dialog box appears. Select the library in which the schedule should be stored. Enter the schedule name in the **File Name** box. *Up to eight characters may be used. Spaces are not permitted.* Click on [**SAVE**].

To quickly save a schedule during editing, click on ![disk icon], or select **Save** from the *File* pull-down menu.

Daktronics recommends saving at regular intervals to prevent accidental loss of information.

6.5   Printing

The completed schedule can be printed to obtain a paper copy of the file. Information that will be included are the schedule's name and description, the technology and size of the display for which the schedule was created, the total number of entries (messages) in the schedule, and a listing of each event that will run and when.

Use **Print Preview** (found under the *File* pull-down menu) to view the information as it will appear on the paper copy.
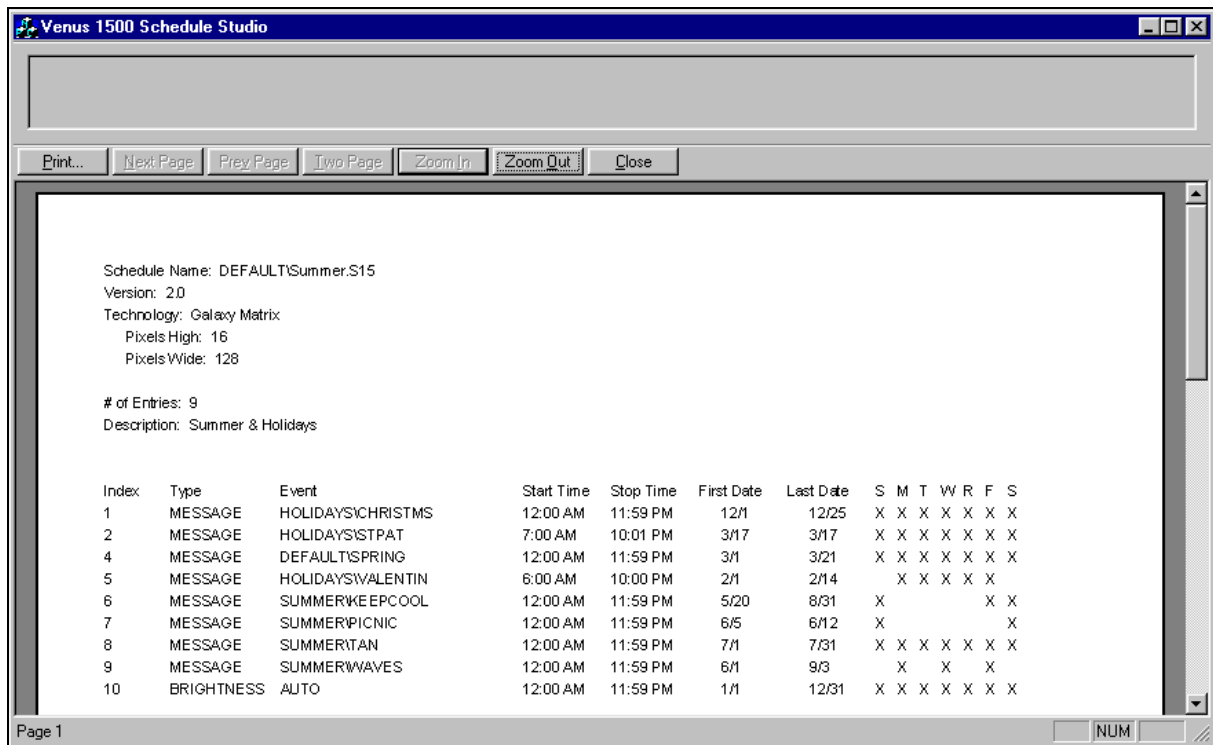
Print Preview

To print the schedule, either click on [**PRINT…**] from the Print Preview screen or select **Print** from the *File* pull-down menu. Use **Print Setup**, also found under *File*, to change printer settings.

6.6   Exiting the Venus 1500 Schedule Studio

To exit the Schedule Studio, select **Exit** from the *File* pull-down menu. If any schedules have not been saved, a dialog box appears. Click on [**YES**] to save the schedule, [**NO**] to exit without saving, or [**CANCEL**] to stop the exit command.
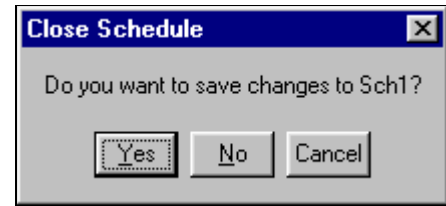
Upon exiting the Schedule Studio, you are returned to the Venus 1500 Shell.

Close Schedule

Do you want to save changes to Sch1?

[Yes]   [No]   [Cancel]

6.7   Venus 1500 Schedule Studio Keyboard Shortcuts

Command	Shortcut Keys
Move Up	**<CTRL><M>**
Move Down	**<CTRL><D>**
New Schedule	**<CTRL><N>**
Open Existing Schedule	**<CTRL><O>**
Save	**<CTRL><S>**
Print	**<CTRL><P>**
Cut	**<CTRL><X>**
Copy	**<CTRL><C>**
Paste	**<CTRL><V>**
Undo	**<CTRL><Z>**
Exit Schedule Studio	**<ALT><F4>**

6.8   Sample Schedule

Venus 1500 Schedule Studio

File   Edit   Window   Help

Display will adjust at AUTO BRIGHTNESS between 12:00 AM and 11:59 PM from 1/1 through 12/31

SUMMER\summer.S15*   13 of 40 used   Galaxy 16 X 128 Tricolor

Description:

Summer & Holidays

#	Type	Event	Start Time	Stop Time	First Date	Last Date	S...	M...	T...	W...	T...	Friday	Satur...
1	MESSAGE	HOLIDAYS\CHR...	12:00 AM	11:59 PM	12/1	12/25	■	■	■	■	■	■	■
2	MESSAGE	HOLIDAYS\STP...	7:00 AM	10:01 PM	3/17	3/17	■	■	■	■	■	■	■
3	MESSAGE	DEFAULT\SPEC...	6:00 PM	11:59 PM	6/1	6/30	☐	■	☐	☐	☐	☐	☐
4	MESSAGE	DEFAULT\SPRI...	12:00 AM	11:59 PM	3/1	3/21	■	■	■	■	■	■	■
5	MESSAGE	HOLIDAYS\VAL...	6:00 AM	10:00 PM	2/1	2/14	☐	■	■	■	■	■	☐
6	MESSAGE	SUMMER\KEEP...	12:00 AM	11:59 PM	5/20	8/31	■	☐	☐	☐	☐	■	■
7	MESSAGE	SUMMER\PICNIC	12:00 AM	11:59 PM	6/5	6/12	■	☐	☐	☐	☐	☐	■
8	MESSAGE	SUMMER\WAV...	12:00 AM	11:59 PM	6/1	9/3	☐	■	☐	■	☐	■	☐
9	MESSAGE	HOLIDAYS\GH...	7:00 PM	11:59 PM	10/15	10/31	■	■	■	■	■	■	■
10	MESSAGE	HOLIDAYS\GH...	12:00 AM	4:59 AM	10/16	10/31	■	■	■	■	■	■	■
11	BRIGHTNE...	AUTO	12:00 AM	11:59 PM	1/1	12/31	■	■	■	■	■	■	■
12	MESSAGE	HOLIDAYS\new...	12:00 AM	11:59 PM	1/1	1/1	■	■	■	■	■	■	■
13	MESSAGE	HOLIDAYS\new...	3:00 PM	11:59 PM	12/31	12/31	■	■	■	■	■	■	■
14	NONE												
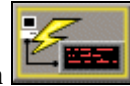
Ready   NUM

Entry No.	Type	Message Name	Library Name	The Message will Run…
1	Message	Christms	Holidays	24 hours per day, everyday from Dec. 1 through Dec. 25
2	Message	Stpat	Holidays	From 7 AM through 10:01 PM on March 17
3	Message	Special	Default	From 6 PM through 11:59 PM on Mondays during the month of June
4	Message	Spring	Default	24 hours per day from March 1 through March 21
5	Message	Valentin	Holidays	From 6 AM through 10:00 PM, Monday through Friday, from Feb. 1 through Feb 14
6	Message	KeepCool	Summer	24 hours per day on Fridays, Saturdays and Sundays between May 20 and August 31.
7	Message	Picnic	Summer	24 hours per day on Saturdays and Sundays between June 5 and June 12
8	Message	Waves	Summer	24 hours per day on Mondays, Wednesdays and Fridays from June 1 until Sept. 3.
9	Message	Ghost	Holiday	From 7 PM until 11:59 PM, everyday between Oct. 15 and Oct. 31.
10	Message	Ghost	Holiday	From midnight until 4:59 AM, everyday between October 16 and Oct. 31. (Because the end time cannot be before the start time, entries 9 and 10 together ensure the message runs through the night.)
11	Brightness	Automatic Dimming is Active		Dimming based off the light sensor will occur 24 hours per day, all year.
12	Message	Newyear	Holiday	All day on January 1.
13	Message	Newyear	Holiday	From 3 PM until 11:59 PM on December 31.

Section 7: The Venus 1500 Display Manager

The Venus 1500 Display Manager controls communications with the displays, is capable of basic display monitoring functions, and has some diagnostic capabilities.
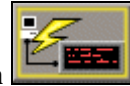
When the Venus 1500 Display Manager is activated from the Venus 1500 Shell (click on [icon]), a screen similar to the one shown below appears.

Venus 1500 Display Manager – Message Control

Daktronics displayed the Venus 1500 Display Manager in three parts: Message Control, shown above, Schedule Control, and Diagnostic control. Each part is discussed in detail later in this section. Regardless of the part you are viewing, the screen is divided into three basic areas: the Display List, the status results area (where Available Memory is shown), and the Control Area.

Display List
The Display List shows all the displays configured for the Venus 1500 network. In addition to each display's name, the list graphically illustrates the connection type (direct , modem or TCP/IP) and the display technology. This may include:
- LED Monochrome
- LED Tri-Color
- LED RGB
- Incandescent
- Glow Cube® reflective displays

To select the display with which you want to communicate (to send messages or schedules, retrieve message lists, etc.), click once on the name of the display or group of displays in the Display List.

Status Results
Check the status of any display at any time by selecting its name from the Display List, and then clicking on [**GET STATUS**] *or* double-clicking on the display's name. The Venus 1500 software establishes communications with the display and shows most often used results in the bottom left corner of the application.

Once display status is retrieved from the display, view advanced status results by clicking on .

Advanced Status

The Available Memory gauge at the bottom of the screen shows how much of the display's memory is currently used by messages and schedules stored within the display.

Control Area
The control area of the screen is located to the right of the Display List and status area. Its general appearance will change depending on whether you are using Message, Schedule or Diagnostic Control.

7.1   Message Control

If it is not already selected, click on . The Venus 1500 Display Manager screen adjusts for Message Control.

The control area of the screen is divided into two basic halves; the left side shows messages that are currently stored within the Venus 1500 controller computer that are available to run on the selected display, the right side lists the messages currently running and stored at the display site. The message control buttons are between the two areas. These buttons are used to send messages to the display, run or stop an individual message, or blank the display.

Select more than one message at the display site by pressing <**CTRL**> while clicking on the message

names with the mouse. Select a range of messages by pressing <**SHIFT**> while choosing the desired messages.

Determining what Messages are Running on a Display

To view the list of messages stored at the display select the desired display from the Display List, and then click on [**GET STATUS**]. The control area of the screen will update with the information retrieved from the display.

In the right half of the control area (the display side), the list of messages currently running on the display will appear under **Running Messages**. Messages appear on the display in the order they are running unless the display is running a schedule.

Any messages that are not running, but are saved at the display site, will be listed under **Stored Messages**.

Sending Messages to a Display

To send a message from the Venus 1500 controller computer to a display, highlight the name of the message under the **Available Messages** column. Click on ▶▶. The message will be added to the end of the **Stored Messages** list.

You may also send a message or a schedule to a display by double-clicking on the file in the tree file viewer.

Multiple messages may be sent at one time by holding down the shift key and selecting a range to be sent. **Note:** All messages within the range will be selected and sent to the display with this method.

Running a Message

There are three ways to run a message on a display. The message is added to the end of the **Running Messages** list.

To run a message already stored at the display site:
- Highlight the name of the message under the **Stored Messages** column, and then click on 🔘.
- Under the **Stored Messages** column, double-click on the message's name.

To run a message not yet sent to the display,
- Highlight the name of the message in the **Available Messages** column (left half of the control area). Click on 🔘. The message is automatically sent to the display site and begins to play.

Stopping a Message from Running on a Display

When you stop a message, it will immediately stop running on the display and its name will be moved to the **Stored Messages** list. Either:
- Highlight the message name under the **Running Messages** column and then click on 🔘.
- Under the **Running Messages** column, double-click on the message's name.

Blanking the Display

To stop *all* messages running on the display, click on [ ]. The display will now be completely blank.

Retrieving a Message from a Display

This feature applies only to the following firmware versions for the various technologies:
- **InfoNet Displays (excluding model G-1000 Displays): Revision 14 or higher (Firmware Number ED-10133)**
- **Venus 1500 Controlled DataTrac Displays: Revision 16 or higher (Firmware Number ED-10132)**
- **Galaxy, SunSpot or Glow Cube displays: Revision 17 or higher (Firmware Number ED-10134 for Galaxy Displays; ED-12699 for RGB Galaxy Displays)**

The Retrieve Message command copies an existing message from the display to the central controller computer for editing in the Venus 1500 Message Studio. To retrieve a message:

1. Highlight the desired message under the **Stored Messages** column in the Venus 1500 Display Manager.
2. Click on [◄◄] to retrieve the message.

☞**Note 1:** Text objects placed on graphic frames are merged into a single image once the message is sent to a display. Therefore when a message containing such a frame is retrieved, the graphic frame can only be edited on a pixel by pixel basis. The text object is not longer separately available for editing in text mode.
 Note 2: The Advanced Status button will list the current firmware version used by the display.
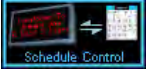
Deleting a Message from a Display
To remove a message stored at the display site and free memory, select the name of the message

from the **Stored Messages** or **Running Messages** column and then click on [ ].

7.2   Schedule Control

Venus 1500 Display Manager – Schedule Control

Click on [Schedule Control icon]. The Venus 1500 Display Manager screen adjusts for Schedule Control.

As with Message Control, the control area of the screen is divided into two basic halves; the left side shows schedules that are currently stored within the Venus 1500 computer, the right side lists the current schedule stored at the display site, if any. Between the two areas are the schedule control buttons. These buttons are used to send, stop or run a schedule on the display.

Viewing the Available Schedule & Determining if a Schedule is Running on the Display

To view the available schedules for a particular display, select the appropriate display name from the Display List, and then click on [**GET STATUS**]. The control area of the screen will update with the information retrieved from the display.

If a schedule is present at the display, its name will appear as the **Current Schedule** in the right half of the control area (the display side). A status of "ACTIVE" indicates the schedule is running. An "INACTIVE" schedule is not currently running on the display.

Sending a Schedule to the Display

To send a schedule from the Venus 1500 controller computer to a display, highlight the name of the schedule under the **Available Schedules** column. Click on [▶▶]. If any messages listed on the schedule are not stored at the display, they are automatically sent also.

Running a Schedule

To run a schedule that is stored at the display site, click on [▶]. The schedule will begin running.

Stopping an Active Schedule

To stop a schedule, click on [■]. The schedule's status will change to "INACTIVE."

The Venus 1500 Display Manager   **7-5**

7.3   Diagnostic Control

Click on [Diagnostic Control]. The Venus 1500 Display Manager screen adjusts for Diagnostic Control.

Diagnostic control is used to set the display's time/date, brightness level, pixel test, temperature offset and to reset the display.

Set Time/Date
Click on [**SET TIME/DATE**] to update the time and date on the selected display's internal clock to match that of the computer running the Venus 1500 software.
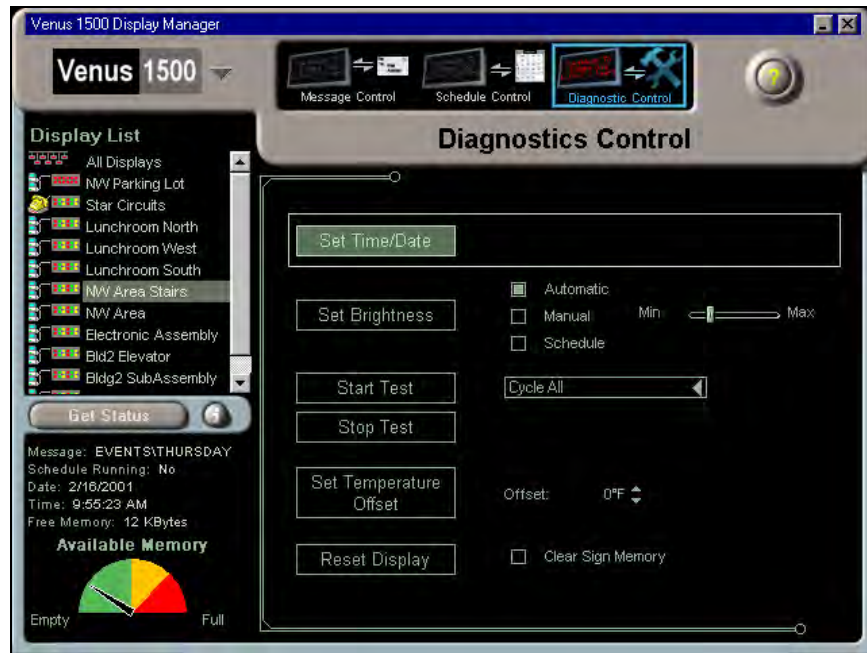
Venus 1500 Display Manager – Diagnostics Control

Set Brightness
Set Brightness has three options:

- **Automatic** – The display's brightness level adjusts automatically based off readings from an external light sensor at the display's site, when present. *This is the recommended setting.*
- **Manual** – This option permits the operator to adjust the intensity of the display using the Min/Max slider bar at the right.
- **Schedule** – When a schedule is running, the display's brightness adjusts as programmed in the schedule.

Select the desired option and then click on [**SET BRIGHTNESS**] to activate it for the selected display.

Pixel Test
The pixel tests are used to assist maintenance personnel who may be troubleshooting the display.

The pixel test is available only for the following firmware versions. Your Venus 1500 display will display its firmware version upon power up or reset. Refer to its maintenance and troubleshooting manual.

Pixel Test Options

- **InfoNet Displays (excluding model G-1000 Displays): Revision 14 or higher (Firmware Number ED-10133)**
- **Venus 1500 Controlled DataTrac Displays: Revision 16 or higher (Firmware Number ED-10132)**
- **Galaxy, SunSpot or Glow Cube displays: Revision 17 or higher (Firmware Number ED-10134 for Galaxy Displays; ED-12699 for RGB Galaxy Displays)**

Select the desired test from the drop down menu. "Cycle All" will run all of the listed tests. Click on [**START TEST**]. Once testing is complete, click on [**STOP TEST**].

☞**Note:** Not all listed tests will work with every display. If a particular test does not appear on your display, then that test is not supported in the display's firmware.

Temperature Offset

The temperature offset is used when the external temperature sensor at the display site needs to be adjusted to reflect the true outside temperature. The offset increases or decreases the measured temperature by the specified amount before showing it on the display.

Use the up and down arrows to specify the amount of offset. The temperature can be adjusted by plus or minus 9 degrees Fahrenheit. Click on [**SET TEMPERATURE OFFSET**] to activate the adjustment.

Reset Display

[**RESET DISPLAY**] restarts the controller inside the selected display. Refer to the display's maintenance and troubleshooting manual for the list of boot up initialization information that will appear on the display upon reset.

To remove all messages and schedules saved at the display site, check the box next to **Clear Display Memory,** and then click on [**RESET DISPLAY**]. A confirmation dialog box appears. Select [**YES**] to continue the reset command.

The Available Memory for the display should be "empty" the next time you retrieve the display's status. The display time and date will default to midnight on 01/01/95.

CAUTION: Resetting the display will temporarily interrupt operation and is typically used only during troubleshooting.

7.4   About the Display Manager

Click on the Venus 1500 drop-down menu and select **About**.

The dialog box lists Daktronics contact information and customer service phone numbers.

Click on [**OK**] to close the box and return to the Display Manager.

7.5   Exiting the Display Manager
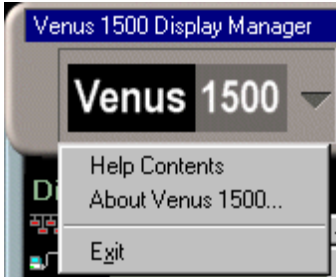
Display Manager Drop-Down Menu

To close and exit the Venus 1500 Display Manager, either click on ⊠ in the upper right corner of the screen, or select **Exit** from the Display Manager drop-down menu (shown at right).

You are returned to the Shell program.

Appendix A: System Riser Diagram

DISPLAY 1

DISPLAY 2

DISPLAY X

X = UP TO 240 DISPLAYS

RS/422 IN
RS/422 OUT
120 VAC

RS/422 IN
RS/422 OUT
120 VAC

RS/422 IN
120 VAC

RS/422 CABLE (4000' MAX)

RS/422 CABLE LENGTH (4000' MAX)

RS/422 CABLE LENGTH (4000' MAX)

A-1127-0255/
A-1127-0237

OTHER OPTIONAL NETWORK

SIGNAL CONVERTER

DB25M

120 VAC

SERIAL CABLE

DB9F
DB25F

COMPUTER BY CUSTOMER RUNNING V1500 SOFTWARE

COM(N)

120 VAC
120 VAC

MOUSE

COMPUTER SPECS
- REFER TO VENUS 1500 MANUAL FOR CURRENT SPECS.

NOTES:

1. MANY DIFFERENT DISPLAY SIZES OR TECHNOLOGIES MAY BE USED WITH IN NETWORK.

2. RS/422 CONTROL EQUIPMENT KIT INCLUDES:
   W-1363...............SERIAL CABLE
   A-1127-0255.........SIGNAL CONVERTER
   A-1146-0005........NETWORK/CABLE TESTER

3. USE EITHER THE DB9 OR DB25, DEPENDING ON YOUR PC'S REQUIREMENTS.

4. COMPUTER MUST HAVE AN OPEN SERIAL PORT.

5. RS/422 CABLE IS 6-COND, 26GA, STRANDED TERMINATED ON BOTH ENDS WITH RJ-14 JACKS (FLIPPED).

DAKTRONICS, INC.   BROOKINGS, SD 57006

PROJ: INFONET SINGLE LINE W/MDC

TITLE: V1500 SYSTEM RISER DIAGRAM; RS/422

DES. BY: JCOOK   DRAWN BY: AMEYER   DATE: 17APR97

REVISION 03

APPR. BY:

SCALE: 1=2

1165-R01A-92267

REV	DATE	DESCRIPTION	BY	APPR.
3	25 MAR 04	REPLACED A-1127-0237 WITH A-1127-0255 (INCLUDES SURGE PROTECTION) CHANGED COMPUTER SPECS	SAI	DJM
2	27AUG98	ADDED SPEC NOTE 5 ABOUT RS/422 CABLE	MJS	
1	8 JUL 97	ADDED NOTE FROM SIGNAL CONVERTOR FOR OPTIONAL NETWORK.	MER	

Appendix B: Graphics & Special Characters

The following table lists special characters that may be used when creating text by holding down on <**ALT**> and then typing the following three numbers in sequence. For example, to get the character "Ç," press <**ALT**> <**1**> <**2**> <**8**>.

Character	Code
Ç	<ALT> <1> <2> <8>
ü	<ALT> <1> <2> <9>
é	<ALT> <1> <3> <0>
â	<ALT> <1> <3> <1>
ä	<ALT> <1> <3> <2>
à	<ALT> <1> <3> <3>
å	<ALT> <1> <3> <4>
ç	<ALT> <1> <3> <5>
ê	<ALT> <1> <3> <6>
ë	<ALT> <1> <3> <7>
è	<ALT> <1> <3> <8>
ï	<ALT> <1> <3> <9>
î	<ALT> <1> <4> <0>
ì	<ALT> <1> <4> <1>
Ä	<ALT> <1> <4> <2>
Å	<ALT> <1> <4> <3>
É	<ALT> <1> <4> <4>
æ	<ALT> <1> <4> <5>
Æ	<ALT> <1> <4> <6>
ô	<ALT> <1> <4> <7>
ö	<ALT> <1> <4> <8>
ò	<ALT> <1> <4> <9>
û	<ALT> <1> <5> <0>
ù	<ALT> <1> <5> <**1**>
ÿ	<ALT> <1> <5> <2>
Ö	<ALT> <1> <5> <3>
Ü	<ALT> <1> <5> <4>
¢	<ALT> <1> <5> <5>
£	<ALT> <1> <5> <6>
¥	<ALT> <1> <5> <7>
Pts	<ALT> <1> <5> <8>
ƒ	<ALT> <1> <5> <9>
á	<ALT> <1> <6> <0>
í	<ALT> <1> <6> <1>
ó	<ALT> <1> <6> <2>
ú	<ALT> <1> <6> <3>
ñ	<ALT> <1> <6> <4>
Ñ	<ALT> <1> <6> <5>
ª	<ALT> <1> <6> <6>
º	<ALT> <1> <6> <7>
¿	<ALT> <1> <6> <8>
½	<ALT> <1> <7> <1>
¼	<ALT> <1> <7> <2>

¡	**<ALT> <1> <7> <3>**
█	**<ALT> <2> <1> <9>**
↗	**<ALT> <2> <4> <0>**
↖	**<ALT> <2> <4> <1>**
↙	**<ALT> <2> <4> <2>**
↘	**<ALT> <2> <4> <3>**
↑	**<ALT> <2> <4> <4>**
↓	**<ALT> <2> <4> <5>**
←	**<ALT> <2> <4> <6>**
→	**<ALT> <2> <4> <7>**
°	**<ALT> <2> <4> <8>**

Electronic Display
Control Software System

Venus® 1500
BY DAKTRONICS
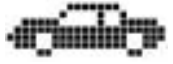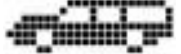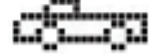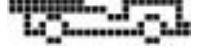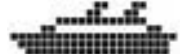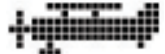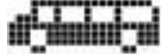
7 Pixel High Graphic Font

A=Up Right Arrow   B=Up Left Arrow   C=Down Left Arrow   D=Down Right Arrow   E=Up Arrow

F=Down Arrow   G=Left Arrow   H=Right Arrow   I=Burst 1   J=Burst 2

K=Jack-O-Lantern   L=Present   M=Umbrella   N=Ghost   O=Sun

P=Sled   Q=Bell   R=Rocket   S=Valentine   T=Birthday Cake

U=Reindeer   V=Prancing Reindeer   W=Large Butterfly   X=Small Butterfly   Y=Fish

Z=Sleeping Owl   a=Motorcycle   b=US Flag   c=Football   d=Football Goal

e=Gun   f=Sailboat   g=Guitar   h=Horn   i=Notes

j=Eye Looking Right   k=Eye Looking Left   l=Foot   m=Tapping Foot   n=Ear

o=Wrench   p=Goblet   q=Car Key   r=Suitcase   s=Clock

t=Plug   u=Hammer   v=Speaker   w=Camera   x=Telephone

y=Television   z=Handicap Symbol   1=Big Heart   2=Small Heart   3=Club

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Venus® 1500
BY DAKTRONICS

Graphic Fonts Continued

,

4=Spade	5=Small Triangle	6=Large Triangle 1	7=Large Triangle 2	8=Big Block
9=Med Block	0=Horse & Buggy	!=Racecar	@=Star	#=Car
$=Station Wagon	%=Pickup Truck	^=Duck	&=Semi Truck	*=Fire Engine
(=Ship	)=Airplane	'=Golf Club	_=Trolley	__=Bird
+=Bulldozer	==Cross	{=Dak D	[=Awake Owl	\=Muchman
|=Welc	}=ome	;=Large Diamond	:=Small Block	'=Bus
"=Small Car	,=Train Engine	<=Small Diamond	.=Train Car	>=Large Ball
/=Jet	?=Small Ball			

DAKTRONICS

Appendix C: Using the Venus 1500 Controller to Display Non-English Fonts

The Venus 1500 Controller is capable of displaying various non-English fonts using *graphic* frames (not text frames) in the Venus 1500 Message Studio.

C.1   Compatible Languages

During testing[1], Daktronics found that some languages worked very well with the Venus 1500 software, while others did not. The information provided below indicates which languages are compatible with the Venus 1500 software, which languages *may* be used but are not supported by Daktronics technical staff, and which languages are not supported.[2] [3]

The following languages work in the Venus 1500 graphic frames:

Arabic	Dutch	French
German	Hebrew	Indonesian
Italian	Malay	Portuguese
Spanish	Thai	

The following languages require installing third party fonts from the Internet. It *is* possible to use them in the Venus 1500 Controller software, but they are not supported by Daktronics technical staff:

Greek
Hindi
Russian
Tamil

The following languages *do not* work in the Venus 1500 Controller software, and are not supported by Daktronics technical staff:

Chinese
Japanese
Korean
Vietnamese

C.2   Initial Settings

☞**Note:** You may need to use the Windows® 2000 or NT CD-ROM while specifying the initial settings.

1. Click **Start** on the Windows desktop.
2. Choose **Settings** and then **Control Panel**.

---

[1] Languages were tested using the English version of Windows 2000. Windows NT should work also.
[2] Daktronics, Inc. does not support operating systems for non-English languages.
[3] Some characters may also require a language-specific keyboard to be accessible.

3. Double-click on **Regional Options** (Windows 2000) or **Regional Settings** (Windows NT).

Windows 2000
1. At the bottom of the **General** tab is a section called **Language settings for the system**. Select the desired language and click on [**APPLY**].
2. Select the **Input Locales** tab. "English" may be the only language listed in the **Input language** box.
3. Click on [**ADD…**].
4. From the Input locale list, select the non-English language and appropriate country. The Keyboard layout/IME option will be selected accordingly.
5. Click on [**APPLY**] to save the new settings, and then [**OK**] to exit the control panel. *You may need to reboot the system once you have done this.*

A blue icon will appear on the right side of the Taskbar (next to the clock). The "EN" indicates that the current input locale is English.

Windows NT
1. At the **Regional Settings** tab, select the desired language and then click on [**APPLY**].
2. Select the **Input Locales** tab. "English" and the recently selected language should both be listed in the **Input locales** box.
3. To change the keyboard layout, click on [**ADD…**].
4. Choose the appropriate keyboard for the non-English language and click on [**OK**].
5. Check the checkbox next to **Enable indicator on taskbar**.
6. Click on [**APPLY**] to save the new settings, and then [**OK**] to exit the control panel. *You may need to reboot the system once you have done this.*
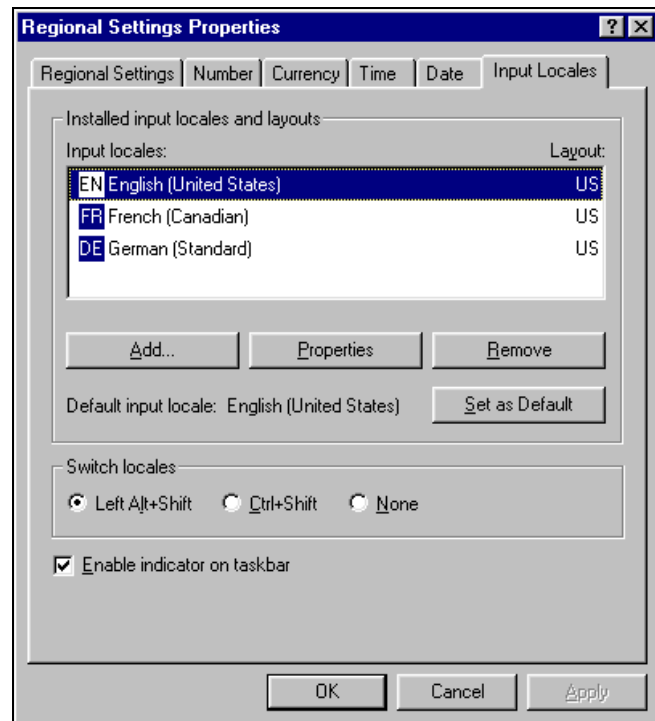
A blue icon will appear on the right side of the Taskbar (next to the clock). The "EN" indicates that the current input locale is English.

C.3   Displaying the Font

To create a graphic frame with the non-English fonts:

1. Create a new graphic frame in the Venus 1500 Message Studio (refer to **Section 5.7**).
2. Select the Text button from the graphic toolbar and then click on the frame. A text-object box appears.
3. To display a non-English font, click on the blue "EN" icon on the taskbar, and then select the desired font.
4. Select the appropriate font in the Venus 1500 Message Studio (e.g. Simplified Arabic) and font size.
5. Enter the desired text.

☞**Note:** When you wish to save the message, you will need to switch the input locale back to English using the blue icon on the taskbar.