

**Venus 1500 Software
Version 3**

Operations Manual

ED-13530

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DAKTRONICS

DAKTRONICS, INC.

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Venus 1500 Version 3 Operation Manual

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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. This section will give the specifications for Venus 1500 software and provide Daktronics' contact information.

Each section of this manual contains the following parts:

- A detailed description on a variety of topics related to the controller
- Practice exercises
- Tutorials that teach systematic processes accompanied by screen shots and example sequences.

Note 1: The screen shots in this manual may vary from those on the user's computer.

Note 2: At the end of the sections are tutorials, designated by this symbol in the corner of the page (Figure 1).



Figure 1:
Tutorial
Symbol

1.1 System Requirements

The Venus 1500 operating software has the following minimum system requirements:

- Personal computer running Windows[®] 98, Me[™], 2000, XP or Vista with the most current updates installed, 32-bit versions only.
Note: Venus 1500 Real-time requires Windows 2000, XP, or Vista.
- Pentium[®] II processor, 400 MHz or higher
- 128MB RAM or higher
- 50MB free hard disk space
- Microsoft[®] Internet Explorer 6.0 or higher
- CD-ROM Drive
- Mouse or other compatible pointing device
- Supported communication device (serial port, modem, or Ethernet Network)
- One or more Venus 1500-compatible displays installed.

1.2 Help

Help is available from the *Help* pull-down menu in Venus 1500 Message Studio, Schedule Studio, and Administrator. Two options will appear: **Contents** and **About**.

Note: When in **Display Manager**, click on the yellow question mark in the upper-left side of the screen to access the **Contents** help screen.

Contents

Press <ALT+C> or click **Contents** to access the *Contents* help screen. This screen can also be accessed directly from the main screen by pressing <F1>. The contents screen will direct the user to the electronic manual.

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 software version and Daktronics' contact information. Click **OK** or press **Enter** to exit the Venus 1500 *About* box. Refer to **Figure 2**.



Figure 2: About Dialog

1.3 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 Customer Service
PO Box 5128
331 32nd Avenue
Brookings, SD 57006

Phone: Customer Service: 800-843-9879 (toll free) or 605-697-4598

Website: <http://www.daktronics.com>

Section 2: Getting Started

This section will give instructions on the installation of the Venus® 1500 software and a general description of the command buttons and applications.

2.1 Software 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 necessary files 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.

2.2 Basic Steps to Using the Venus 1500 Control System Software

This manual is laid out in a basic chronological order to create and display a message. The basic steps are:

1. Install the Venus 1500 Control System software if it is not already installed on the computer (**Section 2.1**).
2. Configure the display type(s) and communication method (**Sections 3**).
3. Create the message(s) (**Section 4**).
4. Create the schedule(s), *when desired* (**Section 5**).
5. Send the message/schedule to the display (**Section 6**).
6. Run the message/schedule (**Section 6**).

2.3 Navigating the Venus 1500 Software

When the Venus 1500 software program starts, a “shell” program loads. Refer to **Figure 3**. 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.

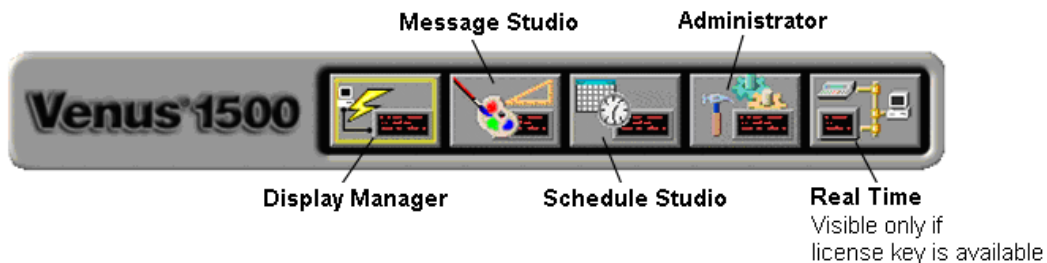


Figure 3: Venus 1500 Shell

The Venus 1500 Shell consists of five buttons:

- **Display Manager** sends content to and from the display.
- **Message Studio** designs text and/or animated messages for the display.
- **Schedule Studio** assigns start and stop dates and times to messages.
- **Administrator** sets up the software to create messages and to communicate with the sign.
- **Real Time** displays data from external sources that output Daktronics standard real-time data protocols. **Note:** *Real Time* will only appear if the software key is present and is installed on Windows 2000 or XP Home/Professional.

Right-clicking the left side of the Venus 1500 Shell program brings up a menu with four selections: *Always On Top*, *Hide*, *About Venus 1500...*, and *Exit*. Refer to **Figure 4**.



Figure 4: Right-click Menu

- **Always On Top** places the Venus 1500 Shell program on top of all other programs when navigating the desktop. The shell will always be visible when this menu item is checked. Click this item to uncheck it and turn this feature off.
- **Hide** completely hides the shell program when it is running (it is similar to minimizing). The Venus 1500 Shell program has an icon in the system tray. To see the program when the shell is hidden, double-click the shell icon, or right-click the icon and select **Restore** on the menu that appears.
- **About Venus 1500...** shows the About Venus 1500 dialog (**Figure 2**). Click **OK** to exit this dialog.
- **Exit** closes the Venus 1500 Shell program but will not close any other Venus 1500 program that may be running.

Section 3: The Venus[®] 1500 Administrator

The *Venus 1500 Administrator* is used to configure displays, display types, display groups, and networks. Refer to **Figure 5**. The Administrator is also used to test the network, set up text filters, configure the message database, and apply zoning restrictions.

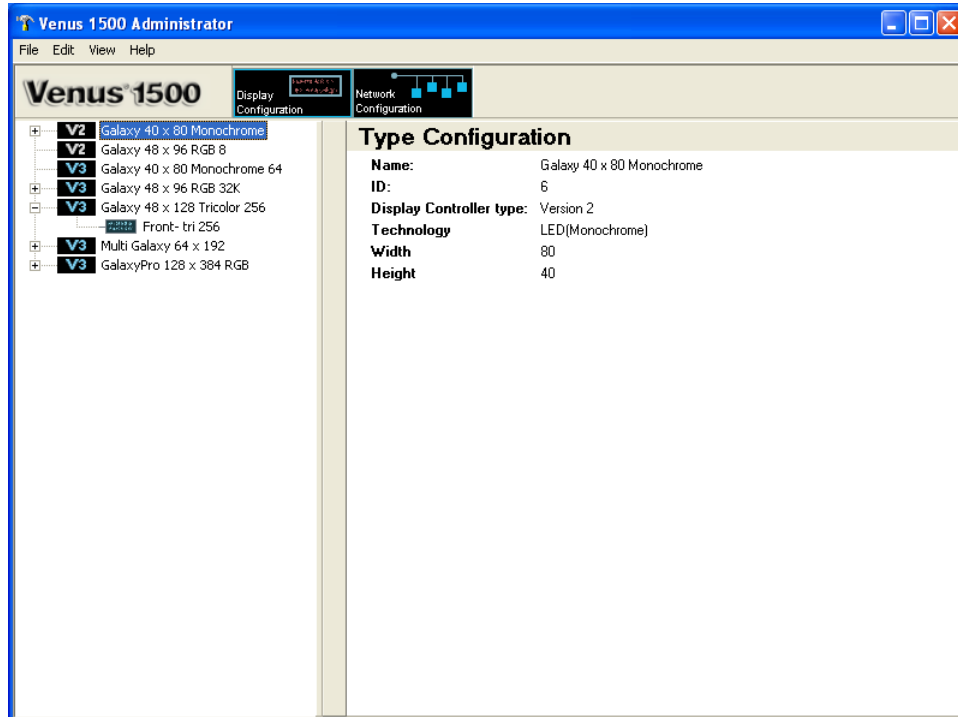



Figure 5: Venus 1500 Administrator – Display Configuration



To activate the *Venus 1500 Administrator*, click  from the *Venus 1500 Shell*.

The screen is divided into two areas. When **Display Configuration** is selected, the left column will list all of the currently configured display types. When **Network Configuration** is selected, the left column will list all of the currently configured networks. The right side of the screen displays the configuration details for the currently selected display or network.

3.1 Display Creation Wizard

Display Wizard is the recommended way to configure new networks, displays, and display types, since it provides a systematic process for configuration. Refer to **Tutorial 1: How to Configure a Network and Display with the Display Wizard**.

Note: It is also possible to configure networks, displays, and display types manually by following the instructions in the following sections: **3.2 Network Configuration**, **3.3 Display Configuration**, and **3.4 Display Type Configuration**.

3.2 Network Configuration

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



When **Network Configuration** is selected, a network may be configured for communicating with displays. The **Network Configuration** screen provides the tools to add a network, edit an existing network, or remove a network. Refer to **Section 3.1 Display Creation Wizard** for the recommended way of configuring a network.

Note: Manual Display Creation is an alternative to using the Display Wizard to configure networks. Instructions for this process are available in **Tutorial 2: How to Configure a Network Manually**.

Three different types of networks exist and are explained in the following list:

- **Direct Network** indicates that a serial connection exists between the PC and the display(s).
- **Dial-up Network** indicates that an analog modem is used to communicate with the display.
- **TCP/IP Network** indicates a connection across a network using the TCP/IP protocol.
 - TCP/IP must be installed and correctly configured for the computer that has the Venus 1500 software installed. All serial server or display addresses must be static or use a fully qualified DNS name. Contact your system administrator to obtain a static IP address or DNS name.
 - In some instances, a TCP/IP connection requires a serial server device connected to an Ethernet network for communication to displays. The **TCP/IP Address** is the address of the serial server on the Ethernet network. For a Lantronix™ serial server, the **TCP/IP Address** is the address that was applied to the device when it was configured. If a Lantronix serial server is being used, refer to Daktronics manual **ED-9623** for MSS-1 or MSS-100 and **ED-12850** for the UDS-1100 instructions on configuring the serial server and assigning a static IP address. The IP address of the serial server must be set in the TCP/IP network in the Venus 1500 software.

Adding a Network

Refer to **Tutorial 5** for instructions on adding, editing, and deleting networks.

3.3 Display Configuration



Selecting **Display Configuration** enables displays and groups to be added, edited, and deleted.

Note: Confirm the display size, technology, and color of the display before configuring the Venus 1500 Control System. Incorrect configuration settings may cause unwanted display results. Refer to **Section 3.1 Display Creation Wizard** for the recommended method of configuring a display.

- **Manual Display Creation** is an alternative to using the Display Wizard to configure displays. Instructions for this process are available in **Tutorial 3: How to Configure a Display Manually**.

Editing and Deleting Displays

Refer to **Tutorials 6 and 7** for instructions on editing and deleting displays.

Creating a Group of Displays

A display group is a collection of displays that are the same display type (refer to **Section 3.4**). A group allows multiple displays to be selected in **Display Manager**. This allows communication tasks to be easily applied to a single group of displays. **Note:** A group is not required for sending data to the display. Refer to **Tutorial 8** for instructions on creating a group of displays.

Note: Display types must be configured and displays added before this option can be used. Refer to **Section 3.4**.

3.4 Display Type Configuration

Display type refers to the model of the display. A display type may be Galaxy®, DataTrac®, or InfoNet®, for example. In addition, Galaxy displays may be monochrome, tricolor, or RGB. The display type information is necessary for proper configuration. **Multi-Galaxy** display type refers to the displays that include two different LED types in the same display (example: one monochrome and one tricolor).

The number of display types that can be configured in the system is virtually unlimited. Refer to **Section 3.1 Display Creation Wizard** for the recommended way of configuring a display type.

- **Manual Display Creation** is an alternative to using the Display Wizard to configure displays types. Instructions for this process are available in **Tutorial 4: How to Configure a Display Type Manually**.

Adding a Multi-Galaxy Display Type

Refer to **Tutorial 9** for instructions on adding a multi-Galaxy display type.

Removing a Display Type

Refer to **Tutorial 7** for instructions on how to remove a display type.

3.5 Security Options

Security options sets up a password for the display. The password is then stored in the display's memory and is verified every time the software communicates to the display. Refer to **Tutorial 10** for instructions on setting security options.

If the password is forgotten, it is necessary to access the internal components of the display to reset the security function. **Take care to remember the password.**

Note: Password security can be activated for Version 3 displays only.

3.6 Communication Defaults (Networks Default Settings)

The operator can specify default settings for timeouts, maximum retries, and disconnect time for each of the network types. Refer to **Tutorial 11** for instructions on modifying communication defaults. The following terms are used in the Communication Defaults dialog:

- **Communication Timeouts** is the maximum amount of time allowed between retries when establishing a connection before the software times out the process.
- **Maximum Retries** refers to the number of attempts made to connect to a display.
- **Disconnect Time** is the maximum amount of time it will take for the control computer to disconnect from the display after the last command was sent. **Note:** If there is no communication with the display for the specified time, the control computer will close the connection with the display.

3.7 Enabling the Text Filter (Profanity Protection)

Venus 1500 software contains a text filter that prevents specified words from appearing on the display(s). To enable or modify this filter, select **Text Filter Setup** from the *Edit* menu in the Venus 1500 Administrator. Refer to **Tutorial 12** for instructions on customizing the **Text Filter**.

Two filter lists can be enabled:

- **Default List** protects against words identified in the **FCC vs. Pacifica Foundation (438 U.S. 726 [1978])** legal case. To view this list, click **View Default List**.

WARNING: The words in the Default List can be seriously offensive to many people. View this list with the understanding that it is a filter system for the Message Editor program and is not meant to be offensive.

- **Custom List** protects against words identified by the operator.

3.8 Direct Network Testing

Direct network testing uses a loop-back box or adapter to test whether the serial port is working and to determine that the communication cable has no physical breaks in it. Refer to **Tutorial 15** for instructions on testing the network.

3.9 Ping Testing for TCP/IP Display Connections

The ping capability in the Venus 1500 is a troubleshooting tool for TCP/IP networks. This feature allows the operator to ensure that the serial server or display on a TCP/IP network is alive and working. Refer to **Tutorial 15** for instructions on ping testing for TCP/IP display connections.

3.10 Zoning Configuration

Zoning Configuration is available for areas that have restrictions on the electronic messages that are displayed. If a message contains restricted actions such as flashing when it is created, the zoning restrictions will not allow that feature to be shown on the display. This feature will prevent operators from inadvertently violating local zoning restrictions. However, while in Message Studio, the messages will preview effects that the operator adds, but the effects will not be visible on the display.

Refer to **Tutorial 13** for instructions on customizing **Zoning Configuration**.

3.11 Remote Database

For locations that have multiple computers with Venus 1500 installed, a remote database can be configured for storing messages. This allows messages to be shared between computers without needing to copy the messages from one computer to another. Refer to **Figure 6**.

Note: This feature may not work if the computer with the Venus 1500 software has an operating system different from the remote computer. For example, if the computer with the Venus 1500 software installed is running Microsoft Windows XP® and the remote computer with the **Remote Database** is running Microsoft Windows 98®, communications will fail.

Refer to **Tutorial 14** for additional information.

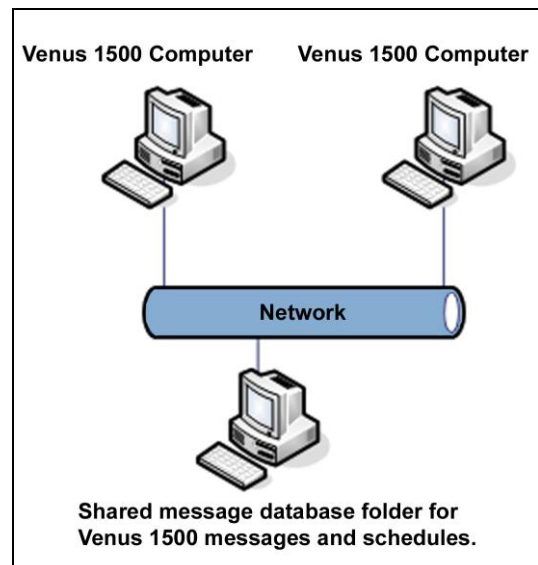


Figure 6: Shared Database

The following steps are necessary for setting up a remote database:

1. Click **Venus 1500 Administrator** from the Venus 1500 shell.
2. Select **Edit > 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 **OK** to close the Remote Database dialog. A prompt will appear 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 set up the remote database immediately before configuring displays and creating messages or schedules.

3.12 Tutorials

Following this section are the tutorials for Administrator. Please refer to the tutorials for directions on operating the Administrator part of the Venus 1500 software. The following is a list of the tutorials:

1. How to Configure a Display and Network with the Display Wizard
2. How to Configure a Network Manually
3. How to Configure a Display Manually
4. How to Configure a Display Type Manually
5. How to Add, Edit, and Delete a Network
6. How to Edit a Display's Configuration
7. How to Delete a Display or Display Type from a Network
8. How to Create a Group of Displays
9. How to Add a Multi Galaxy Display Type
10. How to Set Security Options
11. How to Modify Communication Defaults
12. How to Custom Configure - Text Filter
13. How to Custom Configure - Zoning Configuration
14. How to Custom Configure - Database
15. How to Test a Network



Tutorial #1: How To Configure a Display/Network with Display Wizard

NOTE: This feature will only work with the display controller when the power is ON.

The Display Wizard is the easiest way to automatically detect the displays that are connected to the network source. This is the recommended detection method.

1. Click **Display Wizard** in the **Edit** menu of the *Administrator*.
2. Mark the **Auto Detect** option if not already marked. *Auto Detect* allows the software to scan for the display's address and automatically set up the necessary information. Refer to **Figure 7**.
3. Click **Next**.

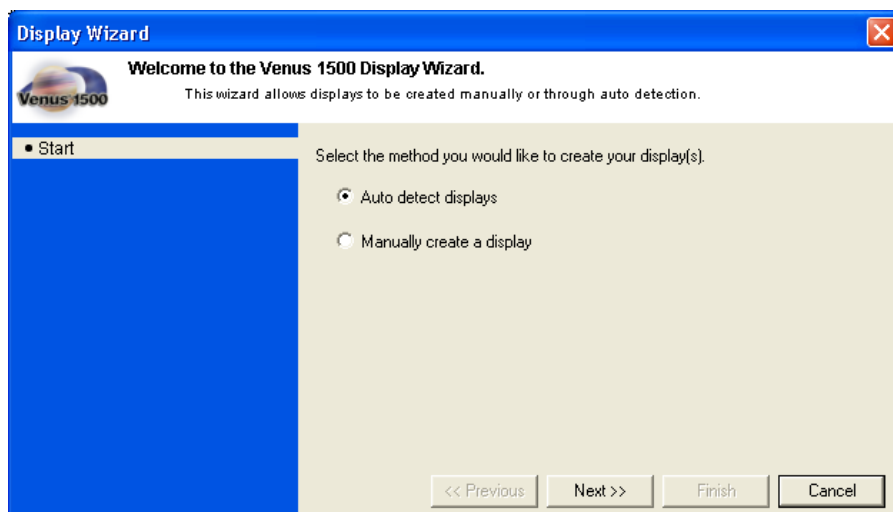


Figure 7: Display Wizard

If a network has already been created, follow steps 4-10. If a network has **not** been created, go to step 11.

4. Select a communications port from the down arrow under *Select a list of existing configured network resources*. Click **Next**.
5. Type in the number of displays which the Display Wizard should detect in the network. (The maximum number of displays on a network is 240.) Click **Next**. Refer to **Figure 8**.

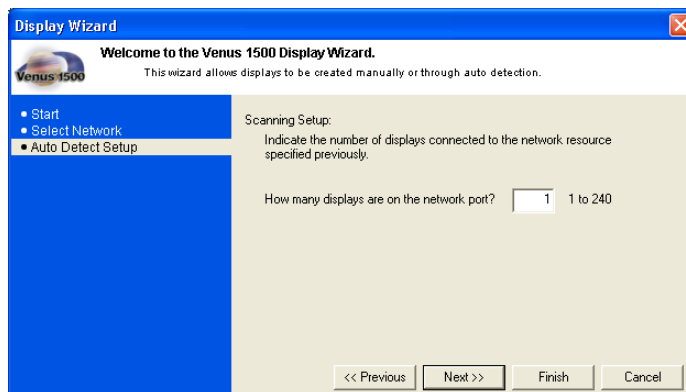


Figure 8: Auto Detect Setup



- When the *Auto Detecting* is completed, the Display Wizard will show the *Display Description*. At this point, it is possible to rename the display to make it easily identifiable. To do this, click in the *Detected Display Description* box, highlight the current name and enter the desired name. Refer to **Figure 9**.

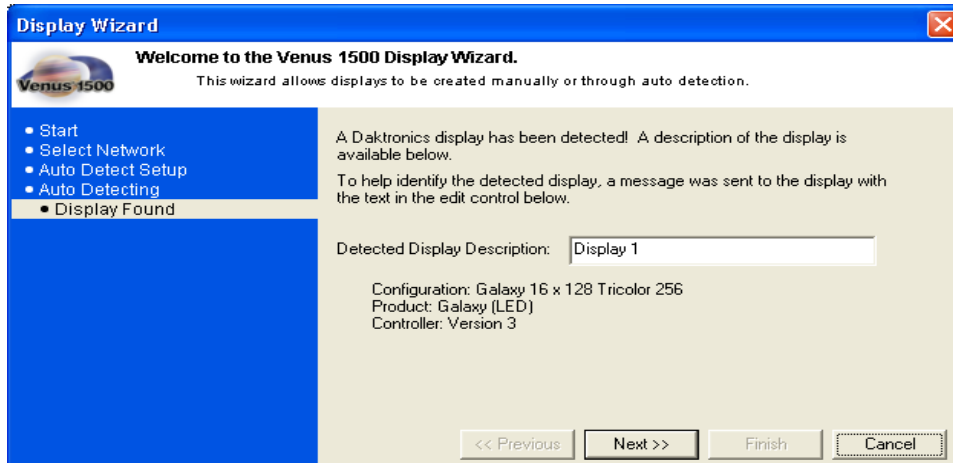


Figure 9: Detected Display Description

- If the Security Option is enabled on the display, a window will appear asking for the password to be entered before completing the Auto Detect (**Figure 10**).

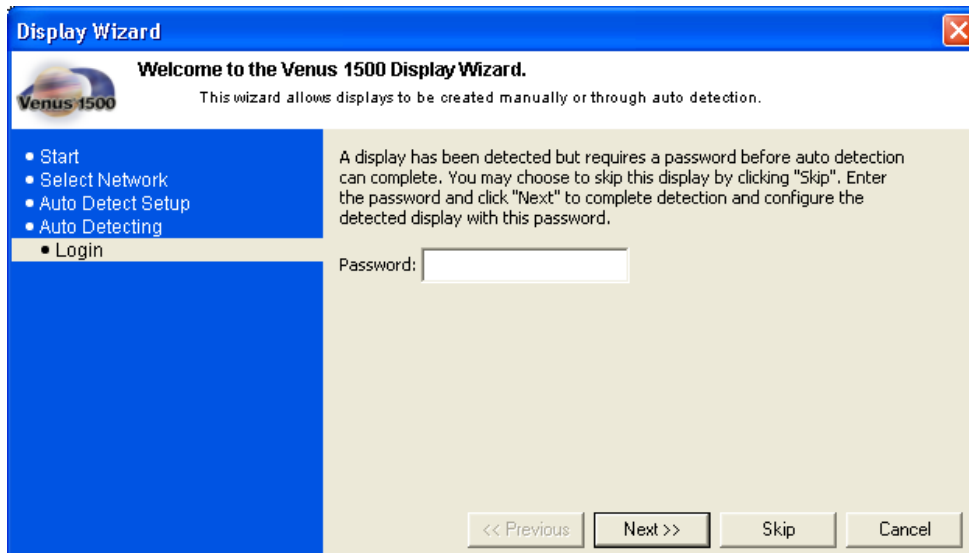


Figure 10: Security Option



- Once the Display Wizard has finished scanning the network, it will show all the displays found on that network (Figure 11). Click **Finish** to save the information and begin communicating with the display(s) or click **Back to Start** to configure another display.

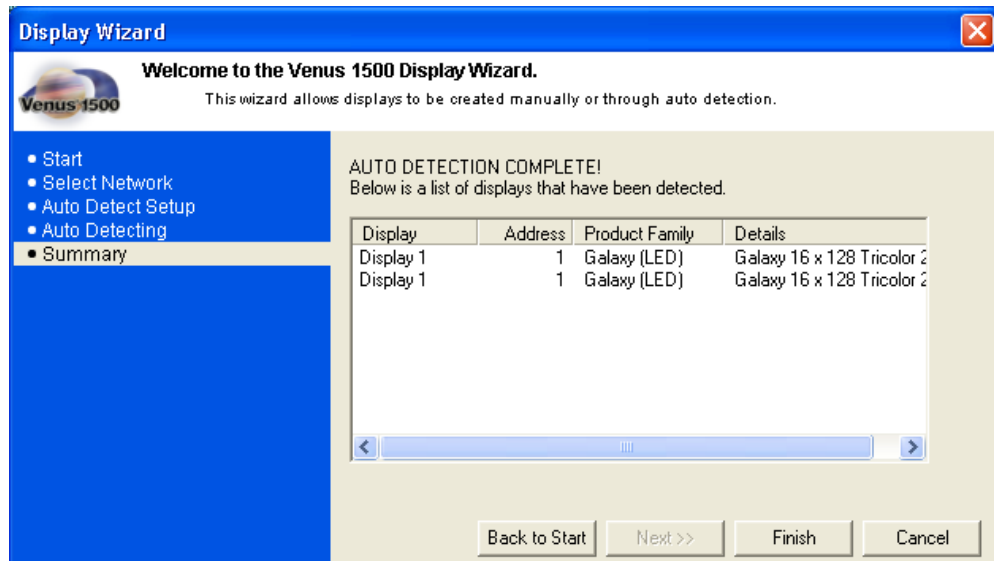


Figure 11: Display Summary

- Once the display is configured, click the **Finish** button. To import animations now, insert the *Venus 1500 Installation* CD, and click **Yes**. Click **No** to void the import (Figure 12).

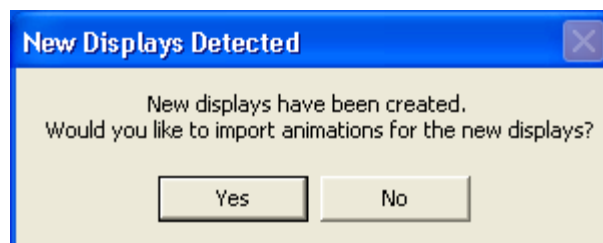


Figure 12: Import Animations

- If animations are available for this display type, they are imported automatically. The animations will be added to the *Animate* folder in the Message Studio.



If a network has not been created, follow steps 11-19.

11. Select **Create a new network resource**, and click **Next** (Figure 13).

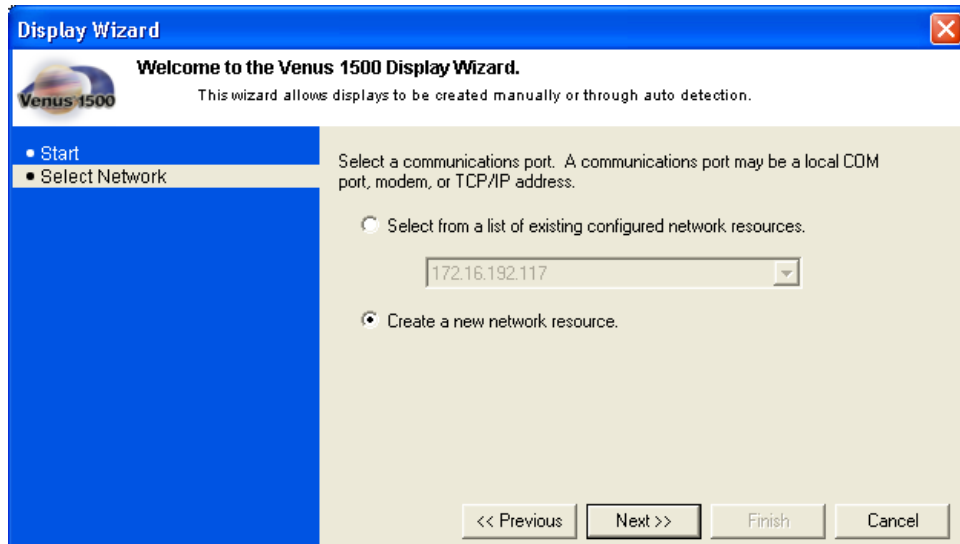


Figure 13: Display Wizard Network Configuration

12. Choose which type of network to create: Direct, Dial-up, or TCP/IP. Select the type by clicking on the down arrow next to the *Network Type* box (Figure 14).
13. Click **Next**.

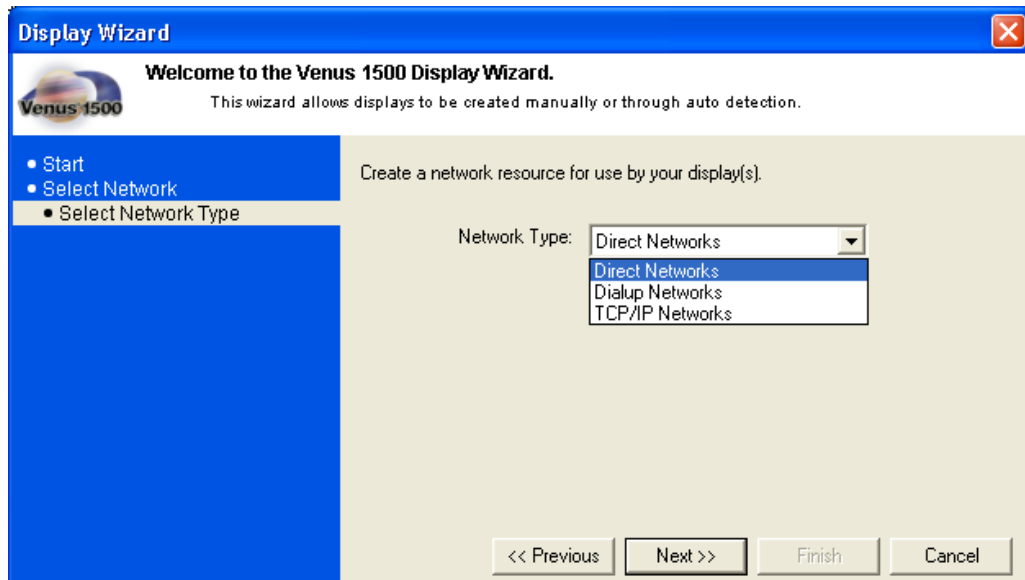


Figure 14: Network Type Configuration



14. Select a local COM port from a drop-down list of available ports (Figure 15) and click **Next**.

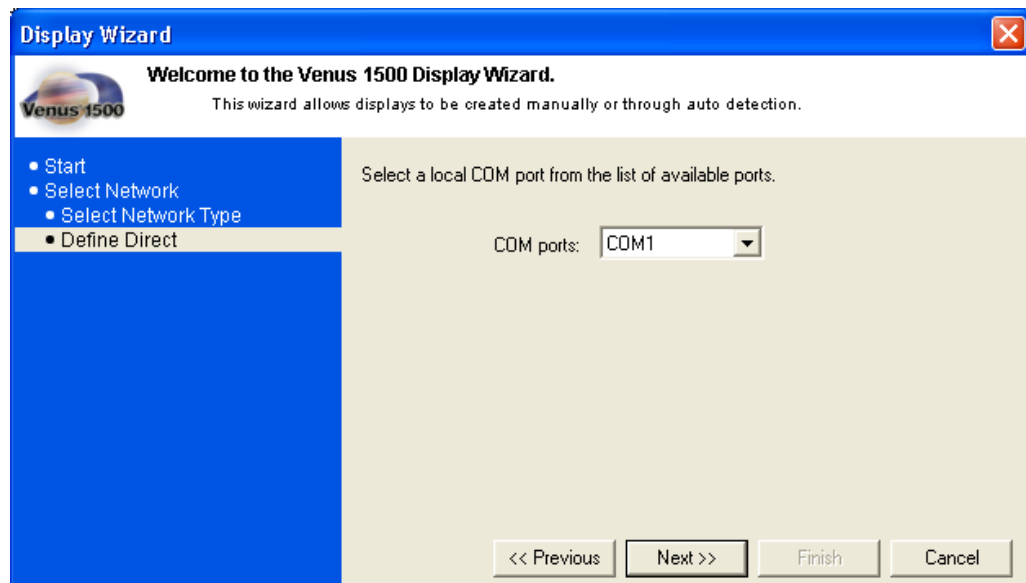


Figure 15: COM Port Selection

15. Type in the number of displays on the network port, and click **Next**.

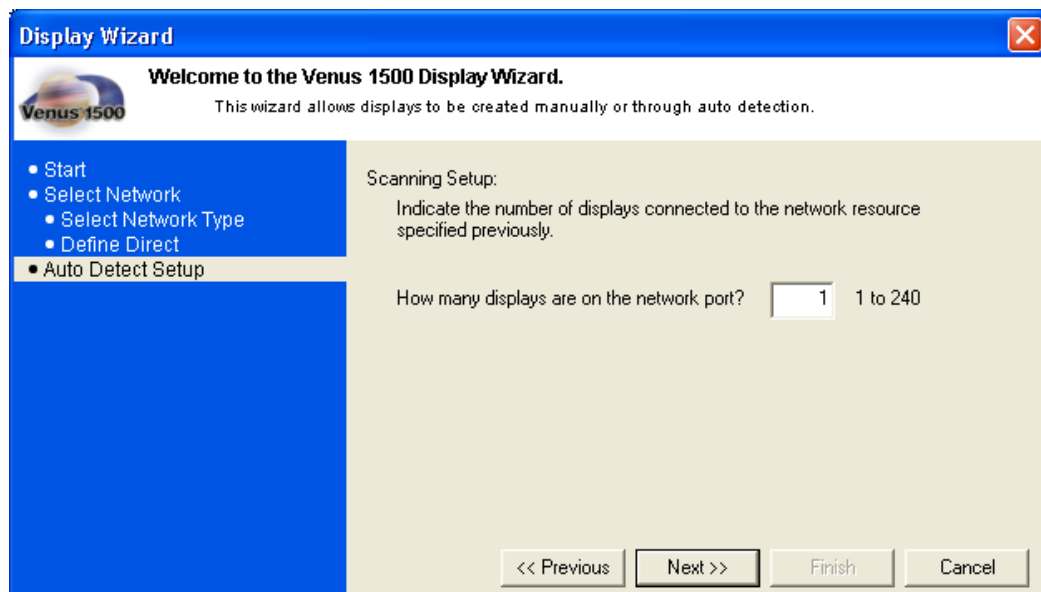


Figure 16: Auto Detect Setup



16. The Display Wizard will then auto-detect the ports and show a window with the information of the display(s) found. Refer to **Figure 17**. Click **Next**.

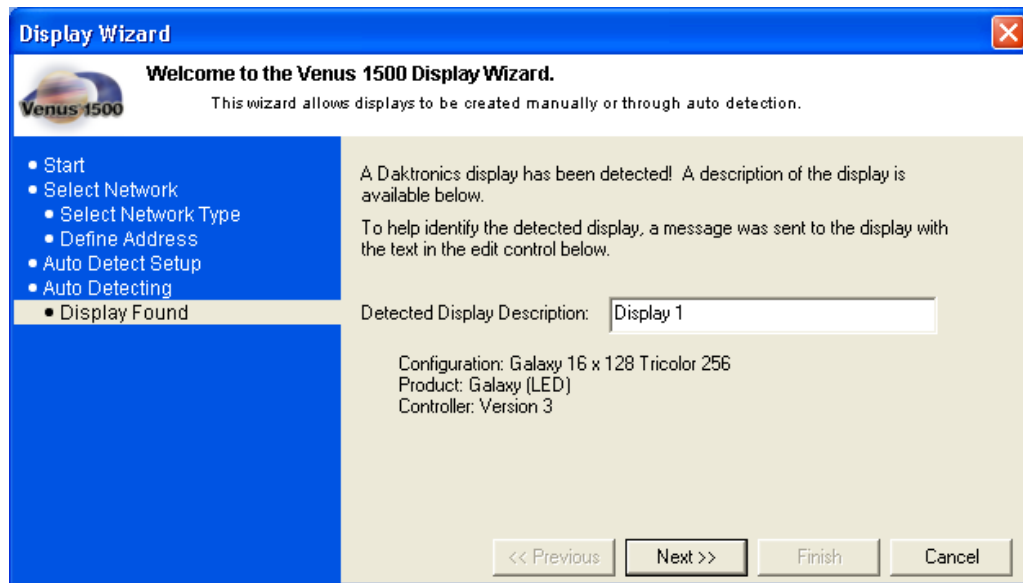


Figure 17: Display Found

17. Choose a time zone for the display and click **Next** (**Figure 18**).

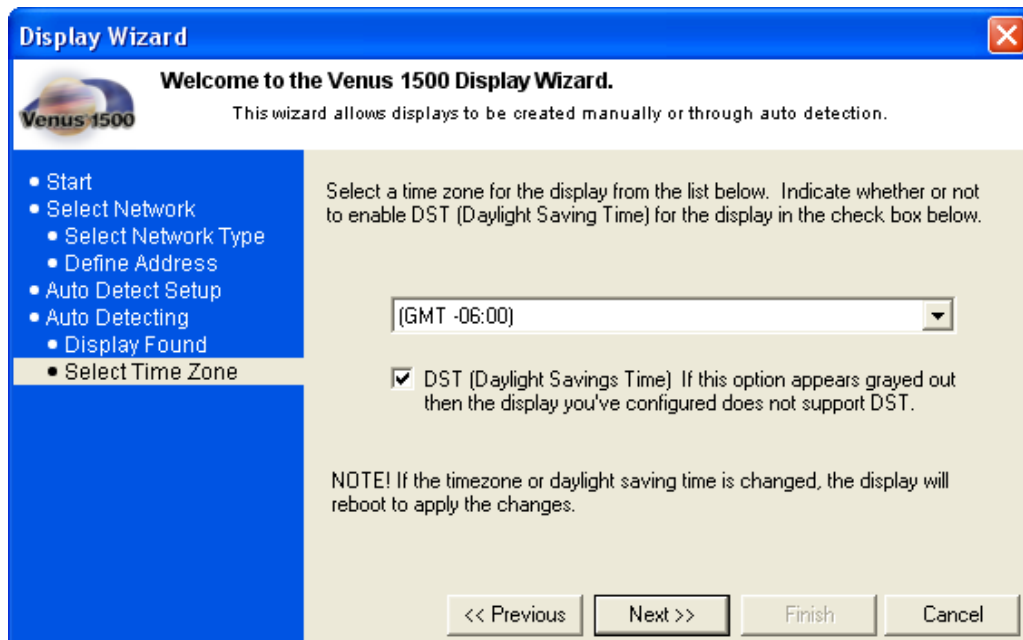


Figure 18: Select Time Zone



18. The Display Wizard will show an auto-detection summary of the display that was found (**Figure 19**). Click **Finish**.

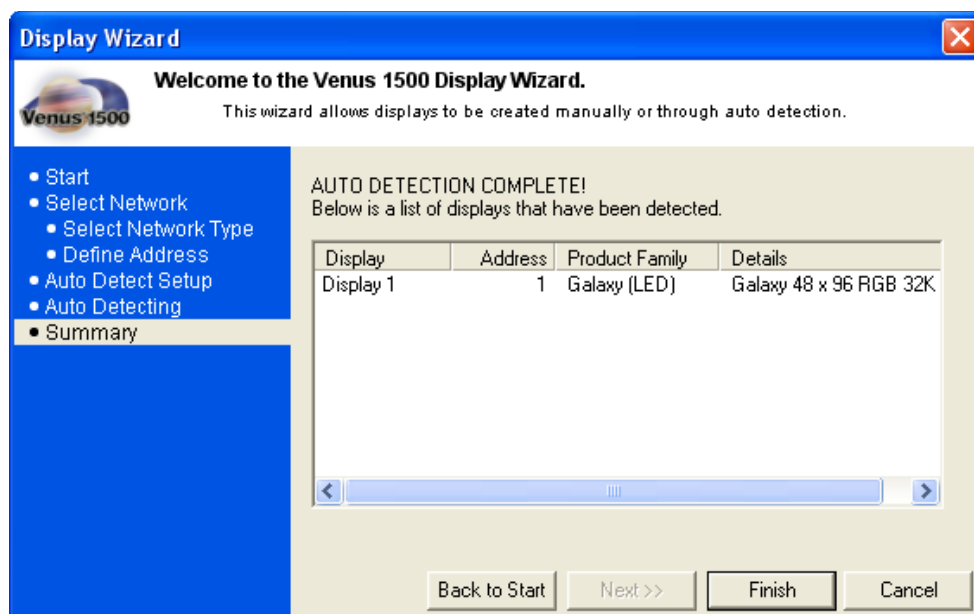


Figure 19: Auto Detection Summary

19. To import animations now, insert the *Venus 1500 Installation* CD and click **Yes**. Click **No** to void the import. Refer to **Figure 12**. The animations will be added to the Animate folder in the **Message Studio**. If animations are available for this display type, they will be imported automatically.



Tutorial #2: How to Configure a Network Manually

Configuring the network determines communication between the computer and display. The following sections show the three ways to configure a network:

- Direct Network Configuration
- Dial-up Connection
- TCP/IP Connection

Note: Refer to **Tutorial #4** for directions on configuring a network using the recommended **Display Wizard**.

Direct Network Configuration

1. Activate the *Venus 1500 Administrator* by clicking on the **Administrator** button



from the Venus 1500 Shell. Refer to **Figure 20**.

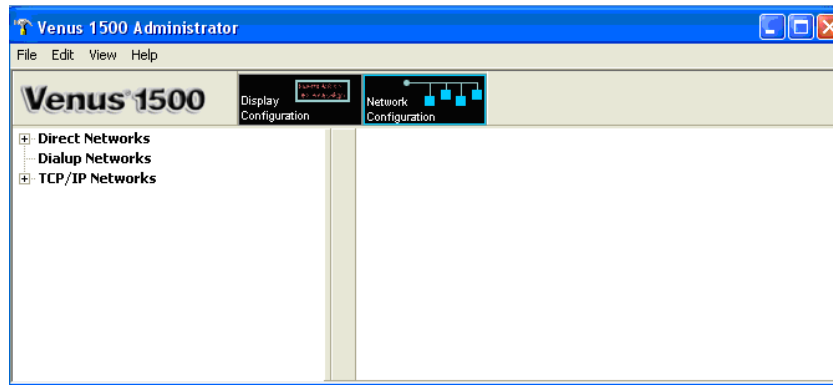
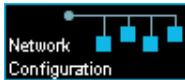


Figure 20: Network Communications

2. Click the **Network Configuration** button  to activate the *Network Configuration* screen.
3. Right-click **Direct Networks** on the left side of the screen and select **New**, or in the *Edit* menu, select **New > Network**.
4. When the *Network Configuration* window opens, type a **Network Name** in the description field (**Figure 21**).

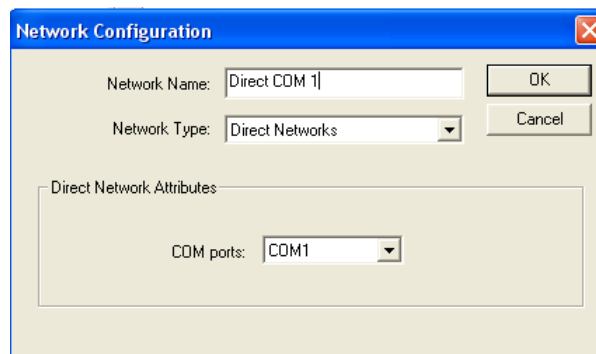


Figure 21: Network Configuration



5. In the *Network Type* field, choose **Direct Networks** from the down arrow.
6. Click the down arrow next to *COM ports*.
7. Select the port to which the serial cable is connected from the listing of installed ports. (The default port is COM1.)
8. Click **OK** to save the settings and close the *Network Configuration* dialog box.
9. The new configured network will appear under the network type that was selected on the left side of the *Network Configuration* screen. If the configured network cannot be seen, click on the plus sign to open the configured networks.
10. The network configuration information will appear on the right side of the screen.

Dial-up Connection

A dial-up connection uses a modem to communicate with the display or network. A modem must already be installed and operating properly prior to selecting a dial-up connection type. If more information is needed regarding modem installation, consult the manual accompanying the modem or contact the modem's manufacturer.

If modem communication problems exist, ensure that the most recent modem drivers for the operating system are installed and are properly configured.



1. Click the **Network Configuration** button located near the top of the screen in the *Venus 1500 Administrator*.
2. Right-click **Dialup Networks** on the left side of the *Network Configuration* screen.
3. Click **New...**
4. In the *Network Name* field, enter a name for the new network. Refer to **Figure 22**.

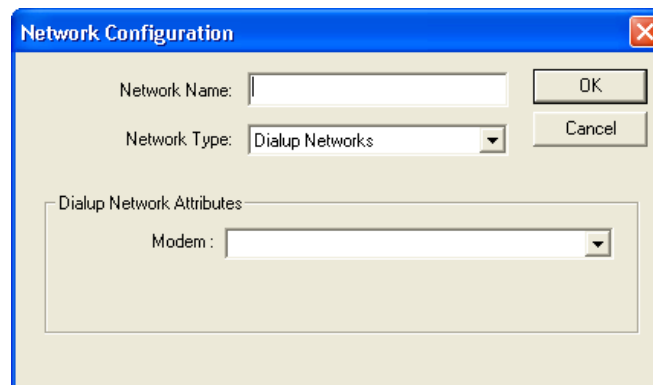
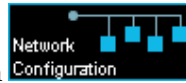


Figure 22: *Dialup Network Configuration Box*

5. Click the down arrow next to *Modem* for a list of currently installed modems.
6. Select the modem to use. If the modem list is empty, check under *Modems* in the *Windows Control Panel* to ensure a modem has been installed for use by the operating system.
7. Click **OK** to save the changes and close the *Network Configuration* dialog box.
8. To use this type of connection, select **Dialup Networks** in the *Network Type* field, if it is not already selected.
9. Click the down arrow next to *Modem*. A list of currently installed modems will appear.
10. Click **OK** to save the new network and close the *Network Configuration* dialog box.



TCP/IP Connection



Click the **Network Configuration** button located near the top of the *Venus 1500 Administrator* screen.

1. Right-click **TCP/IP Networks** on the left side of the *Network Configuration* screen.

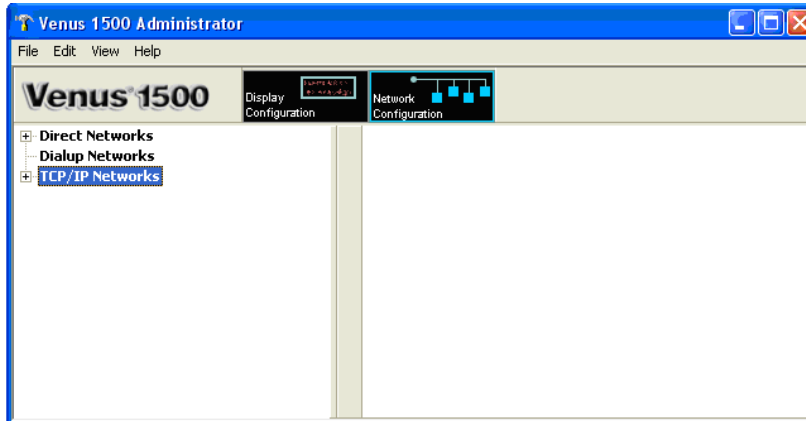


Figure 23: TCP/IP Network Configuration

2. Click **New...**
3. Enter a name for the new network in the *Network Name* field. Refer to **Figure 24**.

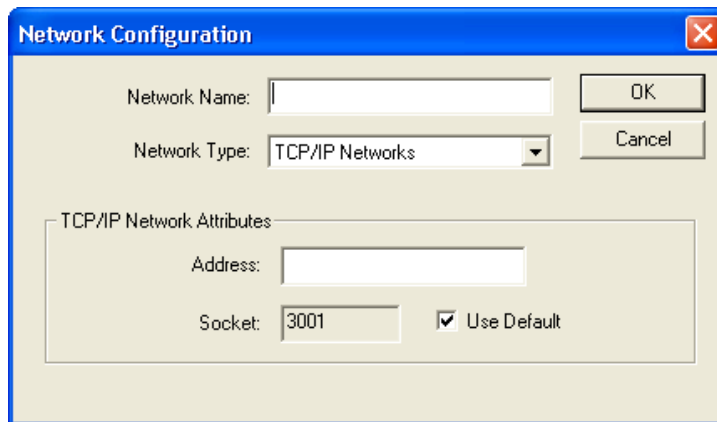


Figure 24: TCP/IP Network Configuration Box

4. Enter the TCP/IP address or fully qualified DNS name for the serial server. If an IP address is being used, ensure the period marks appear between each set of numbers in the address.
5. If a serial server socket is 3001, leave the **Use Default** checked. Otherwise, uncheck **Use Default** and enter the socket number in the corresponding box.
6. Click **OK** to save the new network and close the **Network Configuration**.




Tutorial #3: How to Configure a Display Manually

A display cannot be programmed if a network is not configured previously. Refer to **Tutorial #1** for instructions on configuring a network. Configuration settings may vary for every installation.

Note: If a display has been configured through the **Display Wizard**, then the following steps are unnecessary. Refer to **Tutorial #4** for directions on configuring a display using the **Display Wizard**.

The *Manual Display Configuration* is used to set up communication with displays. The following steps are instructions for configuring a display:

1. Select the **Display Configuration** button  in the *Venus 1500 Administrator*.
2. From the *Edit* menu, select **New > Display**. The *Display Configuration* dialog box appears (**Figure 25**).

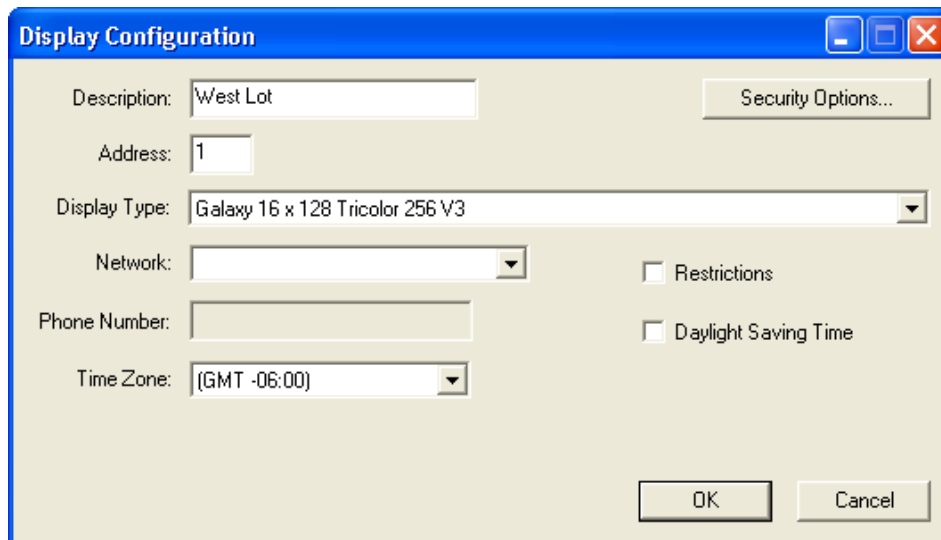



Figure 25: *Display Configuration*

3. Enter a *Description* for the display. This can be a number or a brief description of its location. In the example, the display was named "West Lot."
4. Enter "1" for the display's network *Address*.
5. From the drop-down menu for *Display Type*, choose the appropriate type.
6. Select the type of network that has already been configured.
7. If the display has a modem, enter the *Phone Number* of the modem. If not, the field will be disabled (grayed).
8. Select the correct time zone for the display by clicking on the down arrow.
9. If restrictions need to be applied, check the restrictions box. Refer to **Tutorial #13** for information on setting restrictions.
10. Select the Daylight Saving Time box if the time needs to be adjusted automatically during this period of the year.

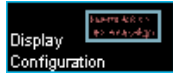


11. Click **Security Options** to set up a security password. After a password is entered, click **OK** in the *Security Options* dialog box.
12. Click **OK** in the *Display Configuration* dialog box to save the new display configuration.
13. To import animations now, insert the *Venus 1500 Installation* CD and click **Yes**. Click **No** to void the import.
14. Close the *Venus 1500 Administrator* configuration window by selecting **Exit** from the *File* menu or clicking the close button  on the top right corner of that screen.



Tutorial #4: How to Configure a Display Type Manually

This tutorial will give instructions on manually configuring a display type.

1. Click  to activate the *Display Configuration* screen.
2. From the **Edit** menu, select **New > Display Type**. The *Display Type Configuration* dialog box will appear. Refer to **Figure 26**.

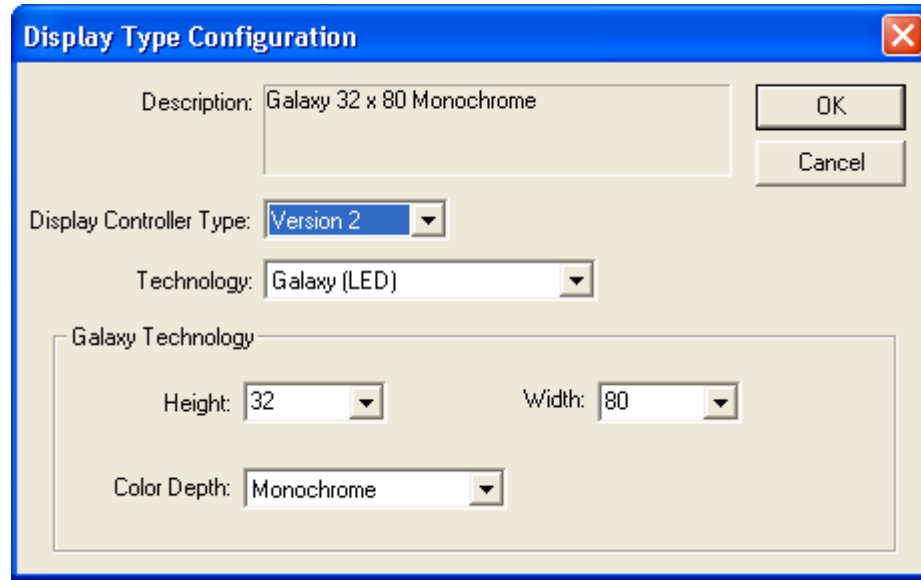


Figure 26: *Display Type Configuration*

3. Click the down arrow next to the *Display Controller Type* and select the version of Venus 1500 controller the display will use.
4. Click the down arrow next to the *Technology* box and select the appropriate type.
5. Select the appropriate *Height* and *Width* from the corresponding drop-down menus. The numbers represent the pixel size of the display.
6. Select the appropriate item in the *Color Depth* field. **Note:** Only valid sizes and colors for the current display technology will be available for selection.
7. Click **OK** to save the settings.



Tutorial #5: How to Add, Edit, and Delete a Network

Adding a Network

Refer to Tutorial #2: Configuring a Network.

Editing an Existing Network

1. Right-click on a network name on the left side of the *Network Configuration* screen.
2. Click **Edit...** in the pop-up menu.

OR

1. Activate the *Edit* menu.
2. Select **Edit > Network**.
3. Select the *Network* to be changed in the *Select a Network* window.
Refer to **Figure 27**.

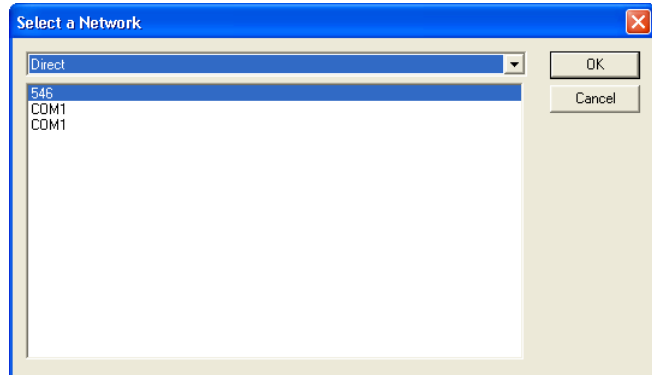


Figure 27: *Select a Network*

When the *Network Configuration* dialog box appears, change the information as needed (**Figure 28**).

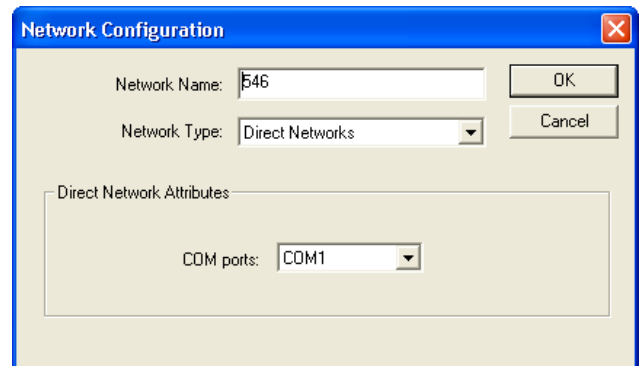


Figure 28: *Network Configuration Dialog*

Deleting a Network

1. Right-click a network name on the left side of the screen.
2. Select **Delete** from the pop-up menu.
3. A dialog appears requesting a confirmation of the deletion (**Figure 29**). Click **Yes** to delete the network or **No** to cancel.

WARNING: Deleting a network can leave displays without communication links.

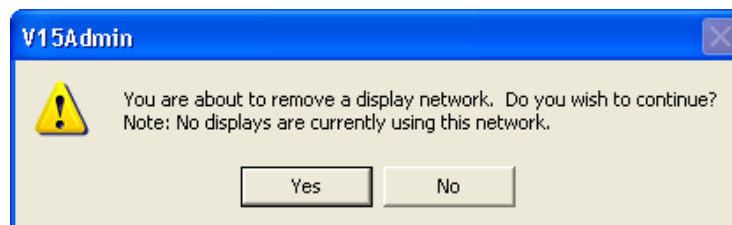


Figure 29: *Removing a Network Warning*



Tutorial #6: How to Edit a Display's Configuration

To modify the settings of an existing display or display group:

1. Right-click on a display or group name on the left side of the *Display Configuration* screen.
 2. Click **Edit...** in the pop-up menu.
- OR
1. Select **Edit > Display** (to edit a single display) or **Display Group** (to edit a group).
 2. Select the display to edit in the *Select a Display* window. Refer to **Figure 30**.

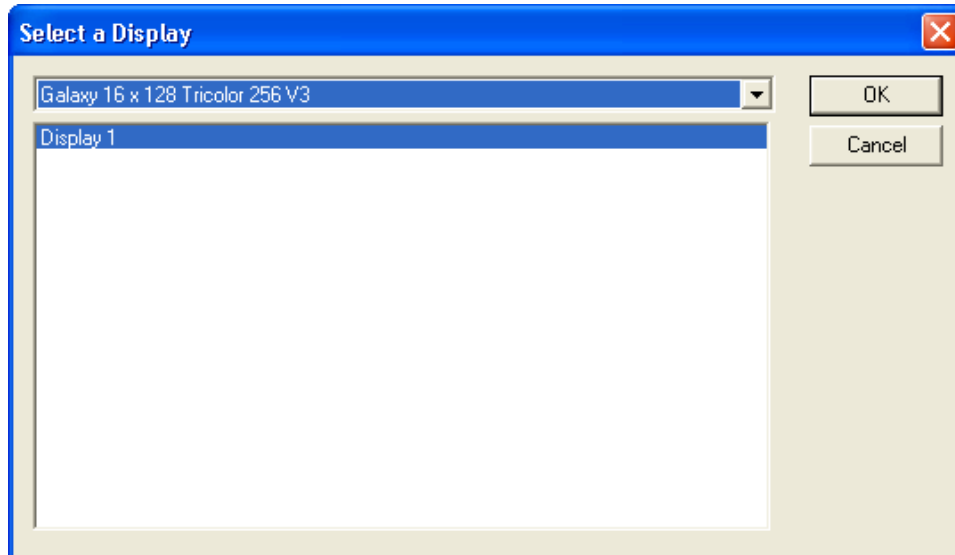


Figure 30: Edit Display

3. Edit the information as needed in the *Display Configuration* dialog box (**Figure 31**).

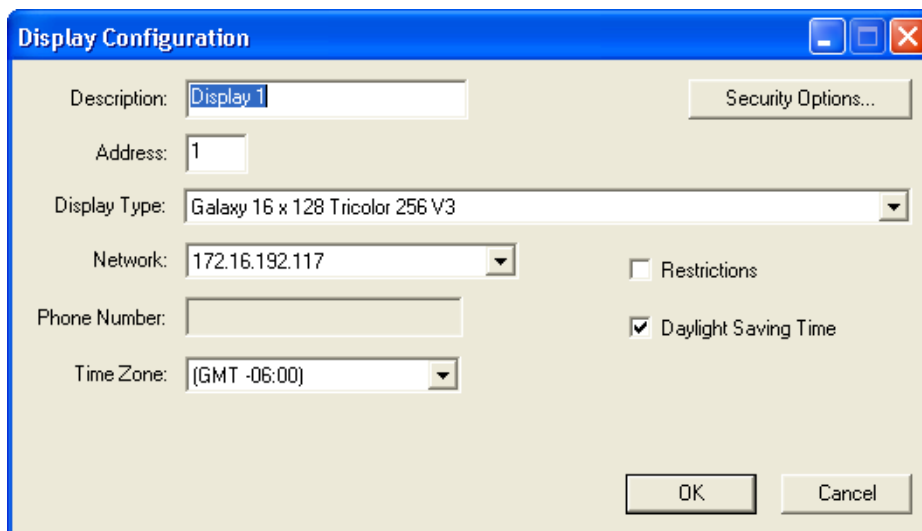


Figure 31: Edit Display Configuration

4. Click **OK**.



Tutorial #7: How to Delete a Display or Display Type from a Network

1. Right-click on the display name or display type on the right side of the Administrator screen.
2. Select **Delete** on the pop-up menu. A dialog box appears requesting a confirmation of the deletion. Refer to **Figure 32**.
3. Click **OK** to delete the display or display type or click **Cancel** to leave the display or display type.

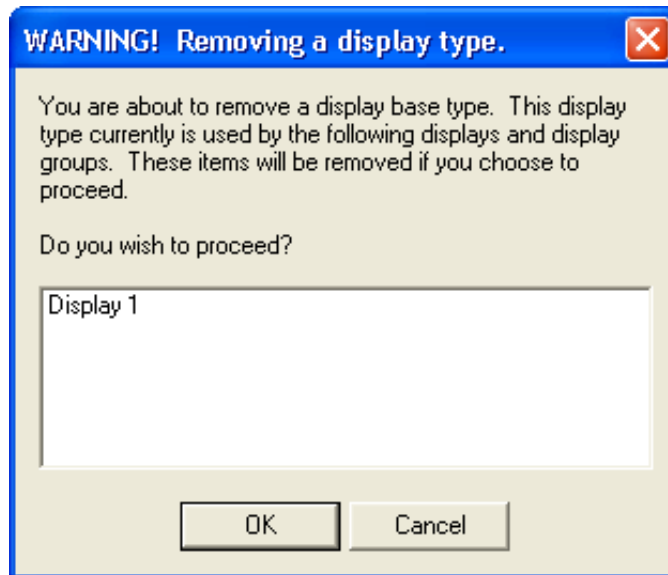


Figure 32: Delete Display Warning



Tutorial #8: How to Create a Group of Displays

A group of displays is a collection of displays of the same display type that can receive Venus 1500 commands simultaneously. This option can be used to send the same message(s) at the same time to more than one display of the same type. *A group is not required for sending data to the display.*

NOTE: Display types must be configured and displays added before this option can be used.

To create a new group:

1. From the **Edit** menu, select **New > Display Group**. The *Display Group Configuration* dialog box appears. Refer to **Figure 33**.

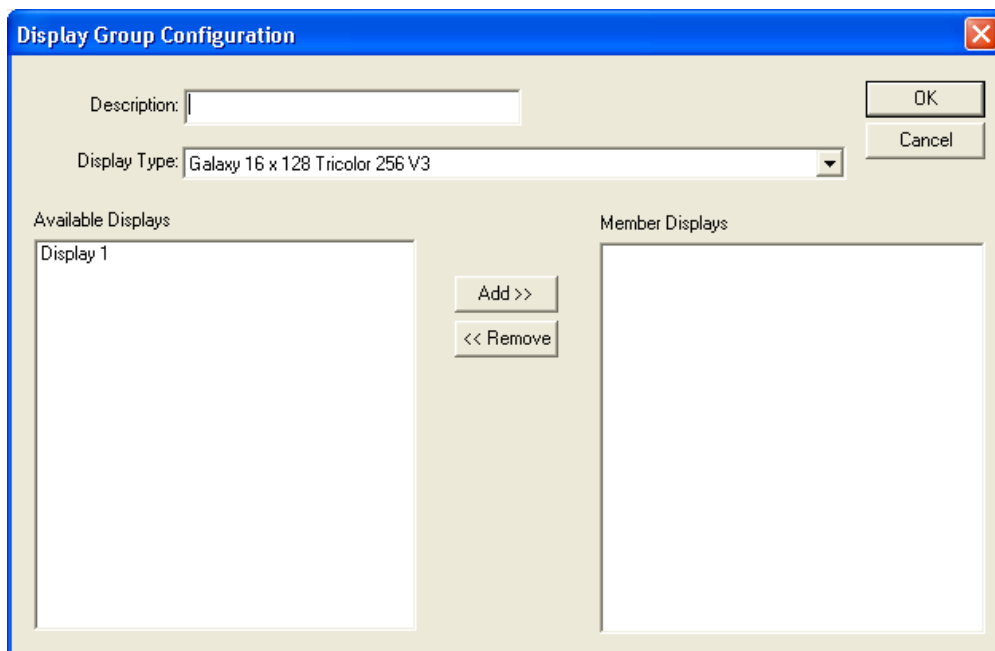


Figure 33: *Display Group Configuration*


2. Enter a name for the group in the *Description* field.
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) to be included in the group and click **Add>>**. The display(s) are added to right column called **Member Displays**.
5. To remove a display, highlight the name under **Member Displays** and click **<<Remove**.
6. Click **OK** to save the display group or choose **Cancel** to discard all settings and exit the dialog box



Tutorial #9: How to Add a Multi-Galaxy Display Type

This option is only available with Venus 1500 Version 3 displays.

To add a multi-Galaxy display type:

1. Click  to activate the display configuration screen.
2. From the **Edit** menu, select **New > Display Type**. The *Display Type Configuration* dialog box appears. Refer to **Figure 34**.

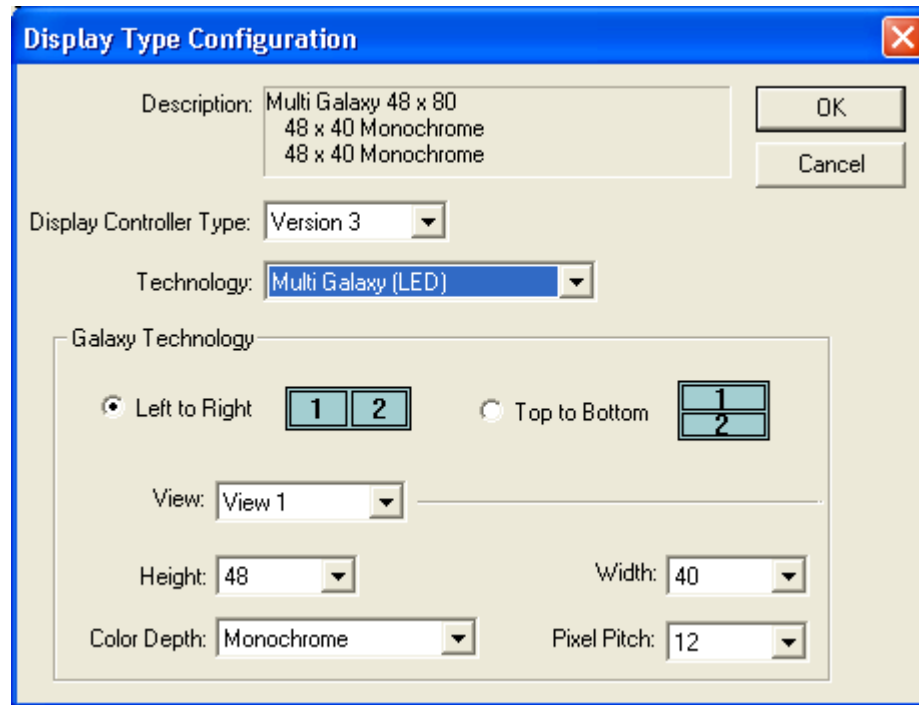


Figure 34: Multi Galaxy Display Configuration

3. In the *Display Controller Type* menu, select **Version 3**.
4. Click the down arrow next to the *Technology* box and select **Multi Galaxy (LED)**.
5. Under *Galaxy Technology*, select whether the Multi-Galaxy display is configured left to right or top to bottom.
6. Set the pixel matrix size for View 1 (display section) by clicking on the down arrow next to the *Height* and *Width* fields.
7. Click on the down arrow next to *Color Depth* and select the color capabilities for View 1.
8. Click on the *Pixel Pitch* field and select the spacing between each pixel in the matrix for View 1.
9. Repeat steps 4 – 7 to configure View 2.
10. Click **OK**.



Tutorial #10: How to Set Security Options

Password security can be activated for Version 3 displays only. This allows a password to be set up for the display. The password is then stored in the display's memory and is verified each time the software communicates to the display. If the password is forgotten, it will be necessary to access the internal components of the display to reset the security function. Take care to remember the password.

To enable the **Security** option:

1. Right-click on the desired display from the *Display Configuration* list and a pop-up menu will appear.
2. Click **Security Options** and the corresponding window will appear (**Figure 35**).

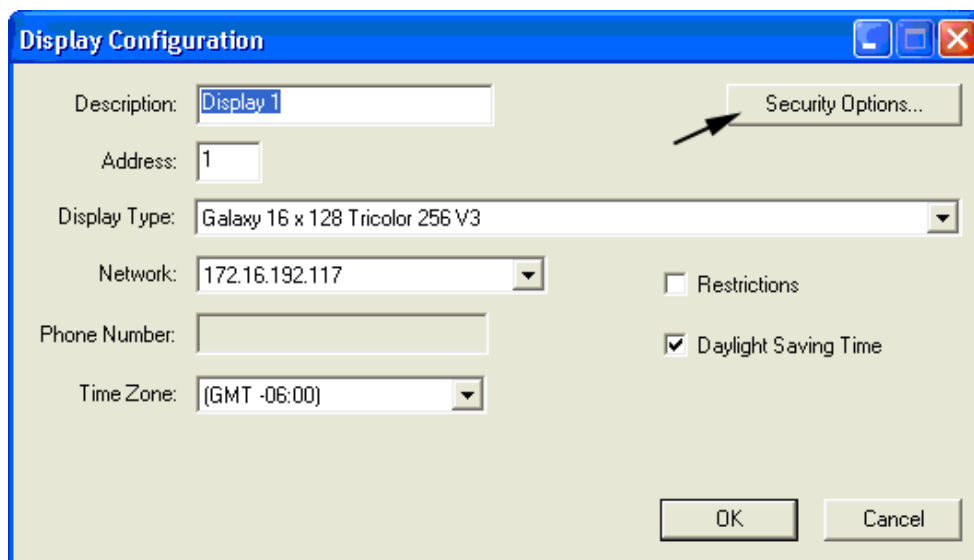


Figure 35: Security Options Button

3. Select the **Enable Security** box and type in the desired password in the *New Password* field (**Figure 36**). Retype the password in the *Confirm Password* field. Passwords in both fields must match and are case sensitive.

When the *Security Option* is enabled, the user will see two blinking pixels in the bottom right hand corner when the display is blanked. It may be necessary to update the firmware at the display in order for the *Security Option* to work.

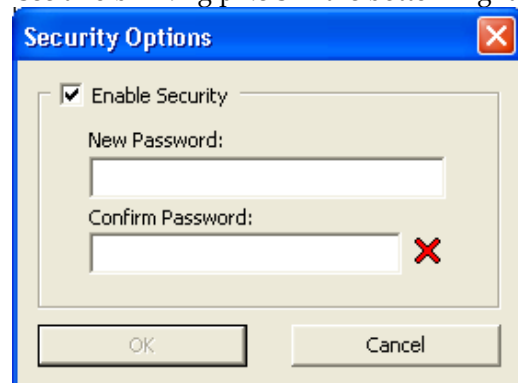


Figure 36: Password Entry



Tutorial #11: How to Modify Communication Defaults (Networks Default Settings)

It is also possible to specify default settings for timeouts, maximum retries, and the disconnect time for each of the network types. Use the following steps to modify the communication defaults:

1. From the **Edit** menu in *Administrator*, select **Defaults**.
2. Change the settings as desired using the arrows next to each field or by highlighting the number and typing the new value. Refer to **Figure 37**.

Communication Timeouts is the maximum amount of time allowed between retries for a connection to be established before the software times out the process.

Maximum Retries is the maximum amount of attempts to connect to a display.

Disconnect Time is the maximum amount of time it will take for the control computer to disconnect from the display after the last command was sent to the display.

Section	Field	Value	Unit
Communication Timeouts	Direct	2	Sec
	Dialup	2	Sec
	TCP/IP	3	Sec
Maximum Retries	Direct	3	
	Dialup	3	
	TCP/IP	3	
Disconnect Time	Direct	5	Sec
	Dialup	30	Min
	TCP/IP	30	Sec

Figure 37: *Communication Defaults*

3. Click **Apply** to save the settings but keep the *Communication Defaults* dialog box open. Click **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

Direct: 60 Sec

Dial Up: 30 Sec

TCP/IP: 30 Sec

Task Failure: 10 Min

Maximum Retries

Direct: 10

Dial Up: 10

TCP/IP: 10

Disconnect Time

Direct: 90 Sec

Dial Up: 30 Min

TCP/IP: 90 Sec



Tutorial #12: How to Custom Configure — Text Filter

This section will provide instructions on configuring the text filter.

1. Click on the **Administrator** button in the Venus 1500 Shell.
2. From the **Edit** menu, select **Text Filter Setup**.

Note: Two filter lists can be enabled: *Default List* and *Custom Word or Phrase* list. The *Default List* is a *default* profanity filter that 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 view the default list, click **View Default List**. Refer to **Figure 38**.

WARNING: The words in the *Default List* can be seriously offensive to many people. View this list with the understanding that it is a filter system for the Message Editor program and is not meant to be offensive.

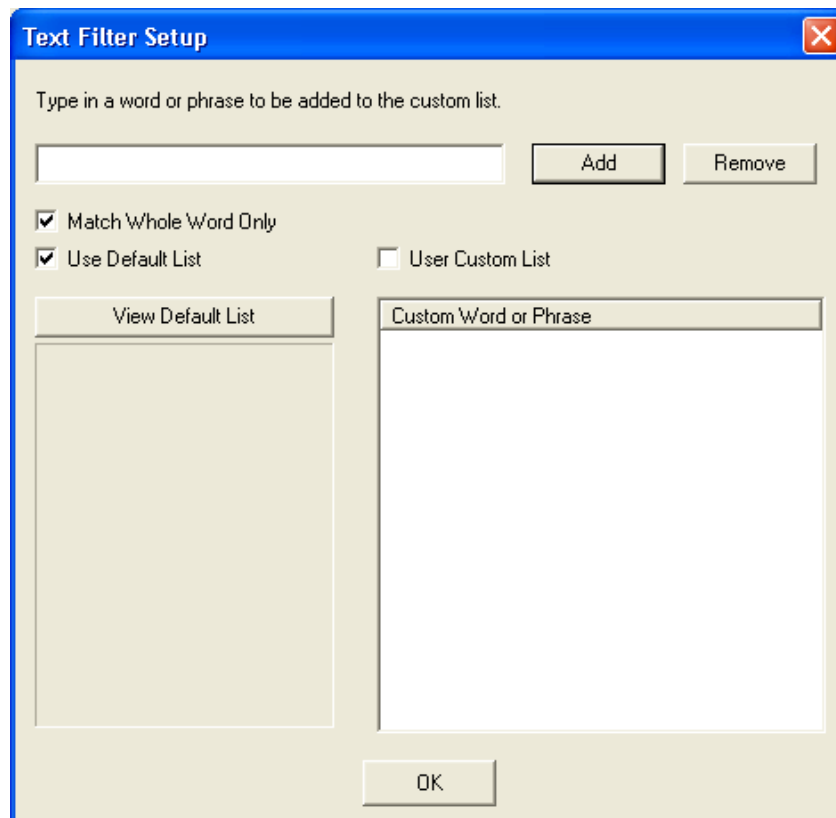


Figure 38: Text Filter Setup

3. Select the box next to the desired filter. A check mark indicates the filter is enabled.
4. Select **Match Whole Word Only** to filter the exact words or phrases in these lists. (For example, if the word “and” was added to the Custom List, the word “handle” will be filtered if **Match Whole Word Only** is unchecked as it contains the word “and.” It will not be filtered if the box is checked.)

5. To add new words to the custom filter feature, ensure that the **Use Custom List** box is checked.
6. Next, enter the new word in the field next to the **Add** button. Click **Add** to save the word to the list. The word will appear in the **Custom Word or Phrase** column.
7. To remove a word from the list, click on the desired word and then click **Remove**. The word will disappear from the column.
8. Click **OK** to save the settings and return to the *Venus 1500 Administrator* window.



Tutorial #13: How to Custom Configure — Zoning Configuration

This section will give instructions on setting the zoning configuration.

1. In the *Venus 1500 Administrator*, click **Edit > Zoning Configuration**. The *Zoning Configuration* dialog will appear (**Figure 39**).

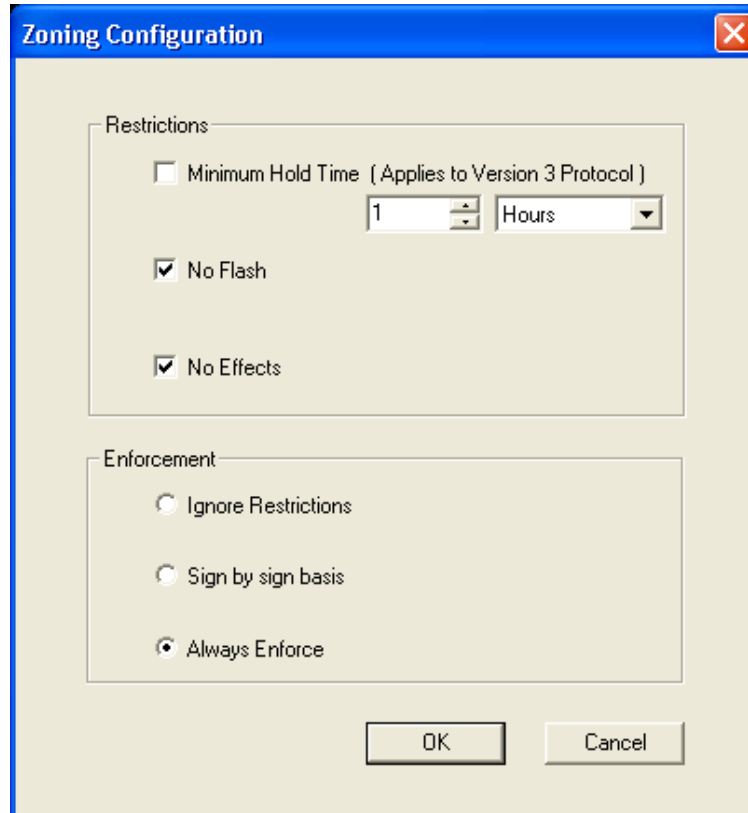


Figure 39: Zoning Configuration

2. Click the desired **Restrictions** to be enforced.
 - a. **Minimum Hold Time** sets the absolute minimum amount of time that a message can be displayed. **This applies only to Version 3 displays.**
 - b. **No Flash** prevents any part of the message from flashing when displayed.
 - c. **No Effects** cancels out all effects that may have been applied to the message; this includes the flashing function.
3. Select which of the three **Enforcement** levels should be applied.
 - a. **Ignore Restrictions** will void any restrictions that have been set for all displays on the network.
 - b. **Sign by Sign Basis** allows the user to choose which displays will respond to the restrictions set for that sign. **Note:** If Sign by Sign Basis is selected, restrictions are enabled in the *Display Configuration* dialog.
 - c. **Always Enforce** enforces all restrictions on all displays at all times.
4. Click **OK** to save the settings and to close the window or click **Cancel** to void the action and return to *Venus 1500 Administrator*.



To enable restrictions for a particular display:

1. Click the **Display Configuration** button in the *Venus 1500 Administrator*.
2. Select the display type and right-click the desired display.
3. Select **Edit** from the menu. The *Display Configuration* dialog will appear (**Figure 40**).

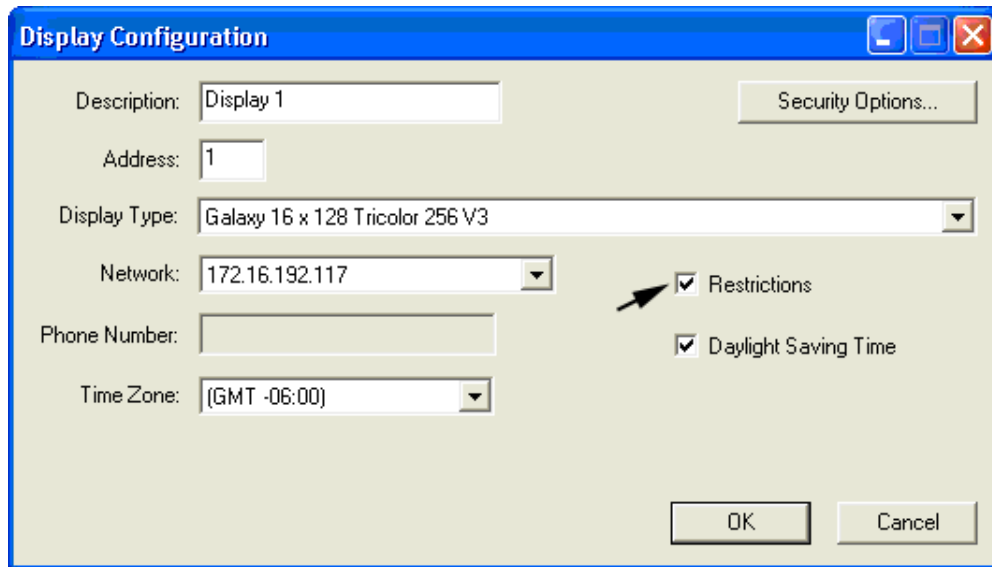


Figure 40: *Display Configuration - Restrictions*

4. Select **Restrictions** (note the arrow) and click **OK**.



Tutorial #14: How to Custom Configure — Database

Database

1. In the *Venus 1500 Administrator*, select **Edit > Database**.
2. The *Select Database* window will open to allow the selection of either **Local Database** or **Remote**.

Remote Database

This feature will not work if the main computer is operating on a Windows 2000 or XP platform and the remote database computer is operating on a Windows 98 platform.

This is 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 set up the remote database immediately before configuring the displays and before creating messages.

1. Click the **Venus 1500 Administrator**.
2. Open the **Edit** menu and select **Database**. Refer to **Figure 41**.

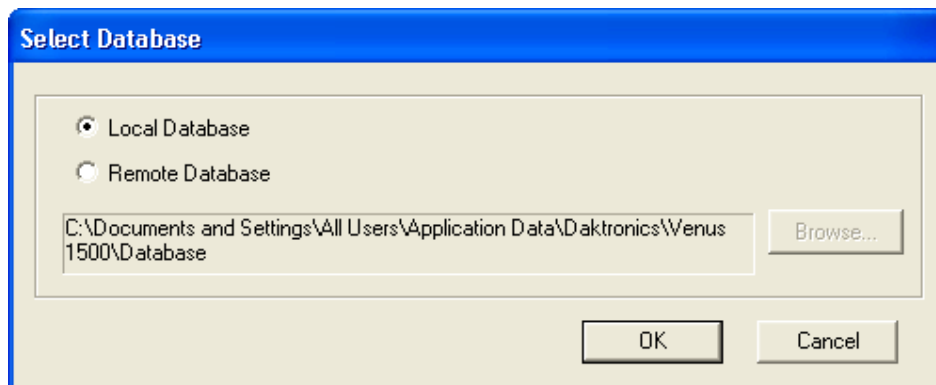


Figure 41: Select Database Window

3. Select **Remote Database** and find its location by clicking on the **Browse** button.
4. Browse to the new database location and click **OK** to select it.
5. Click **OK** to close the *Remote Database* dialog.
6. A prompt will appear to move the contents of the local database to the remote location. Click **Yes** to move the contents or click **No** to cancel the move. Refer to **Figure 42**.

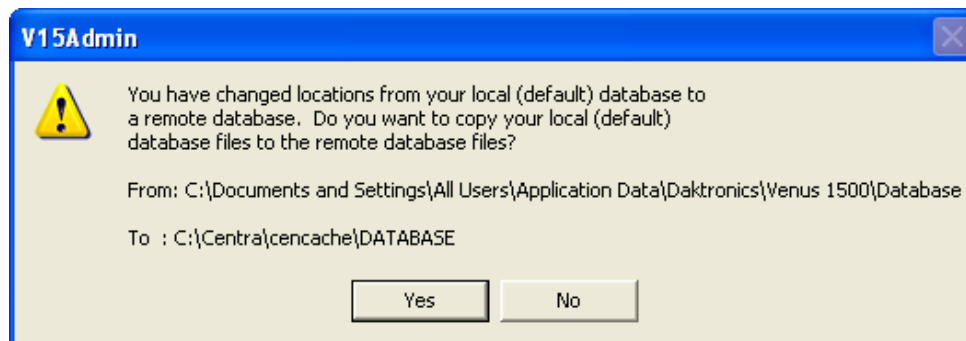


Figure 42: V15Admin Prompt



Tutorial #15: How to Test a Network

Direct Network Testing

Network testing requires the use of a loop-back box or adapter. This box/adapter connects the serial port transmit and receives pings to determine if the serial port is working and no physical breaks are present in the communication cable. **It will not determine signal polarity.** It is possible for the loop-back test to work and *still not receive communication* resulting from improper wiring.



1. In the *Venus 1500 Administrator*, click on **Network Configuration**.
2. Right-click on the desired network to activate the pop-up menu and then select **Test...** The *Network Testing* dialog box appears.
3. Attach the loop-back box/adapter and click **Test** to begin testing the network. In the *Received* area of the dialog box, the following results may be returned:
 - a. The test was successful if the same text appears in both the *Sent* area and in the *Received* area.
 - b. "No response" indicates a break in the cable, a bad serial port, or a bad signal converter (if used).
 - c. "Connection failure" indicates the test was unable to connect to the serial server if connecting to the display via a TCP/IP connection.
 - d. When the test is complete, click **Close** to return to the *Venus 1500 Administrator*.

Ping Testing for Serial Servers

The ping capability in the Venus 1500 is a troubleshooting tool for TCP/IP networks. This feature allows the user to ensure that the serial server on a TCP/IP network is alive and working.

To use the Ping feature:

1. In the *Venus 1500 Administrator*, click on **Network Configuration**.
2. Double-click on **TCP/IP Networks**. Right-click on the desired network and a pop-up menu will appear.
3. Click **Ping**. The controller will send out a signal to the serial server. If the serial server is functioning properly, it will send back a signal to the controller. This will be displayed similar to **Figure 43**.
4. Click **OK** to accept the results and close the *Ping Data* window.

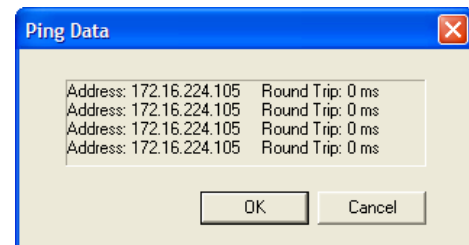


Figure 43: Ping Testing

Section 4: The Venus 1500 Message Studio

The *Venus 1500 Message Studio* creates the messages that will appear on the displays. This section will give instructions on creating basic text messages, animated graphics, and effects for a display.

To activate the *Venus 1500 Message Studio*, click  on the *Venus 1500 Shell*. In the *Venus 1500 Message Studio*, text and graphics are entered into “frames.” One or more frames create a message. Thumbnails of existing frames for the current message are displayed along the right side of the screen. Refer to **Figure 44**.

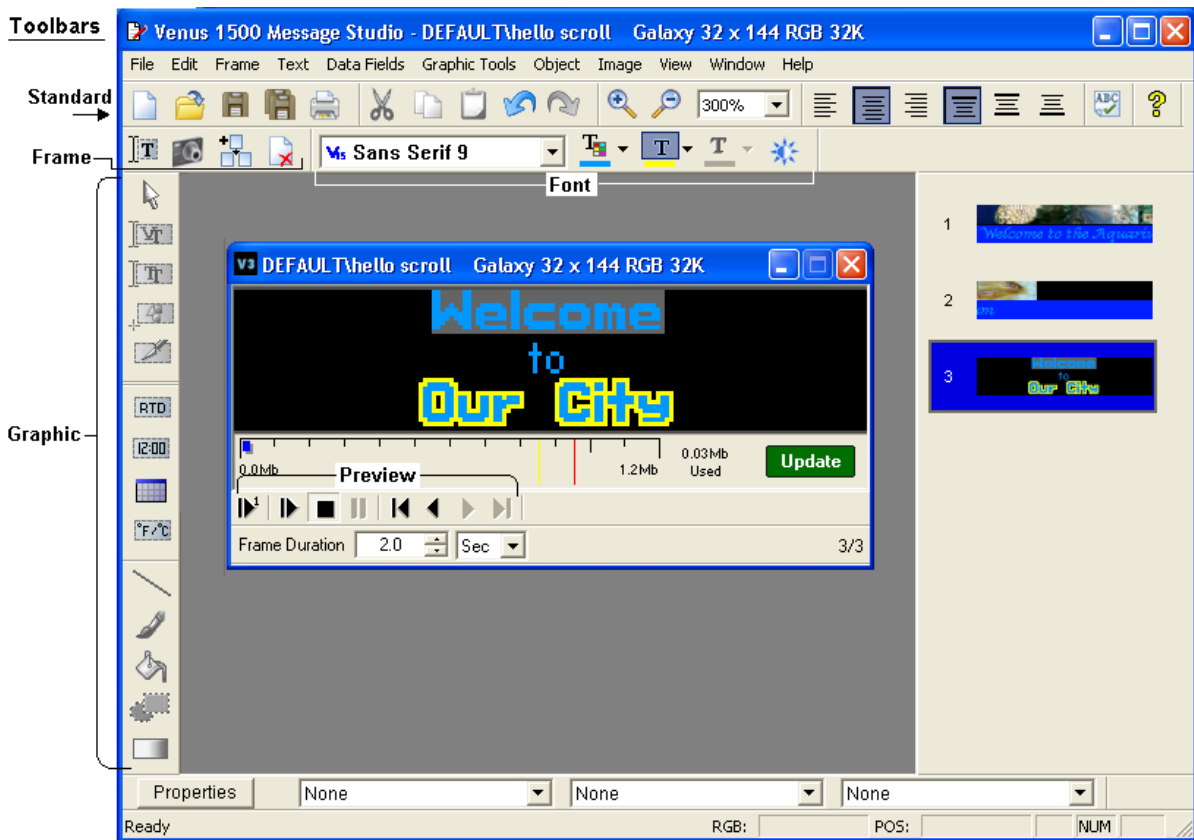


Figure 44: *Venus 1500 Message Studio*

A variety of toolbars are available to create messages. These toolbars are labeled in **Figure 44**. Each tool of the toolbars is described in the sections following.

The Venus 1500 Version 3 software controls multiple display types, which are Galaxy, Sunspot, Glow Cube, Infonet, Datatrac, Multi-Galaxy, and GalaxyPro. The display type will enable different message options in the Venus 1500 Message Studio.

4.1 Toolbars






















The Message Studio contains numerous toolbars that assist in creating messages.

Standard Toolbar



Figure 45: Standard Toolbar

The **Standard Toolbar** offers basic tools for creating new messages, opening existing messages, saving files, printing, cutting, copying, and pasting elements. Below are descriptions for the buttons on the Standard Toolbar:

-  **Create new message** opens a new message file.
-  **Open existing message** opens an existing file.
-  **Save active message** saves the active open file.
-  **Save all open messages** saves all open files.
-  **Print active message** prints a paper copy of a sequence of all frames or of selected frames.
-  **Cut selection to clipboard** cuts a selection and places that selection on the clipboard.
-  **Copy selection to clipboard** copies a selection and places that selection on the clipboard.
-  **Paste content from clipboard** pastes the contents from the clipboard into the file.
-  **Undo action from history** reverses the last action.
-  **Redo action from history** reverses the **undo** action.
-  **Increase message scale** enlarges the view of the frame.
-  **Decrease message scale** reduces the view of the frame.
-  **Zoom field** allows the operator to enter a specific zoom percentage.
-  **Justify left** positions the text to the left of the frame.
-  **Justify center** positions the text in the center of the frame.
-  **Justify right** positions the text to the right of the frame.
-  **Justify top** positions the text to the top of the frame.
-  **Justify middle** positions the text to the middle of the frame.
-  **Justify bottom** positions the text to the bottom of the frame.
-  **Check spelling** activates the spell check.
-  **Help** displays the electronic copy of this manual.

Font Information Toolbars






The *Font Information* toolbars select the font used on frames, including font size, appearance, and other properties. The toolbar varies depending on whether the message is in a text or a graphic frame and whether the operator is using the True Type fonts or the Venus fonts.

The *Venus Font* text toolbar (see **Figure 46**) is used to type text in messages when not in a graphic page. In graphic pages, the user has the ability to use the Venus Font text or the True Type font text. To access the Venus Font text toolbar in graphic page, click on Add Venus Font Text under the *Text* menu.



Figure 46: Venus Font Text Toolbar

Below are descriptions of the buttons on the Venus Font Text toolbar:










-  **Venus fonts** menu lists the possible fonts for messages.
-  **Text color** allows the user to access the color palette for specific text colors.
-  **Outline text** outlines the text with a color of the user's choice.
-  **Shadow text** shadows the text with a color of the user's choice.
-  **Flash text** flashes text when specific text is highlighted.

The *True Type font* text toolbar (**Figure 47**) can be accessed when the user is in a graphic frame and **Add True Type Font Text** is clicked in the *Text* menu.



Figure 47: True Type Font Text Toolbar

Below are descriptions of the buttons on the *True Type Font Text* toolbar:

-  **Windows® fonts** menu lists the possible fonts for messages with the True Type Font Text toolbar.
-  **Font size** allows the user to choose what size of font to use for messages.
-  **Bold** makes highlighted text bold.
-  **Italic** makes highlighted text italic.
-  **Underline** underlines highlighted text.
-  **Text color** allows the user to access the color palette for specific text colors.
-  **Outline text** outlines the text with a color of the user's choice.
-  **Shadow text** shadows the text with a color of the user's choice.
-  **Smooth text** smoothes the edges of the text or figures to make them appear smoother.

Frame Toolbar

The *Frame Toolbar* (refer to **Figure 48**) contains tools used to create and delete frames. The *Frame Toolbar* is located in the upper-left part of the message studio screen.

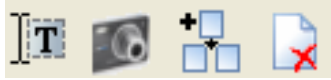






Figure 48: *Frame Toolbar*

Below are descriptions of the buttons on the *Frame Toolbar*.









-  **Add new text frame** adds a new frame for text.
-  **Add new graphic frame** adds a new frame for graphics.
-  **Insert copy of current frame** adds an exact copy of a frame within a sequence.
-  **Delete current frame** deletes a frame from a sequence.

Previewing Toolbar

The *Previewing Toolbar* (**Figure 49**) contains tools used to preview messages. The *Previewing Toolbar* is located beneath the message creation area.



Figure 49: *Previewing Toolbar*

-  **Preview frame** plays the active frame on the monitor as it would appear on the display.
-  **Preview** plays the active sequence of frames as they would appear on the display.
-  **Stop** stops the currently playing message.
-  **Pause** pauses the currently playing message.
-  **First frame** changes the active frame to the first frame in the sequence.
-  **Previous frame** changes the active frame to the previous frame in the sequence.
-  **Next frame** changes the active frame to the next frame in the sequence.
-  **Last frame** changes the active frame to the last frame in the sequence.

Graphic Toolbar

The *Graphic Toolbar* contains tools to edit graphics in messages. The *Graphic Toolbar* is located on the left side of the *Message Studio* screen.
















-  **Object selection tool** allows the user to select individual images, text, or an entire graphic to move in the message frame. The user is also able to select various layers of the frame by clicking in the desired area.
-  **Create new Venus text box** activates the custom fonts created specifically for use with Daktronics displays. Text may be edited in a variety of ways, such as changing the color of certain words or changing the font size of one line.
-  **Create new True Type text box** activates Windows® fonts. They may be used to create text messages similarly to the Venus fonts. However, text colors, sizes, and other characteristics may be applied only to the complete text and not to specific words or lines of text within the text block.
-  **Create new Image box** allows the user to create a new image box that may be used for text or graphics in the message frame.
-  **Mask tool** selects an area in the background that can then be copied or cut out of the message frame.
-  **Create new RTD (Real-time Data) tool** allows the display to show “live” data such as sports scores, stock prices, and other current data brought in through an Internet feed. **Note:** This field requires RT software to connect the data to the display.
-  **Create new Time field** inserts a field that automatically shows the current time. A number of format choices are provided when the tool is clicked.
-  **Create new Date field** inserts a field that automatically shows the current date, according to the format chosen when the tool is clicked.
-  **Create new Temperature field** inserts a field that automatically shows current temperature. The user is able to choose whether the temperature be displayed in Celsius or Fahrenheit. **Note:** This field requires that a temperature sensor be installed with the display.
-  **Line tool** allows the user to draw straight lines in a graphic frame. When the tool is clicked, the user may choose a line thickness and color selection located next to the **Frame** toolbar. See **Error! Reference source not found.**
-  **Brush tool** allows the user to create curved lines and shapes. Line color and size may be chosen from the options located next to the **Frame** toolbar (Figure 50).



Figure 50: Brush Options

-  **Fill tool** allows the user to fill an enclosed area or an entire frame with the color chosen from the tool bar located next to the **Frame** toolbar. See **Figure 51**.
-  **Shape tool** allows the user to draw different shapes that are chosen from the drop-down menu next to the **Frame** toolbar. Shapes may be either outlined or filled.
-  **Gradient tool** allows the user to create a gradual transition between two colors. Gradients can be used to create a background or shading.
-  **Smoothing tool** allows the user to smooth lines, shapes, brush strokes, and other drawing tools to minimize jagged edges. Click on the smoothing tool before clicking on another tool to use this feature.

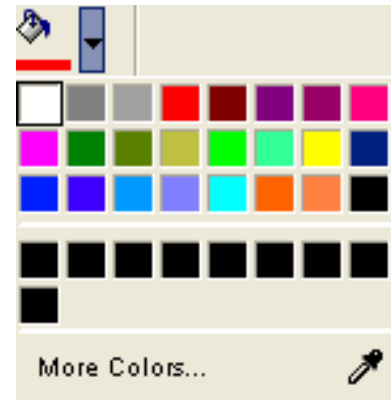


Figure 51: Fill Color Options

4.2 Color for the Version 3 Controller

The RGB (red, green, and blue) displays have the ability to display 32,768 colors and GalaxyPro displays have 64 billion-color capability. Version 3 monochrome displays have 64 shading capability, which means the color of the monochrome display is able to show 64 different shades of that color. The Version 3 Tricolor displays have 256-color capability. The colors can be applied to an entire frame, a single row, or to individual letters and graphics in most cases.

The RGB values of any color are displayed on the bottom-right corner of the Message Studio screen when the cursor hovers over a color in the frame. Refer to **Figure 52**. This feature allows the user to copy the exact values of a color from a logo or other graphic to use in a message.

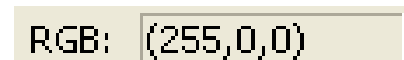


Figure 52: RGB Values in Message Studio

Color Palette

The **color palette** is a tool that quickly changes and selects font, foreground, and background colors to use when creating a message. Additional colors can be set within the color palette area as well. The user can access this palette with each text or drawing tool by clicking on the down arrow next to the corresponding icon.

Note: The following color palettes are for RGB display types of 32,000 or 64 billion colors.

When the **color palette** is activated, the user is able to access different options as described below:

Color Palettes for RGB 32,000 or 64-billion Color Displays

- **Basic colors** offers a choice of the most basic colors. Refer to **Figure 53**.
- **Color picker** allows the user to select a color from a graphic and set it as the foreground color for a text frame or another part of the graphic frame. This feature is useful for finding exact color matches (**Figure 53**).
- **More colors** opens another color palette showing the basic colors and has the **Define Custom Colors >>** option (**Figure 54**). When this option is clicked, a window opens next to the current window. See **Figure 55**.
- **Define custom colors** allow the user to drag the pointer over a desired color, then on the right bar, drag the arrow to the desired color. When the desired color is found, click **Add to Custom Colors**. It is also possible to create a color by adding in the numbers in the boxes on the bottom part of the window. Refer to **Figure 55**.

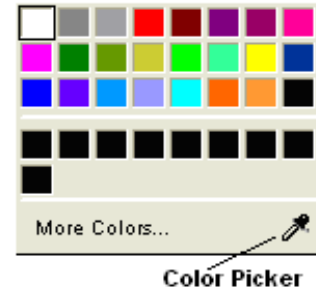


Figure 53: Basic Color Palette

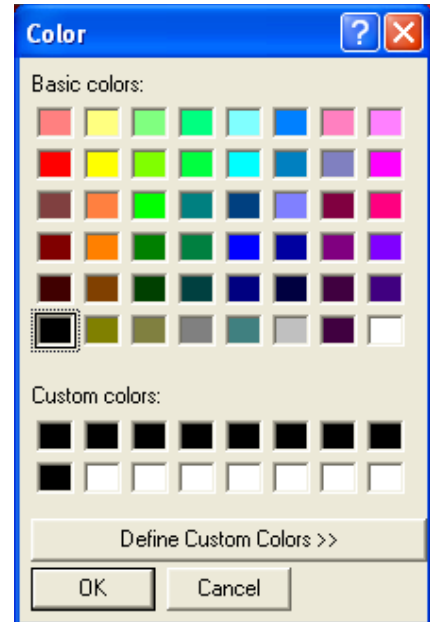


Figure 54: More Colors Palette

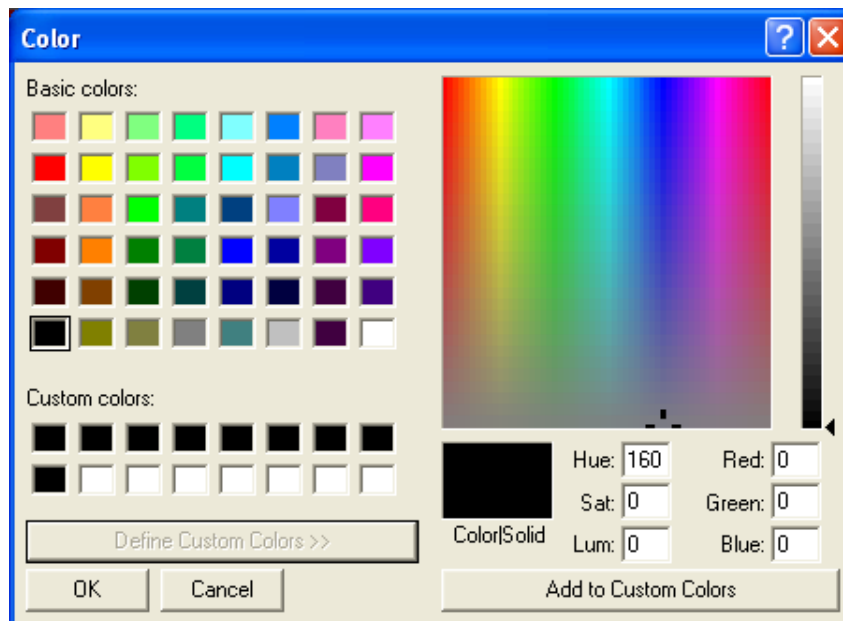


Figure 55: Define Custom Colors Palette

Color Palettes for Displays with Tricolor 256 Color

The following color palettes are available for a display with a Tricolor 256 color depth:

- **Basic colors** offers a choice of the most basic colors. Refer to **Figure 56**.
- **Color picker** allows the user to select a color from a graphic and set it as the foreground color for a text frame or another part of the graphic frame. This feature is useful for finding exact color matches (**Figure 56**).
- **More Colors** opens another color palette showing the custom colors options. The user may pick the desired color and click **Add to Custom Palette** or type in the numerical value of the color and click **Add to Custom Palette**. Refer to **Figure 57**.

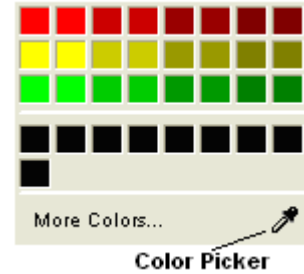


Figure 56: Basic Color Palette for Tricolor Display

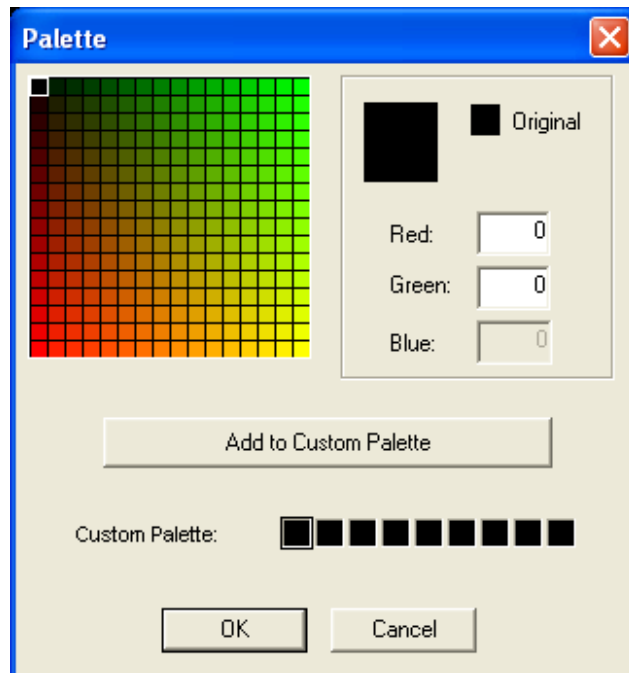


Figure 57: Custom Color Palette for Tricolor Display

Color Palette for Monochrome 64 Color Displays

The following color palettes are for a display with a monochrome 64 color depth:

- **Basic colors** offers a choice of the most basic colors to choose from. Refer to **Figure 58**.
- **Color picker** allows the user to select a color from a graphic and set it as the foreground color for a text frame or another part of the graphic frame. This feature is useful for finding exact color matches. Refer to **Figure 58**.
- **More Colors** opens another color palette showing the custom colors options. The user may pick the desired color and click **Add to Custom Palette**. Refer to **Figure 59**.

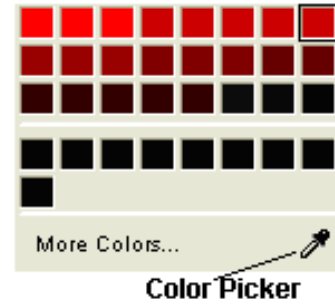


Figure 58: Basic Color Palette for Monochrome Display

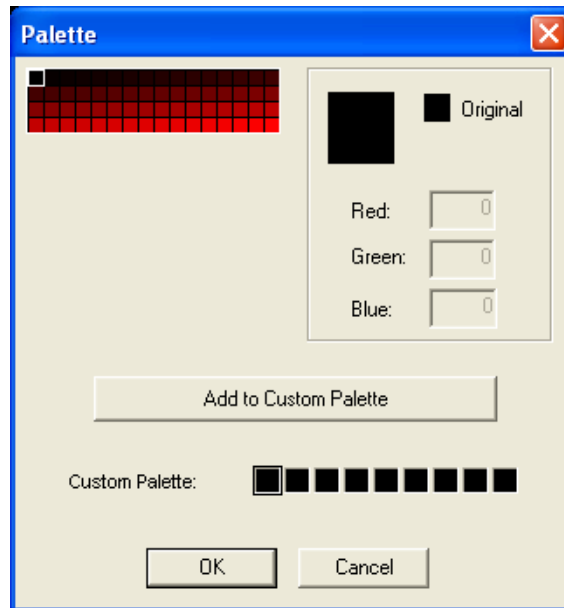


Figure 59: Custom Colors Palette for Monochrome Display

4.3 Frames

When the user opens a new or existing message, a frame will appear. Refer to **Figure 60**. 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, two types of frames exist: text and graphic.

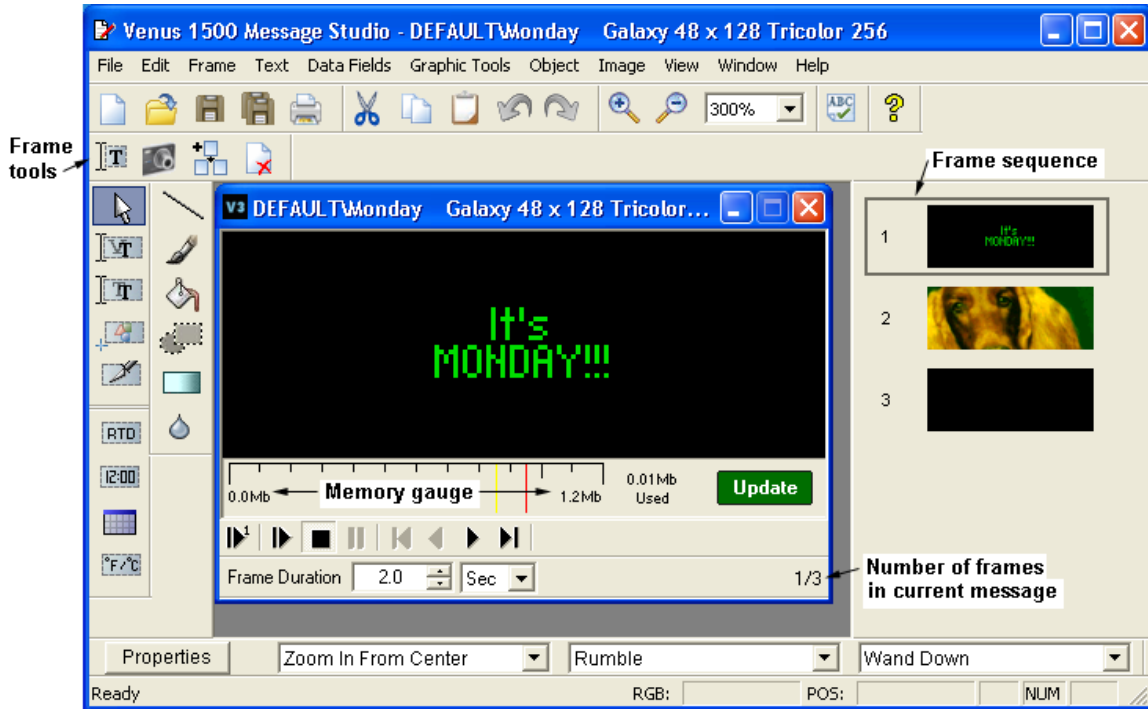


Figure 60: Frames

Text frames are used to display text using various fonts. When a text frame is on the screen, the cursor blinks at the position where text can be entered. In a text frame, the user may choose a font from a list of available fonts next to the frame toolbar. Refer to **Figure 61**.

The font names correspond to their pixel height and line thickness. Available fonts will vary with display type and size. **Note:** "Graphic" fonts indicate a graphic character font.

When a text frame is activated, some features in Message Studio are unavailable, such as the Toolbox, which can only be activated in a graphic frame.

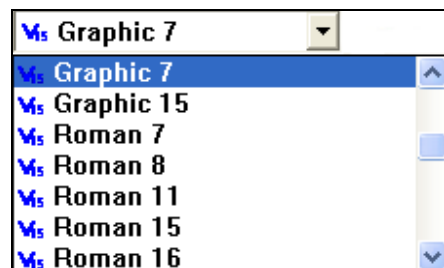


Figure 61: Available Font List

Graphic frames are used to incorporate images into the message. Graphic frames allow for more creative work on messages because a wider option of font types is available and the user may import graphics and video clips. A combination of both text and graphics may be entered.

The graphic frames do not show a blinking cursor because it is not possible to directly write on the frame. To enter information on the graphic frames, the user must choose from the tools to the left. When a graphic frame is activated, the graphic toolbar along the left side of the message window will be activated. Once the tools are selected, the color and line options for each tool are available above the open message frame in the toolbar. Refer to the **Graphic Toolbar** section of this manual.

A graphic frame will have a grid that represents the number of pixels high and wide on the display. This is useful for adjusting the layout and color of messages.

Note: Only Galaxy, GalaxyPro, SunSpot, or Glow Cube displays can use graphic frames. The grid represents the pixels on the display. The pixel dimensions of the frame must match the matrix size of the display.

Frame sequence is a file constructed of a single frame or a series of frames that constitute a message. This sequence appears to the right of the frame screen. Refer to **Figure 60**.

Memory gauge displays in blue the size of the message upon clicking the green [Update] button. The yellow line is a warning for a message that is close to being too large to be created. The red line indicates that the message is too large. Refer to **Figure 60**.

Note: GalaxyPro displays have a larger memory than other display types.

Frame duration indicates the length of time a frame remains on the displays once all of the entry and exit effects have been completed. Refer to **Section 4.4** for information about entry and exit effects. 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. The frame duration is measured in seconds, minutes, or hours. For example, if a frame's duration is set to 2.2 and seconds, the frame will hold 2.2 seconds before going to the next frame. Refer to **Figure 60**.

The frame duration can be different for each frame in a message. When frames are added, the new frame's duration takes the default from the Editor defaults box. Then frames are copied, the new frame's duration is the same as the original frame.

Note: Due to the mechanical nature of the Glow Cube displays, the frame duration for their messages cannot be less than 0.5 seconds. Lower frame durations may result in irreparable damage.

On the lower right hand corner of the frame, the number of the active frame out of the total number of frames existing is shown. Refer to **Figure 60**.

4.4 Frame Properties

Frame Properties (Figure 62) adjusts the settings of a specific frame, such as transitions from one frame to the next, hold time, and flash rates.

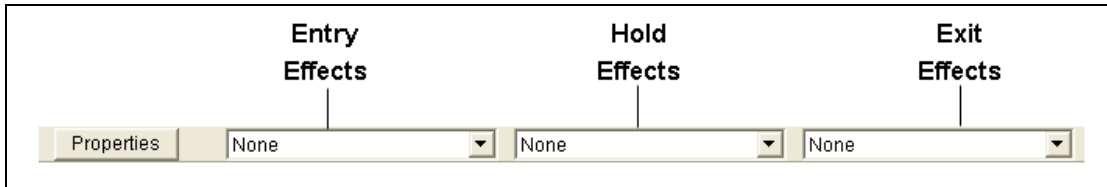


Figure 62: Frame Effects

The three boxes next to the *Properties* button provide quick options for entry, hold, and exit effects (Figure 62). In addition, when **Properties** is clicked, a window opens that allows adjustment of the timing, transitions, and effects for single or multiple frames (Figure 63). By clicking on the down arrows next to each box, options can be chosen for these effects.

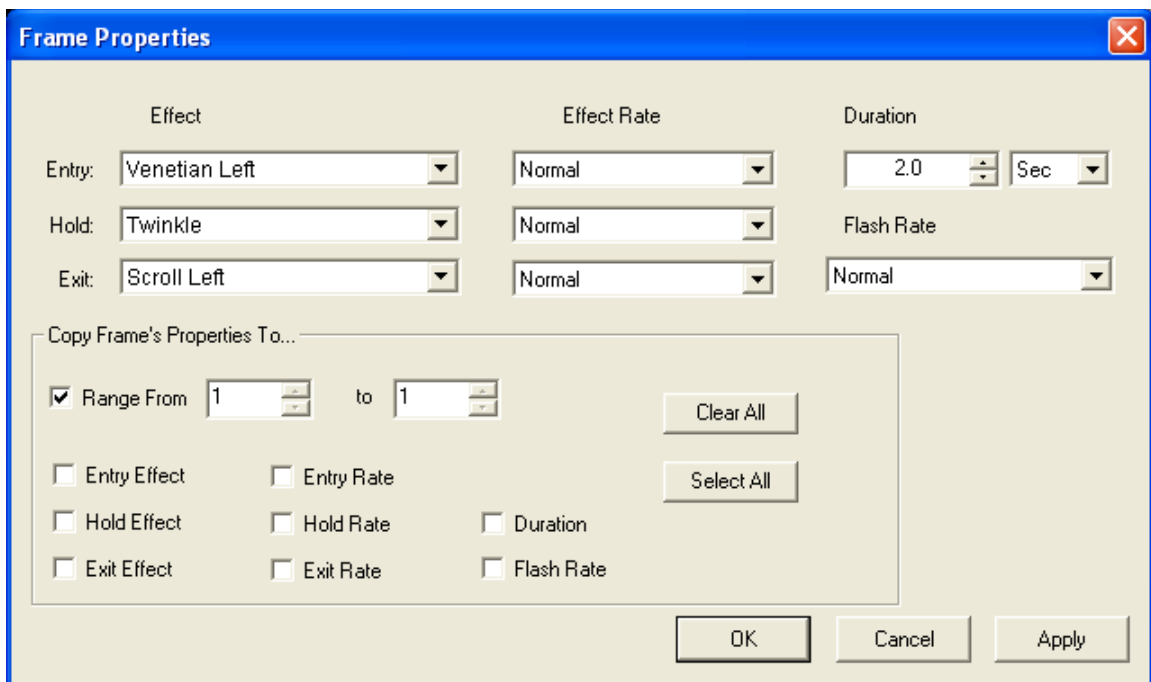


Figure 63: Frame Properties Window

Specifying Effects for Version 3 Displays

The down arrows in the *Frame Properties* toolbar or in the *Effect* fields inside the *Properties* window give access to the different kinds of effects possible for the frames. Each effect contains more effect options within it. Refer to **Figure 64**.

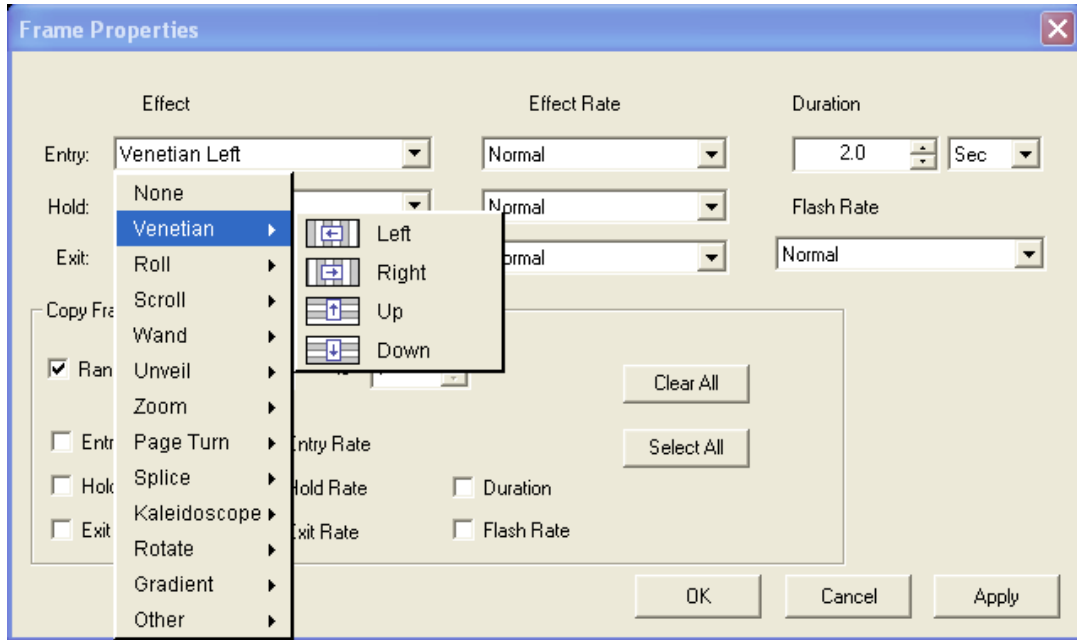


Figure 64: Effect Options

4.5 Message Properties

Message Properties allows the user to view the properties of a message. To access the *Message Properties* window, select the **File** pull-down menu and click **Message Properties**.

Details

The *Details* view in the *Message Properties* window allows the user to view all of the details of a message and the display configuration for which the message is created (**Figure 65**). The user may also enter or edit a description for the message in the *Message Description* field and typing in the desired description.

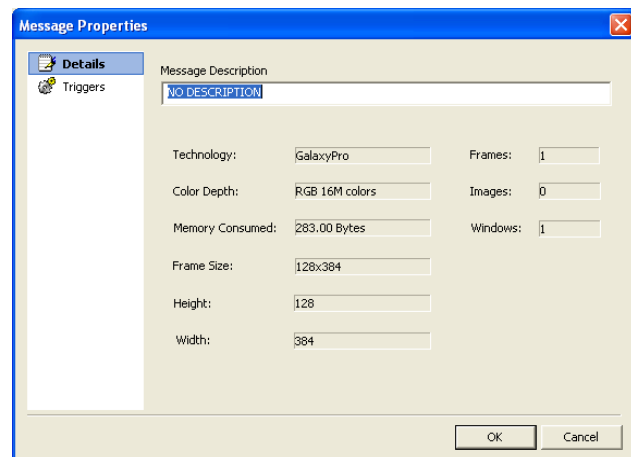


Figure 65: Message Properties - Details

Triggers

Triggers are used to control the state of external devices that may be connected to a display, such as a beacon.

Triggers allow the user to draw extra attention to the display when certain messages are being shown. They are set for each message individually and remain active while the message is being displayed. Venus 1500 software is capable of supporting up to 40 triggers. However, display limitations will dictate the actual number of devices available for control.

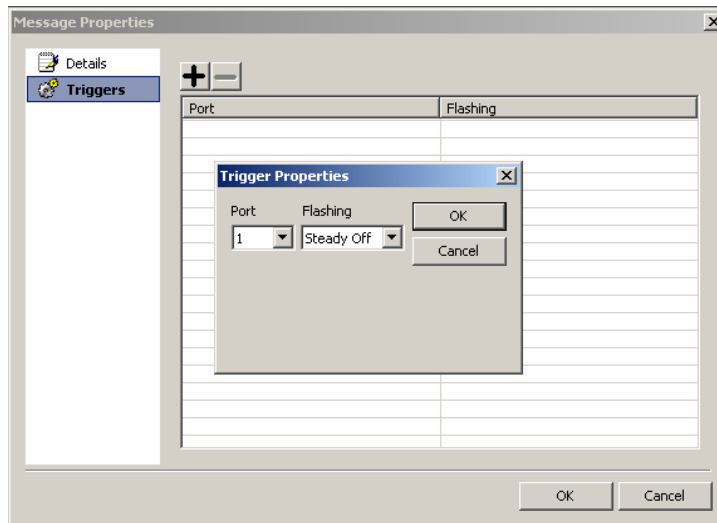


Figure 66: Message Properties - Triggers

To access the trigger properties:

1. From the *Message Properties* window, click the **Triggers** tab.
2. Click on the **+** and the *Triggers Properties* window will appear (**Figure 66**).
3. Click on the down arrow under *Port* to select the port number.
4. Click on the down arrow under *Flashing* to select the type of trigger.
5. Click **OK** to accept the trigger or click **Cancel** to void the action and close the *Trigger Properties* window.
6. When all of the triggers are set, click **OK** to apply the triggers to the message. Click **Cancel** to void the action and close the *Message Properties* window.

To remove a trigger from a message:

1. From the *Message Properties* window, click on the **Triggers** tab.
2. Click on the trigger on the right side of the screen to select the one to be removed.
3. Click on the **-** and the trigger is deleted.
4. Click **OK** to accept the changes or click **Cancel** to void the changes and close the *Message Properties* window.

4.6 Tutorials


Following this section are the tutorials for *Message Studio*. Please refer to the tutorials for directions on operating the *Message Studio* part of the *Venus 1500* software. The following is a list of the tutorials:

1. How to Create a Basic Text Message
2. How to Open an Existing Message
3. How to Select Font
4. How to Add Text and Use the Character Map
5. How to Align Text (Line Justification)
6. How to Use the Spell Checker
7. How to Work with Frames
8. How to Import an Existing Message
9. How to Import Animation (from the Venus 1500 CD and the Online Media Kit)
10. How to Import and Scroll an Image
11. How to Resize Graphics Before Importing
12. How to Import Video (AVI) Files
13. How to Scroll Text in a Graphic Frame
14. How to Create Text in a Graphic Frame
15. How to Add Text Over an Animated Background
16. How to Add Real-time Data to a Message (Time, Date, Temperature)
17. How to Use the Masking Tool
18. How to Draw in a Graphic Frame
19. How to Create Basic Animation
20. How to Order Objects
21. How to Use the Frame Properties Window
22. How to Change Frame Duration and Clear Frames
23. How to Set the Frame Range to Change Properties
24. How to Create a Real Time Data Frame for a Game Score
25. How to Save, Rename, and Delete Messages
26. How to Create New Folders
27. How to Change the Editor Defaults



Tutorial #1: How to Create a Basic Text Message

Opening a New Message

1. Click on the **New File** button  or select **New** from the **File** pull-down menu. The *New Message* dialog box appears. Refer to **Figure 67**.

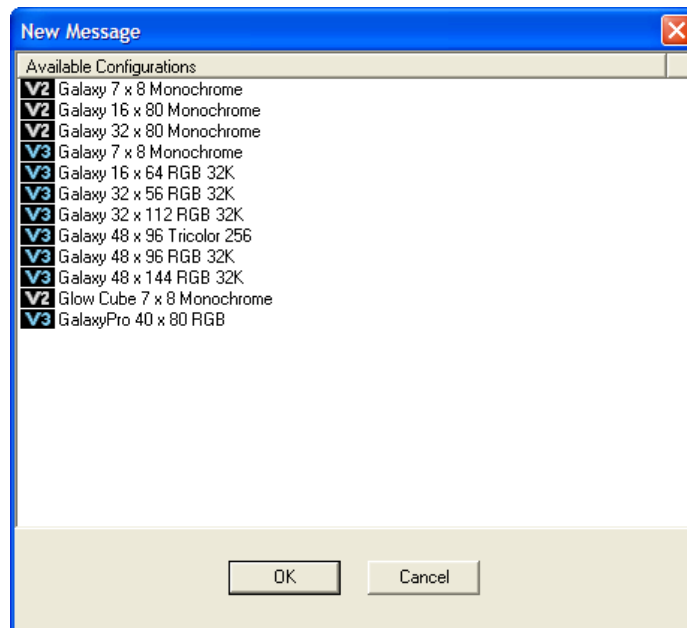




Figure 67: New Message Dialog

2. Double-click on the display type for which the new message is being created, or click once on the display type and then click **OK**. A new, blank text frame configured for the selected display type is placed in the *Message Studio*. The blinking cursor indicates where typing will begin.

Note: Every time a new message is opened, a text frame will activate. This is a default setting. To change this default, select **Editor Defaults** in the *File* menu and change the *Initial Frame Type* field to **Graphic**.

Changing Alignment

If the text is not aligned where desired:

1. Highlight the text.
2. Use the alignment buttons  to left, center, or right align the text and/or select the top, middle or bottom alignment buttons . **Figure 68** shows top and center aligned text.

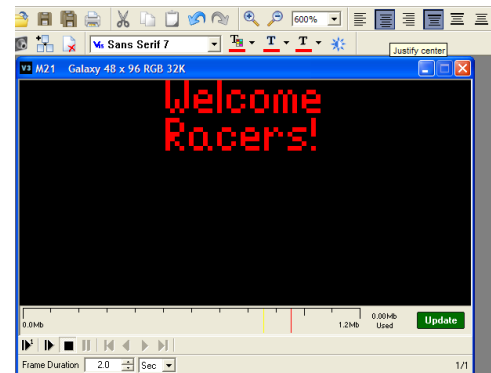


Figure 68: Top and Center Aligned Text



Changing Font


To change the default font:

1. Highlight the text.
2. Open the font menu located next to the frame toolbar. Refer to **Figure 68**.
3. Select the preferred font.

Selecting large fonts for a line of text may “bump” following lines off the display and these “bumped” lines will automatically be removed from the frame.

Note: In text frames, only Venus 1500 fonts are available.

Spell Check

1. Click on the **Check Spelling** button . This tool will scan all message frames in a Version 3 display message and only the selected frame in Version 2 display messages.
2. A dialog box will open suggesting possible spellings for the misspelled word. Refer to **Figure 69**.
3. Highlight the word with the correct spelling and then click **Change**. The corrected word will appear automatically in the text frame. All other misspelled words will appear subsequently in the same *Spelling* box.

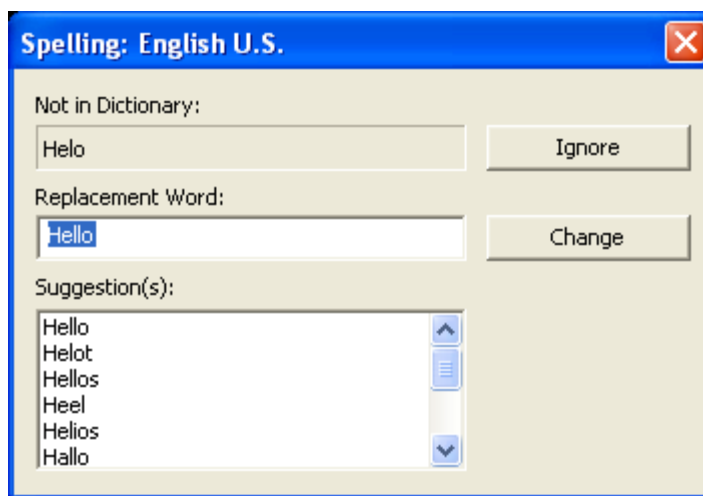


Figure 69: Spell Check

Changing Colors or Shades

NOTE: Some displays offer a variety of colors but others may only offer a selection of shades of two colors. The options available for each particular display will appear on the color palette in the *Message Studio*.

With the text highlighted, click on the **Text Color** button to activate the color palette and select the preferred color. Refer to **Figure 70**.

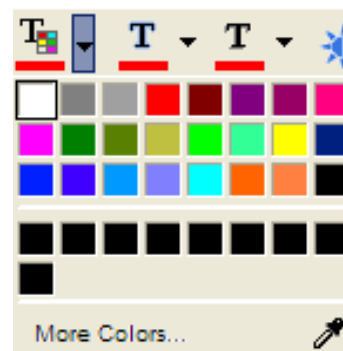



Figure 70: Color Palette



Adding an Outline or Shadow

To add an outline (Figure 71):

1. Highlight the text.
2. Click the **Outline** button .
3. Click the down arrow next to the *Outline* button to choose an outline color.
4. To inactivate the outline, highlight the text and click the **Outline** button.

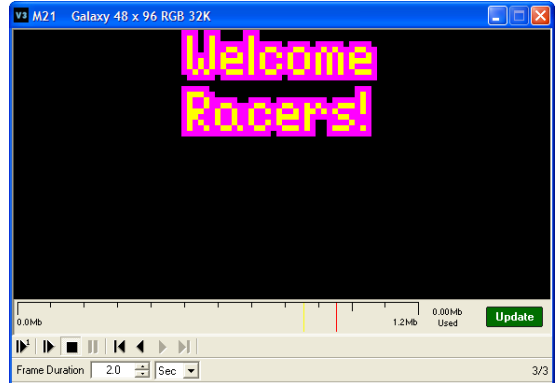


Figure 71: Outline Text Example

To add a shadow (see Figure 72):


1. Highlight the text.
2. Click the **Shadow** button .
3. Click the down arrow next to the *Shadow* button to choose a shadow color.



Figure 72: Shadow Text Example

Undo/Redo

The *Undo* button can be used during the creation of a message to quickly undo an action up to the last ten steps. The *Redo* button can be used to reapply a step up to ten steps.

To undo an action:

Click the **Undo** button  or select **Edit > Undo**.



To redo an action:

Click the **Redo** button  or select **Edit > Redo**.

Adding Effects to the Message

1. See Tutorial #20 for more details. Click the **Properties** button.
2. Add the entry, hold, and exit effects desired.
3. Click **Apply**.
4. Click **OK**.

Previewing the Message

1. Click the **Play** button  to see how the message would look on the display.
2. Click the **Stop** button  to stop the preview.



Saving the Message

Once the message is created:

1. Open the **File** menu and select **Save**.
2. In the **Save Message** dialog box, click on the **plus sign (+)** next to the display type to open the library containing the folders *Animate* and *Default*. The first folder contains the animations imported and the second is a default folder where messages can be saved. Refer to **Figure 73**.

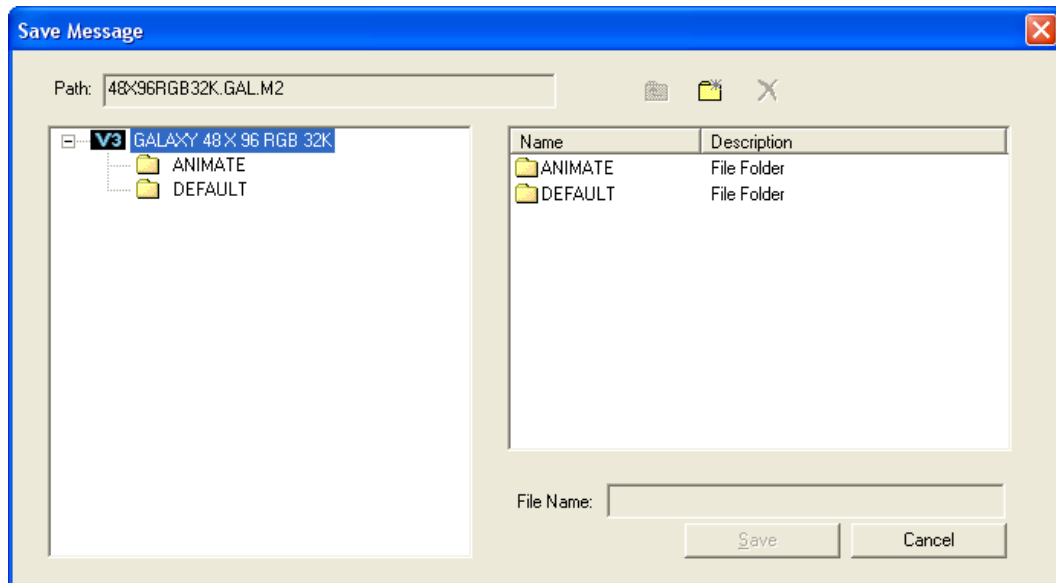


Figure 73: Save Message Dialog

3. Click the **Default** folder.
4. In the *File Name* field, enter the name for the message. Click **Save**.



Creating Folders

NOTE: For organization purposes, Daktronics recommends that different folders be created for different kinds of messages, such as folders for messages that relate to summer sales, winter sales, or welcome messages. This allows messages to be located more easily.

To create a new folder:

1. Open the *File* menu and select **Save**.
2. When the *Save Message* window opens, click the **New Folder** icon. On the left hand side of the window appears a *NEW01* folder. Refer to **Figure 74**.

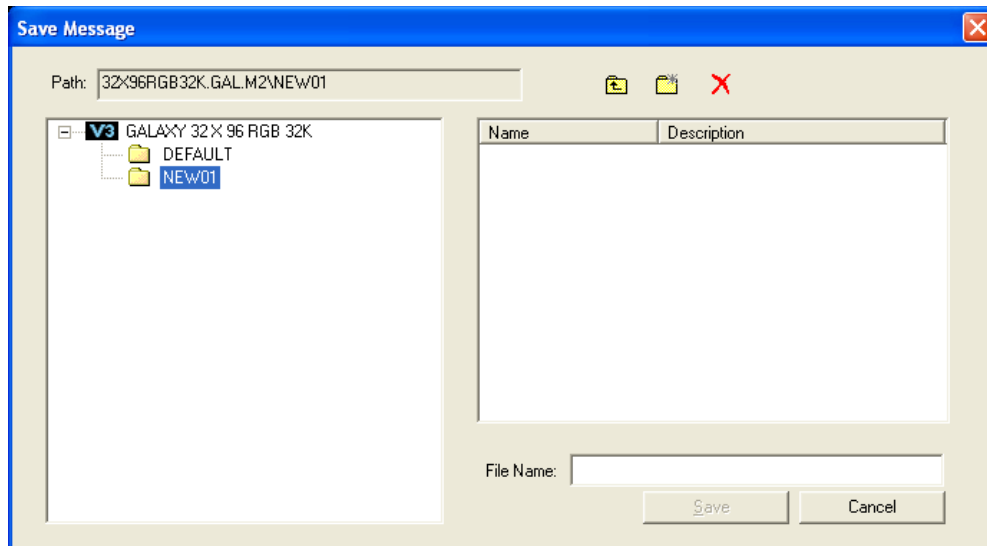


Figure 74: New Folder Dialog

3. Either keep the current name or rename it by typing the new name inside the box.

Note: Another window may open indicating that restrictions are set for naming folders, such as the use of certain characters (**Figure 76**) and number of spaces for name length (**Figure 75**).



Figure 76: Message for Illegal Characters

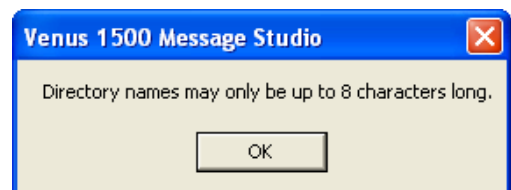


Figure 75: Name Length Message

4. Name the file in the *File Name* field.
5. Click **Save**. The message will be automatically saved in the newly created folder.

Note: See Tutorial #25 “How to Save, Rename, and Delete Messages” and Tutorial # 26 “Creating Folders” for more details



Tutorial #2: How to Open an Existing Message

1. Click the **Open** button  or select **Open** from the *File* pull-down menu. The *Open Message* dialog box opens. Refer to **Figure 77**.

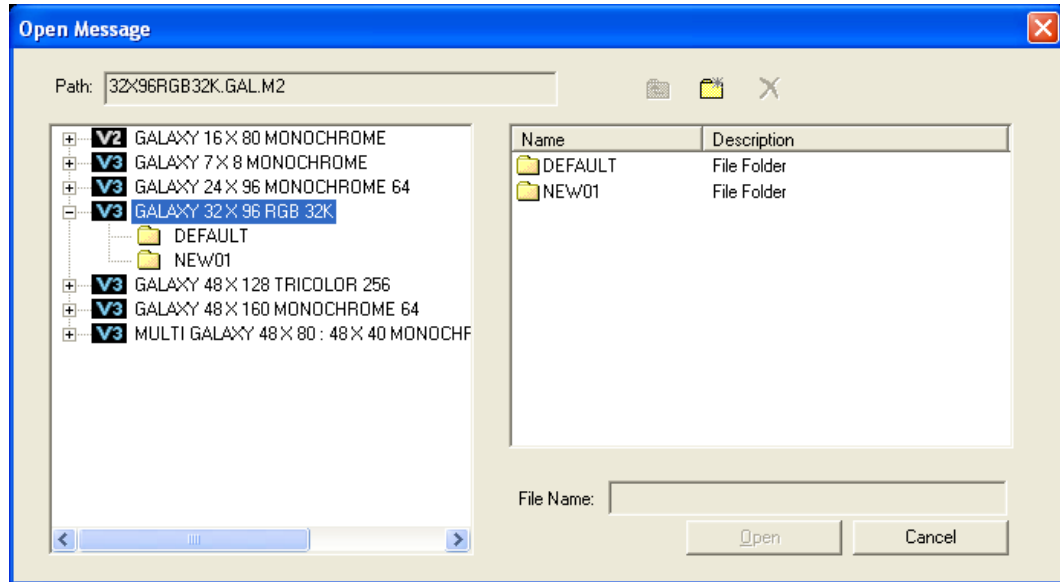


Figure 77: *Open Message Dialog*

2. Select the desired display type.
3. Click on the **plus sign (+)** and select a library. A list of messages contained within that library appears on the right side of the screen.
4. Double-click on the name of the message, or highlight the name on the left side of the window and click **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. Save the message once the desired changes have been made on the existing message opened.

See Tutorial #25 “How to Save, Rename, and Delete Messages.”



Tutorial #3: How to Select Font



1. Click  to open a new message.
2. Click on the configuration for the display type and click **OK** or double-click on the corresponding display type configuration.
3. A text frame will open by default or click  to add a new text frame.
4. Type the desired text in the frame.
5. Highlight the text that requires a font change by clicking in front of the text, holding the mouse button down, and dragging over the text that will be changed (the text will be highlighted in white).
6. Click on the down arrow in the font name box (**Figure 78**).
7. Select the desired font. The text line will automatically adjust for the font height (indicated by the number next to the font type).
8. The name of the newly selected font will now appear in the font box.



Figure 78: Font Name Box


Note 1: If the font is changed by highlighting one line at a time, this will change the font of that line only.

Note 2: The font names correspond to their pixel height and line thickness. For example, “Sans Serif 7” is seven pixels high, a typical character is 4 pixels wide, and the line thickness is one pixel. “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.

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.



Tutorial #4: How to Add Text and Use the Character Map

1. Click on  to open a new text frame.
2. When opening a text frame, a white blinking cursor will appear. The cursor shows where typing will begin. Refer to **Figure 79**.
3. Type in the desired text.
4. To change the size or type of font, see Tutorial #3 "How to Select Font."

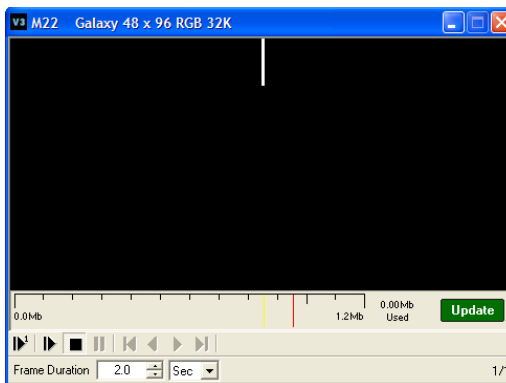


Figure 79: Text Frame

Adding Characters

Note: This option is available only when working with Venus Type text.

1. Click on the *Text* menu (**Figure 80**).
2. Select **Character Map** to open the window shown in **Figure 81**.

Note: Character Map allows the use of a variety of characters from non-English alphabets or graphics.

3. Click on the desired character and it will be inserted in the text frame.
4. When finished, save the message.

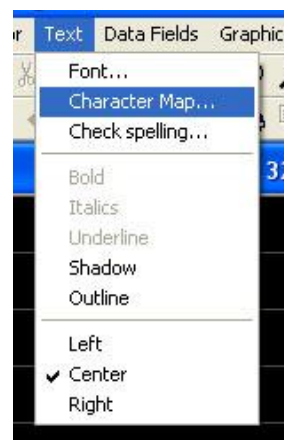


Figure 80: Text Menu

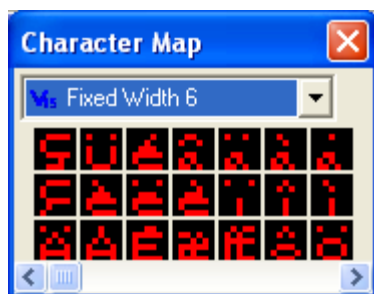


Figure 81: Character Map



Tutorial #5: How to Align Text (Line Justification)

By default typing will begin with a center alignment. To change this default, go to the *File* menu and select **Editor Defaults** **Figure 82**). In the *Justification* drop-down box, the user may change the default justification to left or right.

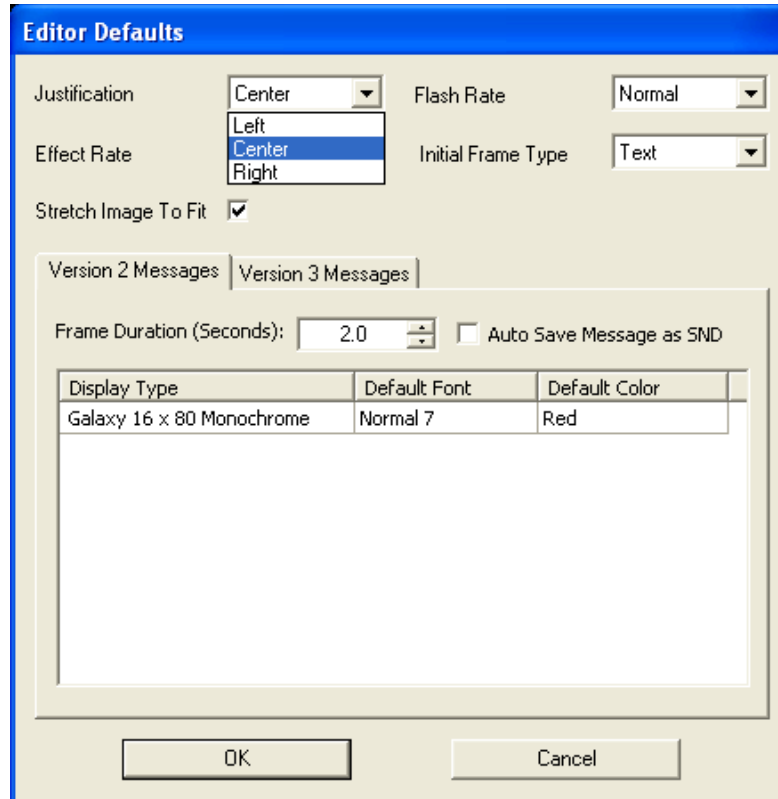




Figure 82: Editor Defaults

To align the text, place the cursor on one of the lines of text and click on the appropriate


justification button to align the text either left, center, or right  or the following

buttons for top, middle, or bottom alignment . The justification buttons are located above the frame.



Tutorial #6: How to Use the Spell Checker

To use the Spell Checker:

1. Click on the **Check Spelling** button  or open the *Text* menu and select **Check Spelling**. Refer to **Figure 83**.
2. When the spell checker identifies misspelled words, it places them in the first field of the *Check Spelling* window. A list of spelling suggestions follows in the next field (**Figure 84**).
3. The operator can ignore the spelling change or replace the misspelled word with a suggested spelling. Clicking **Ignore** leaves a word unchanged. Selecting **Change** replaces the misspelled word with the selected one.

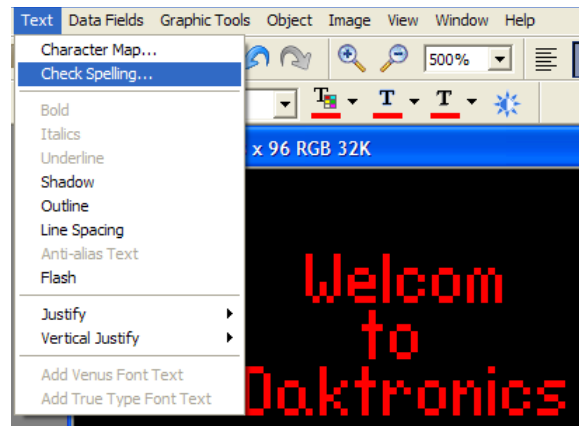


Figure 83: Text Menu

Note: Check Spelling will scan all frames in a Version 3 display message and only the selected frame in a Version 2 display message.

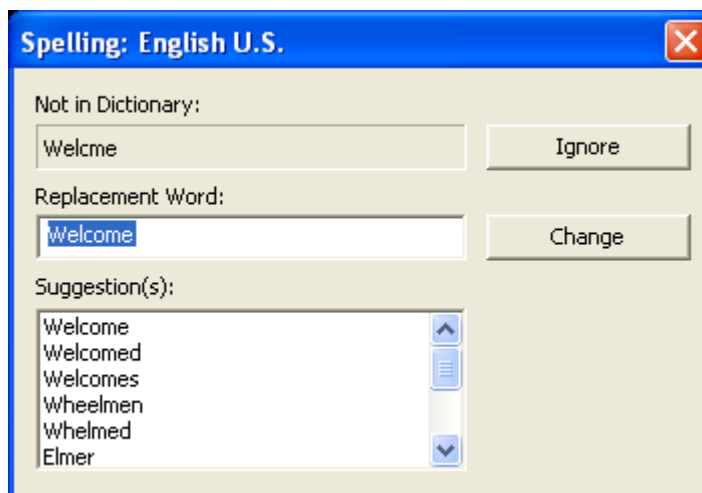




Figure 84: Spell Check



Tutorial #7: How to Work with Frames

Adding Frames in a Message

1. In the **File** menu, click **New**.
2. Choose the corresponding display type configuration and click **OK**.
3. Click on  to add a new text frame or click on  to add a new graphic.
4. In the *Frame Sequence* area to the right of the screen, the new frame will be designated by a gray rectangle highlighting the new frame and number (**Figure 85**).

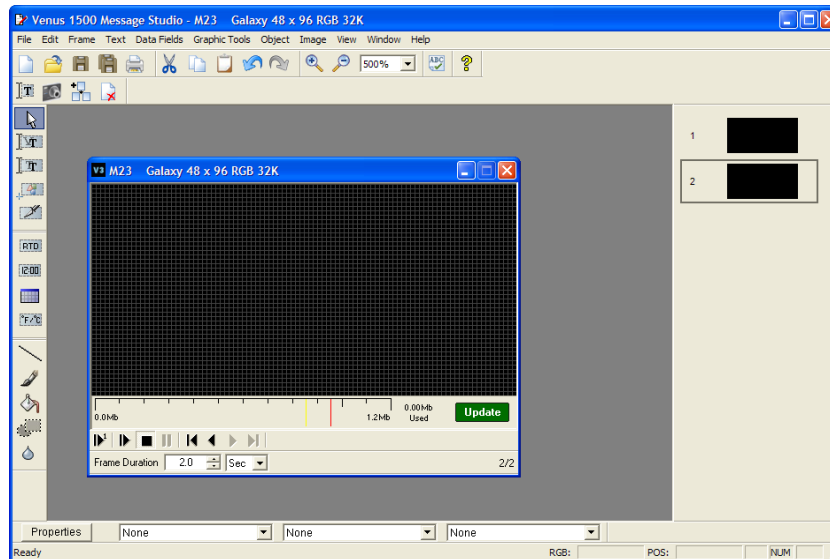




Figure 85: Adding a New Frame

Removing Frames from a Message

1. Click the **Delete** button  to delete the currently selected frame.
2. This frame will disappear from the *Frame Sequence* area.
3. It is also possible to delete a frame directly in the *Frame Sequence*. Click on the frame until it is highlighted in blue and then click the **Delete** button.
4. Alternatively, place the cursor on the frame to be deleted in the *Frame Sequence* area, right-click on it, and select **Delete Frame(s)**.

Moving between Frames

Use the *Frame Play* buttons  to move back and forth from one frame to another. The *Frame Sequence* area will show a gray rectangle to show current location.

Importing Frames from Another Message

Note: This feature is only possible on Version 3 displays of the same type and size. Right-click inside the frame that will be in sequence just before the new frame(s) and choose **Import Frame(s) from Message**. Navigate to the message file containing the frame(s) to be imported. Open the message and click on each frame to be imported. Click **Import Options** and select the desired option. Click **Import** and the frames will be added to the message file in the sequence chosen. These new frames can now be edited as other frames in the message.



Tutorial #8: How to Import an Existing Message

Venus 1500 can import messages, graphics, and animations from an external source such as a CD into the database being used by the Venus 1500 program. It can also import messages created in an earlier version of the Venus 1500 software.

Note: It is only possible to import into a *Graphic Frame*.

To import:

1. Create a new graphic frame. Refer to Tutorial #7.
2. Select **Import** from the **File** menu.
3. Select **Message**. The dialog *Select Venus 1500 Message File(s)* appears.
4. Navigate to the location on the computer or network where the messages are stored.
5. Select the desired file and click **Open**. The file's name will be added in the selected folder. Refer to **Figure 86**.

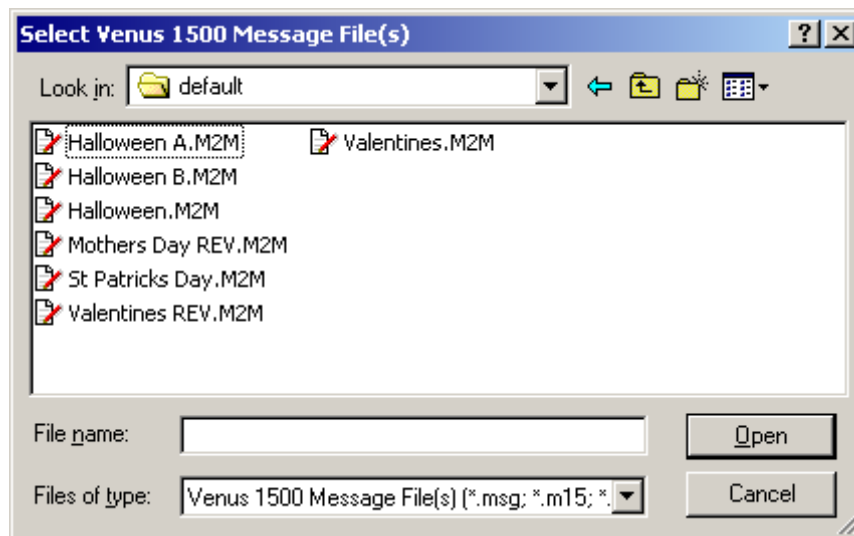


Figure 86: *Select Venus 1500 Message File(s)*

Note: Files can only be imported to libraries of the same display type. (A 32x144 message can only be saved to a 32x144 display; Version 2 or Version 3 is not important here.)



Tutorial #9: How to Import Animation from the Venus 1500 User Kit CD and the Online Media Kit

Importing Animation from the User Kit CD

1. Open the File menu.
2. Select **Import > Media Kit from CD**. Refer to Figure 87.

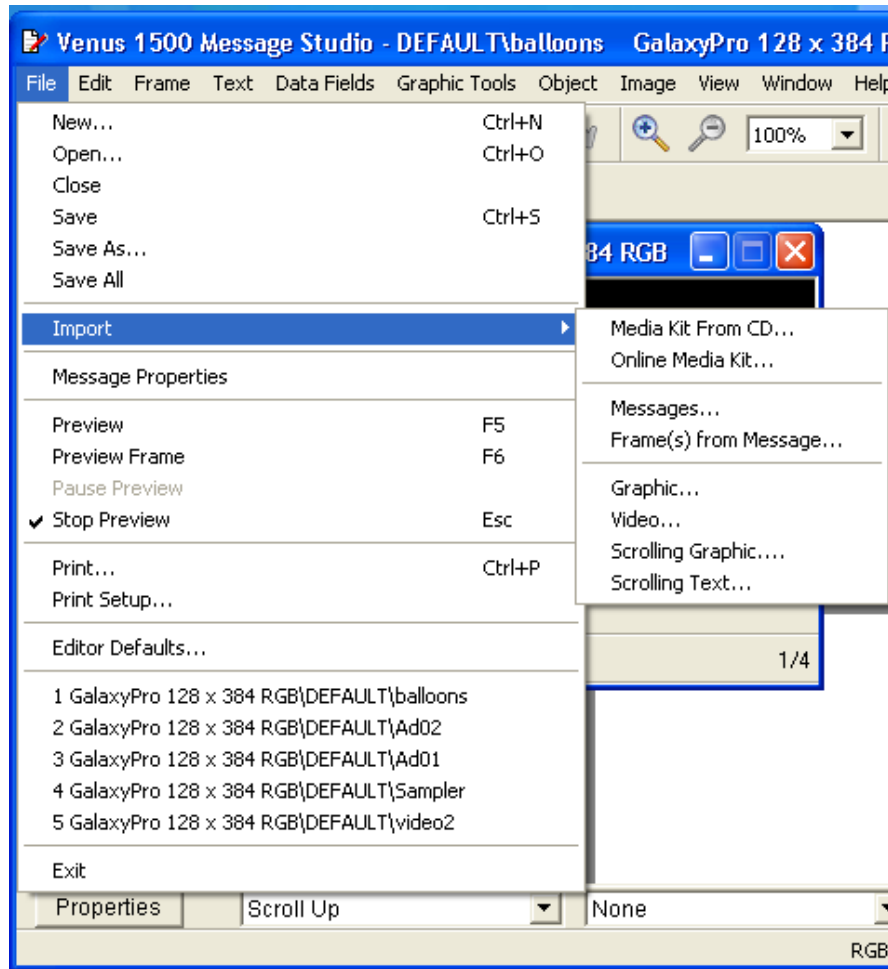


Figure 87: File and Import Menu

3. A prompt will appear asking that the *Venus 1500 Display Control Software Installation CD* be inserted. Refer to Figure 88.

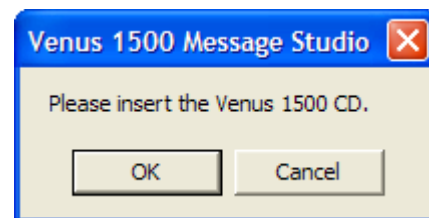


Figure 88: Insert CD



4. Close the **Auto-run** for the Venus 1500 installations if it starts (**Figure 89**).

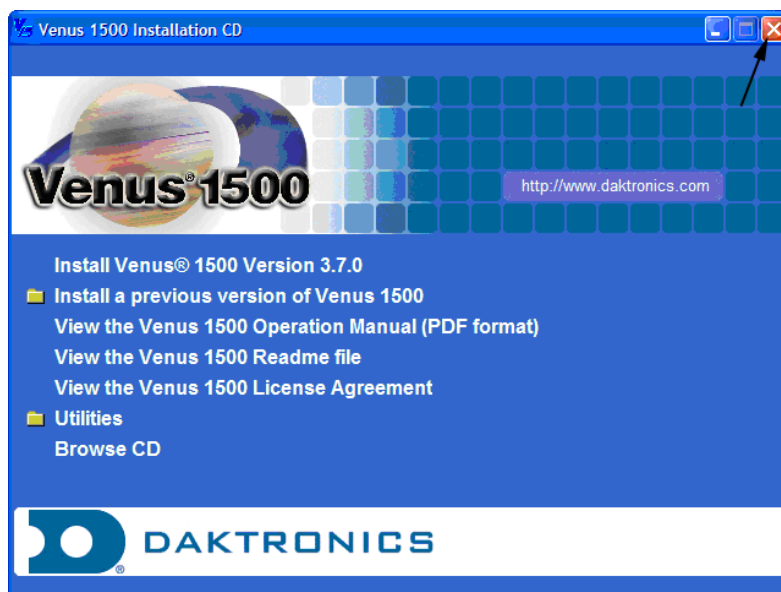


Figure 89: Venus 1500 Installation Box

5. When prompted with a dialog box, select the display type for the images to be imported in the corresponding display type. Refer to **Figure 90**.

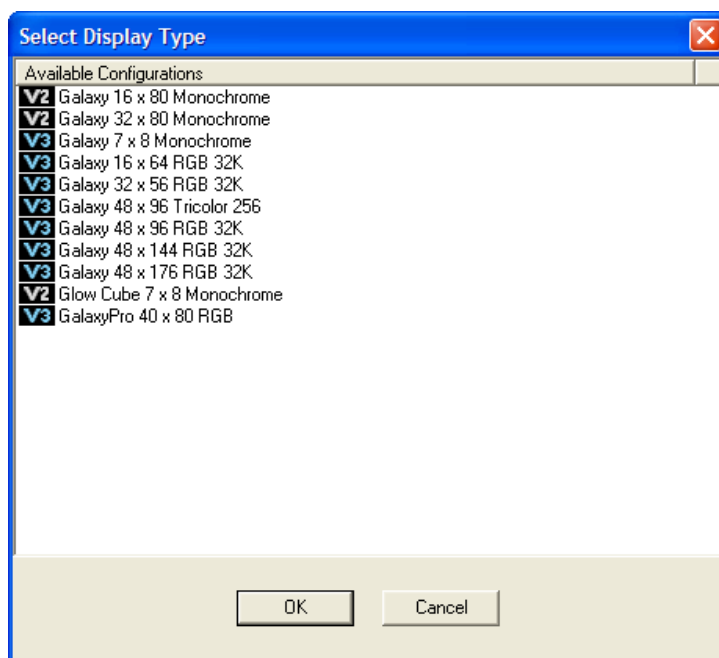


Figure 90: Select Display Type Dialog

6. Click **OK**.
7. A progress monitor will appear while the files are being copied. Once the progress monitor disappears, the import is complete.



Using the Online Media Kit

1. Select **File > Import > Online Media Kit**.
2. A window will appear explaining the *Online Update Content Wizard*. The Wizard will allow content to be downloaded from an online site using either an automatic or manual mode. When ready, click **Next** to begin the update.
3. Enter the online information requested, shown in **Figure 91**. Choose the **Daktronics FTP Site** or **Other Site**. From this page, proxy settings can also be set if working behind a proxy. If not behind a proxy, **Default Proxy** or **None** should be checked. The Default Proxy uses the settings found in Internet Explorer.

The screenshot shows a window titled "Venus 1500 Message Studio" with a sub-window titled "Venus 1500 Online Update Content Wizard" and "FTP Login Configuration". The window contains the following elements:

- A header bar with the title "Venus 1500 Message Studio" and a close button (X).
- A sub-header bar with the title "Venus 1500 Online Update Content Wizard" and "FTP Login Configuration" and a Venus 1500 logo.
- Text: "Please enter your online information:"
- Two radio buttons: "Daktronics FTP Site" (selected) and "Other Site".
- Three text input fields: "FTP Site Address:" (with a dropdown arrow), "User ID:", and "Password:".
- A "Proxy Settings..." button.
- Navigation buttons at the bottom: "< Back", "Next >", and "Cancel".

Figure 91: FTP Login Configuration

4. If a site other than the Daktronics FTP site is chosen, then a valid site address and path needs to be entered for the FTP Site Address edit box, as well as a User ID and Password. When finished in this window, click **Next**.
5. Now choose either **Automatic Update** or **Manual Update**. Click **Next**.

Instructions for each type of update follow.



Automatic Update

If any content is available for the locally configured displays, the content can possibly be downloaded for these displays.

A window appears that lists all of the displays available on the server which was configured on the computer. Select the displays for which content should be downloaded.

Note: Check the box “Get Latest Content Only”. If this option is not checked, then all content will be downloaded. If the option is checked, then the download will only include the content that is new on the server (modification date of the file is newer than that on the local computer copy). If any of the files being downloaded already exist on the local computer, the user will be prompted for an overwrite.

Message Studio prepares the list of files it needs to download and then begins downloading them. A progress bar will show the status of the download. If needed, cancel the download at any time. Once the files are downloaded or the action has been canceled, the message “All files have been downloaded or updated” will appear. At this time, click **Next** to move to the summary page.

The summary page is shown with the files that were created or replaced for each sign type.

Manual Update

The dialog will begin finding all the available content that may be downloaded. All the controls will be disabled during this process, except *Cancel*. Once this is finished, a directory tree that contains all of the content available for download can be seen on the left side of the dialog. Select a folder from this view and any message files in the folder will appear on the right view.

To download the files, select one or more files and click **Download**. These files will be downloaded and the result will be shown in the log window. The user can also select a folder in the tree control, and any content found in that folder and its subfolders will be downloaded.

Note: Check the box “Get Latest Content Only”. If this option is not checked, then all content will be downloaded. If the option is checked, then the download will only include the content that is new on the server (modification date of the file is newer than that on the local computer copy). If any of the files being downloaded already exist on the local computer, an overwrite prompt will appear. Click **Yes** to overwrite, **No** to return to the download option.



Tutorial #10: How to Import and Scroll an Image

Image files may be imported in the following formats: GIF, Animated GIF, PNG, JPG, JPEG, BMP, and TIFF.

Note: When a file is selected, multiple image files may be selected. If multiple animated GIFs are selected, they will be treated as regular GIFs.

1. Create a graphic frame.
2. Open the **File** menu and select **Import > Scrolling Graphic**
OR
right-click on the frame and highlight **Import Scrolling Graphic**.
3. Select graphic file to import.
4. The **Scrolling Graphic Import** window will open with a preview of the image being imported (**Figure 92**). If the image needs to be sized smaller than the display matrix, click in **Use Custom Size** checkbox and a dialog will open. Insert desired size.

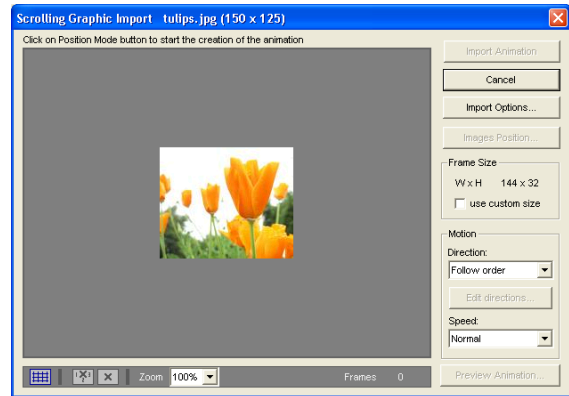


Figure 92: Scrolling Graphic Import Window

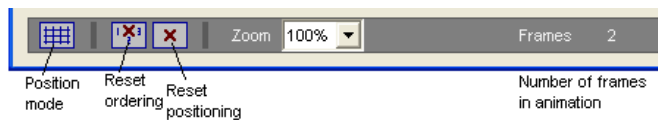


Figure 93: Scrolling Graphic Import Tools

5. Click the **Position Mode tool** (grid) in the lower left corner. Move the mouse over the image and the cursor will change to a box that will select the position of the first frame. Click inside the box and a grid will be created over the image.
6. Click inside the first frame of the animation and a number 1 will appear in the box. Continue clicking inside each frame in the desired sequence (**Figure 94**). Use the tools at the bottom of the window to reset ordering or positioning of the animation, if needed.
7. Set **Import Options** as needed. Set the *Speed* for the sequence and then click **Preview Animation**.
8. Make any necessary adjustments, then click **Import Animation**. The animation sequence frames will appear in the message.

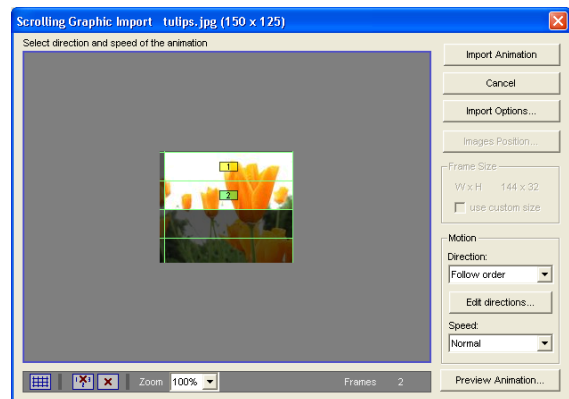


Figure 94: Creating Graphic Sequence

Note: Animation sequences can not be edited once they are imported.



Tutorial #11: How to Resize Graphics Before Importing

To import and scroll an image that is too big or too small for the display, ideally resize it to fit the pixel dimensions (width and height) of the display size with *Microsoft Paint* or *Adobe Photoshop*.

Microsoft Paint:

1. Open the original image.
2. Open the *Image* menu and select **Attributes** to find out the size of the original image. Refer to **Figure 95**.
3. Remember the height/width that is listed because it will determine the amount of change to the original image.
4. In order to make the image fit into the display size, the image needs to be resized to a certain percentage based on the image's original size. For example, if the original image is 300 pixels wide and the display is 144 pixels wide, divide 144 by 300 to get the percentage (48%). Both the original image width and the display width percentage are needed to resize the image.
5. Open the *Image* menu.
6. Select **Stretch and Skew**. Refer to **Figure 96**.

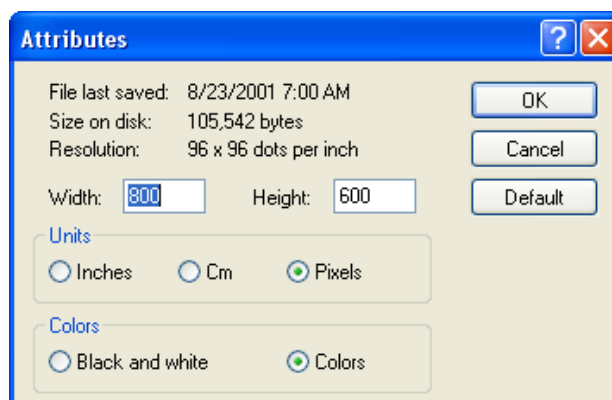


Figure 95: Attributes Window

Formula:

$$\frac{x}{y} = \text{Image Size} \quad \begin{array}{l} x: \text{display width} \\ y: \text{image width} \end{array}$$

7. Enter the percentage of change in both the **Horizontal** and **Vertical** boxes to scale the image down while constraining the proportions.
8. **Save** the image.

NOTE: It is recommended to save the image with a different name and keep the original for future use.

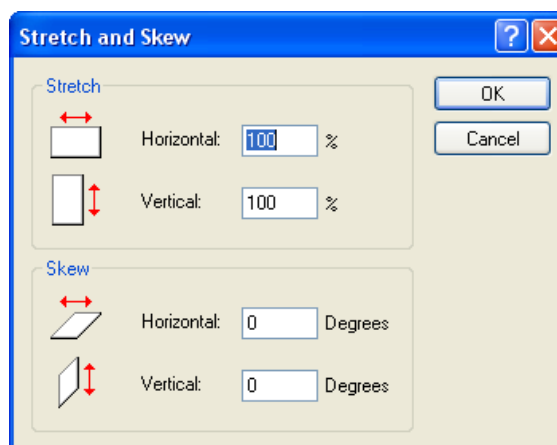


Figure 96: Stretch and Skew Window



Adobe Photoshop:

1. Open the original image.
2. Open the **Image** menu.
3. Select **Image Size (Figure 97)**.
4. Make sure the **Constrain Proportions** box is checked.
5. Change the width or height to the dimensions of the display. (For an image that is 195 pixels wide and a display that is 96 pixels wide, adjust the width to 96 and the height will automatically adjust.)
6. Click **OK**.
7. **Save** the image.

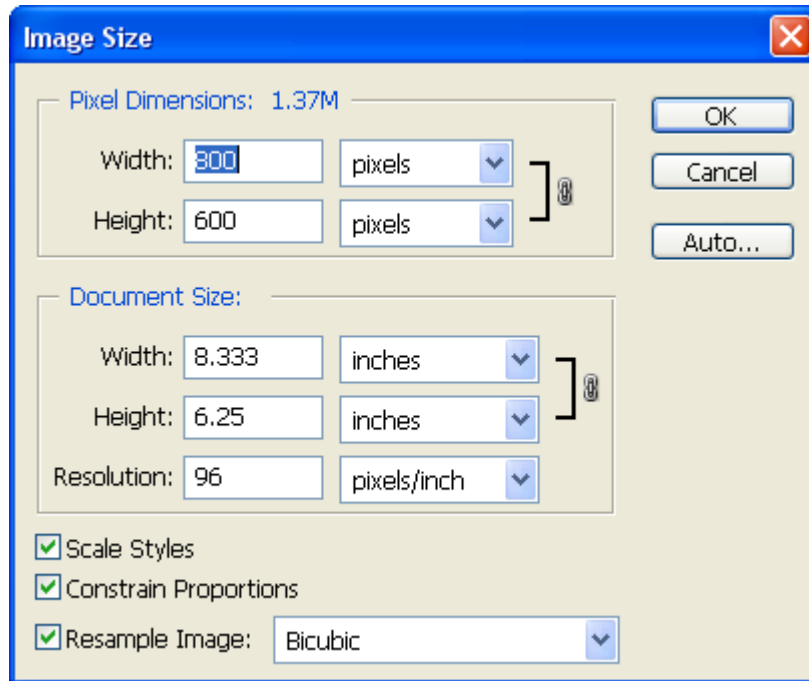


Figure 97: Image Size Window



Tutorial #12: How to Import Video (AVI Files)


The maximum AVI file sizes are as follows:


- For Version 2 controlled displays, up to 25 frames of an AVI file may be imported for each message.
- Version 3 displays (but not GalaxyPro) can import up to 300 frames as long as the entire file size does not exceed 1MB.
- GalaxyPro displays are able to support up to 1200 message frames and a file size of 64 MB (exception: 600 frames for Windows 98 or ME versions).

NOTE: AVI files can only be imported into graphic frames.

Only uncompressed AVI files are supported by Venus 1500.

1. Create a graphic frame.
2. Open the **File** menu.
3. Select **Import > Video**.
4. Locate the desired video to be imported and double-click on it. The *Video Import* window will open with a preview of the video being imported. In the center of the video, a rectangle appears that represents the size of the display. With the *Image Tab* on the bottom right, move the video to fit the rectangle. The *Image Tab* allows the selection of the area to be imported.
5. With the *Frame Tab*, move the frame to fit the video appropriately. It is also possible to move a video within the frame. The frame cannot be moved by itself; only the video that was selected under *Image Tab* can be moved on the *Frame Tab* (**Figure 98**).
6. Whatever is inside the rectangle will be displayed. To move the box, place the cursor

inside it. When the four-directional or cross arrows  appear, drag the box in the desired direction.

7. To stretch the box, place the four-directional arrows on the small squares on the borders of the rectangle. Two directional arrows  appear.
8. Stretch the borders with the two-directional arrows so that the box encloses the whole image or the part of the image to be imported.

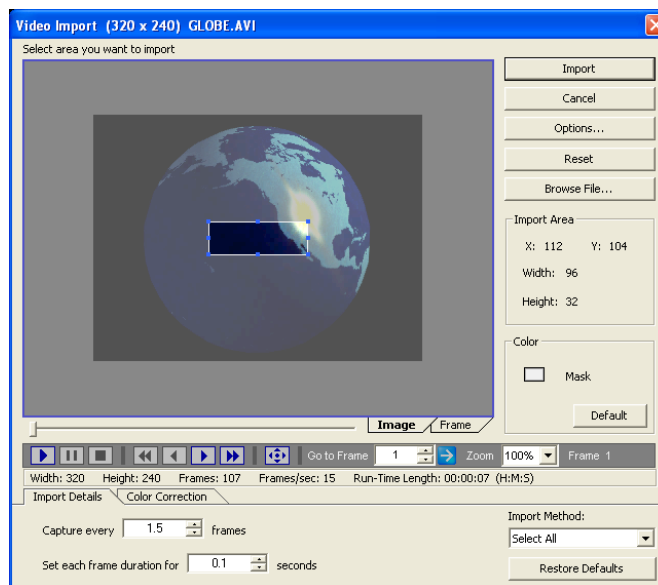


Figure 98: Video Import



Video Import Options

On the right side of the window, it is possible to choose from different options by clicking on the **Options** button. Refer to **Figure 99**.

The **Video Import Options** provides different methods for importing the message. The following possibilities are available:

- place image(s) on existing frame(s),
- place image(s) on new frame(s),
- import image(s) into graphic box(es)
- import image(s) on background of the frame(s).

Choose the desired option and click **OK**.

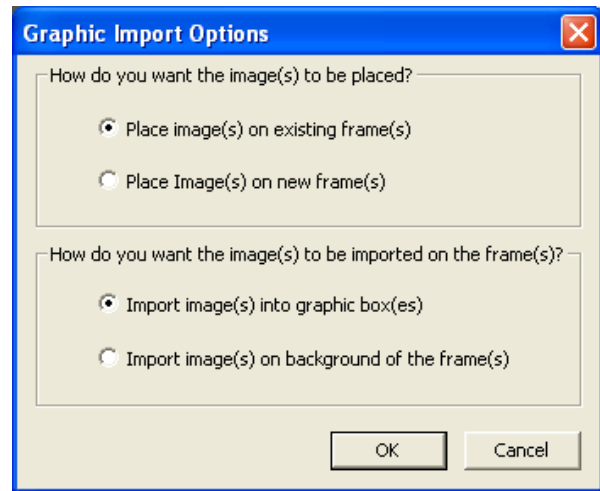


Figure 99: Video Import Options

The **Stretch to Fit** option makes the files adjust to the display size. When this box is checked, the **Smoothing** box will be enabled. Check the *Smoothing* box to improve the quality of the imported AVI file as it stretches to fit the display dimensions.

Color Correction

1. Click on the slider bars to make the desired adjustments.
2. Click **Reset** to void any corrections and return to the original settings.
3. The AVI can also be converted to a grayscale file by checking the box next to **Convert to Grayscale**.

Once all the settings are established, click **Import**. The video file will be imported into the *Message Studio* and is ready to be previewed.



Tutorial #13: How to Scroll Text in a Graphic Frame

1. Open the **File** menu and select **Import** > **Scrolling Text**

OR

Right-click in the graphic frame and select **Import Scrolling Text**.

2. The *Scrolling Text Import* window will appear. Type the desired message into the white box on the lower section of the window; it will also appear in the display representation above (**Figure 100**). If the message will scroll up or down, type the message with returns for each line (**Figure 102**).

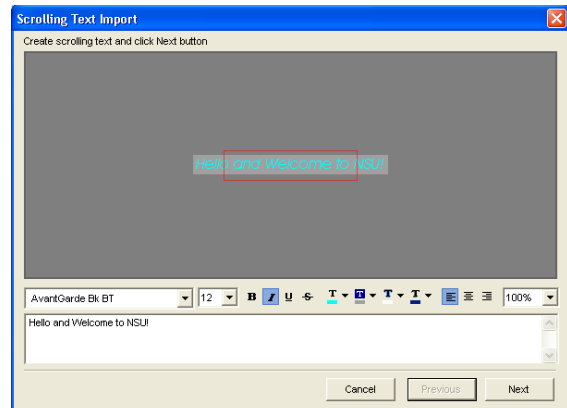


Figure 100: First Scrolling Text Dialog

3. Select font type, size, and any formatting options by using the font tools (**Figure 101**).

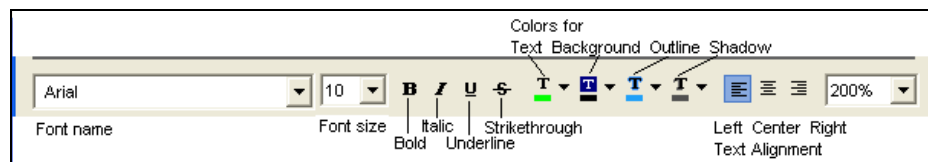


Figure 101: Text Animation Import Tools

4. Click **Next** and additional text animation options are available. Choose the *Direction* and *Speed* of the scrolling. Click **Image Position** to move the text to another place on the display. Click **Import Options** to choose whether the first frame will scroll and whether the images will combine with the current display background (**Figure 102**).
5. When finished, click **Import** and the scrolling text frames will be added to the message file.

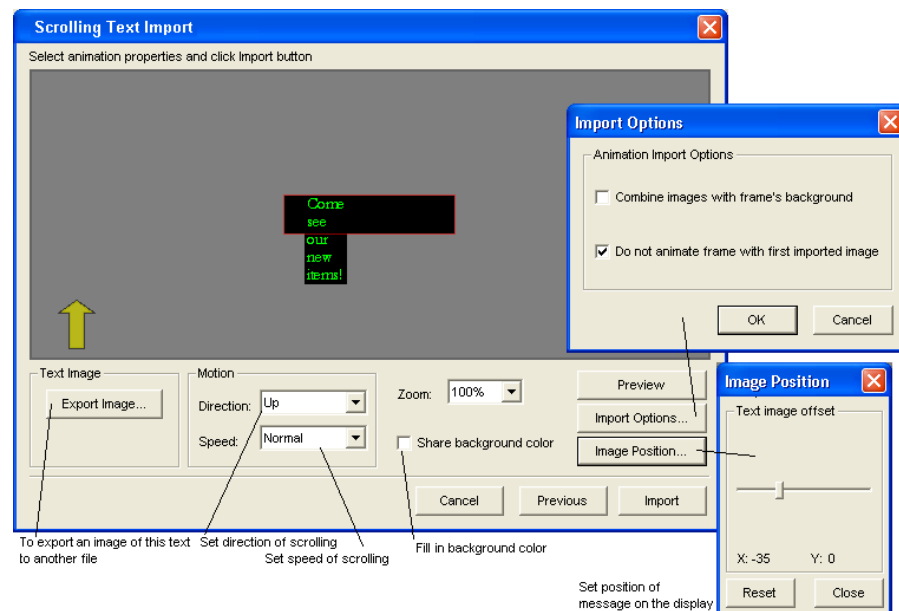





Figure 102: Second Scrolling Text Dialog



Tutorial #14: How to Create Text in a Graphic Frame

1. Open a new message.
2. From the *Frame Toolbar*, click  to open a graphic frame. Delete the text frame opened by default.
3. Select the **Venus**  or **True Type**  font button.
4. Click on the frame. A green text box appears within the frame if the chosen font is Venus 1500 (**Figure 103**) or a white text box opens if the chosen font is True Type.

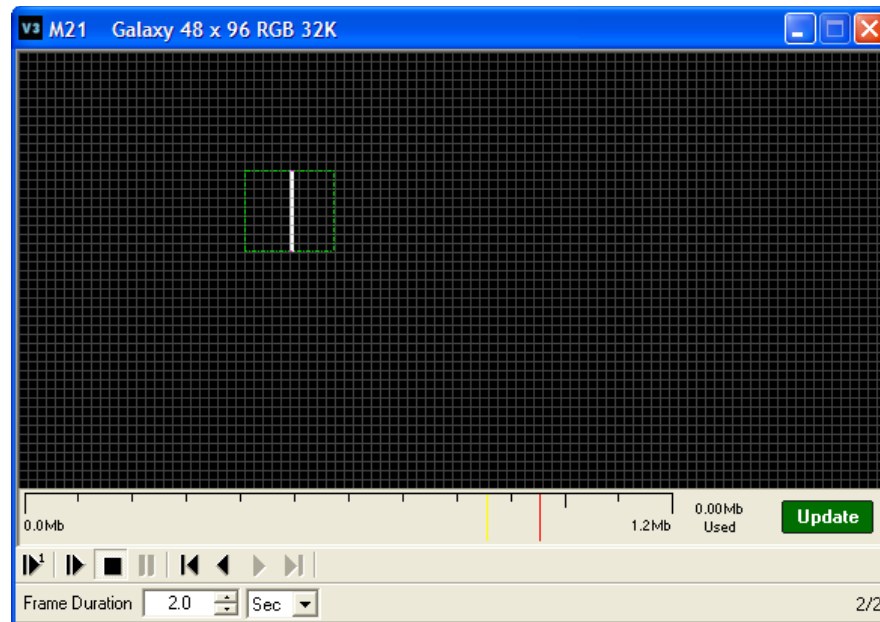








Figure 103: Venus Font Selection

5. Enter the desired text. If the True Type font was selected, click  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.

6. Click and drag the text to the desired location in the frame. The arrow keys can also move the box pixel by pixel.
7. Highlight the text and use the **Text Color** tool  to change the font color.
8. Highlight the text and choose the desired font type and size from the drop-down menus. Displayed fonts are those installed for use by the operating system.
9. Set justification (left, center, right, top, middle, or bottom) by placing the cursor in front of the text of a line or highlight all the text to apply the justification to all of the lines.



10. Highlight the text and click on the **Outline**  or **Shadow**  button to add a 1-pixel outline/shadow around the selected text. Click on the corresponding down arrows to select the desired color.
11. If the selected font was the Venus type, the **Flashing** tool can be enabled. Highlight the text to flash and click on . The text will appear grayed to indicate that the flashing mode is activated.
12. If the selected font is a True Type font, the **Smooth** text tool can be activated.
13. Click  to preview the message.
14. If the text flashes too fast or too slow, open the **Properties** window and change the **Flash Rate** field from the down arrows (**Figure 104**).

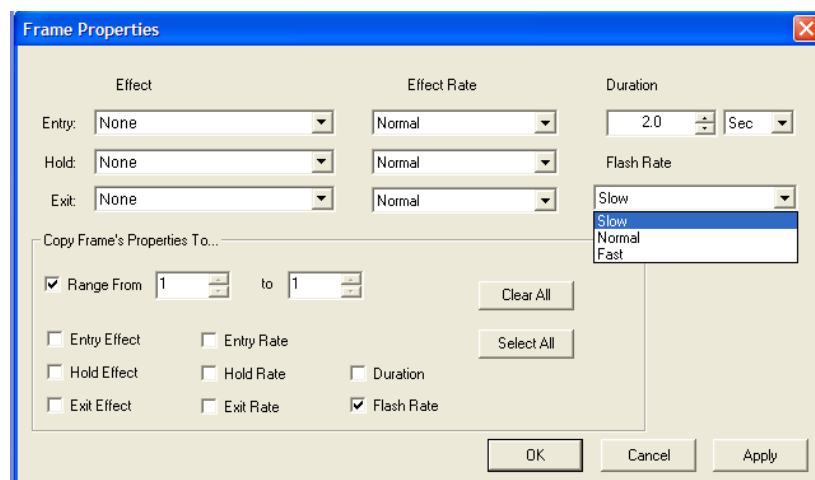






Figure 104: Frame Properties – Flash Rate

15. Click **Apply**.
16. Click **OK**.
17. Preview the message again to ensure the modifications are appropriate.
18. **Save** the message.

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.



Tutorial #15: How to Add Text over Animated Background

1. In the **File** menu, select **Open** or click on the **Open** icon .
2. From the **Animate** folder, double-click on the desired animation.
3. Once the animation sequence is open, select either the **Venus**  or **True Type**  font button.
4. Right-click inside the frame to open a green writing box if using Venus 1500 fonts or a white writing box if using the True Type font.
5. Type in the desired text.
6. Add outline, shadow, or change text color as desired.
7. Close the writing box if using a True Type font.
8. Click inside the text in the frame to select it.
9. In the **Object** menu, select the desired justification (centered in this example).
10. Click on the **Object Selection** button  to select the text box.
11. Right-click inside the active frame. A pop-up menu will appear.
12. Click **Copy Object To (Figure 105)**.

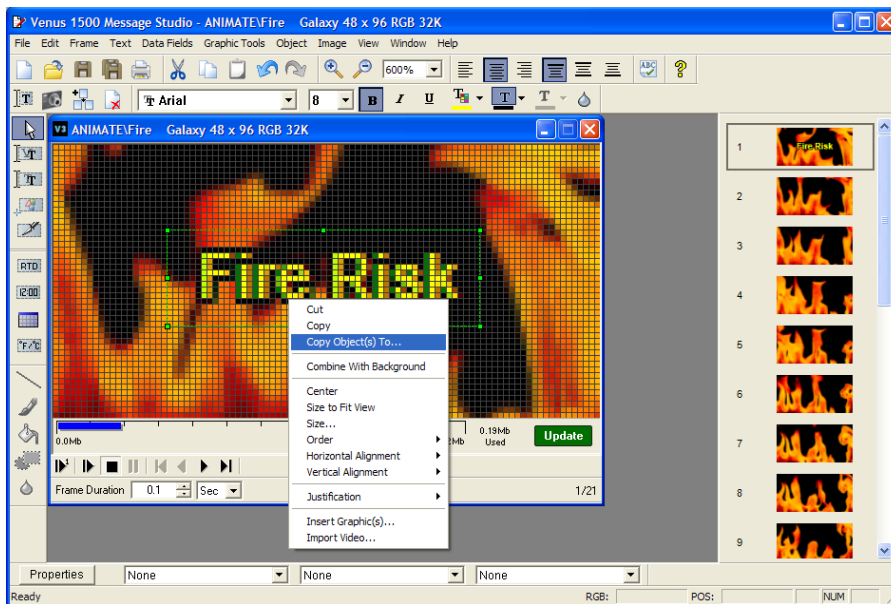


Figure 105: Copy Object(s) To Menu

13. The *Copy Object(s) To* window will appear. Select the desired option for the object(s) that are being copied. Refer to **Figure 106**.
 - **All Frames** will place the object(s) in the same location on every frame in the message except for text frames.
 - **Single Frame** will place the object(s) in the same location on one specified frame. Click in the field or use the arrows next to this field to specify the desired frame.

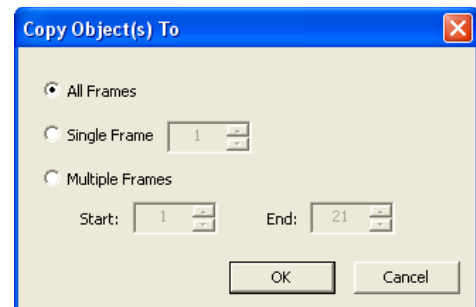






Figure 106: Copy Object(s) To Window



- **Multiple Frame** will place the object(s) in the same location on a range of frames. The objects will be copied only to the graphic frames within the range and the text frames will be skipped. Click in the **Start** field or use the arrows at the end of the field to set the frame number of the first frame in which the object should appear. Click in the **End** field or use the arrows at the end of the field to set the last frame number in which the object should appear.

Following are instructions for copying different text onto various frames. In this example, different text will be placed in the first half and second half of an animation message.

1. In the **Start** field, enter the number which corresponds to the first frame of the animation sequence – in this case, number 1.
2. In the **End** field, enter the frame number that is halfway through the animation – in this case, 12.
3. Click **OK**.
4. The text will be copied to the designated frames.
5. Activate the next frame number from the frame sequence.
6. Select either the **Venus**  or **True Type**  font button.
7. Right-click inside the frame to open a green writing box if using Venus 1500 fonts or a white writing box if using the True Type ones.
8. Type in the desired text.
9. Format the text using the outline, shadow, or color button to change the text.
10. Close the writing box if using a True Type font.
11. Click inside the text in the frame to select it.
12. In the **Object** menu, select **Center** to center the text box in the frame.
13. Click the **Object Selection** button  to select the text box.
14. Right-click inside the active frame. A pop-up menu will appear.
15. Click **Copy Object(s) To**.
16. Check **Multiple Frames** and enter the **Start** number as the frame with the new text (in this example, 13) and the **End** number as the last frame of the sequence.
17. Click **OK**.
18. The text will be copied to the remaining frames.
19. Preview the message .
20. If the message runs too fast, stop the preview.
21. Open the **Properties** window.
22. Increase the duration time.
23. Enter the **Frame Range**.
24. Check the **Duration** box.
25. Click **Apply** and then on **OK**.
26. Preview the message again.
27. **Save** the message.

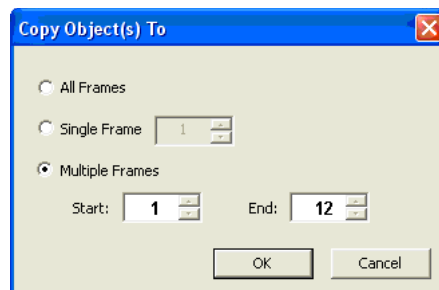



Figure 107: Copy To Range of Frames




Undo/Redo

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 **Undo** button  or go to the **Edit** menu and select **Undo**.

To *redo* an action:

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



Tutorial #16: How to Add Real-time Data to a Message (Date, Time, and Temperature)

Messages in text or graphic frames can be created to show the actual time and/or date. If the display has a temperature sensor installed, messages can show the temperature. To do this, refer to the steps below:




1. Open a **New** message from the **File** menu.
2. Select the corresponding display type.
3. Activate a new graphic frame .
4. Delete the text frame opened by default .
5. Click on the **Date** button  and then click inside the frame.
6. This will activate another window (**Figure 108**) that allows the user to choose the preferred date format.
7. The current date will appear on the frame. Refer to **Figure 109**. This date will be updated when previewing the message or running it in the display.



Figure 108: Date Format Window



8. To make any style changes, click on the Object Selection tool  to activate a green selector box around the data field.
9. Select the desired font, color, outline, shadow, or flashing effects.




Figure 109: Inserted Date



10. To center the data field box, open the **Object** menu and choose **Center**. To reposition the box manually, place the cursor inside the box and use the four-directional arrows to drag it. The arrows in the keyboard can also be used to do this.
11. To change the data alignment inside the box, use the justification buttons. **Note:** The modified alignment will not be seen until previewing the message.
12. Add the time to this same message by clicking on the time button  and then inside the frame below the date.
13. Select the desired time format from the format window.
14. The frame will now show the time in the personal computer, but it will be adjusted to the current time once the message is previewed and/or once it has been run on the display.
15. Select the box and make the necessary font, color, and style changes.
16. Use either the four-directional arrows or those on the keyboard to place the box in the desired location.
17. **Preview** the message with the default frame duration.
18. **Save** the message



Tutorial #17: How to Use the Masking Tool

The *Masking Tool*  (Graphic toolbar) is used to extract an image from the background. Once the masking tool is clicked, a box with blue handles will appear in the editor. Use the handles to change the area of the background to the desired size. Refer to **Figure 110**.

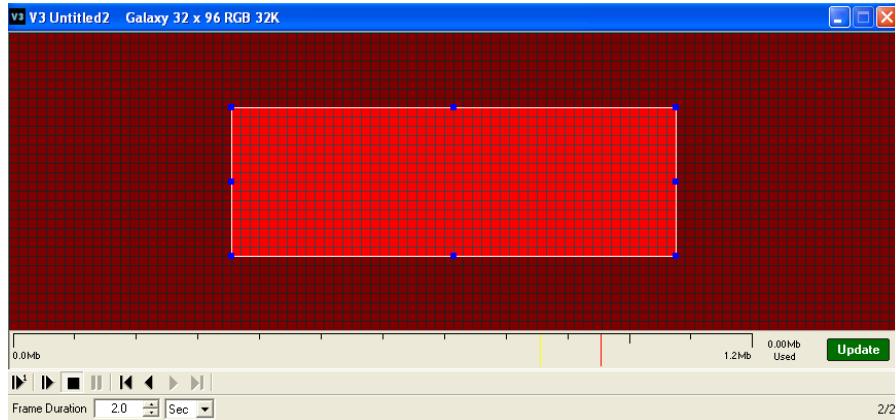


Figure 110: Mask Tool



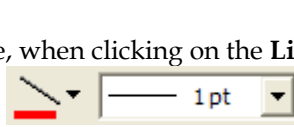



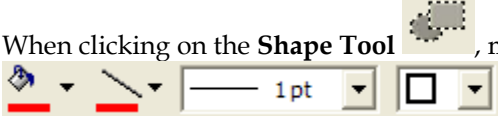


Once the area is selected, right-click on the box and select either **Cut from background** or **Copy from background**. If *Copy from background* is selected, a new duplicate image will be created. If *Cut from background* is selected, a copy of the image will be made and that part of the image will be removed from the background.




Tutorial #18: How to Draw in a Graphic Frame

Drawing Tools

The *Message Studio Toolbar* has four icons used to make simple graphics. These are enabled only in graphic frames. The following steps explain the use of the drawing tools:

1. Open a **New** message and activate a graphic frame.
2. Click  to delete the text frame opened by default.
3. When clicking on any of the first four drawing tools, different options appear above the message.
4. For instance, when clicking on the **Line Tool** , the line color and/or width fields are enabled . Select the desired color and width preferences and then drag the cursor inside the frame to draw a line. This tool allows the user to draw only straight lines horizontally, vertically, or diagonally.
5. When clicking on the **Brush Tool** , the user is able to paint one pixel at a time or draw straight lines and non-linear paths. When this tool is activated, the color and the size of the brush stroke can be chosen. .
6. When clicking on the **Shape Tool** , more options are activated above . The user can change the fill or the outline color, the line width, and the kind of shape that will be drawn.
7. When clicking on the down arrow next to the *Shape* field, the user is able to choose between empty (white) or filled (black) squares, rounded rectangles, or circles.
8. The shapes in gray indicate a shape that can be filled with a different color from its outline. For example, select an empty or white square and then drag the cursor diagonally inside the frame. The empty square will be drawn with the line width and color selected. When clicking on the gray square icon, click on the desired filling color, then select the outline color, and finally select a line width. Inside the frame, drag the cursor diagonally to see the appearance of the shape.
9. When selecting a rounded rectangle, the **Round Rectangle Radius** field will be activated to set a smaller or larger radius . Select the radius, color, and line width as desired, and then drag the cursor inside the frame to create the shape.
10. The **Smoothing Mode** tool  smoothes the appearance of graphics or texts by blending the object with the background. The advantage of the Smoothing Mode is that it avoids the typical jagged effect. To use it, activate it before performing any other action; that is, if a smoothing effect is desired for a rectangle for instance, first click on the Smoothing Mode tool and then on the selected shape. When drawing the graphic in the frame, the user will notice the effect. Follow the same process to draw smoothed lines.



11. When clicking on the **Fill Tool**  , the color palette will be activated to select the preferred fill color.

When clicking inside a shape with the paint bucket cursor, the shape will be filled with that color. When clicking outside the shapes, the entire frame background will be filled with the selected color.

Some finished examples of simple drawings are shown here:



Figure 111: Sample Drawing 1



Figure 112: Sample Drawing 2



Figure 113: Sample Drawing 3

To save the message,

1. Open the **File** menu and select **Save**. Refer to Tutorial #25 “How to Save, Rename, and Delete Messages” for more details on saving messages.
2. Double-click the folder in which the message is to be saved.
3. Name the file in the *File Name* box.
4. Click **Save**.

Inserting a Graphic from Another Program

The *Venus 1500 Message Studio* allows a logo or graphic to be added from another software source (such as MS-Paint™ or the Internet). Refer to the following steps for instructions on how to do this:

1. Select the graphic and click **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. Select **Paste** from the **Edit** pull-down menu. The *Message Studio* graphic import dialog will appear with the image that is being pasted into the frame. Import this image normally like a graphic import from a graphic file.



Tutorial #19: How to Create Basic Animation

In the *Message Studio*, basic animation can be created through three methods:

- In a text frame.
- In a graphic frame – smooth motion.
- In a graphic frame – jumping motion.

Text Frame

Create a message **in a text frame** that contains text and a character or object that move together across the screen. For example...

1. Open a **New** message from the **File** menu.
2. Select the corresponding display type.
3. In the open text frame, type in the text “Cruise Lines Specials.”
4. Next, place the cursor in the third line of the message.
5. From the **Text** menu, open the **Character Map** and select font Graphic 15. Choose a character such as a ship and close the fonts. Refer to **Figure 114**.

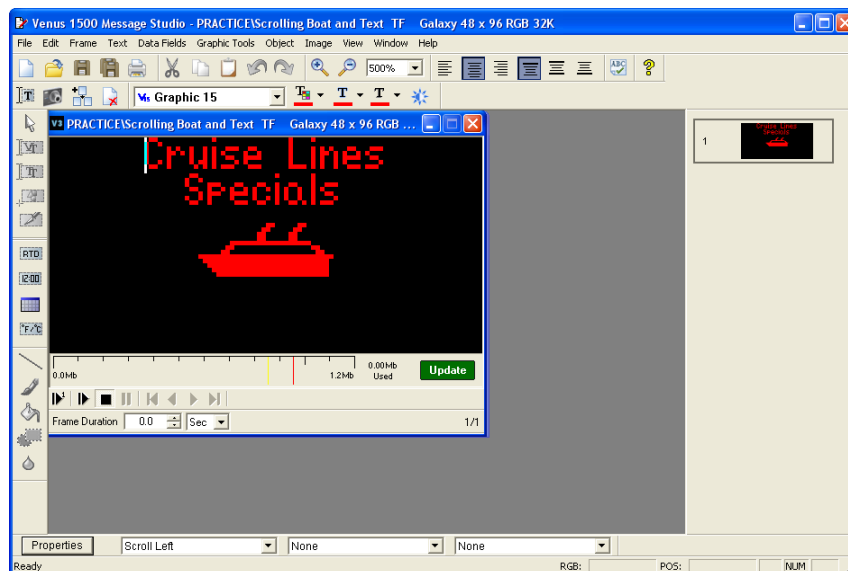






Figure 114: Basic Animation Example

6. Since this is a single-frame message, change the duration to 0.0 seconds in the **Frame Duration** box below the active frame.
7. Adjust the time and the effects directly on this frame from the down arrows next to the **Properties** button. Open the **Entry** effects menu below and select **Scroll Left**.
8. **Preview** the frame to see how the text moves across the screen continuously.
9. If the scroll effect should run slower, stop the preview, and change the effect rate from the *Properties* window.
10. Preview the message again to see the adjustments.
11. **Save** the message.



Graphic Frame – Smooth Motion

In a graphic frame, it is possible to have the text stay still and the character or object move across the screen. Follow the instructions below:

1. Open the **File** menu and select a **New** message.
2. Select the corresponding display type.
3. Activate a new graphic frame .
4. Delete the text frame opened by default .
5. Click on the **Venus font** button and click inside the frame .
6. Type the desired text in the green box .
7. Click on the **Object Selection** tool .
8. Place the cursor inside the text box to see the four-directional arrows.
9. Drag the frame in the desired direction, for example in the center of the frame, or the arrow keys in the keyboard can also be used to move the object.
10. Select the text with the *Object Selection* tool and format it using the text color palette, the outline button, or the shadow button.
11. Click again on the Venus font button and then inside the frame. Another green box will be activated to add more text or a character.
12. Open the **Character Map** from the *Text* menu.
13. Select a graphic font and choose a graphic that fits the message.
14. Drag the box to the desired location in the frame by clicking on the *Object Selection* tool to activate the four-directional arrows inside the box. Refer to **Figure 115**.

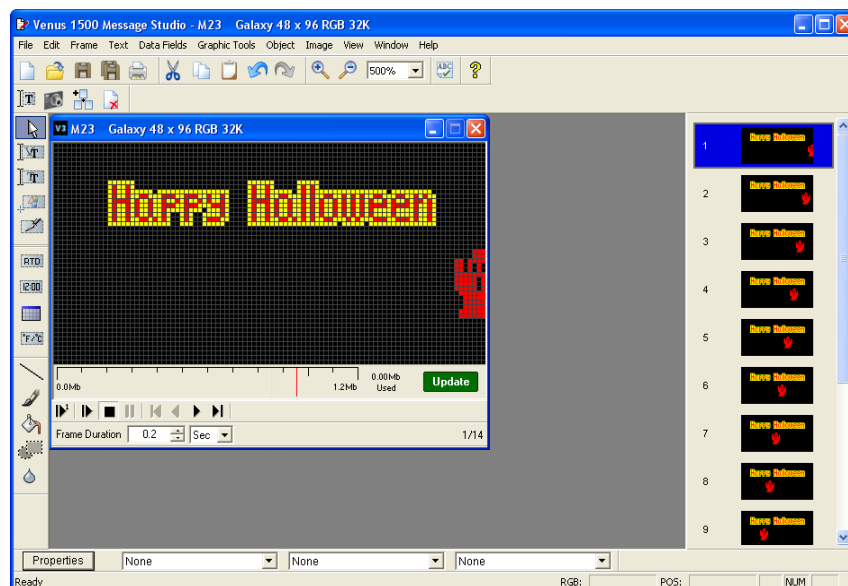


Figure 115: Basic Animation Example 2

15. Add a copy of this frame by clicking on the **Copy Frame** button.
16. Click on the **Object Selection** tool and then on the graphic in the copy.



17. Use the left arrow in the keyboard to move the graphic, for example 8 spaces to the left.
18. Make another copy of this frame.
19. Click on the **Object Selection** tool and then on the graphic.
20. With the left arrow in the keyboard move the graphic 8 more spaces.
21. Continue copying frames and moving the character to the left until it disappears from the frame. Refer to **Figure 116**
22. Open the **Properties** window.
23. Leave the effects fields in *None*.
24. Change the **Duration** to 0.0 seconds.
25. As this is a multiple-frame message, make sure that the changes apply to all frames. In the **Frame Range** field, check the box next to **Range from**.
26. Type 1 in the box to the last frame number in the message.
27. Check the **Duration** box.
28. Click **Apply**.
29. Click **OK**.
30. Preview the message. The graphic will move across the screen while the text stays still. If the character moves too fast, readjust the duration in the **Properties** dialog box again.
31. **Save** the message.

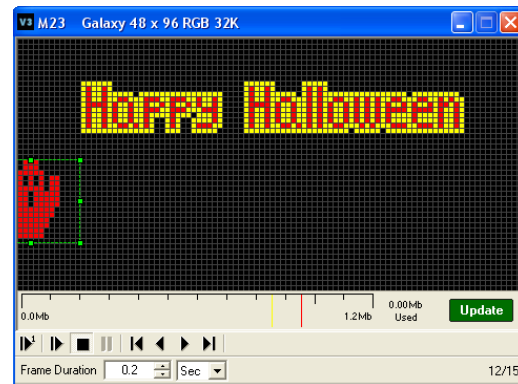




Figure 116: Moving the Graphic from Frame to Frame

Graphic Frame – Jumping Motion

In a graphic frame, it is possible to create “jumping” motions. Follow the instructions below:

1. Click the **Shapes** tool .
2. Choose a shape.
3. Draw the shape inside the box in the frame. Refer to **Figure 117**.
4. Make a copy of this frame .
5. Click on the **Object Selection** tool and then inside the green box to activate the four-directional arrows.
6. Drag the shape upward diagonally.
7. Make another copy of this frame.
8. Click again on the **Object Selection** tool and then inside the green box.
9. Drag the box further up diagonally.
10. Continue copying and dragging the ball until it has reached the top of the frame. The greater the distance between the copied objects, the less smooth the animated effect will be.
11. Notice the frame sequence in **Figure 118**. The ball seems to have bounced upward from frame to frame.

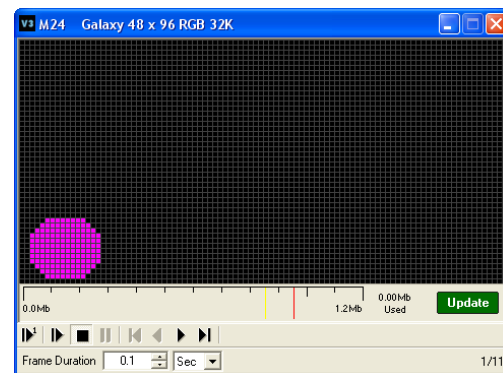


Figure 117: Placement of Shape in Frame



12. Continue copying and dragging the ball downward so that it seems to bounce back down as it hits the top.
13. Once finished copying and dragging, open the **Properties** window.
14. Change the **Duration** field to 0.0 seconds.
15. In the **Frame Range** check the **Range from** field, select frames 1 to the last frame number in the message.
16. Check the **Duration** box.
17. Click **Apply**.
18. Click **OK**.
19. Preview the animation. If the ball moves too fast, go to the **Properties** window again and adjust the **Duration** to the desired speed.
20. **Save** the message.

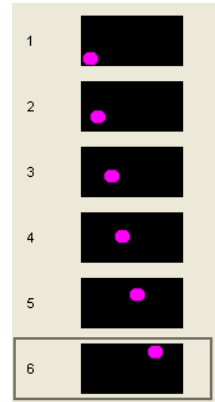






Figure 118:
*Bouncing Ball
Frame Sequence*



Tutorial #20: How to Order Objects

With the *Message Studio*, other useful actions can be performed such as ordering objects within a graphic frame. This means that different objects can be inserted and moved independently from others in a graphic frame. For instance, one object can be placed in front of or behind another. To do this, follow the instructions below:

1. Open the **File** menu and select **New** message.
2. Select the corresponding display type.
3. Activate a new graphic frame .
4. Delete the text frame opened by default .
5. Click on the **Create New Image Box** button .
6. Click inside the frame. A red box will appear.
7. Select the box with the **Object Selection** button .
8. Stretch the box so that it fills somewhat less than half of the frame (**Figure 119**).

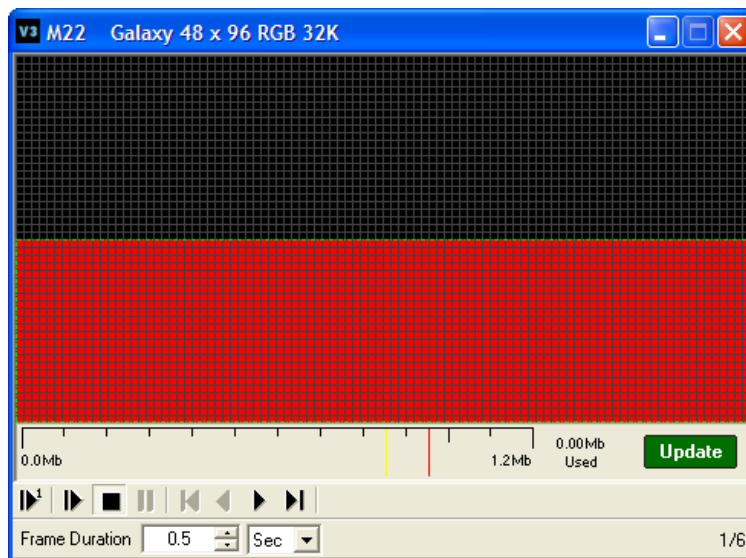



Figure 119: *Placing Objects in Message Studio*

9. Click on the **Fill** button .
10. Select blue from the color palette and click inside the selected red box to paint it.
11. The user may now import a graphic, such as a sun.
12. Once the graphic is imported into the frame, select it and apply the smoothing effect to it.
13. Resize it using the diagonal two-directional arrows so that the graphic keeps its proportions.
14. Drag the selected graphic to bottom-left part of the frame.
15. Right-click on this object or open the **Object** menu and select **Order > Send to Back**.



16. The graphic cannot be seen now as it is hidden behind the color image (Figure 120).

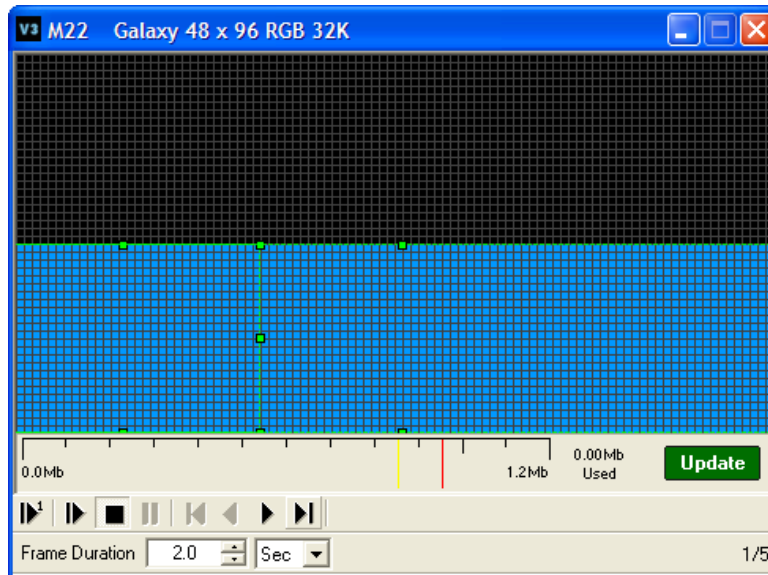



Figure 120: Hidden Graphic

17. Follow the same steps as in the “How to Create Basic Animation” lesson in Tutorial

#19. Copy the frame  , select the area where the graphic is hidden, and move it 6 pixels up and another 6 pixels to the right.

18. Copy this frame.

19. Select the graphic again.

20. Move it further another 6 pixels up and to the right.

21. Continue copying the frame and moving the graphic until it is high up in the frame.

Refer to Figure 121.

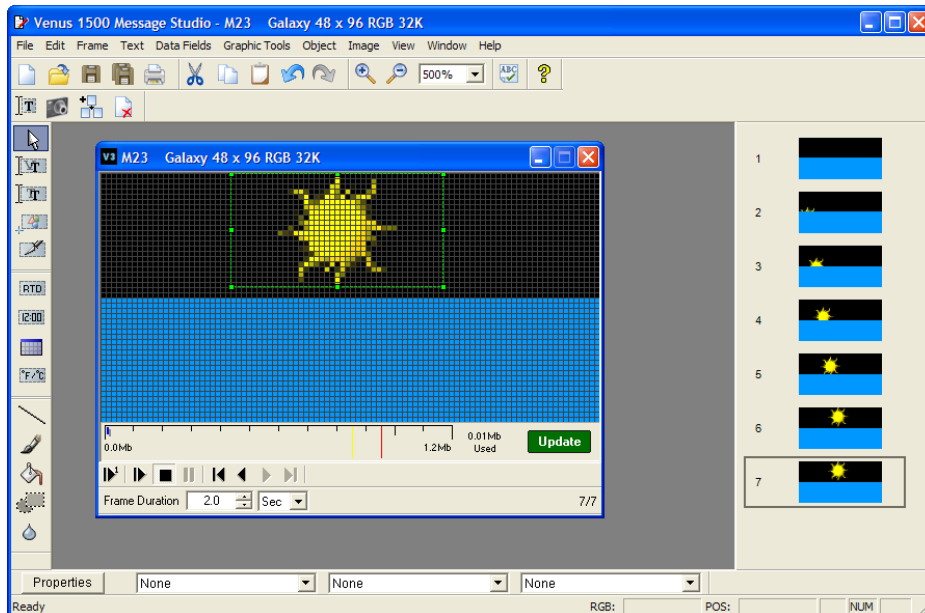


Figure 121: Copying the Frame






22. Add a copy of the last frame.
23. Leave it as it is but modify only the duration in the **Frame Duration** box so that that last frame with the sun up high holds longer in the display.
24. **Preview** the message.
25. To make any other changes to this message, stop the preview and apply any other objects, effects, and/or style modifications. For example, in the *Object* menu, other options are available, such as maximizing or resizing a selected object to fit the frame, resizing the object pixel by pixel with the *Size* option, or combining the object with the background which transforms graphics into a message background so that additional text or graphic fields can be created on top of this. Remember that right-clicking on any selected object is a shortcut to the *Object* menu.
26. **Save** the message.



Tutorial #21: How to Use the Frame Properties Window

The *Frame Properties* window enables the entry, hold, and exit effects of frames, set the effect rates, and set their duration. Refer to the instructions below:

Applying Effects and Transitions to a Single Frame

1. Open a **New** message from the **File** menu.
2. Activate a new graphic frame .
3. Activate the text frame opened by default and delete it .
4. Click inside the graphic frame to open the writing box.
5. Type in the desired text using three lines.
6. Center align the text by highlighting it and clicking on the center justify button . Refer to **Figure 122**.

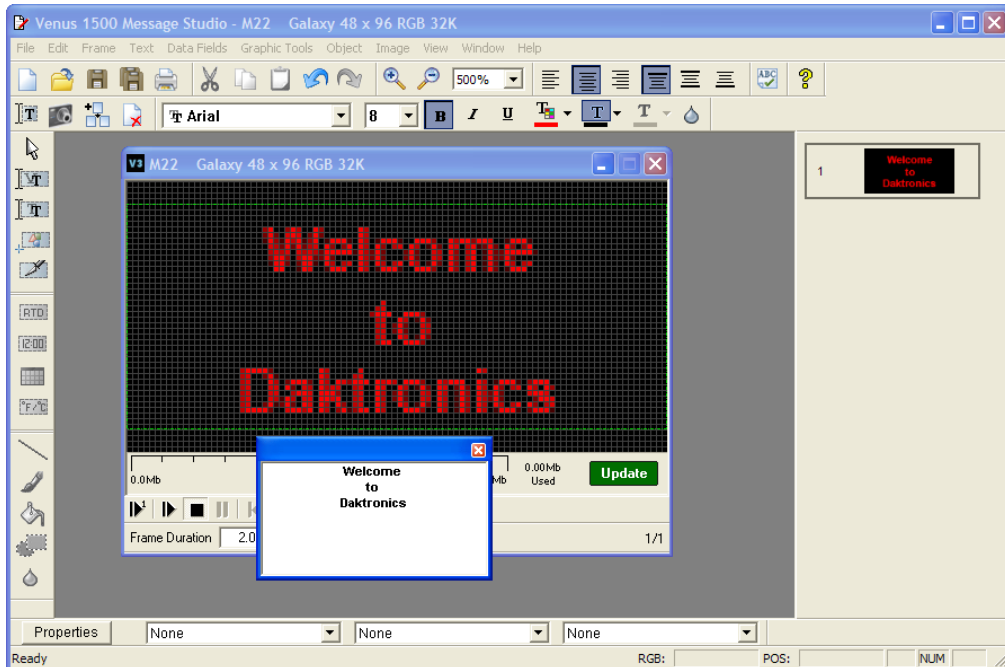




Figure 122: Center Aligning Text

7. Change the font to **Bold** .
8. Click on the down arrow of the **Outline** button  and select a color from the color palette.
9. Click on the outline button to change the outline color.
10. Close the writing box.
11. In the **Object** menu select **Center** to center the text object in the frame.
12. Add the effects using the down arrows of the **Frame Properties** bar at the bottom of the *Message Studio* screen.
13. Click on the first down arrow on the left to change the entry effect of the frame. Refer to **Figure 123**.
14. Open the next menu in the middle to select an effect.



15. Click on the last down arrow to the right and select an effect for the exit.

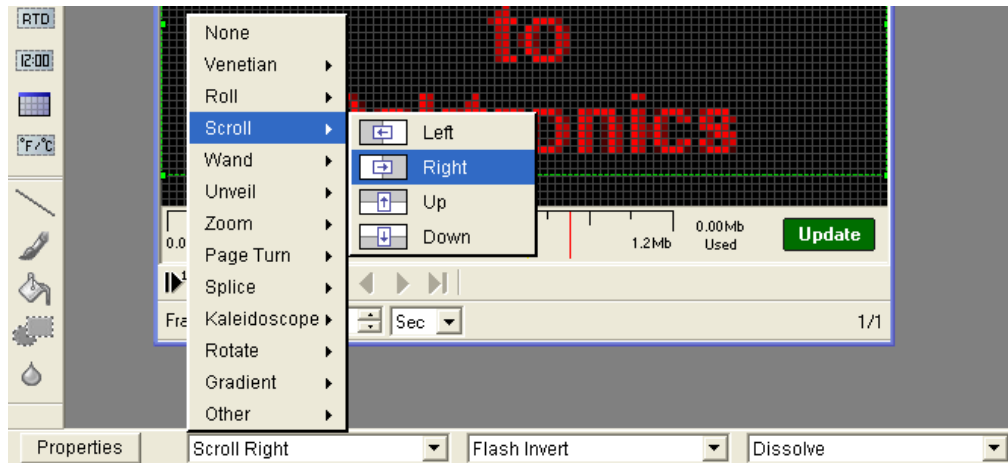









Figure 123: Entry Effect Example

16. At this point leave the duration at 2.0 seconds to see the effects clearly.
17. Preview the frame . To change the frame's enter, hold, and exit effects rate, stop the preview  and change the timing in the *Frame Duration* box right below the graphic frame.
18. Save the message.

Applying Effects and Transitions to Multiple Frames in a Message

1. Open a **New** message from the **File** menu.
2. Activate a new graphic frame .
3. Activate the text frame opened by default and delete it .
4. Click on the **True Type font** button  and then inside the graphic frame to open the writing box.
5. Type in the desired text with center alignment.
6. Close the writing box.
7. Center the text object in the frame from the **Object** menu.
8. Click outside the object area and click on the **Fill tool** .
9. Click on the down arrow and select blue from Fill tool the color palette .
10. Click inside the frame to paint the frame with the selected color.
11. Add another graphic frame.
12. Activate the True Type font and type the desired text.
13. Center the box in the frame.
14. Change the background to a different color from the previous frame.
15. Add the last graphic frame.



16. Apply the same changes as before with a color different from the two previous frames. Refer to **Figure 124**.

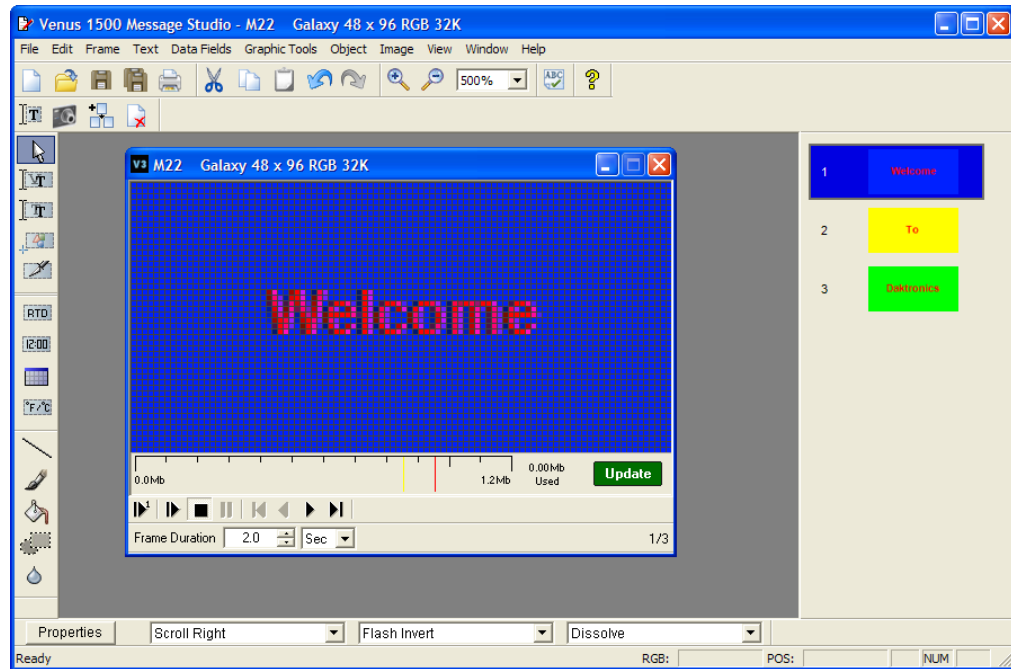


Figure 124: Example of Different Effects in Frames

17. To add transitions and effects, open the **Properties** window.

Note: The *Venus 1500 Message Studio* allows the user to apply an entry, hold, and exit effect to **each** frame. However, do not overload a message with too many effects, as sometimes the message may not be clearly displayed. With multiple-frame messages, it is better to apply entry, hold, and exit effects for all the frames alike, not for each one.


18. The *Properties* window allows applying three transitions effects.
19. Choose the desired effects.
20. Next, check the **Frame Range** field to ensure that the effects apply to all frames.
21. Then, click **Select All**, **Apply**, and then **OK**.
22. After previewing the message, the user may feel that too many effects are applied for each frame. If so, simply go back to the *Properties* window and adjust the effects as necessary.
23. If each effect transitions too fast or too slow, in the **Properties** window change the **Effect** rates. Changing the **Duration** field will vary the duration of the frame itself, not of each effect.
24. **Save** the message



Tutorial #22: How to Change Frame Duration and Clear Frames

Frame Duration





To change the duration of the active frame,

1. Click  to open a new message.
2. Click on the corresponding display type configuration and click **OK** OR double-click on the display type.
3. Write a short sentence in the frame, for example “Welcome to Daktronics” in three lines.

To change the duration of this single frame, click on the up or down arrow of the **Frame Duration** box to set the seconds desired for that particular frame to run.

NOTE: By default, each frame is set to run for 2 seconds. To change the default, open the **File** menu and select **Editor Defaults**.

To change the duration of all the sequence of frames or a range of them,

1. Click  to add another text frame to this message.
2. Type in the desired text.
3. Click on .
4. When the *Frame Properties* window opens, change the time in the top **Duration** box as desired using the up and down arrows.
5. Check the **Range from** box and use the up and down arrows to set the range of frames to which the duration changes will apply.
6. Check **Duration** in the **Frame Range** field.
7. Click **Apply**.
8. Click **OK**.
9. Preview the message .
10. To make further duration modifications, stop the preview  and repeat steps 1-9.
11. Save the message.

Clearing Frames

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



Tutorial #23: How to Set the Frame Range to Change Properties

Frame Properties in Venus 1500 can adjust the effects for a group of frames at one time. To do this, refer to the following steps:

1. Open *Message Studio*.
2. Open or create a message with multiple frames.
3. From the menu bar, select **Frame > Properties** or click on the **Properties** button below the frame. Refer to **Figure 125**.

The screenshot shows the 'Frame Properties' dialog box. It has a title bar 'Frame Properties'. The main area is divided into three columns: 'Effect', 'Effect Rate', and 'Duration'. Under 'Effect', there are three rows: 'Entry' (Instant), 'Hold' (Steady), and 'Exit' (Stay). Under 'Effect Rate', there are three rows: 'Entry' (Normal), 'Hold' (Normal), and 'Exit' (Normal). Under 'Duration', there is a single row: 'Duration' (2.0 Sec). Below these is a 'Frame Range' section with a 'Range from' field (4) and a 'to' field (4), and buttons 'Clear All' and 'Select All'. There are also checkboxes for 'Entry Effect', 'Entry Rate', 'Hold Effect', 'Hold Rate', 'Duration', 'Exit Effect', 'Exit Rate', and 'Flash Rate'. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

Figure 125: Frame Properties

4. Choose the desired effects, rates, and duration for the frames.
5. Check the **Range from** box.
6. Type in the range of frames that the frame properties will be applied to.
7. Check the effect(s), rate(s), duration, and/or flash rate to be applied to the selected range of frames or click **Select All** if all effects and rates should be applied to all frames.
8. Click **Apply**.
9. Click **OK**.



Tutorial #24: How to Create a Real-time Data Frame to Show a Game Score


Notes:

This tutorial can be done only if the **Venus 1500 Real-time** software is installed in the computer. Refer to **Section 7: Venus 1500 Real-time** for details using this application.

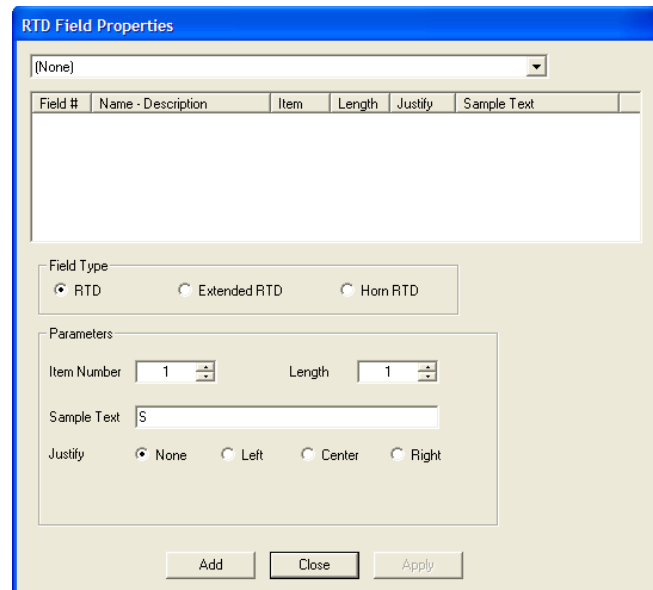
In order to set up a *Real-time Data* message in the *Message Studio*, first configure certain data in the real-time application. Once this is completed, proceed to the *Message Studio*, but make sure that the *Real-time* application is open (minimized) in the system tray while creating the message. Refer to **Figure 126**.

To insert an RTD (Real-time Data) field,

1. Position the cursor at the desired location within the frame.
2. Select **Real-time Data** from the **Data Fields** menu or click on

the RTD button . The **Real-time Data** window will appear automatically when working on a text frame. When working on a graphic frame, after clicking on the RTD button or menu option, click inside the frame to activate the **Real-time Data** window.

3. Click on the down arrow to select the input with the appropriate ITF (Input Template File) loaded.
4. Click on the desired data field by clicking on the appropriate number in the **Field** column.
5. Once the desired ITF file or field type and parameters are chosen, click **Add** or press **[Enter]** to exit the *Real-time Data* dialog box and add the field to the frame. **Cancel** will close the *Real-time Data* dialog box without adding the RTD field.



Field #	Name - Description	Item	Length	Justify	Sample Text

Field Type
 RTD Extended RTD Horn RTD

Parameters
Item Number: 1 Length: 1
Sample Text: S
Justify: None Left Center Right

Add Close Apply

Figure 126: RTD Field Properties

Note: The *Justify* options at the bottom of the screen will override the justification settings in the ITF file. However, this feature is available only when inserting an RTD field in a graphic frame for displays with version 3 controllers




Tutorial #25: How to Save, Rename, and Delete a Message

Note: Messages cannot be saved for one display type within the directory of another display type.

Saving a New Message

After creating a message,

1. From the **File** menu, select **Save** or **Save As** to save the message for the first time.
2. In the **Save Message** window, click on the plus sign next to the display type.
3. Select the folder where the message should be saved in, or create a new library by clicking on the **Create Folder** button , and then entering a name. Refer to **Figure 127**.
4. Enter the name for the new message in the **File Name** field. Up to eight characters may be used for Version 2 files. Up to 35 characters may be used for Version 3 files.
5. Click **Save**.

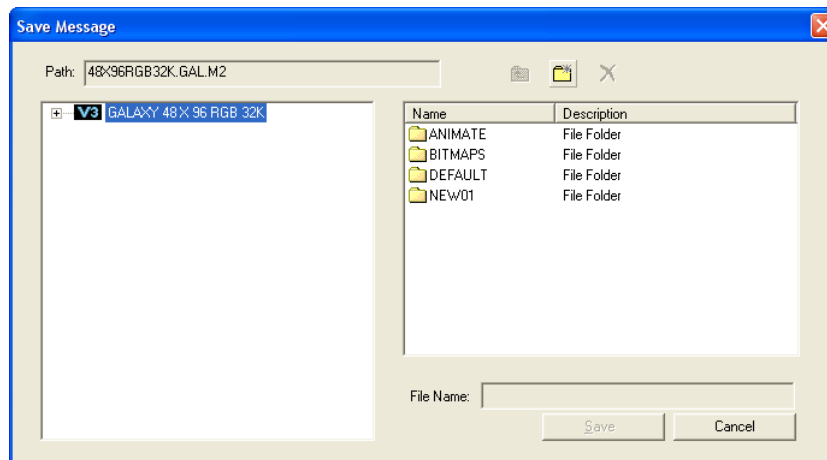



Figure 127: Save Message Dialog

Saving an Existing Message


After creating a message,

1. From the *File* menu, select **Save**, or click on the save button  from the toolbar.
2. If a message is closed before saving, a pop-up window prompts the user to save any changes made to the message.

Renaming a Message or Saving to Another Location

Follow the steps 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.

Deleting a Message


1. From the **File** menu, select either **Open** or **Save As**. A dialog appears.
2. Highlight the name of the message to delete.
3. Click  to delete. A verification dialog appears.
4. Click **Yes** to delete the message or **No** to cancel this command. The message will be removed from the library.

Note: Messages that are being edited in Message Studio cannot be deleted.



Tutorial #26: How to Create New Folders

Folders help to organize messages so that they can be found easily for editing or reviewing. For example, if some messages relate to Summer Sales and others to Winter Sales, two folders can be created with these names to save the corresponding messages in them. Refer to the following steps:

1. Create a new message following the steps in Tutorial #1 “How to Create a Text Message.”
2. In the **File** menu, select **Save As** to open the Save Message dialog box. Refer to **Figure 128**.
3. Click the **Create Folder** button .

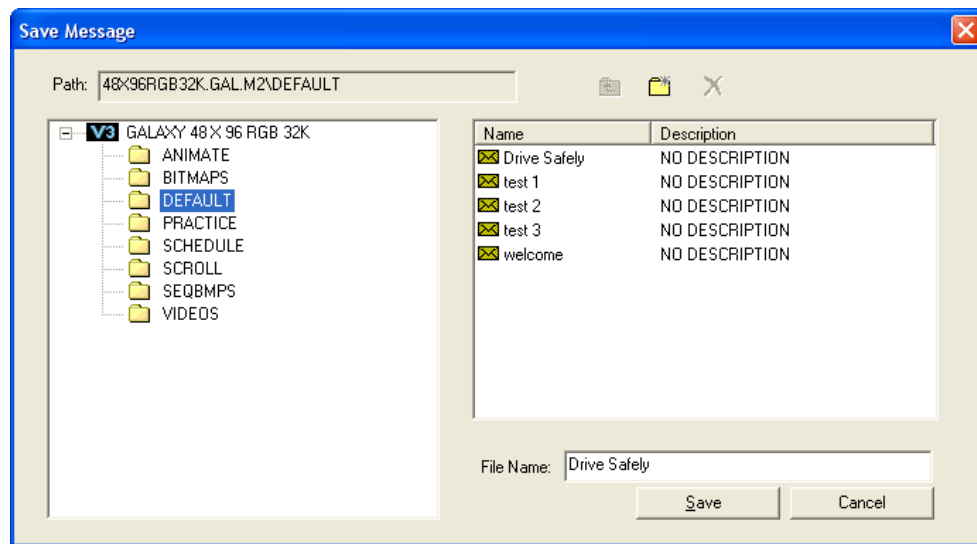


Figure 128: Save Message Dialog

4. On the left side of the Save Message dialog box, a box highlighting **NEW01** will appear. Refer to **Figure 129**.

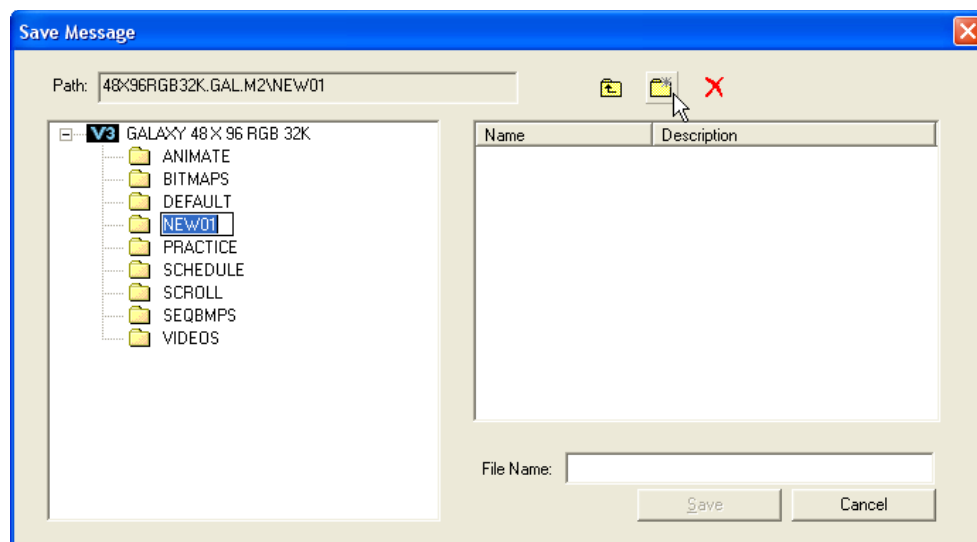



Figure 129: New Folder




5. The box indicates that a name can now be typed. For example, type the abbreviation for Summer Sales “SUMSALES.”
6. The *Venus 1500 Message Studio* will not allow names with certain restricted or “illegal” characters, such as spaces, commas, etc. If the user does enter one of these characters accidentally, a window will pop up indicating so. Simply click OK and retype a name that fits these restrictions. **Note:** Version 2 message names cannot exceed 8 characters, and Version 3 message names cannot exceed 35 characters.
7. The new folder will appear in the folders list in alphabetical order.
8. Type the **File Name** for the message that is to be saved or simply close out of the **Save Message** dialog box by clicking on . The folder can be created even if no messages are saved in it yet.

Renaming a Folder

1. Open the **Save Message** dialog box.
2. Click once on the desired folder name.
3. Click on it again until the folder name appears inside a box.
4. Type the new name.

Deleting a Folder

1. Highlight the folder name in the **Save Messages** dialog box.
2. Click on the delete button .

WARNING! This action will automatically delete the folder and will NOT send it to the Recycle Bin. It cannot be retrieved. The messages inside that folder may be retrieved from the display memory if they appear as *Stored Messages* in the *Display Manager*.



Tutorial #27: How to Change the Editor Defaults

The **Editor Defaults** define the look of the **Message Studio** screen when it is opened. For example, by default when opening a new message, the screen shows a text frame and the font Sans Serif 7. To edit these defaults:

1. Open the **File** menu.
2. Select **Editor Defaults**. The *Editor Defaults* dialog box opens showing initially the defaults for Version 2 Controllers. Refer to **Figure 130**.

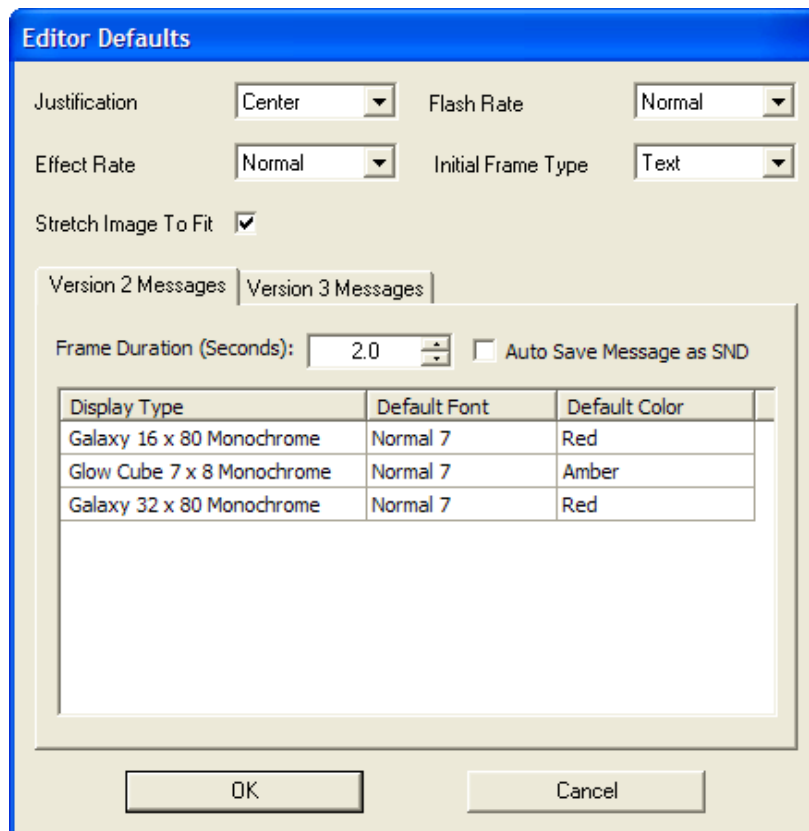


Figure 130: Editor Default Dialog

3. To view the defaults for Version 3 Controllers, click on the **Version 3 Messages** tab.
4. Change the desired default options by clicking on the down arrows next to the appropriate fields.
5. Highlight the preferred selection.
6. When finished setting the new defaults, click **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*.

Section 5: 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. The number of entries per schedule varies depending on the version used. Up to 40 entries can be entered for Version 2 displays and 200 entries for Version 3 displays.

Note: Schedules for more than one type of display can be open for editing at the same time.

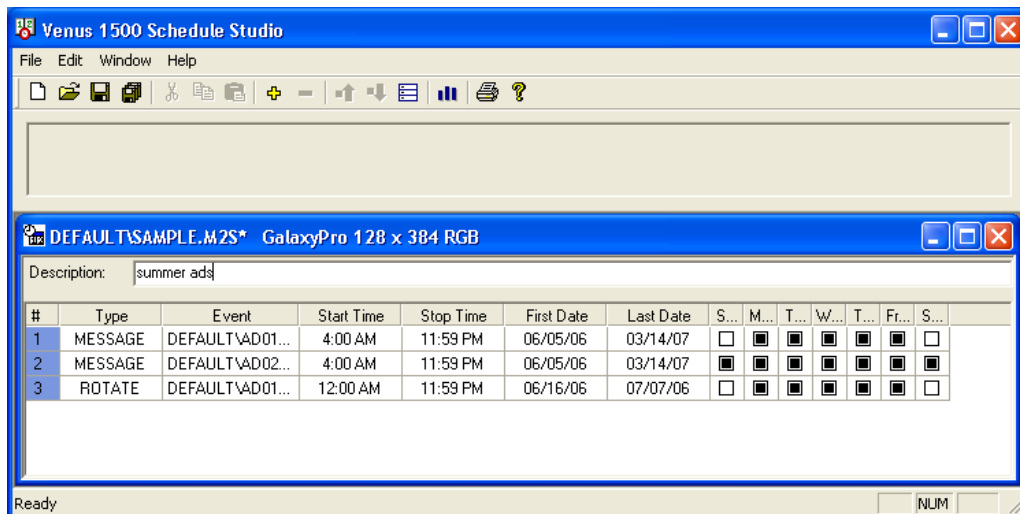


Figure 131: Venus 1500 Schedule Studio







Click  from the Venus 1500 Shell to activate the *Schedule Studio*.












A toolbar, located below the menu bar 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 is selected.



Figure 132: Version 3 Schedule Toolbar

-  **New** opens a new schedule or a new schedule file.
-  **Open** opens an existing schedule or an existing schedule file.
-  **Save** saves the active open schedule.
-  **Save all** saves all of the open files.

-  **Cut** removes a currently selected schedule entry and places it on the clipboard.
-  **Copy** copies the currently selected schedule entry and places it on the clipboard.
-  **Paste** places the cut or copied schedule entry into the file or active open schedule.
-  **Add** adds a new schedule entry to the bottom of the schedule.
-  **Delete** permanently removes the currently selected entry from the schedule.
-  **Move up** moves a selected entry one up in a series of schedule entries.
-  **Move down** moves a selected entry one down in a series of schedule entries.
-  **Group message events by start time** automatically groups messages scheduled at the same start time and date.
-  **Required File Space** shows the size (in kb) of each entry in a schedule as well as the total required file space for all entries in the schedule (in Kb and Mb). This can also be accessed in the *File* menu.
-  **Print** prints the active open schedule.
-  **Contents** provides access to the Venus 1500 help window.

Descriptions of the *Schedule Studio* contents are as follows:

Details Field is located beneath the toolbar and provides the details of scheduling for a selected entry.

Description shows the name that identifies a particular schedule from others. The description does not change if the events change.

Entry number is the number located on the left side of the screen providing the order of entry within the Schedule Studio. **Note:** These numbers do not indicate the order in which the messages are scheduled to run in the display.

Type indicates the type of event chosen for a particular entry.

- **None** leaves an entry line blank.
- **Message** prompts the Open Message dialog box to choose the message that is to be scheduled in that entry.
- **Rotate** allows messages to be inserted into the schedule after a set amount of messages have been run. Note: The rotate option is only available in Version 3 displays.
- **Brightness** sets the display's brightness to either Auto or Manual.

Event shows the name of the message in a particular entry or whether Auto or Manual brightness was scheduled. This also allows the user to change the rotate frequency of a message or to change the message in a particular entry.

Start Time indicates the time chosen for a particular message to begin running on the display.
Stop Time indicates the time chosen for a particular message to stop running on the display.
First Date indicates the date chosen for a particular message to begin running on the display.
Last Date indicates the date chosen for a particular message to stop running on the display.
Day Field indicates the days of the week chosen for the message to run on the display if the boxes are checked (black). The unchecked (white) boxes indicate the days of the week chosen for the message not to run on the display.

5.1 Using the Schedule Studio

Below are some important ideas to have in mind when creating or editing a schedule:

1. Messages scheduled to run during the same time frame will appear in the order they are listed in the schedule.
2. The schedule is limited to 40 entries for Version 2 controllers and 200 entries for Version 3 controllers. This includes both messages and brightness commands.
3. 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.
4. The year is not adjustable for Version 2 controllers. The software will automatically advance to the next year at the appropriate time.
5. To select a line, click on its number at the left side of the screen.
6. 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.
7. To choose several non-consecutive lines, press and hold <CTRL> while clicking the desired lines.

5.2 Tutorials


Following this section are the tutorials for *Schedule Studio*. Please refer to the tutorials for directions on operating the Schedule Studio part of the Venus 1500 software. The following is a list of the tutorials:

1. How to Create a New Schedule
2. How to Open and Edit an Existing Schedule
3. How to Rotate a Message in a Schedule (Available Only in Version 3 Displays)
4. How to Schedule the Brightness of a Display
5. How to Set Start and Stop Times, Dates, and the Days of the Week
6. How to Describe, Name, and Save a Schedule
7. How to Schedule a Message to Run Overnight
8. How to Apply Settings to Multiple Messages
9. How to Print and Exit the Schedule Studio



Tutorial #1: How to Create a New Schedule

To start a new schedule:

1. Select **New** from the **File** pull-down menu or click on . The *New Schedule* dialog will appear (**Figure 133**).
2. Double-click on the type of display for the new schedule, or highlight the display type and click **OK**.

A new, blank schedule is opened in the *Schedule Studio*.

Choosing the Type of Event

The *Event* column includes three options: *Message*, *Brightness*, and *Rotate*. To access these choices, click **None** in the **Type** column and the menu shown in **Figure 134** will appear.

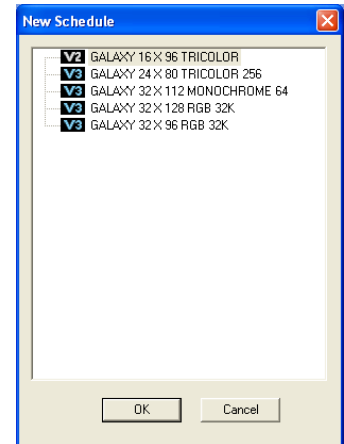


Figure 133: New Schedule

- **Message**
Clicking on **MESSAGE** activates the *Open Message* dialog box. Click on the **plus sign (+)** to select the folder where the desired message is located. Highlight the name of the message and click **Open**. The message will show in the *Event* field of the schedule screen.



Figure 134:
Event Menu

- **Brightness**
BRIGHTNESS can be set to either auto or manual. *Auto* will adjust the brightness of the display's LEDs based on readings from an installed light sensor. *Manual* is used to set a specific value of brightness for the display at a particular time. Possible values range between 0 (complete dimming) to 63 (full brightness) for Version 2 Control Systems and 1-100 for Version 3 Control Systems.
- **Rotate (Available only on Version 3 Displays)**
ROTATE allows messages to be inserted into the schedule more frequently than other messages in the Playlist. For example, the time and temperature are to be inserted every three messages. To do this, set the rotate rate to 3 and select the time and temperature message already created. After every three messages run on the display, the time and temperature will run.

To change the rotation rate of a message, click in the **Event** field of the **Rotate** message and select **Change Rotate Frequency** from the drop-down menu. Enter the new rotation rate or click the spinner up or down to change the rate. The maximum number allowed for the rotation setting is 255.

Adding an Entry

To add an entry, click on the yellow plus sign as many times as necessary to create as many entries as necessary. Enter the event, start and stop time and date, and the days of the week.

To reorder the entries, highlight one entry and click on the **Move Up** or **Down** buttons





Deleting an Entry


To delete an entry, highlight the desired entry by clicking on the entry number. Then click on the yellow minus sign in the toolbar.

Note: In *Schedule Studio*, the undo and redo buttons do not exist. Once an entry is deleted, it cannot be recovered



Tutorial #2: How to Open and Edit an Existing Schedule

To open an existing schedule for editing or viewing:

1. Select **File > Open**, or click . The *Open Schedule* dialog box appears.
2. Select the display type and library containing the schedule.
3. Highlight the schedule name and click **Open**. Refer to **Figure 135**.

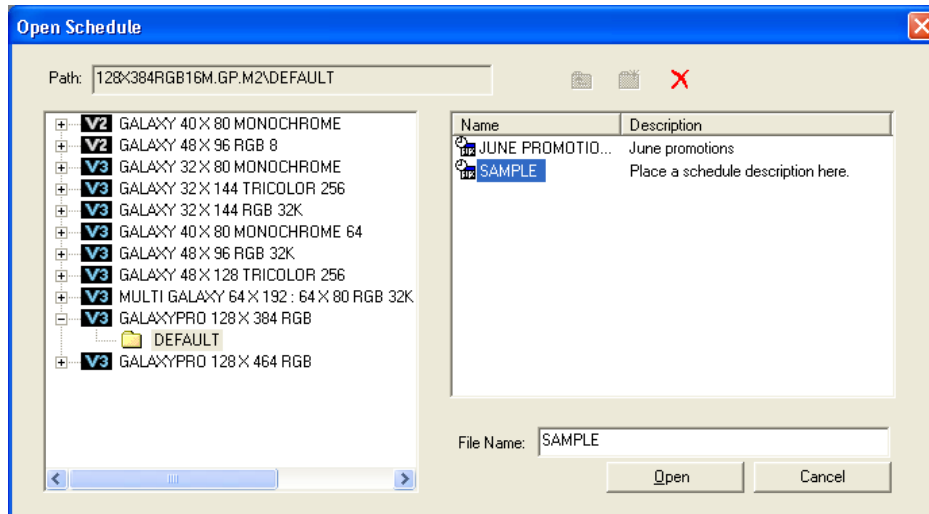


Figure 135: *Open Schedule – Showing Schedules*



Tutorial #3: How to Rotate a Message in a Schedule

(Available only on Version 3 Displays)

This feature allows a rotating message to be added to the schedule. The selected message will repeat after a certain number of messages have run within that schedule. This feature is mostly a time-saver, as the message does not need to be entered several times. Typically, a date and time message is scheduled to rotate after a certain number of other messages.

To rotate a message in a schedule, follow the directions below:

1. In the **Type** field, select **Rotate**.
2. In the *Open Message* window, select the message that will rotate.
3. In the **Event** field, select **Change Rotate Frequency**.
4. Enter the number of messages to display before the rotating message is displayed. For example, enter "2" so that two messages will run on the display before the rotating message.

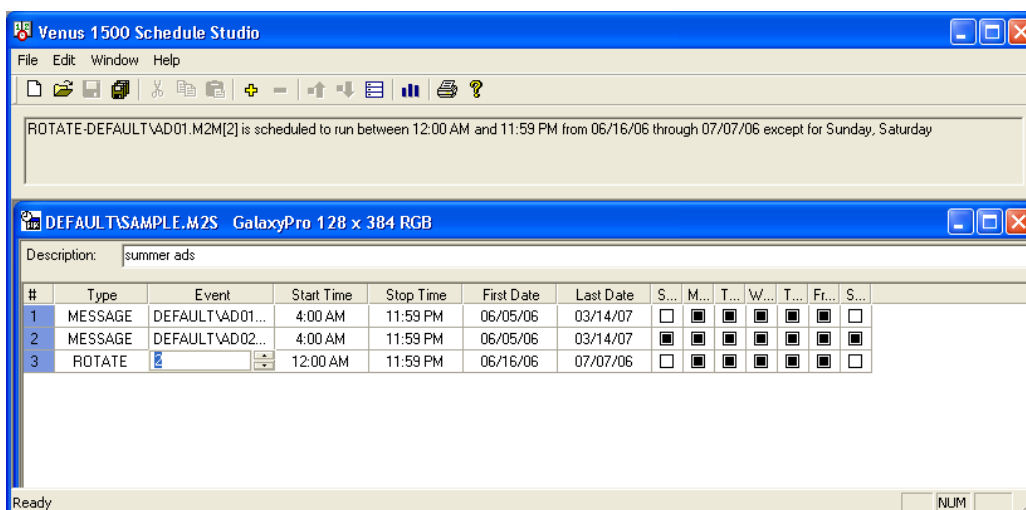


Figure 136: Rotate Frequency

Notes:

- The maximum number allowed for the rotation setting is 255.
- If messages are scheduled at the same time and date, they will begin to run in the order the entries appear in the schedule (entry #1 will run first, #2 will run second, etc.)
- If messages are scheduled at different times and/or dates, they will run in chronological order. The rotating message will run according to the rotate frequency set.



Tutorial #4: How to Schedule the Brightness of a Display

Brightness can be set to either automatic or manual. *Auto* will adjust the brightness of the display's LEDs based on readings from an installed light sensor. *Manual* is used to set a specific value of brightness for the display at a particular time. Possible values range between 0 (complete dimming) to 63 (full brightness) for Version 2 Control Systems and 1-100 for Version 3 Control Systems.

To schedule the brightness of a display, follow the directions below:

1. In the **Type** field, select **Brightness**.
2. The **Event** field will show *Auto*. To change this to *Manual*, click on the **Event** field and, from the down arrow, select **Manual**. This sets a specific value for the brightness of the display at a particular time. When the *Event* field is no longer selected, it is possible to see the percentage of brightness when *Manual* is selected.

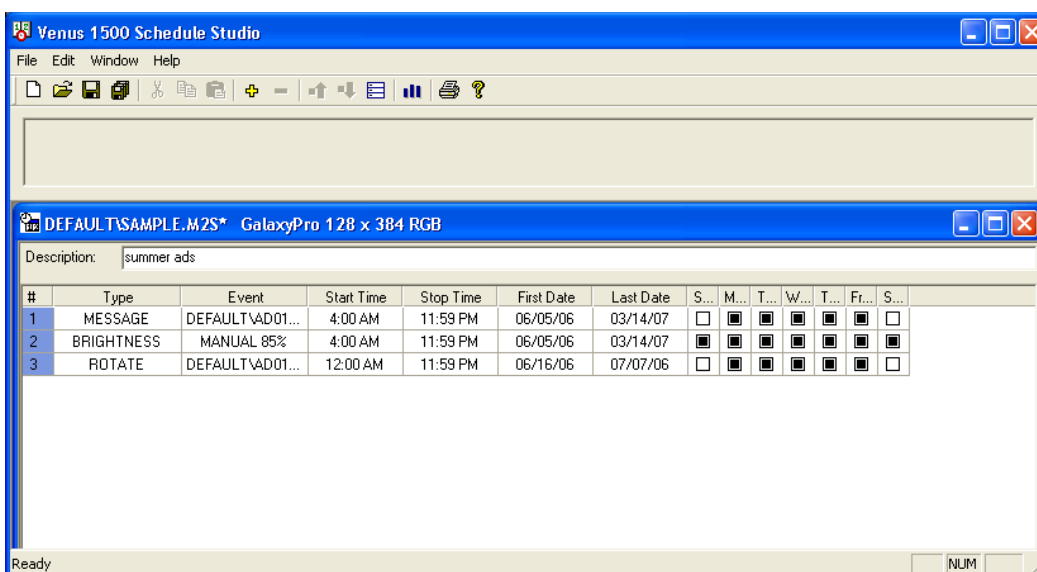


Figure 137: Schedule Brightness

Note: This feature is especially useful when no light sensor is installed in the display. If a photocell is installed, choose *Auto* so the brightness adjusts automatically according to the readings of the photocell or use the *Manual* mode to schedule the desired brightness.



Tutorial #5: How to Set Start and Stop Times/Dates/Days

Setting the Start Time/Stop Time

Each event will begin running at the *Start Time* on the *First Date* chosen in the line. Each event will stop running at the *Stop Time* on the *Last Date* chosen for this message.

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

Figure 138: Changing Start and Stop Times

To change the time, select either the start or stop time and highlight the digit to be changed. Refer to **Figure 138**. 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 *Stop Time*, the event will never start.

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 12:59 AM (Stop Time).

Setting the First Date/Last Date

Events may be set to run only during a specific range of dates. Highlight the date to be changed and click on the down arrow. A calendar month will appear. Select the desired month, day and year for the start or end date. The monthly calendar moves forward or backward from month to month by using the arrows at the top corners.

First Date	Last Date	S...	M...	T...	W...
06/05/06	03/14/07	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
06/16/06	06/17/06	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
06/16/06	07/07/06	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

July, 2006						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Today: 6/16/2006

Figure 139: First Date/Last Date

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 *First Date* must be earlier in the year than the *Last Date* or the event will not run.



Special Note for Version 2 Displays: 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...
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

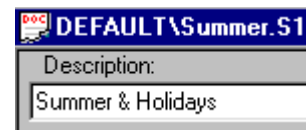
By default, all days are selected. To deselect a particular day, click on the box underneath the day of the week. (This box is a toggle. Click on it again to select the day.) In the third line of the example, the event will run only on Mondays during the specified first and last dates. All other entries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



Tutorial #6: How to Describe, Name, and Save a Schedule


Adding a Description

A description may be added to a schedule to identify it from other similar schedules. This description does not change if the events change. The schedule description will be visible in the *Open Schedule* dialog box. To add a description, click in the description field and type the description for the schedule.



Naming and 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. Click **Save**.

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

Saving at regular intervals is recommended to prevent accidental loss of information



Tutorial #7: How to Schedule a Message to Run Overnight

Because the *Schedule Studio* reads the Start and Stop Time for one day only running from 12am to 11:59pm, overnight messages cannot be scheduled in one entry only. For example, to schedule a message to run from 10pm on October 20 to 3am on October 21, follow these steps:

1. Click inside the **Type** field and select **Message**.
2. Click on the **plus sign (+)** and choose from the corresponding folder of the message to be scheduled.
3. Once the message appears in the entry, enter 10pm in the **Start Time** field and enter 11:59pm in the **Stop Time** field.
4. Enter October 20 for the **Start Date** and the **Stop Date**.

Note: It is not necessary to select the days of the week in this case.

5. Add another entry and open the same message from the **Type** field.
6. In the **Start Time** field, enter 12am and in the **Stop Time** field, enter 3am.
7. Enter October 21 for the **Start Date** and **Stop Date**.

It is also possible to schedule a message to run overnight for a period of time, for example from 10am to 6am from October 10 to November 6. Follow the instructions below:

1. Click on the yellow **plus sign (+)** to add another entry and open another message.
2. In the **Start Time** field, enter 10am and in the **Stop Time** field, enter 11:59pm.
3. Enter October 10 for the **Start Date** and enter November 5 for the **Stop Date**.
4. If desired, select the days of the week the message will run overnight or select all of the days of the week if that is the case.
5. Add another entry by clicking on the yellow **plus sign (+)**.
6. Open the previous message from the **Type** field.
7. Enter 12am in the **Start Time** field and the **Stop Time** field.
8. Enter October 11 for the **Start Date** and November 6 for the **Stop Date**



Tutorial #8: How to Apply Settings to Multiple Messages

Dates and times can be set simultaneously for multiple messages in a single schedule for a single display.

Week Days Filter

A schedule for days of the week may be set for multiple events in one step. To do this, open **Schedule Studio** and hold the shift key while selecting consecutive events or hold the control key while selecting random events in the list. Right-click in the number (#) of one of the selected lines and choose **Week Days Filter**. The dialog window will appear (**Figure 140**) showing boxes for each day of the week. Click on the days that the message is to be shown. Click **OK** to activate the choices or **Cancel** to return to the *Schedule Studio* without making changes.

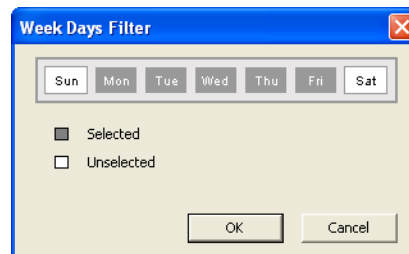


Figure 140: Week Days Filter

Setting Event Times for Multiple Events

Event times, including date and time, may be set for more than one event at a time. To do this, open **Schedule Studio** and hold the shift key while selecting consecutive events or hold the control key while selecting random events in the list. Right-click in the number (#) of one of the selected lines and choose **Set Event Time**. The dialog window will appear (**Figure 141**), providing the options to set start time and date and stop time and date. These times and dates will apply to every display selected, as can now be seen in the Schedule Studio list.

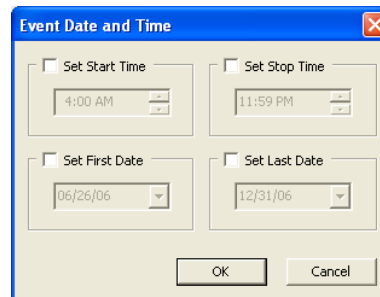



Figure 141: Setting Event Times

Grouping Events

Events may be grouped by start time and date to help manage the message schedule. To

group messages by event, click on the **Group Events** icon  in the toolbar. All messages with the same start time and date will now be grouped together in the schedule list. Note that start time and date must be identical for this to occur.



Tutorial #9: How to Print and Exit the Schedule Studio

Printing

The completed schedule can be printed to obtain a paper copy of it. 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.

To print the schedule, select **File > Print** from the pull-down menu. Use **Print Setup**, also found under *File*, to change printer settings, if necessary.


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 **Yes** to save the schedule, **No** to exit without saving, or **Cancel** to stop the exit command.

After exiting the *Schedule Studio*, the Venus 1500 Shell is again available.

Section 6: The Venus 1500 Display Manager

The Venus 1500 Display Manager controls communications with the displays, provides basic display monitoring functions, and includes some diagnostic capabilities.

When the **Venus 1500 Display Manager**  is activated from the Venus 1500 Shell, a screen similar to **Figure 142** appears.

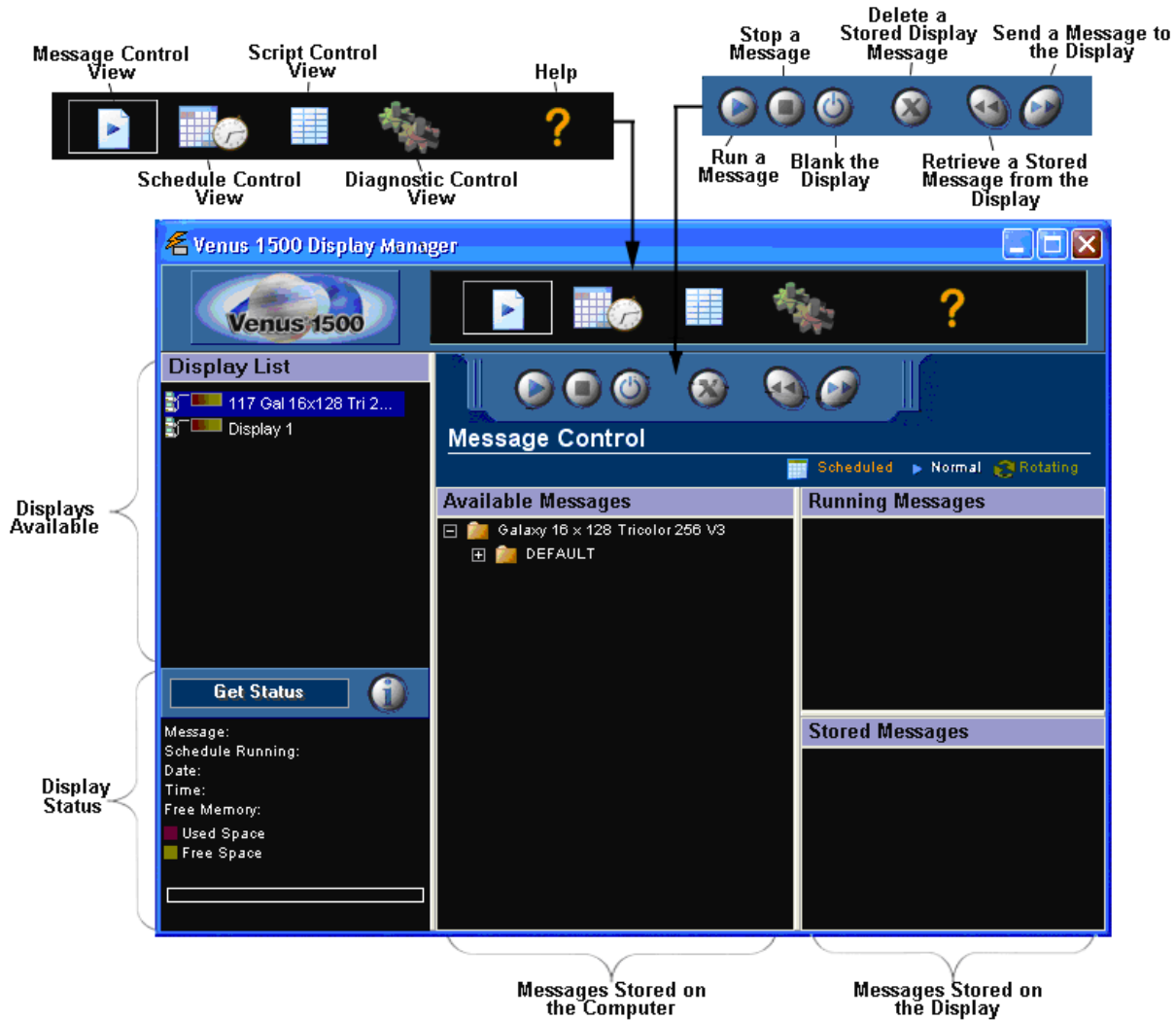













Figure 142: Venus 1500 Display Manager

The Venus 1500 Display Manager is divided into four control areas: Message Control (shown above) Schedule Control, Script Control and Diagnostic Control. Each part is discussed in detail in this section. Regardless of the part being viewed, the screen is divided into three basic areas: the Display List, the Status results area (where Available Memory is shown), and the Control Area.

6.1 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:

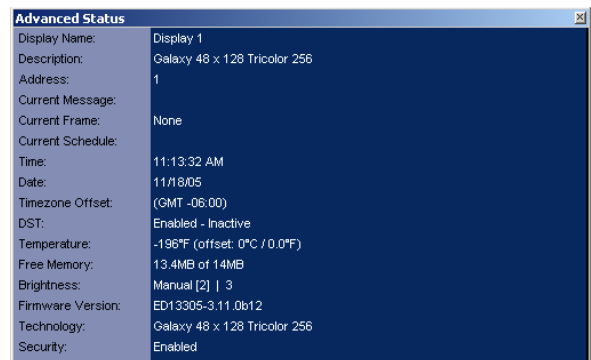
- LED Monochrome 
- LED Tricolor 
- LED Tri-256 
- LED RGB 
- LED RGB- 32K and higher 
- Monochrome 64 shade 
- Incandescent 
- Glow Cube[®] reflective displays 

To select the display with which 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 **Get Status** or double-clicking on the display's name. The Venus 1500 connects to the display and retrieves the current messages and schedules running, the date and time of the display, and the amount of memory used and available.

Once display status is retrieved from the display, view **Advanced Status** results by clicking on .



Advanced Status	
Display Name:	Display 1
Description:	Galaxy 48 x 128 Tricolor 256
Address:	1
Current Message:	None
Current Frame:	None
Current Schedule:	
Time:	11:13:32 AM
Date:	11/18/05
Timezone Offset:	(GMT -06:00)
DST:	Enabled - Inactive
Temperature:	-136°F (offset: 0°C / 0.0°F)
Free Memory:	13.4MB of 14MB
Brightness:	Manual [2] 3
Firmware Version:	ED13305-3.11.0b12
Technology:	Galaxy 48 x 128 Tricolor 256
Security:	Enabled

Figure 143: 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.

- **Red** -Used space
- **Green**- Available space
- **Blue**- Deleted files (applies to version 3 displays only)

Deleted files are files that have been deleted but still consume some memory on the display controller. To free the memory occupied by the deleted files, click **Memory Cleanup**. Refer to **Section 6.2**.

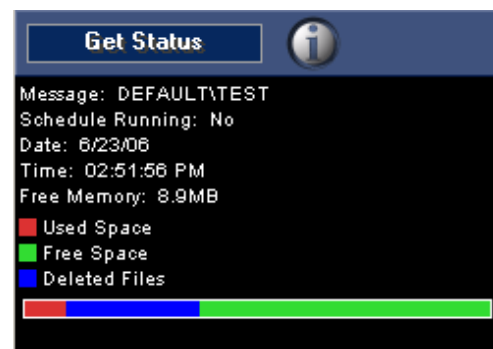


Figure 144: Available Memory Gauge

Control Area

The control area of the screen is located to the right of the *Display List* and *Get Status* area. Its general appearance will change depending on whether *Message*, *Schedule*, or *Diagnostic Control Studios* are being used.

6.2 Display Diagnostic Information

A variety of information can be viewed within the *Display List* in the *Display Manager*. The color of the display name in the *Display List* is the first source of information.

- **White**- the display is operating normally.
- **Red**- the controller is experiencing a communication failure.
- **Yellow**- that there is a task failure.

Additional diagnostic information is available for each configured display by using a right-click on the display's name. Refer to **Figure 145**. This can be done in any view of the *Display Manager*.

- **Get Status** retrieves the current status of the display.
- **Hang Up** applies only to displays with a modem. Clicking on this command simply hangs up the modem and ends communication with the display.
- **View Error Log** shows the operator any errors that have registered with the display. This also allows the operator to clear all errors currently registered with the display.
 - **Properties** displays the information that was entered when the display was configured. Within the properties window, *Memory Cleanup* and *Backup/Restore* for the display are also possible. Refer to **Figure 146**.

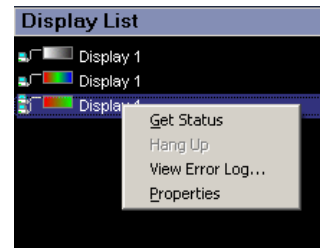


Figure 145: *Display List Right-Click Menu*



Figure 146: *Display Properties Dialog*

- **Memory Cleanup** allows the Control System to de-fragment the display's memory. This is only available for Version 3 controlled displays.
- **Backup/Restore** saves configurations either on a recurring basis (*Auto Backup*) or when desired (*Backup*). The *Manage* tab lists the backups that have been saved and the date that those occurred.
- **Destination Address** is available under the *Manage* tab. It is used to send out a "backup" to a new controller which will replace an existing controller.

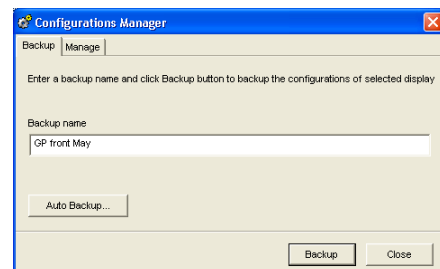



Figure 147: *Configuration Manager*

6.3 Message Control View

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

The control area of the screen is divided into two basic halves: the *Available Messages* area shows messages that are currently stored within the Venus 1500 Control System computer. Right-click on a message in the *Available Messages* list and click preview to preview a message. These messages are available to run on the selected display.

The right side, *Running Messages* and *Stored Messages*, lists the messages currently running and stored at the display site. The message control buttons are above these 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 clicking on the desired range of messages.

To preview a message before it is sent to a display, right-click on a message that is in the *Available Messages* box and select preview. A previewer window will pop up and will display a copy of the message as it will look on the display.

The previewer has Play, Stop, Pause, and Zoom In/Out features.

Determine the Messages 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 **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 listed in the Running Message list unless the display is running a schedule. For Version 3 displays, running messages that were started by the Schedule will appear in yellow and will run for the duration of the schedule. Messages inserted due to a Rotate command in the schedule will appear in green. Any message manually started in the Message Control View will display in white when running on the display.

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

Message Control Functions

A number of actions may be taken from the *Message Control* area of the *Display Manager*. The buttons shown (**Figure 148**) are used to activate these functions. Each button is explained in the following sub-sections.

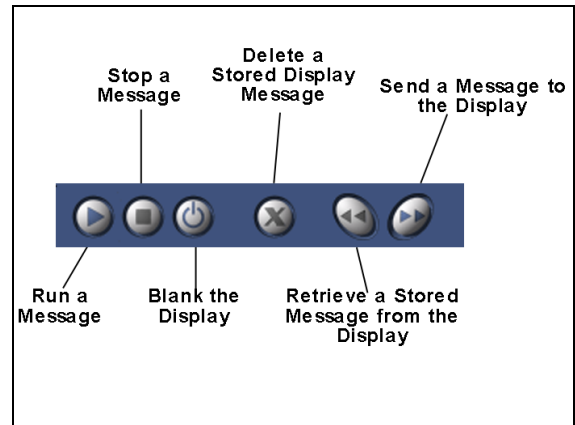


Figure 148: Message Control Buttons

6.4 Schedule Control

Click on **Schedule Control View**



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 and the right side lists the current schedules stored at the display site, if any. Above the *Available Schedules* area are the *Schedule Control* buttons. These buttons are used to send, stop or run a schedule on the display.

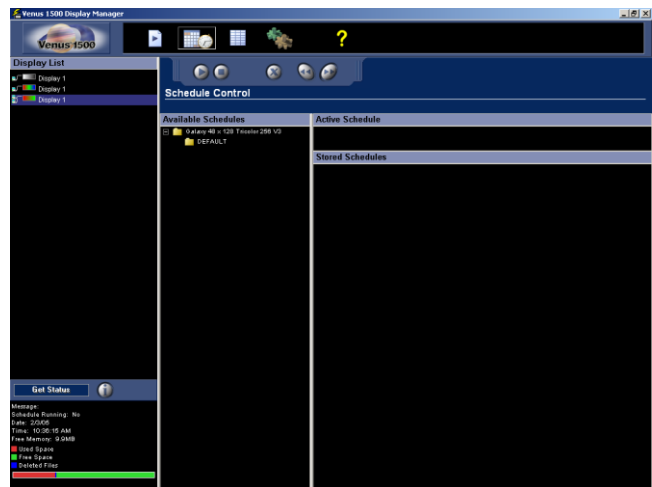


Figure 149: Display Manager - Message Scheduler

Schedule Control Functions

Schedules may be changed on the displays by using the control buttons provided in the toolbar. These buttons, as shown in **Figure 150**, are described in this sub-section.

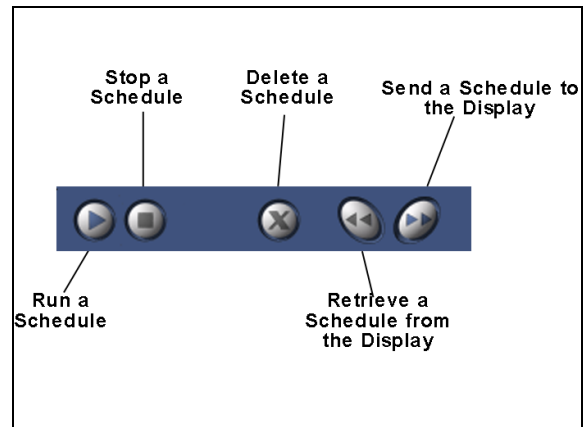


Figure 150: Schedule Control Buttons

6.5 Script Control View

Click **Script Control View** . The *Venus 1500 Display Manager* screen adjusts for *Script Control*.

Script Control allows the operator to execute a script that has been previously created by an operator. A script is a file that contains a communication command task. Venus 1500 software provides the operator with two script options: *Run Message* and *Blank Display*.

Note: Some features are available for Version 3 displays only.

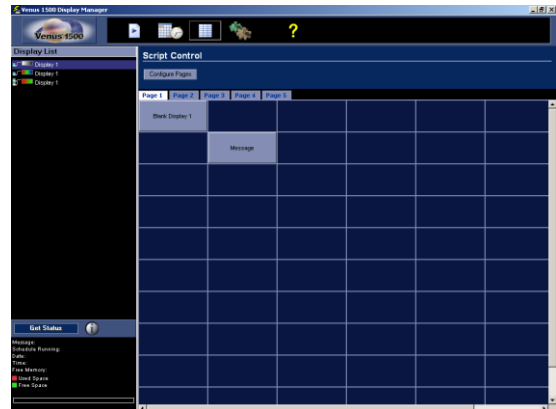



Figure 151: Script Control View

6.6 Diagnostic Control

Click **Diagnostic Control View** . The *Venus 1500 Display Manager* screen opens to *Diagnostic Control*.

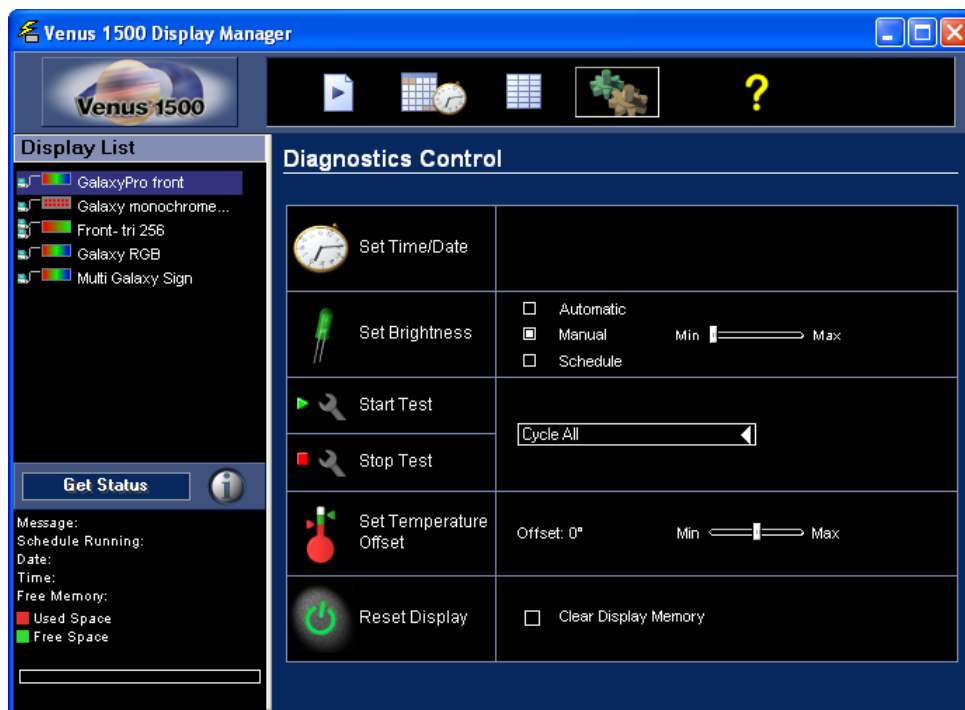


Figure 152: Venus 1500 Display Manager - Diagnostic Control

Set Time/Date

Click **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.

Set Brightness

Set Brightness provides three options:

- **Automatic** – The display's brightness level adjusts automatically based on readings from an external light sensor at the display site, when installed. *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 **Set Brightness** to activate it for the selected display.

Test Patterns

The test patterns are used to assist maintenance personnel who may be troubleshooting the display (**Figure 153**).

The test patterns are available only for the following firmware versions. A Venus 1500-controlled display will show its firmware version upon power up or reset. Refer to its maintenance and troubleshooting manual.



Figure 153: Test Patterns 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 **Start Test**. Once testing is complete, click **Stop Test**.

Note: Not all listed tests will work with every display. If a particular test does not appear on the 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. Click **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 **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 that the display's status is retrieved. The display time and date will update to the current time and date.

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

6.7 About the Display Manager

Click on the Venus 1500 drop-down menu and select **About Venus 1500**. The dialog box lists Daktronics contact information and customer service phone numbers.

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



Figure 154: *Display Manager Drop-Down Menu*

6.8 Tutorials

1. How to Get Display Status
2. How to Run a Message on a Display
3. How to Run a Schedule on a Display
4. How to Run Messages and Schedules Combined
5. How to View the Status of Messages or Schedules on a Display
6. How to Retrieve Messages from a Display
7. How to Create and Run a Script
8. How to Create a Script to Blank the Display
9. How to Edit a Script
10. How to Configure Script Pages
11. How to Copy and Paste Scripts
12. How to Get Diagnostic Information




Tutorial #1: How to Get Display Status

Before running messages, schedules, or scripts on the display, get display status to ensure that the computer is communicating properly with the display.

To check the status of a display, follow the instructions below:

1. Select the display's name from the *Display List*.
2. Click **Get Status** or double-click on the display's name.
3. Once the display status is retrieved from the display, it is possible to view advanced

status results (see **Figure 155**) by clicking on the **Advanced Status View** button .

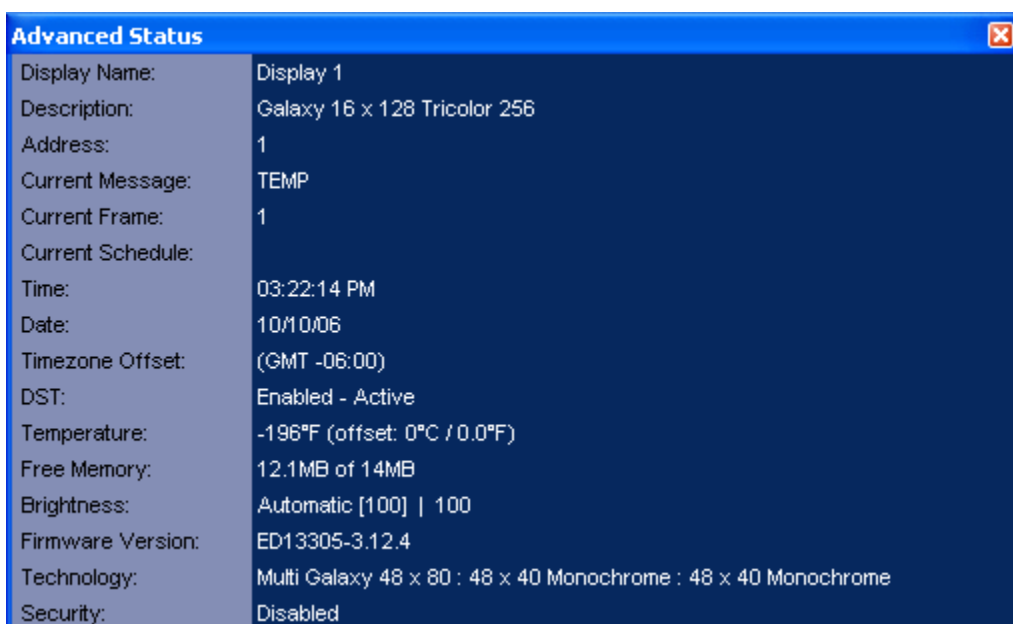



Figure 155: *Advanced Status*



Tutorial #2: How to Run a Message on the Display

Sending Messages to a Display


To send a message from the Venus 1500 Control System computer to a display, highlight the name of the message under the *Available Messages* column. Click on . The message will be added to the *Stored Messages* list. A message or a schedule may also be sent to a display by double-clicking on the message in the Available Message list.

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. It is also possible to select multiple non-consecutive messages by holding the [Ctrl] key.


Running a Message

Messages may be selected to run on a display from two locations: a stored message on the display or an available message from the file.

To run a message already stored on the display controller:

- Highlight the name of the message under the **Stored Messages** column and then click on **Run** .
- Or, under the *Stored Messages* column, double-click on the message's name, and it will move to the *Running Messages* area.

To run a message not yet sent to the display:

- Highlight the name of the message in the *Available Messages* column. Click **Run** . The message is automatically sent to the display site and begins to play.


When a message is selected to run, it is added to the end of the *Running Messages* list.

Previewing a Message

It is possible to preview a message in *Display Manager*. In the *Available Messages* list, right-click on a message and click preview.

Stopping a Message from Running on a Display

When a message is stopped, it will immediately stop running on the display. To stop a message, either:


- Highlight the message name under the *Running Messages* column and then click . The message will be moved to the *Stored Messages* list.
- Or, under the *Running Messages* column, double-click on the message's name and the message will be sent to the *Stored Messages* list.



Blanking the Display


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

Deleting a Message from a Display

To delete a message stored at the display site and thus free memory, select the name of the message from the *Stored Messages* or *Running Messages* column and then click .

Retrieving a Message from a Display

The *Retrieve Message* command copies an existing message from the display to the central control 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  to retrieve the message.



Note 1: For Version 2 displays, text objects inside graphic frames are no longer separately available to be edited in text mode.

Note 2: The Advanced Status button will list the current firmware version used by the display.



Tutorial #3: How to Run a Schedule on a Display

To run a schedule on the display, first send the schedule to the *Stored Schedules* list. To do this, follow the instructions below:

3. Activate the **Schedule Control View** .
4. In the *Available Schedules* list, click on the **plus sign (+)** next to the folder containing the saved schedules.
5. Highlight the name of the desired schedule.
6. Click the **Run Schedule** button .
7. A warning window will open asking if the user wants to overwrite messages that may already exist in the display. Click **Yes**. Refer to **Figure 156**.

Note: If any messages listed on the schedule are not stored at the display, they are sent automatically.

Run a Schedule

To run a schedule that is stored at the

display site, click . The schedule will begin running. It is also possible to highlight the desired schedule in the *Available Schedules* list, right-click, and select **Run**.

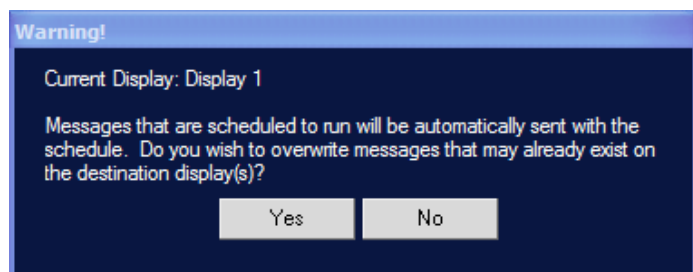




Figure 156: Warning Message

Stop an Active Schedule

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

Delete a Schedule from a Display

To delete a Version 3 schedule stored at the display site and thus free memory, select the name of the schedule from the *Stored Schedules* or *Active Schedules* column and click .

Note: Version 2 messages cannot be removed unless the user clears the sign memory.

View Available Schedules and their Status

To view the available schedules for a particular display, select the appropriate display name from the *Display List*, then click **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 a *Stored Schedule* in the right half of the control area. If a schedule is actively running on the display, its name will be listed under *Active Schedules*.



Tutorial #4: How to Run Messages and Schedules Combined

To run combined messages and schedules, follow the steps in Tutorial #2 “How to Run a Message on a Display” and Tutorial #3 “How to Run a Schedule on a Display.”

Notes:

The order in which the combined messages and schedules will run depends on the dates and times that the messages and the schedules are set to run.

The scheduled messages have priority over the unscheduled messages. Whenever a message is scheduled to run, it will do so first, even if the unscheduled message appears first on the list.

When sending a schedule to a display, a *Warning* window (**Figure 157**) may appear asking to overwrite messages that may already exist on the display. If so, click **Yes**.

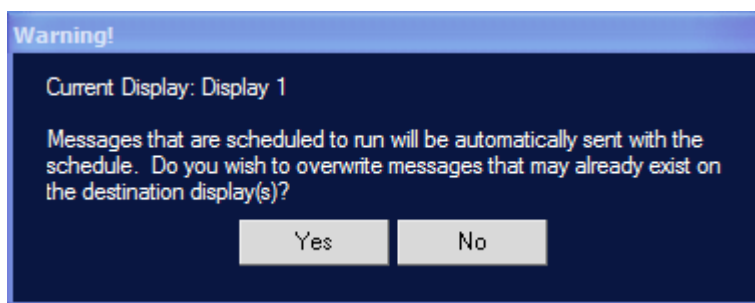


Figure 157: Warning Message

When the scheduled messages finish running, the unscheduled messages will begin to run if they are still in the *Running Messages* list



Tutorial #5: How to View the Status of Messages or Schedules on a Display

1. Select the desired display from the *Display List*.
2. Click **Get Status**. The control area of the screen will update with the information retrieved from the display.
3. The list of messages currently running on the display will appear under *Running Messages* in the right half of the control area. Refer to **Figure 158**.

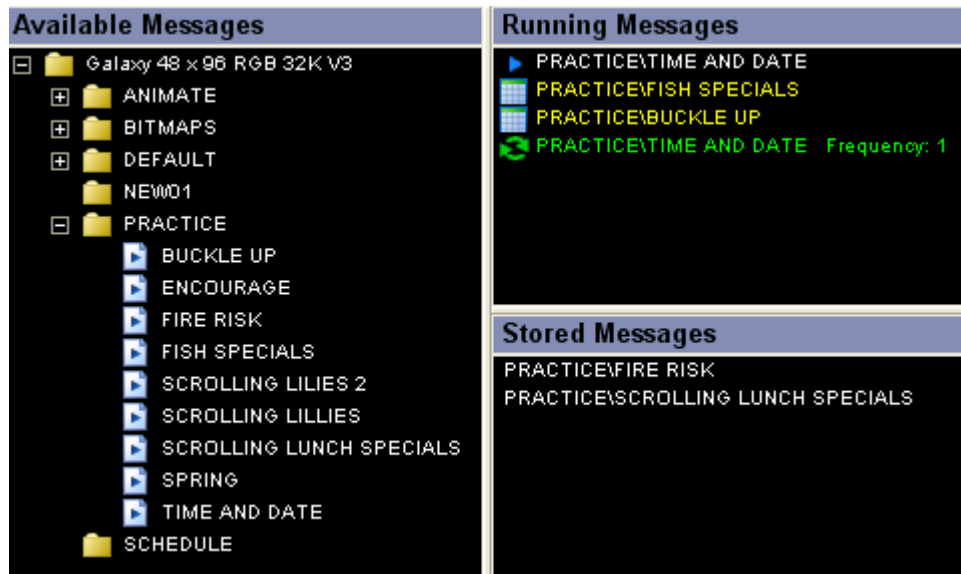


Figure 158: Messages Screen

Messages appear on the display in the order they are listed in the running message list unless the display is running a schedule.

For Version 3 displays, running messages that were started by the *Schedule Control* will appear in yellow and will run for the duration of the schedule. Messages created to rotate in the schedule will appear in green. Any message manually started in the *Message Control* view will appear in white. Any messages that are not running, but are saved at the display site, will be listed under *Stored Messages*.



Tutorial #6: How to Retrieve Messages from a Display

Note: 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 and ED-12699 for RGB Galaxy displays)



The **Retrieve Message** button copies an existing message from the display to the computer for editing in the *Venus 1500 Message Studio*. This feature is especially useful when having computer technical problems and a different computer is needed to communicate with the display. If the messages are still stored in the display, it is possible to recover or “retrieve” them into the new computer’s hard drive directly from the display.

To retrieve a message:

1. Highlight the desired message under the *Stored Messages* column.



2. Click the **Retrieve Message** button.

Notes:

For Version 2 controllers, the text object is no longer separately available for editing in text mode. The text objects placed on graphic frames are merged into a single image once the message is sent to the 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 *Advanced Status* button will list the current firmware version used by the display.



Tutorial #7: How to Create and Run a Script

Scripts are very convenient for sport events or hotels where messages have to be sent to the display instantly as the need arises.

Creating a Script to Run a Message

Once in the *Script Control* view, complete the following steps to create a script.

Note: Messages contained in the script need to be in the *Stored Messages* list as the script itself will not actually send the message(s) to the display(s). The messages in a script can be sent to the display by right-clicking on the script cell. Choose **Send Script Messages** and the script messages will be sent to the *Stored Messages* list.

1. Right-click in the cell on the script table where the script should be located and a pop-up menu will appear.
2. Click **New > Run Message**. The *Venus 1500 Script Wizard* will appear. Refer to **Figure 159**.
3. Click on the down arrow next to the *Display Type* field and select the display type for which the script is being created.
4. The field below will list all of the configured displays for the specified display type. Click on the desired display(s) to specify which will use the script.
5. Click **Next** to continue or click **Cancel** to close the *Script Wizard*.
6. Click the **[+]** button and a file browse window will appear. This allows the operator to select the message(s) to include in the script.
7. Click on the down arrow next to the *Library* field and navigate to the desired library where the message is stored. Refer to **Figure 160**.

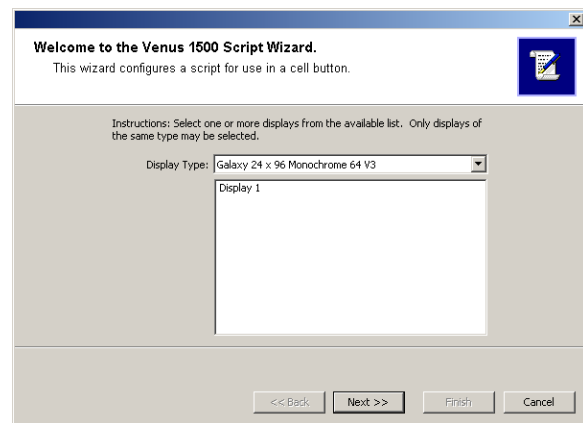


Figure 159: Script Wizard Dialog



Figure 160: Script Wizard Step 2



8. The messages stored in the library will appear in the field below. Refer to **Figure 161**.
9. Click on the up and down arrows to rearrange the order of the messages in the script.
10. Select the desired message(s) and click **OK** to complete the file selection. Click **Cancel** to return to the Script Wizard. The selected message(s) will be listed in the *Playlist* window.
11. Click **Next** to continue or click **Cancel** to close the Script Wizard.
12. Select the desired priority option for the script.

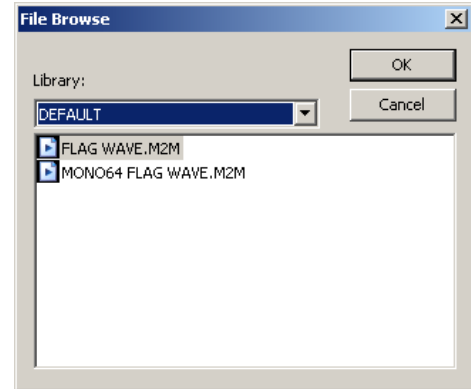


Figure 161: Script File Browse Window

- **Clear the playlist, then play a message** – will clear all messages being played on the display and play the messages contained in the script. When the messages in the script are finished running, the display will be blank.
 - **Play a priority message** – will leave the current playlist on the display intact but will interrupt it and play the script message instead. As soon as the script is complete, the playlist will resume playing on the display. **Note:** If multiple messages have been selected for priority, then this option will be disabled.
 - **Add to playlist**– will not interrupt the playlist on the display. Rather the messages contained in the script are added to the end of the playlist.
13. Set the *Play Message Option*:
 - **Continuous** will allow the script to play continuously until the message(s) are removed from the playlist.
 - **Number of Times** will allow the operator to set a limit to the number of times the message(s) in the script will appear on the display.
 - **Select a frame** will allow the operator to select an individual frame of a message to be displayed. This option is only available when Clear the Playlist and Play a Message is selected. The Select a Frame option is disabled when multiple messages are selected to run.
 14. Click **Next** to continue or click **Cancel** to close the Script Wizard.
 15. Enter a name for the script and click **Next**.

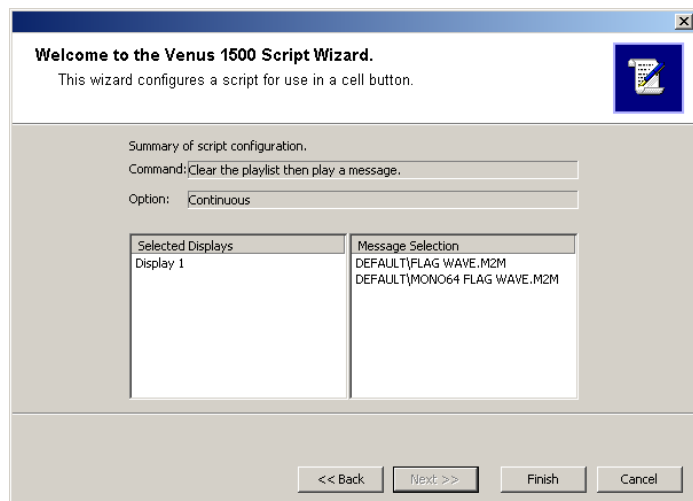


Figure 162: Script Wizard Summary Window



16. The summary window (**Figure 162**) is the last window in the Script Wizard. The summary window displays all of the settings that were configured for the script. Click **Finish** to complete the creation of the script. Click **Back** to return to a previous screen and change a setting, or click **Cancel** to void the script creation and close the Script Wizard.

Delete a Script

Right-click on the script to be removed and click **Delete**. The script is immediately removed from the table.

Run a Script

Once a script is created, it will appear as a button in the cell for which it was created. Click the button to run the script.

Note: Messages contained in the script need to be sent to the *Stored Messages* list as the script itself will not actually send the message(s) to the display(s). The script messages can be sent to the display by right-clicking on the script cell. Choose **Send Script Messages** and the script messages will be sent to the *Stored Messages* list.



Tutorial #8: How to Create a Script to Blank the Display

Creating a Script to Blank the Display

1. Right-click in the cell on the script table where the script should be located and a pop-up menu will appear.
2. Click **New > Blank Display** and a *Display Selection* window will appear. Refer to **Figure 163**.
3. Enter a name for the script in the **Name** field.
4. Select the display(s) that the script is going to blank and click **OK**. Or click **Cancel** to void the action and close the window.

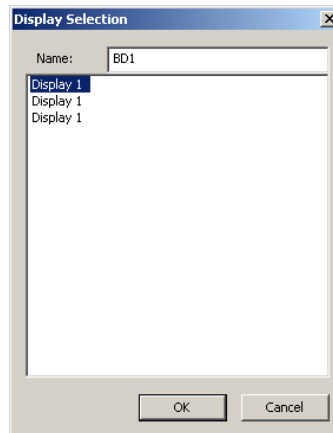


Figure 163: *Blank Display Script*



Tutorial #9: How to Edit a Script

Edit Scripts with Messages

Complete the following steps to edit a script.

1. Right-click on the script to be edited and a pop-up menu will appear.
2. Click **Edit** and the *Script Wizard Edit* window will appear. Refer to **Figure 164**.

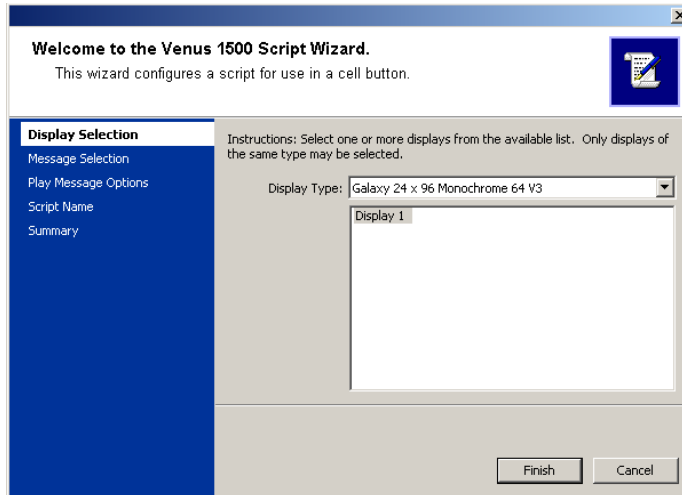


Figure 164: Editing a Script

3. Click on the area of the Script Wizard to be edited on the left side of the screen. The right side of the screen will show the previously configured information for that setting.
4. Make the desired changes and click **Finish** to save the changes or click **Cancel** to void the action.

Edit a Blank Display Script

Complete the following steps to edit a blank display script.

1. Right-click on the script to be edited from the *Script Table* and a window will appear with the script information.
2. Make any necessary edits either by selecting a different display or by changing the name of the script, then click **OK** to save the edits. Click **Cancel** to void the action.

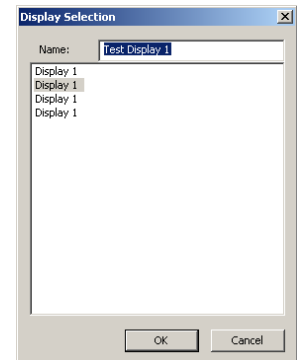


Figure 165: Edit a Blank Display Script

Renaming a Script Page

Script pages can be renamed to make them more easily identifiable on the page.

To rename a script page, complete the following steps:

1. Right-click on the tab of the page to be renamed and a pop-up menu will appear.
2. Click **Rename Page** and a dialog box will appear.
3. Enter the new name for the page and click **OK** to complete the action. Click **Cancel** to void the action



Tutorial #10: How to Configure Script Pages

The appearance and size of the pages of the Script Table can be configured to meet individual needs and preferences. Complete the following steps to configure the script page:

1. Once in the *Script Control* view, click the **Configure Pages** button and the *Configure Script Pages* window will appear. Refer to **Figure 166**.
2. Set the **Number Of Rows** on each page of the *Script Table* by clicking into the field and typing the number or by using the up and down arrows to scroll to the appropriate number. The maximum number of rows is 20 and the minimum number is 1. The default is set to 10 rows per page.
3. Set the **Row Height** for each row on the configured page by clicking into the field and typing the desired height or by using the up and down arrow and scrolling to the desired height. The row height default is 60 pixels.
4. Set the **Number Of Columns** that will appear on each page of the script table by either typing in the number in the field or by clicking on the up and down arrow and scrolling to the desired number of columns. The default number of columns is set to six.
5. Set the **Column Width** for each column in the table by typing in the field or clicking on the up and down arrows and scrolling to the desired setting. The default columns width setting is 130 pixels.

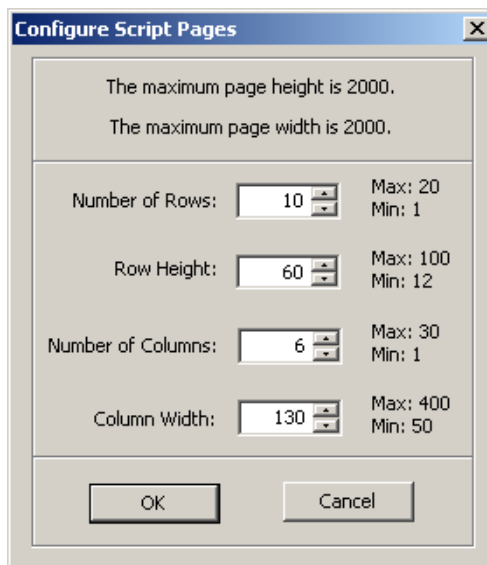


Figure 166: Script Configuration Dialog

Delete a Script

Right-click on the script to be removed and click **Delete**. The script is immediately removed from the table.



Tutorial #11: How to Copy and Paste Scripts

Existing scripts on a page may be copied and pasted to the same or another script page.

To copy and paste a script:

1. Right-click on the script to be copied.
2. A pop-up menu will appear. Click **Copy**.
3. Next move the cursor to the page to which the script should be copied and right-click where it will be placed.
4. The pop-up menu will appear again. Click **Paste**. The copied script is now pasted to its new location.

Tutorial #12: How to Get Diagnostic Information

Getting Basic Diagnostic Information:

The color of the display name in the display list is the first source of information.

- **White:** the display is operating normally.
- **Red:** the controller has a communication failure.
- **Yellow:** a task failure has occurred.

Getting Additional Diagnostic Information:

To get additional information, right-click on the display's name. This can be done in any view of the *Display Manager*. The options available are explained below:

- **Get Status** retrieves the current status of the display.
- **Hang Up** applies only to displays with a modem. Clicking on this command simply hangs up the modem and ends communication with the display.
- **View Error Log** shows the operator any errors that have been registered with the display. This also allows the operator to clear all errors currently registered with the display.
- **Properties** displays the information that was entered when the display was configured. Within the properties window, **Memory Cleanup** allows the controller to de-fragment a display's memory.

Section 7: Venus 1500 Real Time (if available)

The Venus 1500 Real Time module allows the user to display data from external sources that output Daktronics standard and enhanced real-time data protocols.

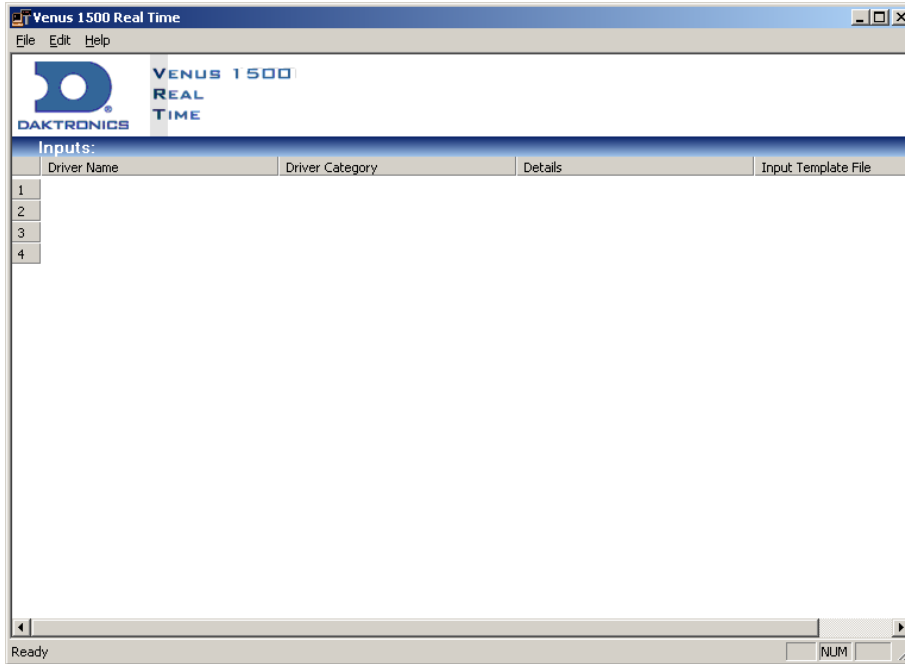


Figure 167: Venus 1500 Real-time Main Screen

When the Real Time Module is minimized, it will be stored in the system tray and not to the task bar. **Figure 168** shows the system tray icon. This icon will flash when data is being received on any inputs.

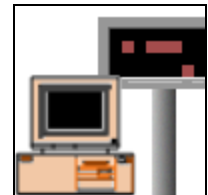


Figure 168: Real Time System Tray Icon

7.1 Broadcast Groups

Broadcast groups allow data to be sent quickly to a group of displays simultaneously. The displays in a broadcast group must have the same controller type (either Version 2 or Version 3). Broadcast group addresses are enabled for the configured display controllers when Venus 1500 Real-time is started up.

Note: In order to use a broadcast group, authentication must be turned off when using Version 3 display types.

Broadcast groups differ from display groups configured in the Venus 1500 Administrator. Broadcast groups are used by the Venus 1500 Real-time for the routing of Real Time Display (RTD) related commands and data. Display groups are used for content updates and general control of the display.

If power to a display is lost or the display is reset during operation, it will be necessary to restart Venus 1500 Real-time to re-enable the broadcast groups. Failure to restart Venus 1500 Real Time will result in RTD information not being displayed.

7.2 Display or Broadcast Group Configuration

This function allows the the input buffer size to be set for a specific display. The display's enhanced RTD address is also set at this time.

7.3 Configuring Inputs

An input source must be configured to capture and display real-time data. An input source consists of a port and an Input Template Format (ITF) file. The input source port can either be UDP, serial, IPX, TCP, or HTTP. The ITF file is a filter to the data coming in on the input port. The ITF file captures the desired data from the raw feed coming in from the input source and determines whether the data is standard or enhanced RTD.

Configuring ITF Files

Input Template Format (ITF) files are installed with the Venus 1500 Software. ITF files consist of multiple RTD fields that select the start position and length of RTD fields in a data stream. Use of an ITF file is not required in the port configuration. However, without it, the user must have knowledge of the data contained in the RTD to correctly configure the RTD fields within a message.

The ITF files should be selected before creating a message with an RTD field in the Message Studio. The ITF files are read only and cannot be edited.

Select Displays

Select Displays allows the user to determine which displays or broadcast groups are authorized to receive RTD transmissions for a given input.

7.4 Input Defaults

The input defaults vary depending on the type of controller that is used by the display. The Version 3 (M2) buffer has a total of 20,000 bytes, with the defaults being set at 5,000 bytes per input. The Version 2 (MDC) buffer has a total of 2,000 bytes with the defaults being set at 500 bytes per input.

The defaults for both controllers can be changed so that one input contains more bytes than the others but the total number of bytes among all four inputs must equal the maximum amount of bytes available for that controller type. For example, if input one for an MDC controller is set at 750 bytes, then the last three input values must add up to 1,250 to make a total of 2,000 bytes.

Note: If the input buffer sizes are changed, any messages that are already on the display(s) will need to be resent to the display(s).

7.5 Tutorials

1. How to Configure Settings for a Real Time Frame
2. How to Create a Real Time Data Frame for a Game Score
3. How to Configure a Display
4. How to View Advanced RTD
5. How to Edit Input Defaults
6. How to Get Data Status (Monitor)
7. How to Create and Edit a Broadcast Group



Tutorial #1: How to Configure Settings for a Real Time Frame

Before creating an RTD or Real Time Data message in the *Message Studio*, configurations need to be set up in the *Real Time* application.

Configure Inputs

The first step is to configure an input to capture and display real-time data. An input source consists of a port and an .itf or Input Template File. The input source port can either be UDP, serial, IPX, TCP, or HTTP. The .itf file is a filter to the data coming in on the input port. This file captures the desired data from the raw feed coming in from the input source.

To configure an input,

1. In the main *Real Time* window (Figure 169), highlight the input entry to be configured.

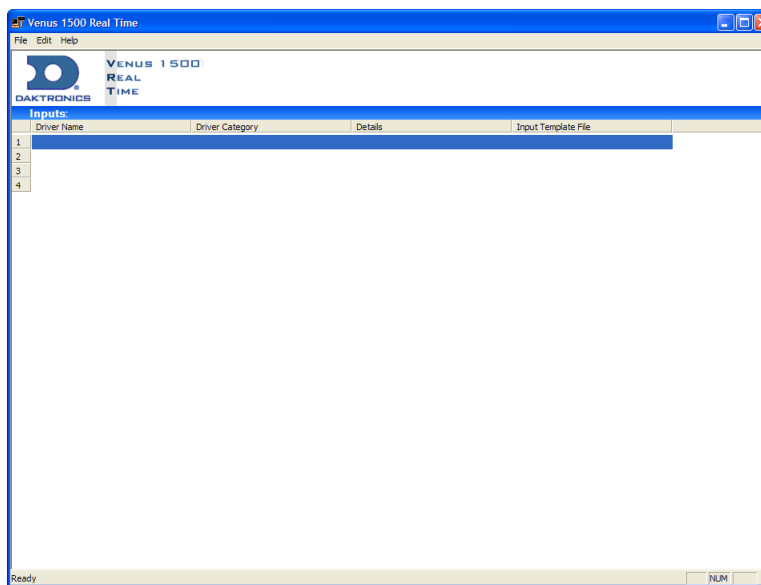


Figure 169: Real-time Window

2. Click **Edit**.
3. Select **Inputs**.
4. Select **New** to open the *Input Properties* window (Figure 170).

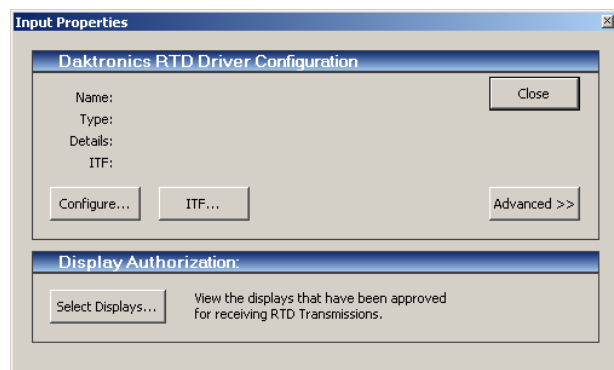


Figure 170: Input Properties Window



5. Click the **Configure** button to opens the *Configure Input* window (**Figure 171**).
6. Select the type of communication port that will be used based on the specifications of the input device. In this example, a Serial Com Port is used.

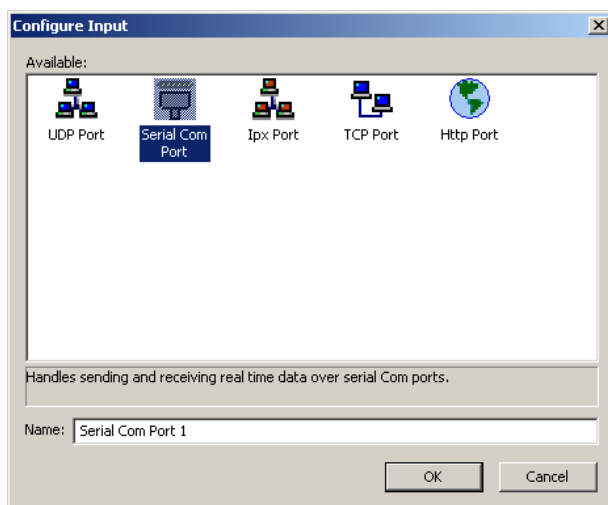


Figure 171: *Configure Input Window*

7. Enter a name for the port and click **OK** to open the Serial Com Port settings window. Refer to **Figure 172**.

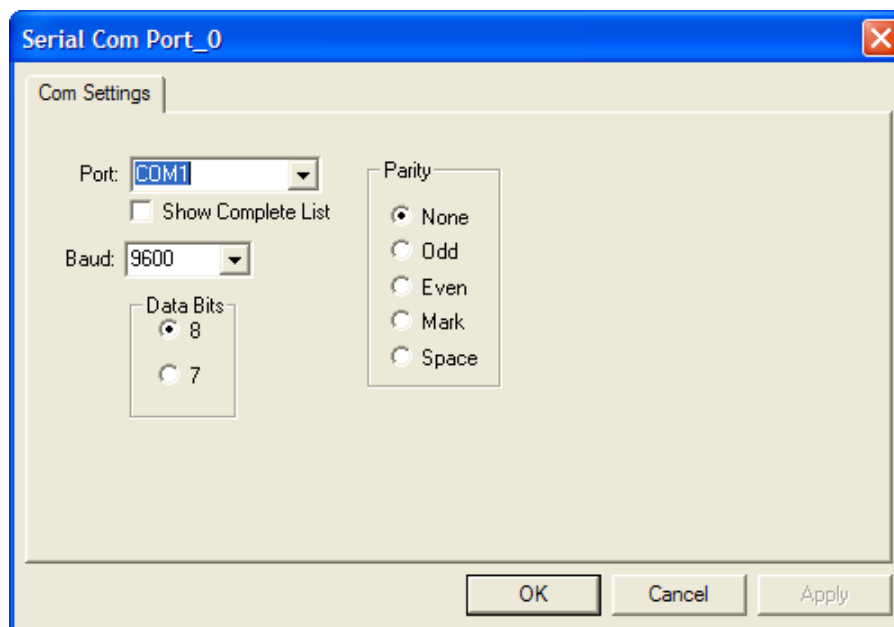


Figure 172: *Serial Com Port Settings Window*

8. Select the Com Port address from the down arrow list.
9. Click on the down arrow to set the baud rate based on the input specifications.



If the user is not sure about the right parity and data bits settings, contact Daktronics. Click **OK** to complete the action and return to the *Input Properties* window. **Note:** If messages are shared between computers, the *Venus 1500 Real Time* port configuration must be the same on each computer.

Configure ITF Files

The next step is to configure the ITF files. These are installed with the Venus 1500 software. They consist of multiple RTD or Real Time Data fields that select the start position and length of RTD fields in a data stream. An ITF file is not required in the port configuration. However, without it, the user must know the data contained in the RTD data to configure the RTD fields within a message correctly. The user must select ITF files before creating a message with an RTD field in the *Message Studio*.

To configure ITF files:

1. In the *Input Properties* window, click the **ITF** button to open the *Select an Input Template* window. Refer to **Figure 173**.
2. Click on the down arrow and select **Browse**.
3. From the *Open* window, select the desired ITF file. By default, Venus 1500 will install the ITF files in C:\Program File\Daktronics\Common\Input Templates.
4. Once the appropriate template is selected, the contents of the ITF file will appear in the lower portion of the dialog box. In this example, the ITF files for basketball were selected. Refer to **Figure 174**.
5. Then, click **OK** to return to the *Input Properties* window.

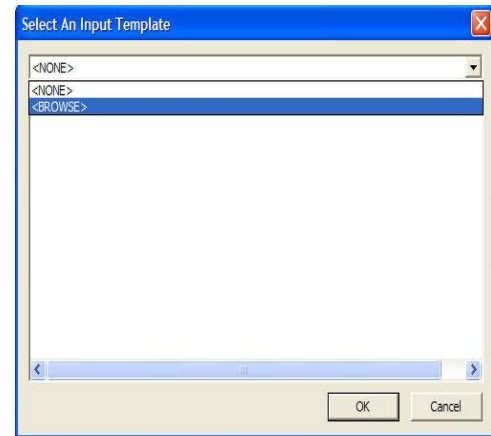


Figure 173: Select an Input Template

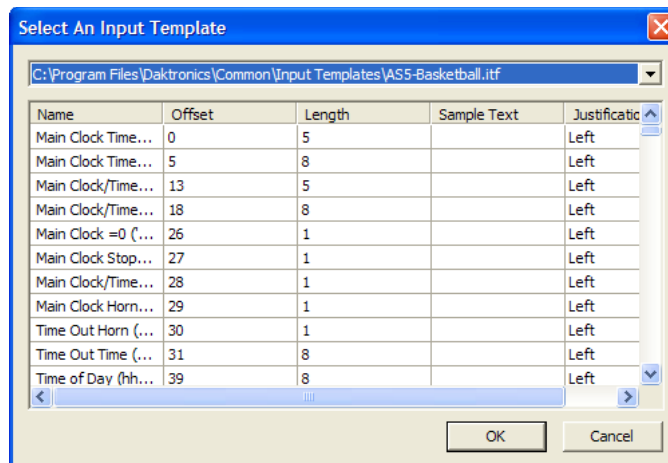


Figure 174: Select an Input Template

For more information on **Advanced RTD**, see Tutorial #4 "How to View Advanced RTD."



Select a Display

The last step is to select the display where real-time data will be sent.

1. In the *Input Properties* window, click the **Select Displays** button under the *Display Authorization* heading to open the *Display Authorization* window. Refer to **Figure 175**.

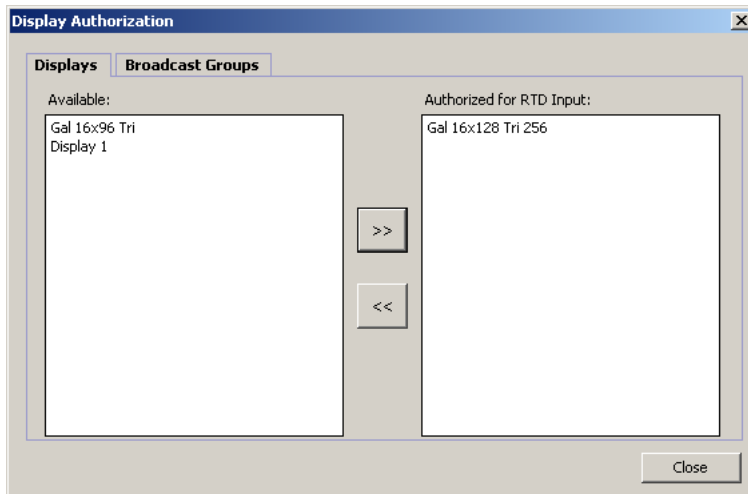


Figure 175: Display Authorization

2. Click on the appropriate displays from the list and click the **Add** button [**>>**] to add it to the list of authorized displays. To remove a display from the authorized list, click on the **Remove** button [**<<**].
3. Click **Close**.

Message Studio is now ready to open and begin creating an RTD message. See Tutorial #2 “How to Create a Real-time Data Frame for a Game Score.”

Editing the Configured Input Settings

To edit any configured setting, follow the instructions below:

1. Highlight the corresponding input in the *Venus 1500 Real Time* window. Refer to **Figure 176**.

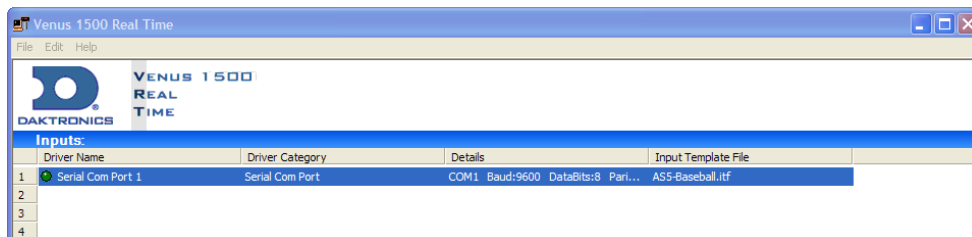


Figure 176: Highlight Corresponding Input



2. Open the **Edit** menu.
3. Select **Inputs**.
4. Select **Edit** to open the **Input Properties** window.
5. Make any necessary changes by clicking on the corresponding buttons in this window.
6. Click **Close** when finished.

Removing Inputs

1. Highlight the desired input in the Real Time screen.
2. Right-click on the highlighted input. A pop-up menu will appear.
3. Click **Remove** and the input will instantly be removed.




Tutorial #2: How to Create a Real-time Data Frame for a Game Score

(created in Message Studio)

This tutorial can be done only if the *Venus 1500 Real Time* software is installed in the computer. In order to set up a Real Time Data message in the *Message Studio*, certain data needs to be configured in the *Real Time* application first. Refer to Tutorial #1: How to Configure Settings for a Real-time Frame. Once this is completed, proceed to the *Message Studio* ensuring that the *Real Time* icon is present in the system tray while creating the message; otherwise, the user will not be able to enter RTD fields.

To create a Real Time Data frame, follow the directions below:

1. In the *Message Studio*, select **New** from the **File** menu.
2. Choose the corresponding display type.
3. Activate a graphic frame and delete the text frame opened by default.
4. To insert a Real Time Data field, select **Data Fields > Real Time Data** or click on the

RTD button . When working on a graphic frame, after clicking on the RTD button or menu option, click inside the frame to activate the *Real Time Data* window. In a text frame, the *Real Time Data* window will appear automatically. Refer to **Figure 177**.

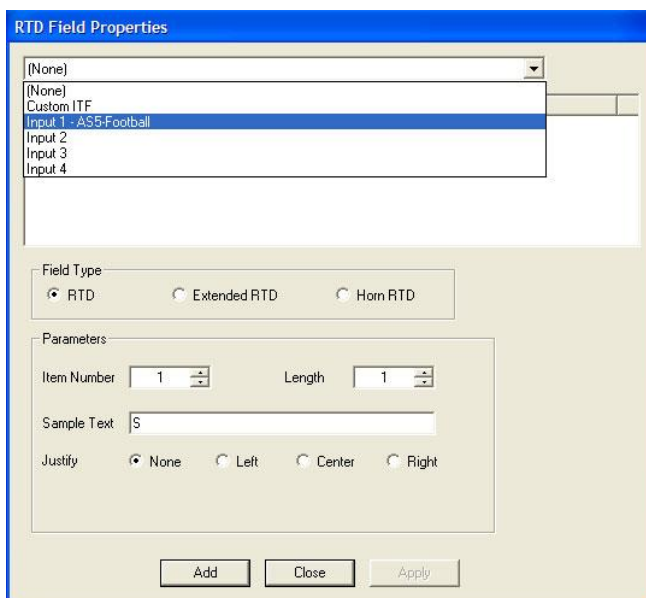


Figure 177: RTD Field Properties

5. Click on the down arrow to select the input with the appropriate ITF File configured in the Real Time application. In this example, the template for a basketball game was selected.
6. Select the desired data fields that will make up the scoreboard by clicking on the appropriate number in the **Field** column. Drag the RTD Field window so that it is possible to see the fields as they are added. By default, the data fields will show S's (SSSS) as sample text.



7. In the **Sample Text** field, enter the text that will help to identify the information shown on the frame. For example, the **Main Clock Time** field was selected and named “clock” in the *Sample Text* field.

Notice that the **Justify** options at the bottom of the screen will override the justification settings in the ITF file. However, this feature is available only when inserting an RTD field in a graphic frame for displays with Version 3 controllers.

8. Once each desired ITF file or field type and parameters are chosen, click **Add** or press **Enter** to add the field to the frame. Refer to **Figure 178**.
9. Once finished, click **Close** and change the style and alignment of the field boxes inside the frame as explained in the Message Studio Tutorial # 1 “How to Create a Basic Text Message.”
10. The frame can now be previewed as long as the input source is powered on and in operation.
11. **Save** the message.

Field #	Name - Description	Item	Length	Justify	Sample Text
1	Main Clock Time (mm:ss.ss.t)	1	5	Left	
2	Main Clock Time (mm:ss.t)	6	8	Left	
3	Main Clock/Time Out/TOD ...	14	5	Left	
4	Main Clock/Time Out/TOD ...	19	8	Left	
5	Main Clock =0 (' ' or 'z')	27	1	Left	
6	Main Clock Stopped (' ' or 's')	28	1	Left	

Field Type:
 RTD Extended RTD Horn RTD

Parameters:
Item Number: Length:
Sample Text:
Justify: None Left Center Right

Add Close Apply

Figure 178: Adding Fields to the Frame



Tutorial #3: How to Configure a Display

Follow the instructions below to configure a display:

1. Open the **Edit** menu.
2. Select **Displays**. The *Display Configuration* window will open. Refer to **Figure 179**.

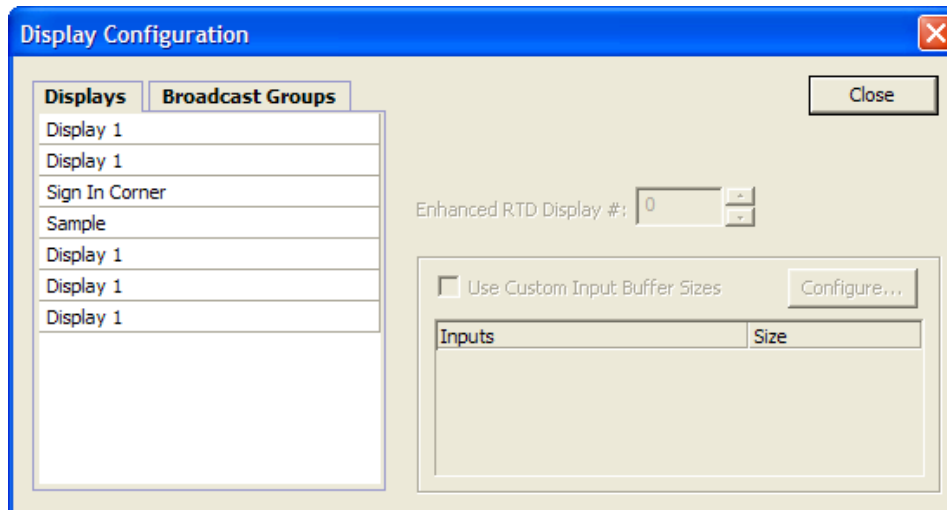


Figure 179: Display Configuration Window

3. Highlight the display (or broadcast group) to be configured.
4. Set the display's Enhanced RTD Display # by either clicking in the field and typing in the address number or by scrolling up or down with the arrows to the right of the field. Refer to **Figure 180**.

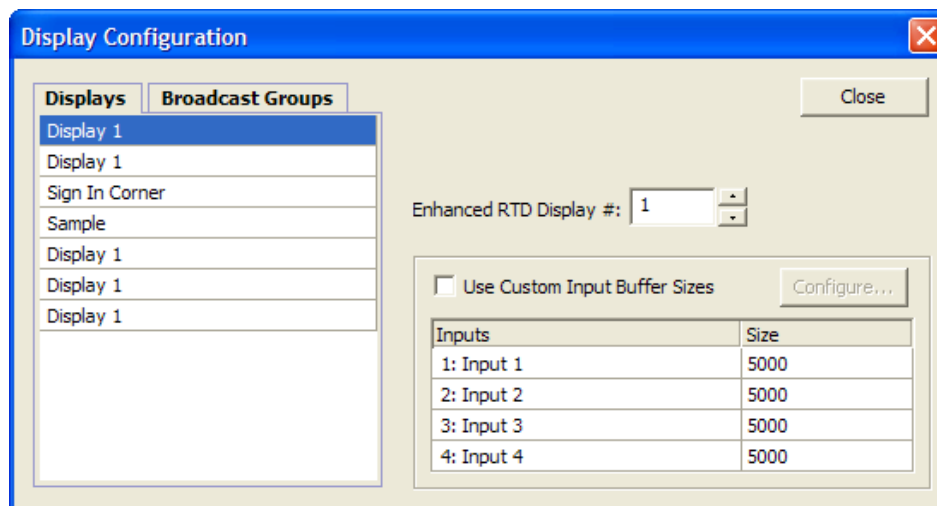


Figure 180: Setting the Display's Enhanced RTD Display #

5. Determine the size of each of the inputs. The default setting keeps all of the inputs equal. Any changes made to inputs on the display configuration screen will apply only to the specified display or group. Use the default size unless otherwise specified.
6. Click **Close** to save the settings.



Tutorial #4: How to View Advanced RTD

To view advanced RTD, follow the directions below:

1. Open the **Edit** menu.
2. Select **Inputs > Edit**.
3. In the *Input Properties* window, click the **Advanced>>** button for more RTD configuration options. Refer to **Figure 181**.

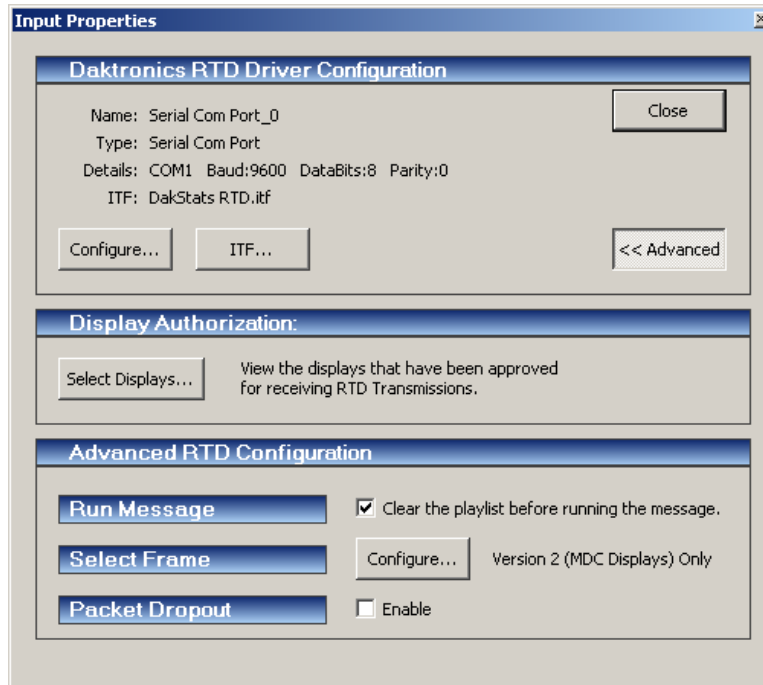


Figure 181: *Input Properties Window*

The following descriptions are the available options in viewing Advanced RTD:

- **Run Message** determines whether the playlist of the target display or group is cleared when an Enhanced RTD Start Sequence command is received on the input. If checked, the playlist will be cleared. If unchecked, the message will be appended to the current playlist.
- **Select Frame** is for Version 2 displays only. Click the **Configure** button and the **ERTD Select Frame Setup** will open. Type in the message name in the **Message Name** field that corresponds to the Enhanced RTD Select Frame number that will be received on the Input. Click **OK** to complete the action. Click **Cancel** to void the action and close the window. Refer to **Figure 182**.

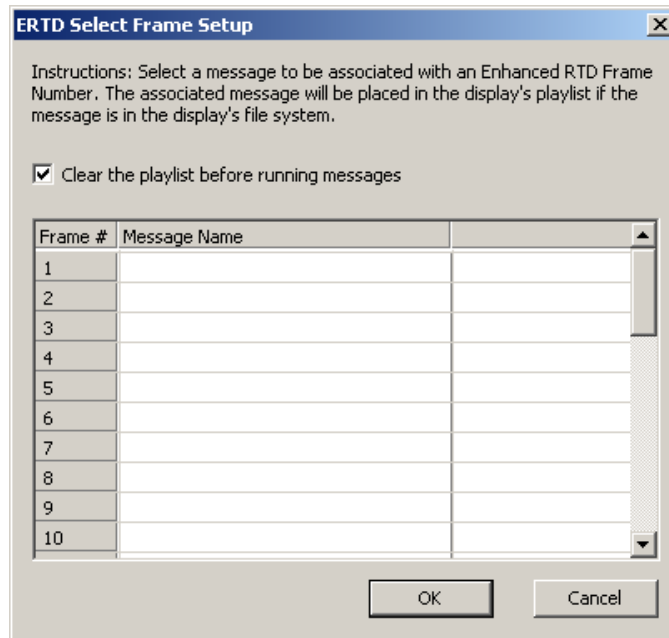


Figure 182: ERTD Select Frame Setup

- **Packet Dropout** applies to RTD data where the input source may be sending data faster than can be processed and sent to a display or group, such as 1/10 of a second clock data. Packet dropout allows Venus 1500 Real Time to drop incoming packets if it is currently processing a packet in an effort to keep display data current. When enabled, the port status indicator of the input in the main *Venus 1500 Real Time* dialog will flash yellow to indicate if packet dropout is occurring. By default this feature is disabled and the input will queue incoming commands to send to a display or group.
4. Click **Close** to save the settings.



Tutorial #5: How to Edit Input Defaults

The input defaults vary depending on the type of controller that is used by the display. The M2 buffer has a total of 20,000 bytes with the defaults being set at 5,000 bytes per input. The MDC buffer has a total of 2,000 bytes with the defaults being set at 500 bytes per input. The defaults for both controllers can be changed so that one input contains more bytes than the others, but the total number of bytes between all four inputs must equal the maximum amount of bytes available for that controller type. For example, if input one for an MDC controller is set at 750 bytes, then the last three input values must add up to 1,250 to make a total of 2,000 bytes with input one.

1. Click on the **Edit** menu.
2. Click on **Input Buffer Sizes (Figure 183)**
3. The *Setup RTD Input Buffer Sizes* window will open. Refer to **Figure 184**.

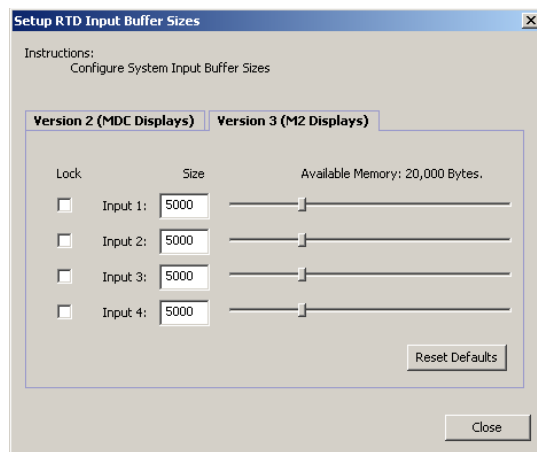


Figure 184: Setup RTD Input Buffer Sizes

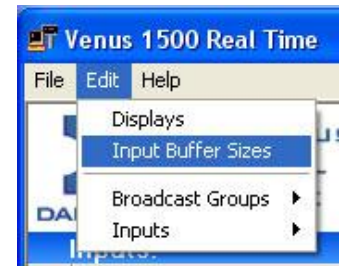


Figure 183: Edit Menu

4. Click on the appropriate tab for the type of controller that is being edited.
5. Either type in the new input value in the size field or move the slider bar until the desired size is determined.

Note: When one field is changed, the other three will adjust automatically to ensure the total amount of defined buffer space matches the maximum number of bytes available.

6. Check the box next to the desired input to lock in that input's value. This prevents the input value from being changed by further editing (or click the **Reset Defaults** button to change all the inputs back to the default values).
7. Click **Close** to exit and complete the changes

Note: If the input buffer sizes are changed, any messages that are already on the display(s) will need to be resent to the display(s).



Tutorial #6: How to Get Data Status (Monitor)

The monitor shows the status of data coming in and being sent to the displays.

To access the monitor window:

1. Right-click on the appropriate input.
2. Select **Monitor** to open the *Monitor* window. Refer to **Figure 185**.
3. Choose the input number from the down arrow.

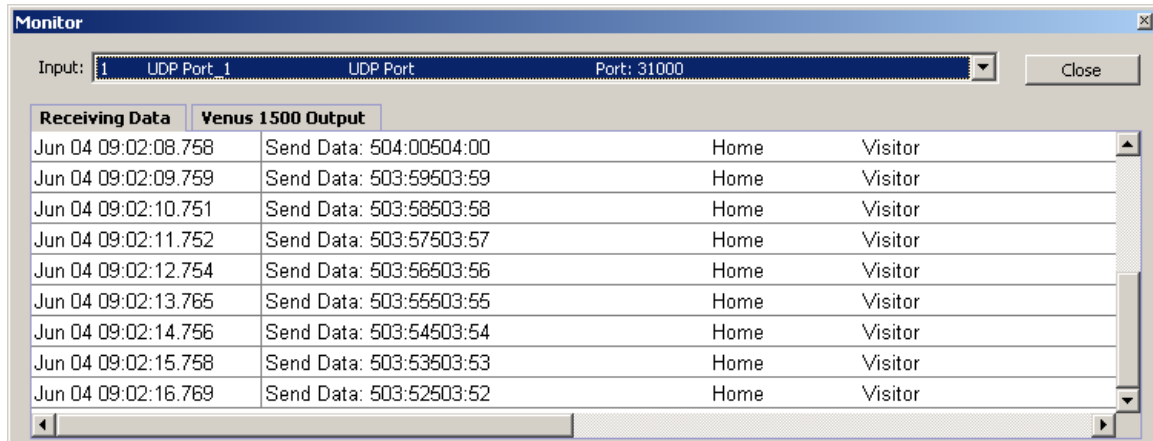


Figure 185: Monitor Window

4. Click the **Receiving Data** tab to see the data that is being sent from the input.
5. Click the **Venus 1500 Output** tab to see the commands that are being sent to the displays.
6. Click the **Close** button to exit.



Tutorial #7: How to Create and Edit a Broadcast Group

1. Click on the **Edit** menu.
2. Select **Broadcast Groups > New**.
3. The **Edit Broadcast Group** window will open. Refer to **Figure 186**.

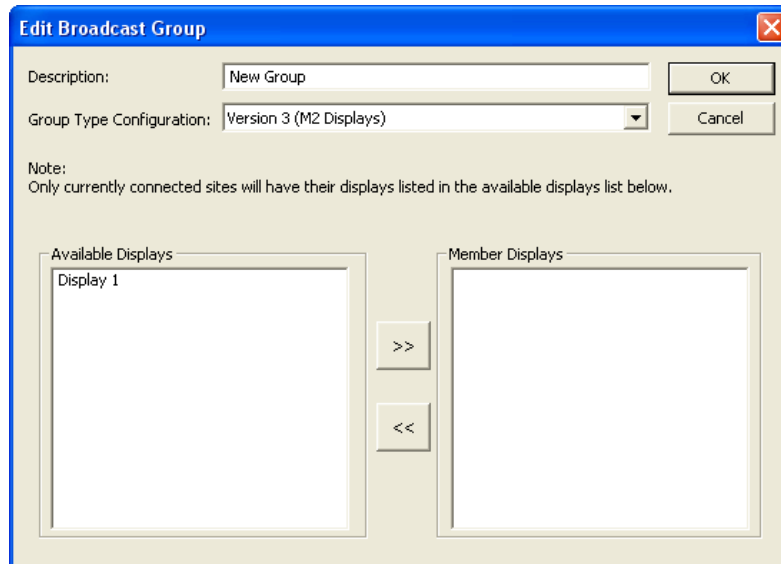


Figure 186: Edit Broadcast Group Window

4. Enter a name for the group in the *Description* field.
5. Select the controller type for the group.

Note: All displays in a group must have the same controller type.

6. Select the displays to be added to the group from the list of *Available Displays*. Highlight the display and click [>>] to move the displays to the *Member Displays* list. If a display was added to the group by mistake, it may be removed from the group by selecting the display in the *Member Displays* list and clicking [<<].

Note: Displays should be connected and powered up before being added to a group. This must be done first so that the Real Time software can communicate with the displays and determine which should receive data.

7. Click **OK**.



Deleting a Broadcasting Group

1. Click on the **Edit** menu.
2. Select **Broadcast Groups**. Refer to **Figure 187**.
3. Click **Delete**. The *Select Group* window will open. Refer to **Figure 188**.
4. Click on the broadcast to be deleted.
5. Click **OK** to complete the deletion or click **Cancel** to void the action.



Figure 187: Edit Menu

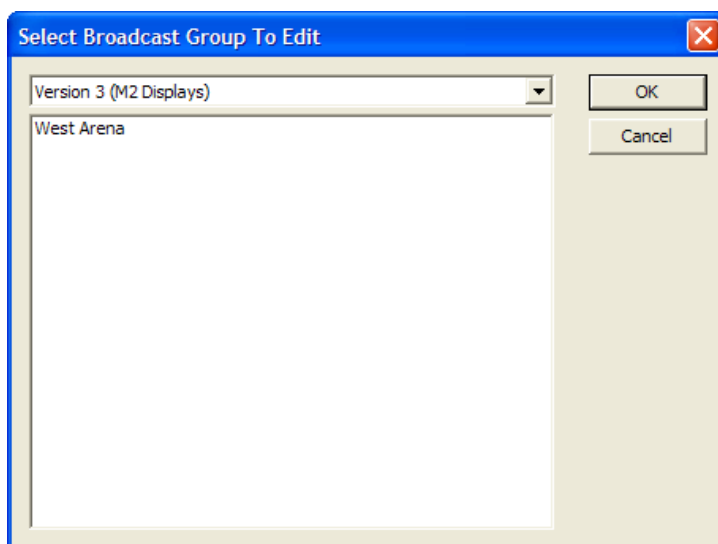


Figure 188: Select Broadcast Group to Edit

Editing a Broadcast Group

1. Click on the **Edit** menu.
2. Select **Broadcast Groups**.
3. Click **Edit** and the *Select Broadcast Group To Edit* window will open.
4. Select the group to edit.
5. Click **OK**.
6. In the *Edit Broadcast Group* window, make the necessary edits. Refer to **Figure 189**.
7. Click **OK** when finished.

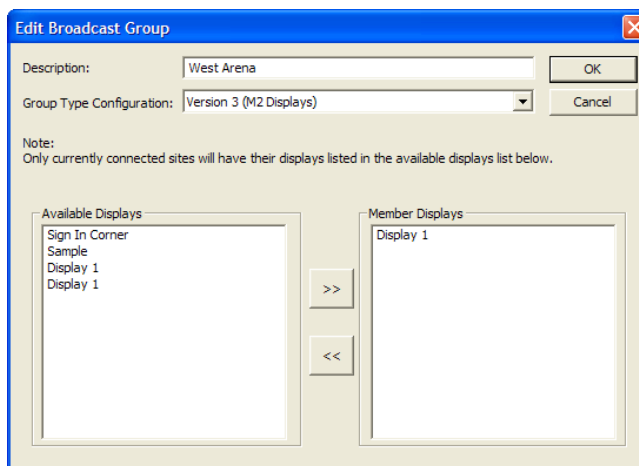
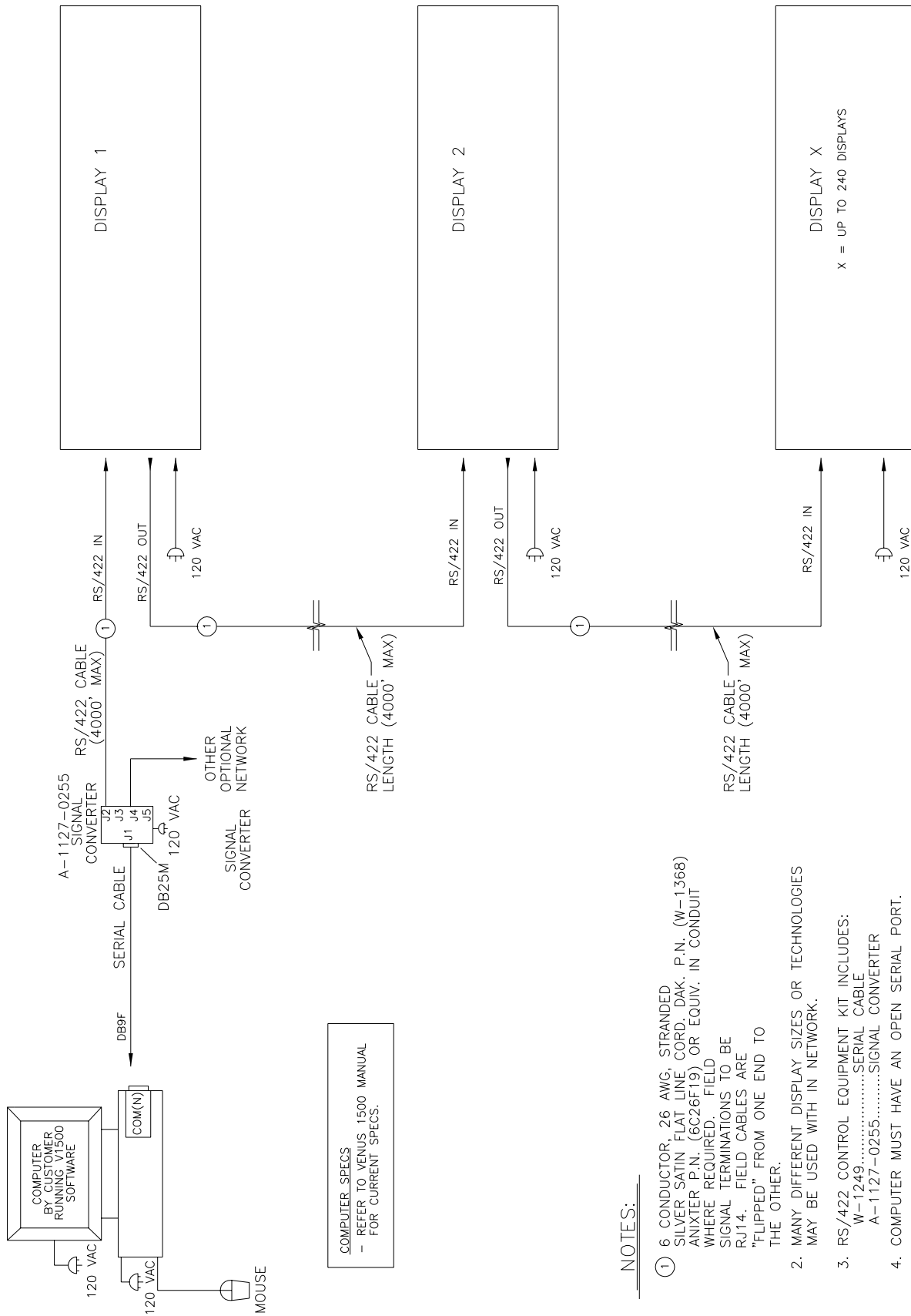


Figure 189: Edit Broadcast Group Window

Appendix A: System Riser Diagram



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

NOTES:

- ① 6 CONDUCTOR, 26 AWG, STRANDED SILVER SATIN FLAT LINE CORD, DAK. P.N. (W-1368) ANIXTER P.N. (6C26F19), OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE RJ14. FIELD CABLES ARE "FLIPPED" FROM ONE END TO THE OTHER.
2. MANY DIFFERENT DISPLAY SIZES OR TECHNOLOGIES MAY BE USED WITH IN NETWORK.
3. RS/422 CONTROL EQUIPMENT KIT INCLUDES:
W-1249.....SERIAL CABLE
A-1127-0255.....SIGNAL CONVERTER
4. COMPUTER MUST HAVE AN OPEN SERIAL PORT.
5. ALL SIGNAL CABLES BY CUSTOMER. LABOR TO PULL CABLES BY CUSTOMER.
6. ALL POWER WIRES BY CUSTOMER. LABOR TO PULL WIRES BY CUSTOMER.
7. ALL WIRING TO MEET NEC AND LOCAL ELECTRICAL CODES.
DISPLAYS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE.

REV.	DATE	DESCRIPTION	BY	APPR.
04	23 FEB 07	REMOVED 0A-1127-0237, 0A-1146-0005 CHANGED SERIAL CABLE TO W-1249. ADDED NOTE 1, 5, 6, 7.	MLG	
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	

THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS, INCLUDING ELECTRONICALLY WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC.			
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	APPR. BY:	1165-R01A-92267	
04	SCALE: 1=2		

Appendix B: Graphics & Special Characters

The following table lists special characters that may be used when creating text by holding down the [ALT] key and then typing the following three numbers in sequence on the number pad. For example, to get the character “Ç,” press [ALT]+[1]+[2]+[8].

The character map may also be accessed by selecting **Char Map** in the **Text** menu of the *Message Studio* program.

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>
ø	<ALT> <1> <5> <5>
£	<ALT> <1> <5> <6>
¥	<ALT> <1> <5> <7>
Pts	<ALT> <1> <5> <8>
f	<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

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



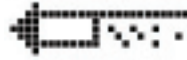
O=Sun



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



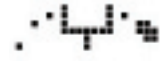
a=Motorcycle



b=US Flag



c=Football



d=Football Goal



e=Gun



f=Sailboat



g=Guitar



h=Horn



i=Notes



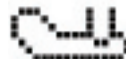
j=Eye Looking Right



k=Eye Looking Left



l=Foot



m=Tapping Foot



n=Ear



o=Wrench



p=Goblet



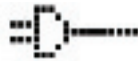
q=Car Key



r=Suitcase



s=Clock



t=Plug



u=Hammer



v=Speaker



w=Camera



x=Telephone



y=Television



z=Handicap Symbol



1=Big Heart



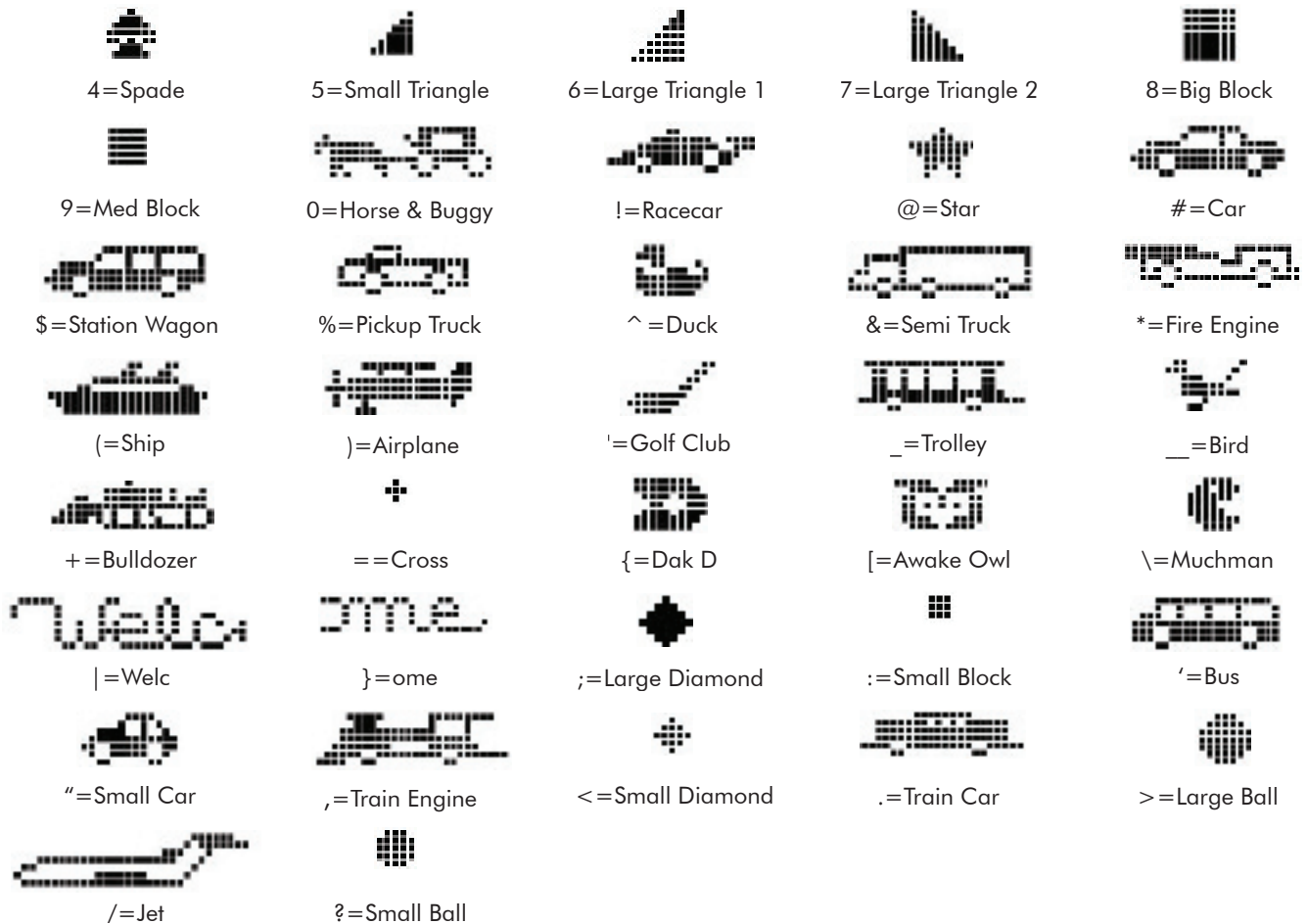
2=Small Heart



3=Club

Electronic Display Control Software System Continued

7 Pixel High Graphic Font



Note: 15 Pixel High Graphic Font is similar

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

The *Venus 1500 Control System* 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 testing¹, 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 the installation of third party fonts from the Internet. It is possible to use them in the Venus 1500 Control System software, but they are not supported by Daktronics technical staff:

Greek
Hindi
Russian
Tamil

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

Chinese
Japanese
Korean
Vietnamese


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.

C.2 Initial Settings

Note: Windows® Vista, XP or 2000 CD-ROM may need to be used while specifying the initial settings.


1. Click  on the Windows desktop.
2. Choose **Settings > Control Panel**.



3. Double-click on  for Windows Vista and XP or on  for Windows 2000 to launch the appropriate “language settings” dialog for the operating system.

Windows Vista

1. At the top of the *Formats* tab, select the desired locale from the available list and click **Apply**. When applying changes, the computer may need to be restarted.
2. From the *Regional and Language Options* dialog, select the **Administrative** tab.
3. In the *Language for non-Unicode programs* section, click on the **Change system locale...** button and select the desired locale from the drop list control. Click **OK** to accept the selection made.
4. The keyboard may need to be configured to support the desired language. To do this select the **Keyboards and Languages** tab and click **Change Keyboards...** to launch the *Text Services and Input Languages* dialog.
5. From the section titled *Installed services*, a list of supported keyboard configurations can be viewed. If the desired language configuration is not listed, click **Add ...** to launch the *Add Input Language* dialog and add the input (keyboard) configuration to the list. Select the desired configuration and click **OK** and then **Apply** to accept the selection.

A blue icon will appear in the desktop taskbar (usually located at the bottom right of the screen). The icon indicates the current input locale as an abbreviation. The icon  indicates English.

Windows XP

1. At the top of the *Regional and Language Options* tab is a section called *Standards and Formats*. Select the desired locale from the available list and click **Apply**. When applying changes, the computer may need to be restarted.
2. From the *Regional and Language Options* dialog, select the **Advanced** tab.
3. In the *Language for non-Unicode programs* section, select the desired language from the drop list control. Click **Apply** to accept the selection made.
4. The keyboard may need to be configured to support the desired language. To do this select the **Languages** tab and click **Details...** to launch the *Text Services and Input Languages* dialog.
5. From the section titled “Installed services”, a list of supported keyboard configurations can be viewed. If the desired language configuration is not listed, click **Add ...** to launch the *Add Input Language* dialog and add the input (keyboard) configuration to the list. Select the desired configuration and click **Apply** to accept the selection.

6. Fonts and scripts may need to be installed for languages that are not presently installed. Check the **Install files for complex script and right-to-left languages** checkbox control. Click **Apply** to accept changes.

A blue icon will appear in the desktop taskbar (usually located at the bottom right of the screen). The icon indicates the current input locale as an abbreviation. The icon **EN** indicates English.

Windows 2000

1. At the top of the *General* tab is a section called **Settings for the current user**. Select the desired locale from the available list and click **Apply**. When applying changes, the computer may need to be restarted.
2. At the bottom of the *General* tab is a section called **Language settings for the system**. Select the desired language and click **Apply**.
3. Select the **Input Locales** tab. “English” may be the only language listed in the *Input language* box.
4. Click **Add...**
5. From the Input locale list, select the non-English language and appropriate country. The Keyboard lat/IME option will be selected accordingly. Then click **OK**.
6. Click **Apply** to save the new settings and then **OK** to exit the control panel. *The system may need to be rebooted once this is done.*

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*.
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 the message needs to be saved, switch the input locale back to English using the blue icon on the taskbar.

Appendix D: Glossary

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

Apply: allows changes to take effect without closing some dialogs. This is an alternative to OK.

Attributes: 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: refers to the speed of serial communications.

Cancel: stops the last command and closes the window. Pressing [ESC] on the keyboard can also activate this icon.

Com Port: the serial port in the PC that is used to communicate with the display.

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.

Dialog: an interface between the user and the software. It normally contains interface tools such as clickable buttons, fields, radio buttons, check boxes, lists, and menus.

Dial-Up: refers to the type of communication between the main control system and a display. *Dial-up* indicates that a dialing modem is required to communicate with the display.

Direct: refers to the type of communication between the main control system and a display. *Direct* indicates a serial connection between the PC and display(s).

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

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

Effect: a “moving” characteristic applied to a line of text or a graphic frame to create interest and variety in a message.

Ethernet: a local area network (LAN) protocol that uses a bus topology.

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

Frame: a “page” of text on the display. Text, characters, and graphics are placed onto the *frame* to create messages. A message is composed of one or more *frames*.

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

GalaxyPro®: Daktronics product line of outdoor full-matrix displays capable of displaying text, graphics, and animation in 64 billion RGB color variations.

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

Group: a collection of displays with the same display type. When creating and scheduling messages, the *group* may be selected instead of the individual displays. The *group* of displays will then have the ability to receive the same commands. For example, if a *group* of cafeteria displays are to have the same message, a *group* called CAFETERIA could be created. This saves time in creating and scheduling messages.

Hold: 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.

Input Template Format (ITF) File: multiple RTD fields that are generated by the source program to simplify the creation of data frames.

Library: a group of messages or schedules of similar type. For example, a series of Christmas messages could be saved in a *library* called CHRISTMAS. *Libraries* are stored by display type.

Monochrome: displays capable of displaying either red or amber colors only.

Multi-Galaxy: the name used for Daktronics displays which combine both monochrome and RGB LED types in the same display.

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

RG (tricolor): displays capable of showing red, green, and amber colors. Red and green LEDs combine to create an amber color.

RGB: (red, green, blue) displays capable of showing red, green, and blue colors. These colors combine to create a full-color display.

Real-time Data (RTD): fields which allow information from an outside source (such as a timer or counter) to be inserted into a message.

Schedule: similar to an appointment book for a display. It allows the user to send the message to display at specific times 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%).

Shell: the main tool bar which appears when the Venus 1500 software program starts. Each component of the software (Message Studio, Schedule Studio, etc.) is launched from this program.

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. This information is available when communicating with a display.

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

Transmission Control Protocol/Internet Protocol (TCP/IP): the suite of communications protocols used to connect hosts on the Internet or Local Area Network (LAN).

TCP/IP Connection Type: the display connection across an Ethernet network using the TCP/IP protocol. In some instances, this type of connection requires a serial server device connected to an Ethernet network for communication to displays.

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

Tricolor (RG): displays 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* control system model number, the larger the matrix it can control.

Appendix E: Using the Mouse and Keyboard

The following terms are used to describe various mouse actions. These instructions are based on the standard, right-handed mouse configuration, with the left button acting as the primary mouse button and the right acting as the secondary mouse button.

- **Click** means quickly press and release the primary mouse button.
- **Drag** means to click and hold the left mouse button when the cursor is on an item. While the cursor is still on the item, move the cursor while holding the left mouse button down. The object will move with it.
- **Double-click** means quickly press and release the primary mouse button twice.
- **Right-click** means click the button on the right side of the mouse.
- **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.

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 brackets (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 the second key, if applicable) as the last key is pressed.

Many of the options in the Venus® 1500 software application can be accessed with the keyboard as well as the mouse. Where applicable, both mouse and keyboard actions are given to accomplish a command. Many screen buttons have labels which have a letter underlined. Pressing the key on the keyboard that correlates with the underlined letter will activate that particular button. To activate secondary buttons, press the underlined key while holding the **[Shift]** key. To activate menu bar items from the keyboard, press the underlined key while holding **[Alt]**. Refer to **Appendix B** for a list of special characters that can be made using **[Alt]** and keyboard keys.