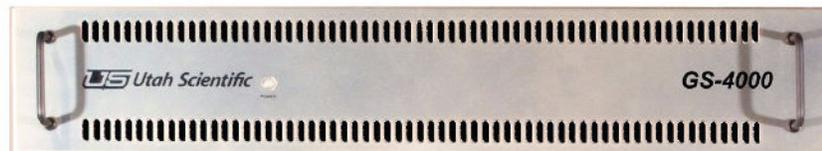




Graphic Station 4000



System Setup and Operations

GS-4000 Operations Guide

- Document Number: 82102-0025
- Document Version: 1.2
- Date: September 8, 2011
- Printed in U.S.A.

Copyrights and Trademarks

© 2011 Utah Scientific, Inc., All rights reserved. Any use or reproduction of this guide's contents without the prior written consent of Utah Scientific, Inc. is strictly prohibited.

- Graphic Station 4000 and GS-4000 are trademarks of Utah Scientific, Inc.
- Windows (and version variations) are registered trademarks of Microsoft Corporation.
- All other product names and any registered or unregistered trademarks mentioned in this guide are used for identification purposes only and remain the exclusive property of their respective owners.

Notice

Information contained in this guide is subject to change without notice or obligation. While every effort has been made to ensure that the information is accurate as of the publication date, Utah Scientific, Inc. assumes no liability for errors or omissions. In addition, Utah Scientific, Inc. assumes no responsibility for damages resulting from the use of this guide.

FCC Compliance (USA) and Digital Equipment Compliance (Canada)

This equipment has been tested and found to comply with the limits for a Class A, digital device, pursuant to Part 15, Subpart B of the FCC Rules and the Canadian EMC Requirement (ICES-003). These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case, the user will be required to correct the interference at their own expense. Shielded cables must be used to ensure compliance with the FCC Class A limits.

Declaration of Conformity

Utah Scientific, Inc.

4750 Wiley Post Way, Suite 150
Salt Lake City, Utah 84116-2878 U.S.A.

We declare our sole responsibility that the Utah-400 Digital Routing Switcher is in conformance with the following standards:

Emission

- EN55022:1994+A1&A2

Immunity

- EN55024:1998
- EN61000-3-2
- EN61000-3-3

Safety

- IEC 60950-1:2001 /EN 60950-1:2001

Following the provisions of the Directive(s) of the Council of the European Union:

- EMC Directive 89/336/EED
- Low Voltage Electrical Directive 72/23/EEC

Utah Scientific, Inc. hereby declares that the product specified above conforms to the above Directive(s) and Standard(s).



Important Safeguards and Notices

This section provides important safety guidelines for the Operator and Service Personnel. Specific warnings and cautions are found throughout the guide where they apply, but may not appear here. Please read and follow the important safety information, specifically those instructions related to risk of fire, electric shock, or injury to persons.

Safety Symbols



- Hazardous Voltage symbol



- Caution symbol. The product is marked with this symbol when it is necessary to refer to the manual to prevent damage to the product.

Warnings

Please observe the following important warnings:



- Any instructions in this guide that require opening the chassis, changing a power supply, or removing a board, should be performed by qualified personnel only. To reduce the risk of electric shock, do not perform any service unless you are qualified to do so.
- Heed all warnings on the unit and in the operating instructions.
- Do not use this product in or near water. Disconnect AC power before installing any options or servicing the unit unless instructed to do so by this manual.
- This product is grounded through the power cord ground conductor. To avoid electric shock, plug the power cord into a properly wired receptacle before connecting the product inputs or outputs.
- Route power cords and other cables so they won't be damaged.
- The AC receptacle (socket) should be located near the equipment and be easily accessible.
- Disconnect power before cleaning. Do not use any liquid or aerosol cleaner - use only a damp cloth.



- Dangerous voltages exist at several points in this product. To avoid personal injury, do not touch exposed conductors and components while power is on. Do not insert anything into either of the systems two-power supply cavities with power connected.
- Do not wear hand jewelry or watches when troubleshooting high current circuits, such as the power supply. During installation, do not use the door handles or front panels to lift the equipment as they may open abruptly and injure you.
- To avoid fire hazard when replacing fuses, use only the specified correct type, voltage and current rating as referenced in the appropriate parts list for this product. Always refer fuse replacement to qualified service personnel.
- Have qualified personnel perform safety checks after any service.

Cautions

Please observe the following important cautions:



- When installing this equipment do not install power cords to building surfaces. To prevent damage when replacing fuses, locate and correct the problem that caused the fuse to blow, before reconnecting power.
- Use only specified replacement parts

Notices

Please observe the following important notes:



- When the adjacent symbol is indicated on the chassis, please refer to the manual for additional information.
- For the HD-2020 Chassis and Master Control Panel, refer to “Connecting and Disconnecting Power” - Chapter 2 (Hardware Installation).

Company Information

Utah Scientific, Incorporated

**4750 Wiley Post Way, Suite 150
Salt Lake City, Utah 84116-2878 U.S.A.**

- Telephone: +1 (801) 575-8801
- FAX: +1 (801) 537-3098
- Technical Services (voice): +1 (800) 447-7204
- Technical Services (FAX): +1 (801) 537-3069
- E-Mail -General Information: info@utsci.com
- E-Mail -Technical Services: service@utsci.com
- World Wide Web: <http://www.utahscientific.com>
- **After Hours Emergency:** +1 (800) 447-7204. Follow the menu instructions for Emergency Service.

Warranty Policies

Hardware Warranty

Utah Scientific, Inc. warrants to the original purchaser that the Utah Scientific hardware is free from defects in materials and workmanship and will perform substantially in accordance with the accompanying written materials under normal use and service for a period of two (2) years from the date of shipment. Any implied warranties on hardware are limited to two (2) years. Some states/jurisdictions do not allow limitations on duration of an implied warranty, so the above limitation may not apply to certain specific purchasers.

Software Warranty

Utah Scientific warrants that the software will perform substantially in accordance with the accompanying written materials for a period of one (1) year from the date of shipment.

Customer Remedies

For the first one (1) year after purchase of the software and the first two (2) years after the date of purchase of the hardware, Utah Scientific's and its suppliers' entire liability and purchaser's exclusive remedy shall be, at Utah Scientific's option, either:

- Return of the price paid, or
- Repair or replacement of the software or hardware that does not meet the above warranties and is returned to Utah Scientific under the returned materials authorization (RMA) process with freight and forwarding charges paid.

After the initial warranty periods, purchaser's exclusive remedy is the repair or replacement of the hardware upon payment of a fixed fee to cover handling and service costs based on Utah Scientific's then-current price schedule. The above warranties are void if failure of the software or hardware has resulted from an accident, abuse, or misapplication. Any replacement software or hardware will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer.

No other warranties. To the maximum extent permitted by applicable law, Utah Scientific and its suppliers disclaim all other warranties, either express or implied, including, but not limited to implied warranties of merchantability and fitness for a particular purpose, with regard to the software, the accompanying written materials, and any accompanying hardware. This limited warranty gives the purchaser specific legal rights. These rights may vary in certain states/ jurisdictions.

No liability for consequential damages. To the maximum extent permitted by applicable law, in no event shall Utah Scientific or its suppliers be liable for any damages whatsoever (including without limitation, damages for loss of business profits, business interruption, loss of business information, or any other pecuniary loss) arising out of the use of or inability to use Utah Scientific products, even if Utah Scientific has been advised of the possibility of such damages. Because some states/jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, the above limitation may not apply in those circumstances.



Table of Contents

Section 1 - LogoMaster

Forward	1-1
The Chassis	1-2
Rear Panel Connections	1-2
LogoMaster	1-3
Installation and Overview	1-3
The Main Screen	1-4
CGKey	1-5
II (Intelligent Interface)	1-5
SS (Server Sockets)	1-5
CRL	1-5
Additional Definition	1-6
Cursor	1-6
Logo/Bug	1-6
Field	1-6
Snap point	1-6
TimeLine	1-7
Scene	1-7
Hot spot	1-7
Hotkey	1-7
The Basics	1-8
Creating and Saving a Scene	1-9
Saving a scene	1-14
Recalling a Scene	1-15
Clearing the Canvas	1-15
The LogoMaster Library	1-16
Backgrounds Tab	1-17
Library Editor	1-17
Cursors Tab	1-19
Logos Tab	1-20
Fields Tab	1-23
Field Text Style Function	1-26
Layers	1-27
Text Style-Edit Color Function	1-28
Text Styles-Aux Colors Function	1-28
Locale	1-29
Shapes Tab	1-30
Clip Player (Option)	1-30

Master Keys Tab	1-31
Example	1-31
Environment Settings Editor	1-32
General	1-32
Folders	1-34
Intl-Intf Client Tab	1-35
Crawl Tab	1-35
Priorities	1-36
Date-Time Feeder	1-37
Timer Server	1-37
US Temperature Feeder	1-38
Field Feeder	1-39
News Data Feeder	1-42
Command Dispatcher	1-44
Serial to Telnet Bridge	1-49

Section 2 - CrawlMaster

Overview	2-1
Messages Overview	2-1
CrawlMaster	2-2
Crawl Tab	2-3
Crawl Channels Incoming Tab	2-5
Crawl Channels – Query Tab	2-6
Database Setup Example	2-7
Revert Query	2-12
Crawl Channels Scheduler Tab	2-13
Channel Messages	2-14
Promo Tab	2-14
Manual Messages	2-14
Add a Manual Message	2-15
Incoming Messages	2-15
Schedule Tab	2-16
Editor Tab	2-16
Crawlmaster-Pictures Tab	2-17
Bugs Tab	2-19
Text Styles Tab	2-20
Message Styles Tab	2-21



Section 1

LogoMaster

Forward

The GS-4000 graphics product is designed for standalone use or with the MC-4000 master control switching system. The GS-4000 is a rackmount PC that includes applications for managing and combining static or animated graphics, text and crawls into scenes which are saved and recalled when needed. The GS-4000 generates Key and Fill SDI output signals which are connected to one of the MC-4000 keyers. The MC-4000 system also connects to the GS-4000 through a serial port connection which allows master control to recall the graphic pages manually or through MC-4000 automation control.

The GS-4000 includes two primary applications that are used together to combine graphics and crawls into scenes that are saved for quick recall by the master control switcher. The two main applications are LogoMaster and CrawlMaster. LogoMaster provides a method of managing and combining graphics into scenes and drives the GS-4000's Key and Fill outputs. The LogoMaster application also accepts crawls from the CrawlMaster application and combines it with its graphic pages. The first section of the manual covers the LogoMaster application. The second section covers the CrawlMaster.

The Chassis

Rear Panel Connections

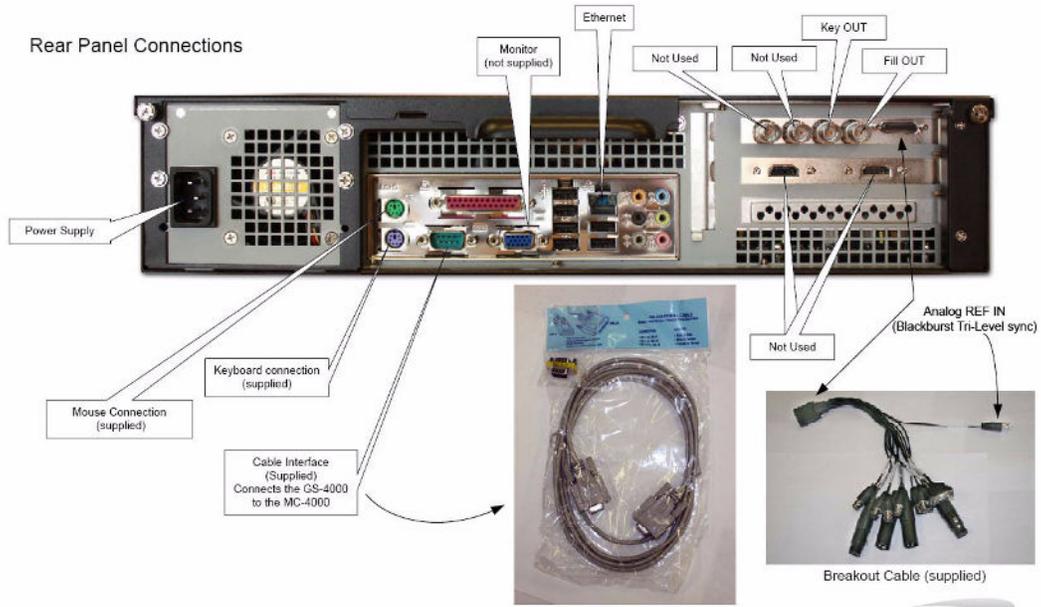


Figure 1-1. The GS-4000 (rear view)

LogoMaster

An operator can construct an unlimited number of scenes containing static and animated graphics using the LogoMaster system. The graphic objects can be created by the Graphics Department and once supplied, they are imported into the GS-4000 for use by LogoMaster. An imported graphic object can be inserted anywhere on the screen and be combined with other graphic elements that together can be stored on the hard disk as a scene for future recall.

Logomaster allows text fields to be added which can be used for text only scenes or combined with graphic elements. The text fields can be updated manually or automatically with information from data connections. The clock and up/down timer are two examples of automatically updating data.

Installation and Overview

The GS-4000 Splash Screen is loaded when the GS-4000 is powered up and provides a quick way of opening or closing the entire GS-4000 software suite or opening or closing individual applications. Click on the “Launch Individual Elements” within the Launch Screen, next click on LogoMaster. The LogoMaster application will open and look similar to the screen shown below.

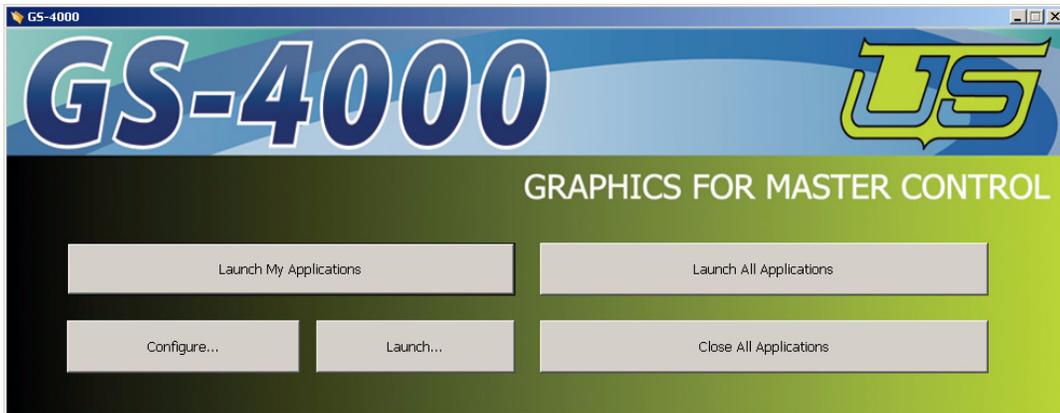


Figure 1-2. GS-4000 Launcher

Note: Whenever you are using the GS-4000 applications make sure the MC-4000 keyer is off to prevent the accidental airing of graphics.

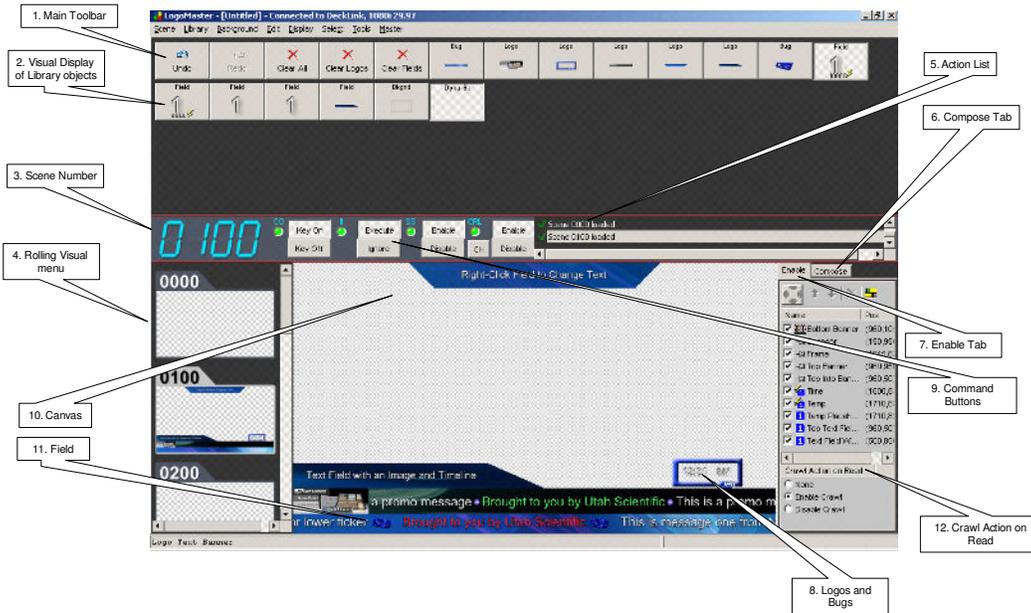


Figure 1-3. Main Menu

The Main Screen

1. Main Toolbar: Access all of the available tools, libraries, and configuration options.
2. Visual display of Library objects (logos, fields, backgrounds) that are available from the library currently in use.
3. Scene Number (from 0000 to 9999) is the name of a particular scene. Newly composed scenes displayed on the work canvas can be saved using the Numeric Keypad (on the right side of the keyboard). To save a newly composed or modified scene, the operator can use the shortcut “-“ in the keypad area of the keyboard.

Note: If there is an existing scene with the same number, a dialog box appears to ensure the change is to be made.



4. Rolling Visual menu of the existing scenes. Enter the number of the scene to recall or double click the thumbnail.
5. List of the last actions.

Work modes

6. Compose Tab: Allows logos, fields and background elements from the current library to be placed on the canvas. The library objects can be selected from the Compose window or from the visual list at the top of the application. (Click on the object and then click on the canvas.)
7. Enable tab: Provides a means of activating, deactivating, deleting, assigning a layer priority and adding a visibility timeline to each object on the canvas. The Enable window also displays the name, size and X/Y position of each object in the scene.
8. Logos and Bugs: A Logo is a static graphic and a Bug is an animated graphic.
9. Command buttons

CGKey

On/Off controls whether or not the canvas appears on the SDI output:

II (Intelligent Interface)

Execute/Ignore is used to enable automated recall of LogoMaster scenes using the Chyron™ Intelligent Interface © protocol);

SS (Server Sockets)

Enables or disables the automatic insertion of updatable text from a data source such as a time server. If the button is lit, at least one data source is connected. When Ignore is selected the external data source is disconnected and the text “freezes” in its last position.

CRL

Enables/disables the display of crawls on the canvas.

10. Canvas: This is the composition area for creating or modifying scenes. Everything that is seen on this canvas also appears on the SDI output.

11. Field objects are used to add text or data such as clock time to a scene.
12. Crawl Action on Read: This function is set and saved as part of a scene and the status is displayed here when a scene is recalled. The functions are None/Enable/Disable Crawl.

Additional Definition

Cursor

A user selectable graphic element that will follow the movement of the PC Cursor but can also be seen on the SDI output. The Cursor is persistent from one scene to the next.

Logo/Bug

In the LogoMaster application a Logo is a static object and a Bug is an animated object

Field

An object type that provides a means of inserting manually entered text, or automatically updatable text such as time and temperature using data connections. A Field can also be married to a static or animated background graphic.

Snap point

Allows predefining positions (characterized by the coordinates (x, y)) for logos, persistent from one session to another. Snap points for logos are saved with each graphic in the library and can be used in any future scenes containing that logo.

Snap points are saved to the library for their respective element (Logo/Bug). Pressing Insert while positioning a graphic with the mouse will insert a snap point. The behavior of this snap point can be defined within the Environment Settings under the Tools menu and provides the following 3 options:

1. Auto Snap: Checking this box will cause Logos and Bugs to automatically snap to their defined snap points when the graphic is within the Snap Radius.
2. Snap Radius: The size of the area around the snap point (in pixels) that will cause a graphic to snap to that point provided Auto Snap is checked.



Adding snap point cleans up around: This value (in pixels) determines how far around a new snap point it will delete any old snap points.

TimeLine

The timeline is used to establish the appearance/disappearance of an object from the scene. (Logo, Bug, or Field);

Scene

The saved ensemble of one or more static or animated objects together with their positions and, possibly, with a timeline.

Hot spot

Reference coordinates (center) of an object, used when positioning the object on the canvas.

Hotkey

User defined keystrokes that result in an action such as placing a particular object on the canvas or clearing the screen.

The Basics

The functional element of LogoMaster is the scene, a *.scene file. The scene is a collection of graphical and text elements (logos/bugs, backgrounds or fields), animated or static, each one with its own attributes, and whose order of appearance/disappearance can be organized with a Timeline.

The files types that can be imported for logos, fields and backgrounds, are: *.chy, *.bmp, *.jpg, *.tga, *.tif.

When saving a scene the system creates 4 files:

- stills: the static scene, that can be viewed in the composition area (canvas), with a size close to that of the TV screen; in configurations with two monitors, these are the files used for scene preview (in order to see the next scene);
- tns (thumbnails): the same static scene, that can be loaded in the rolling menu from the left side of the screen (4 in page 3);
- small tns: the same static scene – with a size smaller than that of the previous one – that can be loaded in the rolling menu from the left side of the screen (4 in page 3);
- The scene itself: *.scene file, a collection of links to the objects from the library that compose it: logos, bugs, backgrounds, fields and the timelines.

All of the imported graphics files (backgrounds, logos, and fields) are embedded in the Library. Only the dynamic backgrounds can be saved separately in a directory on the hard-disk. Since backgrounds are typically full screen graphics this provides a more efficient use of RAM.

The types of files recognized for import (for backgrounds, logos and fields) are: *.chy (Chyron), *.bmp, *.jpg, *.tga, (sequential).tga *.tif. When exporting, the background files are of the type *.dsbk, the logos are *.dsst, and the fields are *.dsbl.

Graphic files for use as backgrounds or logos can be created using any common paint software capable of saving in one of the previously defined formats.



Creating and Saving a Scene

1. Launch LogoMaster from the GS-4000 Launch Screen.
2. From the LogoMaster Main Toolbar, click on “Library” then select “Open”. The “Open LogoMaster Library” dialog box will appear allowing us to select the Library containing the desired objects.

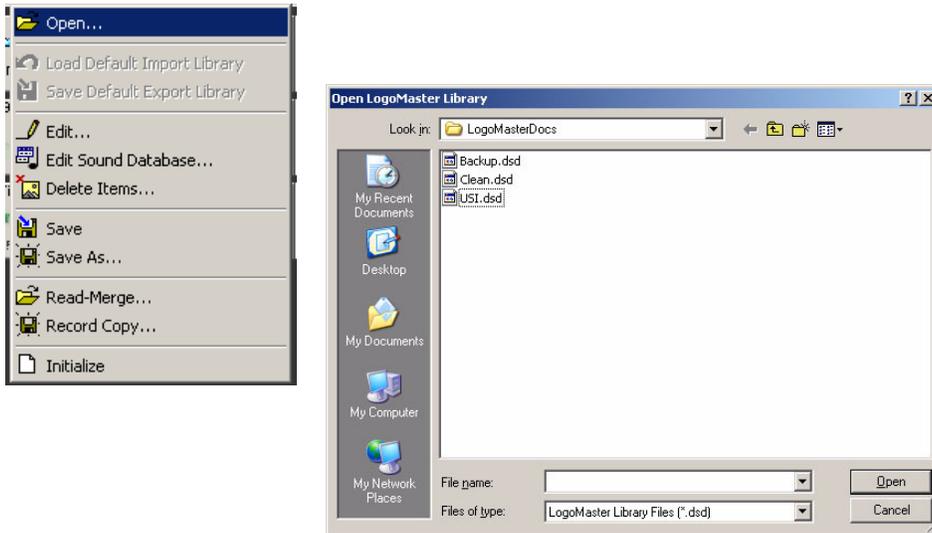


Figure 1-4.

3. The objects in the Library, will be displayed under the Main Toolbar

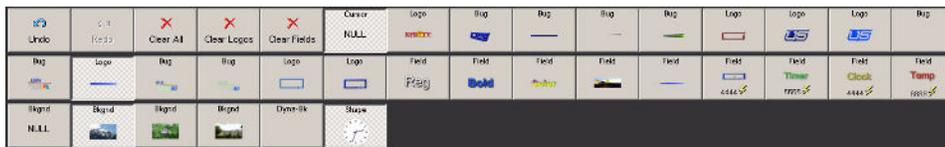


Figure 1-5.

4. Let's choose an object of each type and place it on the canvas. Select the object to use by clicking on the corresponding object among those displayed under the Main Toolbar or at the right side of the composition area (if we are in Compose). Once selected, click within the canvas area in the location where we want to place the object and it will appear on the screen (the object can be a logo/bug, a background or a field). We repeat the action with the other objects.
5. To reposition an object we need to be working in Compose with the Cursor button selected. We can then left click, drag and release the object at the desired location on the canvas.

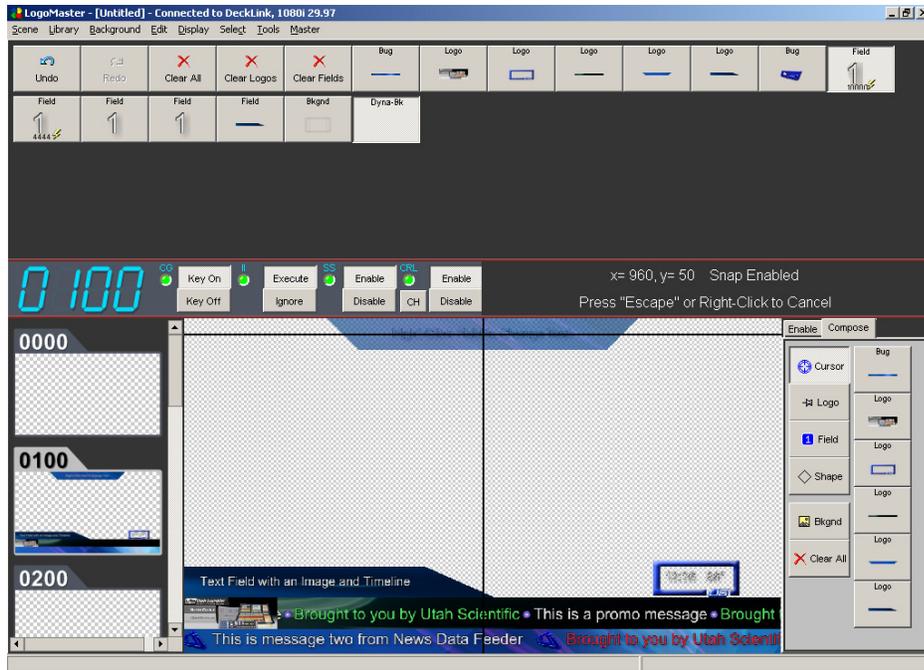


Figure 1-6.

6. To add text to our scene we will need to use a text field. In Compose, left click on a "Field" text icon and then left click on the canvas where we want it positioned. Right click on the Field icon on the canvas and the window "Edit Field Text" will appear. We can now enter the text in the Text column of the window and click OK.



7. To generate a Timeline for the field, recall or create a scene containing 2 or more objects. We want one of the objects to appear 150 frames after all the other elements in the scene and we want it to stay on the screen for 450 frames. In Enable, click the TimeLine button.

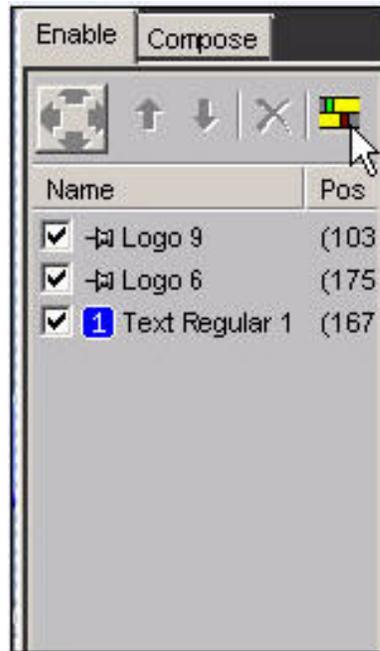


Figure 1-7.

The TimeLine Editor window will open; select the desired object. Use the two markers (green: In, and yellow: Duration) to set the frames for the appearance and the disappearance of the object. Click on the green Marker to open the "Time In" entry window. Enter 150 and click OK.

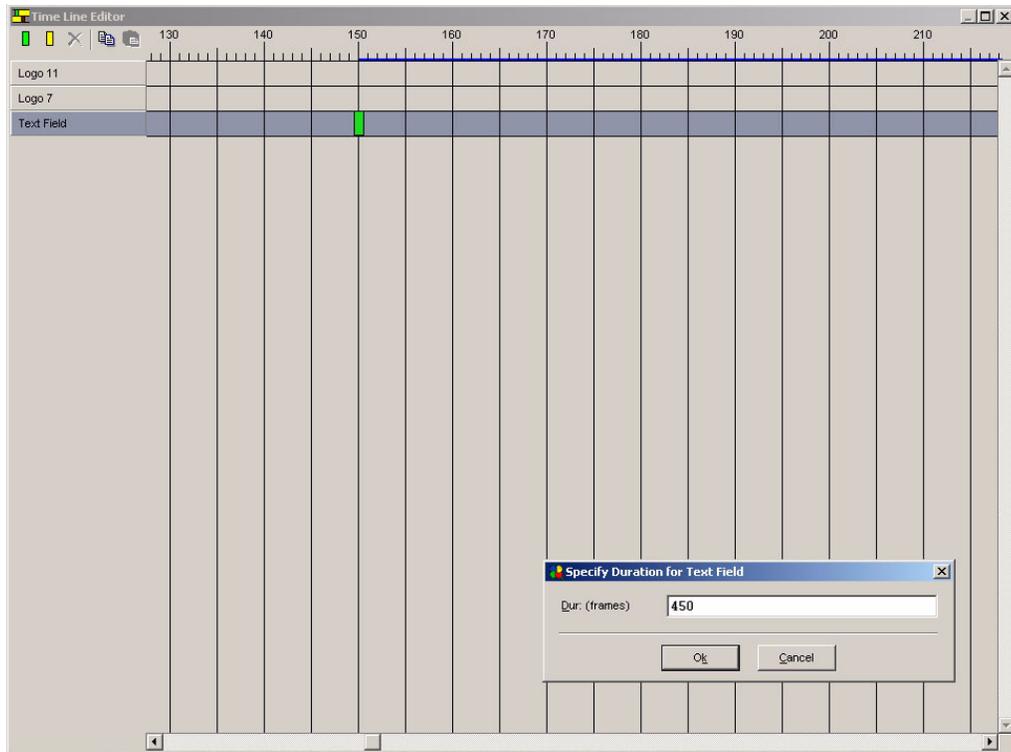


Figure 1-8.

Click on the yellow marker to open the "Duration" window. Enter 450 and click OK. The Time line Editor window will now display the start, duration and end frame.



Use the Scroll bar to move the display left or right. When we mark the OUT point, a dialog box will appear; here we confirm the duration (450 frames).

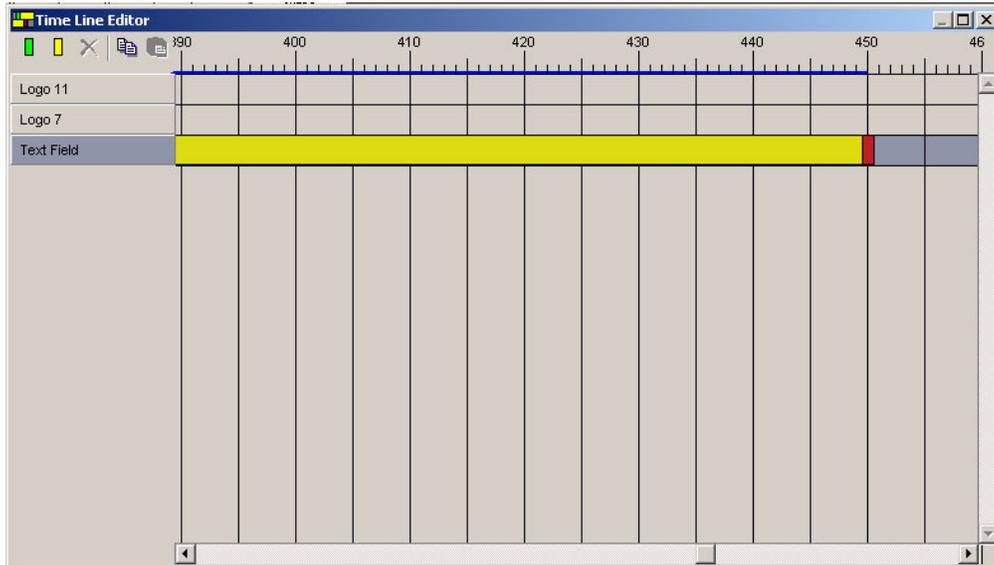


Figure 1-9.

After confirmation, the TimeLine Editor window will look like this.

Result: When loading that scene from the rolling menu, the field with the text will appear 150 frames delayed and after another 450 frames it will disappear.

Use the Copy Keyframes and Paste Keyframes functions to apply the same settings to any other object in the scene. Click X to close the Time Line Editor window and the Timeline changes will be automatically applied to the scene.

Saving a scene

A newly created scene is saved by assigning it a number from the keyboard NumPad. We can search in the rolling menu located on the left side of the canvas for a number that hasn't been used. When the number is entered from the NumPad it will be displayed in the Scene number display area of the screen. To save it, press the "-" (minus) key. If that number has already been attributed to another scene from our library, a dialog box will appear.

Note: Scene 0 is always left blank. It is used to clear the canvas by recalling Scene 0 on the Num Pad. Selecting „Del” on the NumPad then pressing „Enter” will also recall Scene 0.

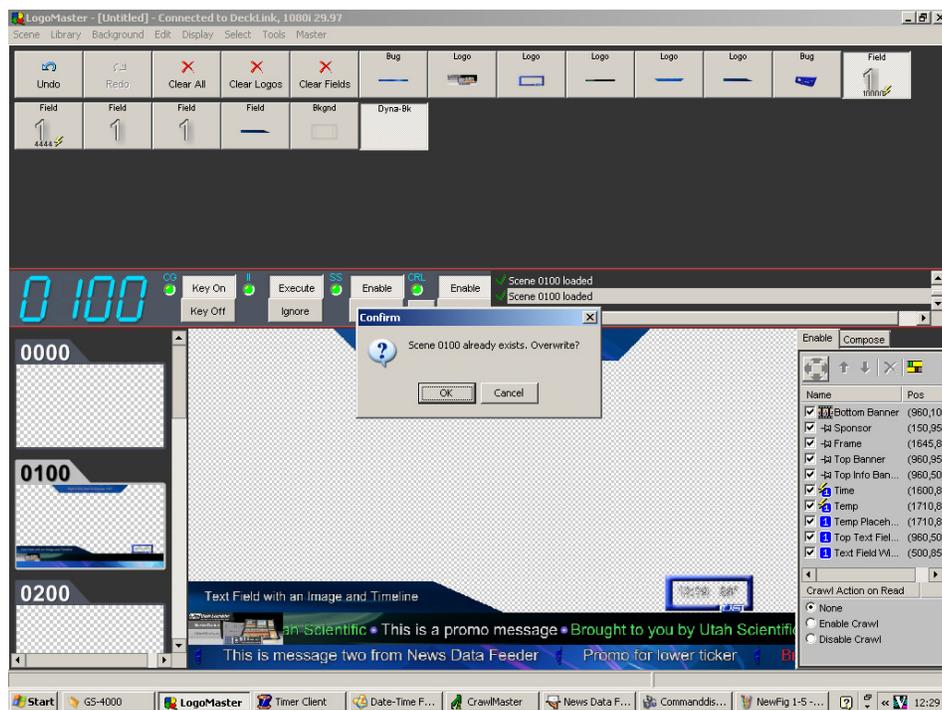


Figure 1-10.

The scene is saved and shown as a thumbnail in the rolling menu.



Recalling a Scene

To load an existing scene, enter the scene number on the keyboard NumPad and press the Enter key. Scenes can also be recalled by double clicking the thumbnail in the rolling menu.

Clearing the Canvas

Clearing the current scene from a Canvas can be accomplished in 3 ways.

1. Recall Scene 0 from the Num Pad. (Note: Scene 0 is only used to provide a blank canvas. Never store anything to Scene 0.)
2. Select “Del” on the Num Pad and press Enter. Del automatically selects Scene 0.
3. Click on the “Clear All” icon in the Compose section or in the Visual Library section of the screen. Note: Does not affect crawls.

The LogoMaster Library

The library contains lists of the objects that can be used in the composition area (background, cursor, logo/bug, field) and recall shortcuts that can be defined by the operator. Any change made to an object in the Library will be immediately reflected in all the scenes that use it and this change is persistent over the session. Additionally, objects deleted from the library will no longer appear in the recalled scene. If the library is saved before closing the LogoMaster application the changes will apply to all future sessions. If the changes are not saved the Library objects will revert to the original state the next time the LogoMaster application is opened.

To open a library click “Library” at the top of the application. In the drop down window click on Edit. This will open the library editor, which contains the current Library of graphics that opened along with the LogoMaster application. Additional libraries can be added that contain just the objects for a particular set of scenes.

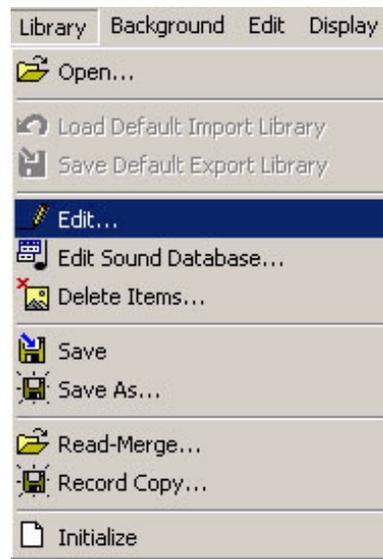
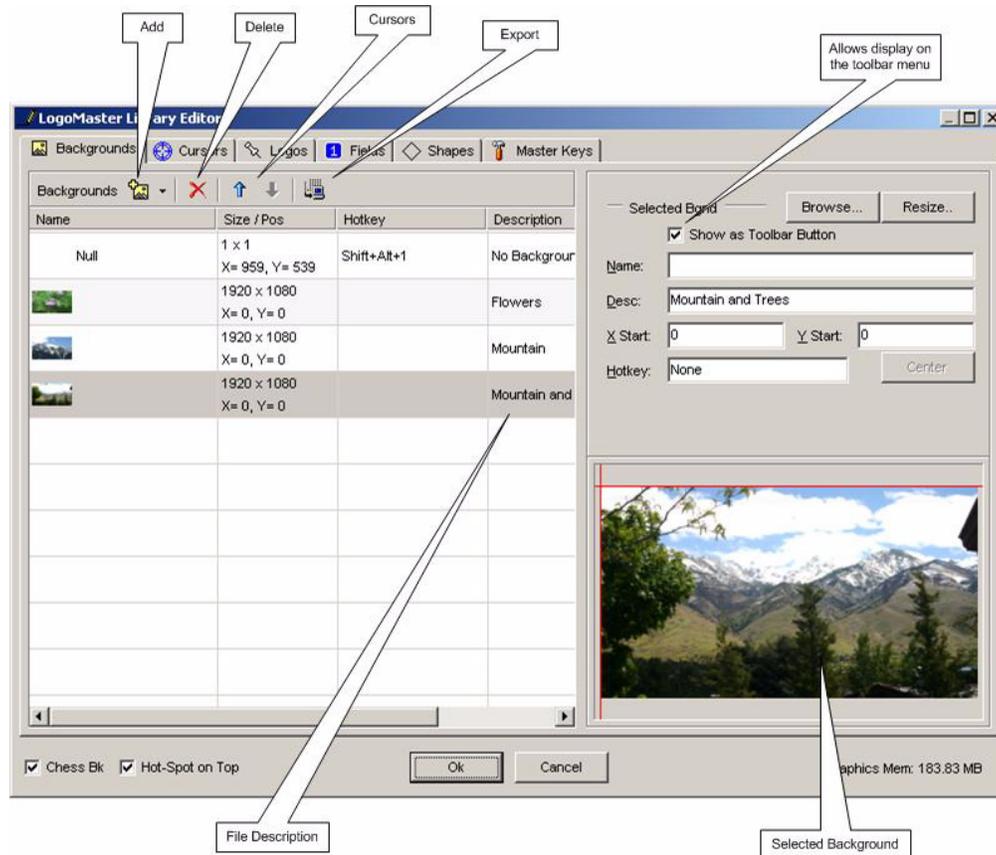


Figure 1-11.

Backgrounds Tab

Library Editor



The Backgrounds window is used to manage the background graphics portion of the Library. This window provides the tools to import and manage static graphics for background use. The left hand pane includes the import, delete, reorder and export functions. This pane also includes the list of available backgrounds. The list includes the background name, position, size and description. The Name column contains a thumbnail of the background graphic and the name the user has given the background. The Size/Pos column contains the size and XY starting positions for the graphic. The Hotkey column contains the keyboard shortcut to recall the background. The description initially contains the graphic name but can be edited in the right hand pane.

The right hand pane contains the tools to change the background attributes.

Browse: Used to change a background to a different graphic.

Resize: Accesses the application used to resize the background.

Show as Toolbar Button: Will place a graphic thumbnail in the visual workspace and Compose sections.

Name and Desc: Provides the ability to give the background a Name and Description which is shown in the backgrounds list.

X & Y Start: Used to offset the background graphic with respect to the display area.

Center: Returns the X & Y Start fields to their original settings.

Hotkey: For setting up a quick keyboard background recall.



Cursors Tab

The Cursors window is used to manage the static and animated Cursor graphics portion of the Library. Cursors are graphics that replace the normal windows cursor but are visible on the GS-4000 output.

The left pane of the Cursors window includes the functions to add, delete, export and reorder the Cursors list. This pane also displays a list of the Cursors currently loaded in the LogoMaster library. The list includes the cursor name, graphic size, hotkey, the number of cells (1 for a static graphic) along with the memory used and a description. The Name column contains a thumbnail of the cursor and the name the user has given the graphic. The Cell Size column contains the size of the graphic. The Hotkey column displays the keystrokes that have been assigned to a cursor. The Cells/Mem column contains the number of cells and how much memory the cursor uses. The Description initially contains the graphic name but can be edited in the right hand pane.

The right hand pane contains the tools to change the cursor attributes.

Browse: Used to change a cursor to a different graphic.

Resize: Accesses the application used to resize the cursor.

Show as Toolbar Button: Will place a graphic thumbnail in the visual workspace and Compose sections.

Name and Desc: Provides the ability to give the cursor a Name and Description which is shown in the cursors list.

Hot-Spot X & Y: Used to offset the graphic's hot spot. (Normally the center of the graphic).

Hotkey: For setting up a quick keyboard cursor recall.

Logos Tab

The Logos window is used to manage the static graphics (Logos) and animated graphics (Bugs) portion of the Library. The animated graphics are a series of .tga files and are referred to as flipbooks. The Logos window provides a means of importing, resizing and naming of the graphics.

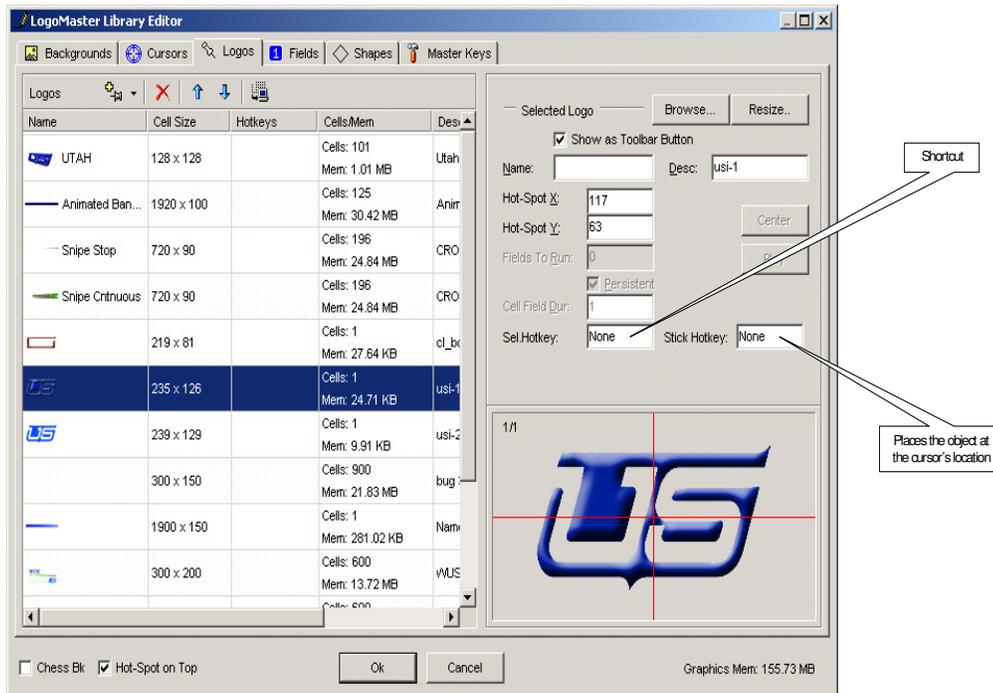


Figure 1-12.

The left pane of the Logos window includes the functions to add, delete, export and reorder the Logos list. This pane also displays a list of the Logos currently loaded into the LogoMaster library. The list includes the graphic name, graphic size, the number of cells (1 for a static graphic) and description. The Name column contains a thumbnail of the graphic and the name the user has given the graphic. The Cell Size column contains the XY pixel size of the graphic. The Description column initially contains the graphic name but can be edited in the right hand pane.

The right hand pane contains the tools to change the graphic attributes.



Browse: Used to change a logo to a different graphic.

Resize: Accesses the application used to resize the logo.

Show as Toolbar Button: Will place a graphic thumbnail in the visual workspace and Compose sections.

Name and Desc: Provides the ability to give the logo a Name and Description which is shown in the logos list.

Hot-Spot X & Y: Used to offset the logo's hot spot. (Normally the center of the graphic).

Center button: Returns the graphic's hotspot to the original values.

Fields to Run: Sets the number of fields that a bug (animated graphic) will run before stopping. A value of "0" will cause the animation to run continuously.

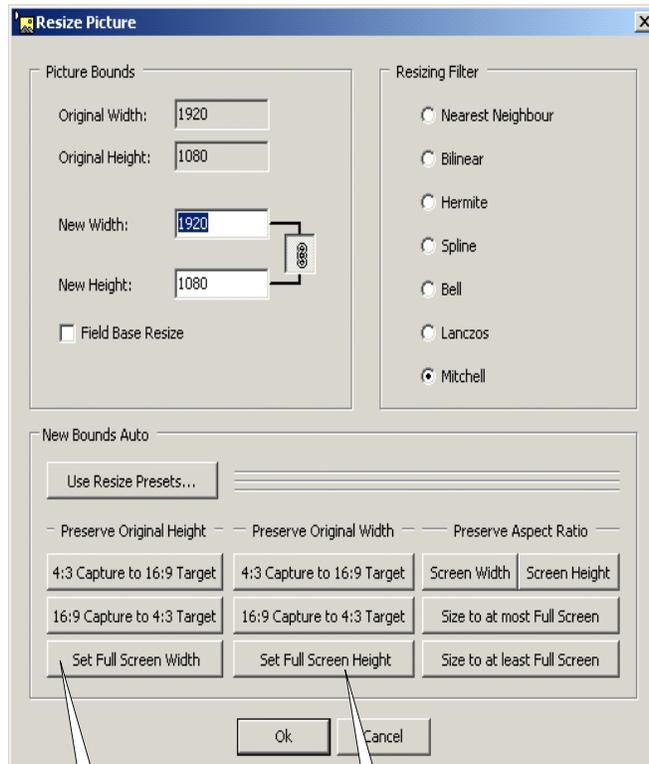
Persistent: Determines whether or not the graphic remains visible after it has run its allotted number of fields.

Play: Causes the bug to animate in the display window located at the bottom of the pane if the Persistent box is not checked.

Cell Field Dur: Sets the number of fields that each cell of the animated graphic is displayed. Can be used to speed up or slow down an animation.

Sel. Hotkey: For setting up a quick keyboard graphic recall. Clicking on the canvas following the Hotkey command will insert that graphic.

Stick Hotkey: For setting up a quick keyboard graphic recall. The hotkey command will immediately place the graphic on the canvas where the cursor is currently located.



Filters are based on mathematical functions that can determine the quality of the image after scaling (resizing)

Changes are made to an image, while preserving the original height

Changes are made to an image, while preserving the original width

Figure 1-13.

The Resize Picture application can be used to resize any background, logo or bug graphic in the Library.

Fields Tab

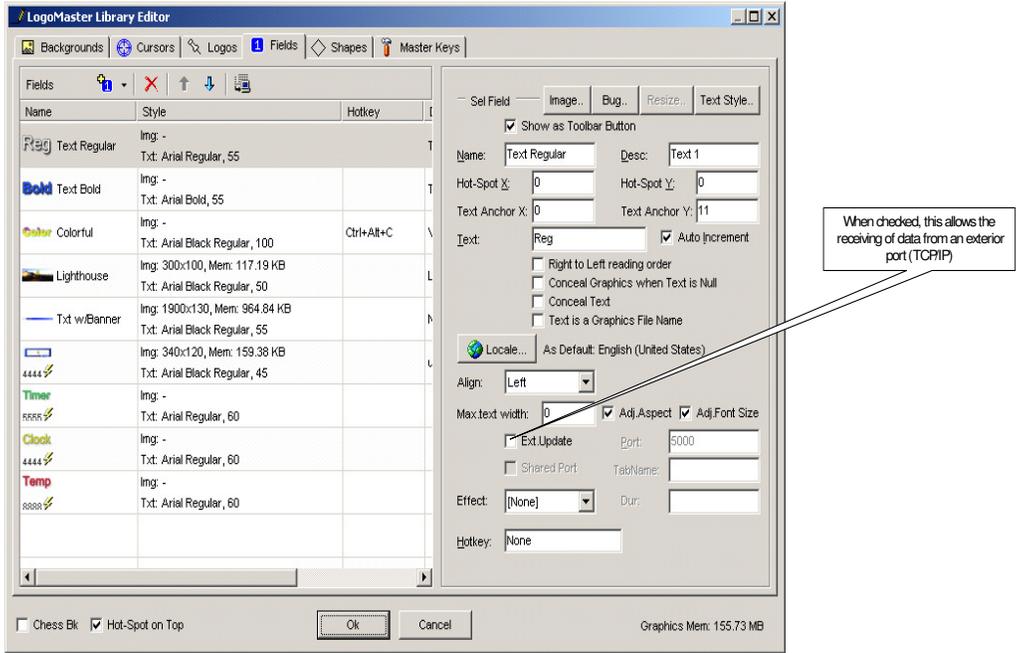


Figure 1-14.

The Fields tab is used to create and manage predefined text fields. The Library can have multiple Fields each having its own unique font, color, edge and outline. Fields can also have a static or animated graphic background. Text can be manually entered once the Field object is placed on the Canvas. A Field can also be tied to an Ext. Update such as an up down counter or real time clock server.

The left side of the Fields pane provides the functions to add, delete, export and reorder the fields list. This pane displays a list of the Fields currently loaded into the LogoMaster library. Each Field entry includes a Name, Style, Hotkey and Description columns. The Name column includes a thumbnail of the font, the information entered into the Name field in the right hand pane of the Field window and if used the data link port number. The Style column includes the font type, font size and the size of the graphic if used. The Hotkey column lists the keyboard short cut for this field. The Description column contains the information entered into the Desc field in the right had pane of the Field window. If a field uses a graphic the description name will default to the graphic name.

The right hand pane of the Fields window is used to set the attributes of the Field such as font, graphics sizing/positioning and display characteristics.

Text Style: Opens the window for setting the font attributes.

Image and Bug: Provides the means to replace or add a graphic to an existing Field.

Resize: Accesses the application used to resize the graphic.

Show as Toolbar Button: Will place a graphic thumbnail in the visual workspace and Compose sections.

Name and Desc: Provides the ability to give the field a Name and Description which is shown in the fields list.

Hot-Spot X & Y: Changes position of the graphic.

Text Anchor X & Y: Changes position of the text.

Text: Text entered into this box will be displayed as part of the visual library icon.

Auto Increment: Used when the Text box above contains a number such as "1". Each time an instance of that Field is placed on the screen the system will automatically increment the number. First field placed on screen will display a 1. The next Field placed on the screen will display 2, etc.

Right to Left Reading Order: N/A

Conceal Graphics when Text is Null: Will conceal the background graphic if used with a Field when the Ext update is being used and a Null Character is received.

Conceal Text: Will conceal the text when the Ext update is being used and a Null Character is received.

Text is a Graphics File Name: Supplying the path and filename to a graphic will display that graphic and not the actual text.

Locale: Select the geographic locale. This setting effects how Windows handles the display of text.



Align: Sets the text align point as Left, Right or Center. If right is selected all additional characters will be added to the right of the first character. If Left is selected the last character in a text field will be held to the align point all other characters will be pushed to the left.

Max text width: Function that maintains the text field width (within limits) to the pixel count entered in the entry field. Placing a "0" pixels in this field will default to no effect upon the text width.

Adj.Aspect: Works in conjunction with the Max text width function when checked.

Adj.Height: Works in conjunction with the Max text width function when checked.

The Max text width function operates as follows. When the text width exceeds the pixel count entered into the Max text width entry field, narrowing functions will be activated. The function follows these rules (assuming that both the Adj.Aspect and Adj.Height boxes are checked) in the order shown in trying to reduce the width.

1. Kerning is first reduced by 30%.
2. The width of the character is then reduced by 30%.
3. The size of the character is then reduced by 30%.

After all three rules have been used the text will no longer be affected and all other text exceeding the Max text width will be displayed at the size as determined by the rules.

Ext Update: Enables the field text to be updated from an external data feed such as a time server.

Port number: The port number of the server where the information is to be derived.

Shared Port along with Tab Name allows one data feed to update multiple Fields at the same time.

Effect: Determines how the updates such as a timer changes are to be updated on the screen. The selections are Cut, Dissolve and Push Up.

Duration: Sets the duration of the transition (in frames) when using a Dissolve or Push Up effect.

Hotkey: Allows quick recall by assigning the Field to a Keyboard shortcut. Select the desired Field in the list in the left pane. Click in the Hotkey entry box. From the keyboard hold down Ctrl, Alt or both and then select a number or letter. Repeating this key combination in the Compose mode will place the field on the canvas under the cursor. Move the cursor to the where the field is to be located and left click to drop.

Field Text Style Function

The Fields window includes the ability to build a collection of Fields with custom text styles that can be used for placing text on the screen.

The Text Style button opens the Select Text Style window that provides a collection of fonts and the ability to add edges, outlines and colors to the elements. Characteristics: the font name (Times New Roman, Arial, etc.), the font style – weight and posture (Regular, Bold, Italic, Bold-Italic), the size, the aspect, the color, the transparency (alpha), together with various graphic effects such as: Edge, Border, Background, Blur, Bevel etc.

The text style is automatically saved after editing, and is persistent for that Field. A Field is built for each text style required. A Field's text style can always be changed by selecting that Field in the Library and then select "Text Style" button to edit.

The operator can define the following characteristics of the text style:

- **Type Face:** The TrueType font style.
- **Style:** Font characteristics (regular, bold, italic etc.)
- **Height:** The height of the font in pixels
- **Aspect:** The ratio between the height and the width of the font;
- **Kerning:** Adjusts the spacing between characters;
- **Numeric:** Optimizes Kerning and should only be used if the field is numeric only.
- **Italic angle (degrees):** Fonts leaning from the vertical position;
- **Rotate (degrees):** Font's rotation angle from the vertical position;



Layers

- **Up/Down Arrows:** Controls the priority of each layer (Body, Edge, Outline, etc.) The items at the top of the list are behind the items that are lower in the list.
- **Add/Subtract Symbols:** Allows the addition or deletion of items in the Layers list.
- **Body (Color, Alpha, Style, Blur):** characteristics of the characters body;
- **Outline (Color, Alpha, Width, Blur):** characteristics of the characters outline;
- **Edge (Color, Alpha, Type, Size, Style, Direction, Blur):** characteristics of the characters edge;

Expanded Body font is the same as Body font but allows for the adjustment of the thickness of the character (Color, Offset, Thick, Blur)

Background (Color, Offsets, Thick, Width, Height and Blur)

- **X-Y% Offsets:** Allows the positioning of the layer object to be changed
- **Thick%:** Allows the thickness of some layer objects to be changed
- **W-H Adj%:** Allows the width and height of some layer objects to be changed
- **X-Y Slant (Degrees):** Allows the slant of some layer objects to be changed

Text Style-Edit Color Function

The Base Color button opens the Edit Color window. This window allows the operator to apply color to the Body, Outline or Edge.

Hue-Sat: Color wheel for quick selection of a color. Additionally the Red/ Green/Blue drop down windows and the Saturation/Hue drop down windows can be used for fine tuning the color settings.

Alpha: Controls the transparency of the font with values ranging from 0, opaque to 255, maximum transparency. Adjust the Alpha with the slider or by using the Alpha drop down entry box.

Value: The color and luminance value that ranges from 0, black to 100, maximum luminance. Adjust the Value with the slider or by using the Value drop down entry box.

Preview: Provides a resultant view of the Alpha, RGB and Value settings.

Text Styles-Aux Colors Function

The Aux Colors button opens the Aux Colors window. This window allows the operator to apply multiple colors vertically to the Body, Outline or Edge.

Position: Corresponds to the vertical position on the character where the color is to be applied. Adjust the relative vertical position on the character by clicking on the vertical slider or by entering a value in the Position box. The larger the number the lower the position on the character. The indicator arrows on either side of the vertical slider will give a vertical indication of the vertical position.

Edit Color: Opens the Edit Color window. The color selected will be applied to the current vertical position.

Select Colors: Steps to the various vertical points where a color modification has been made.

Clear Colors: Reset the color to the original settings.



Locale

From the right panel of the window with available fields, by pressing the Locale button, a window will appear; here we can select the language used in writing. Using this function, the text is transformed from ASCII format (or DBCS) into Unicode, using an algorithm specific for the selected geographical area.

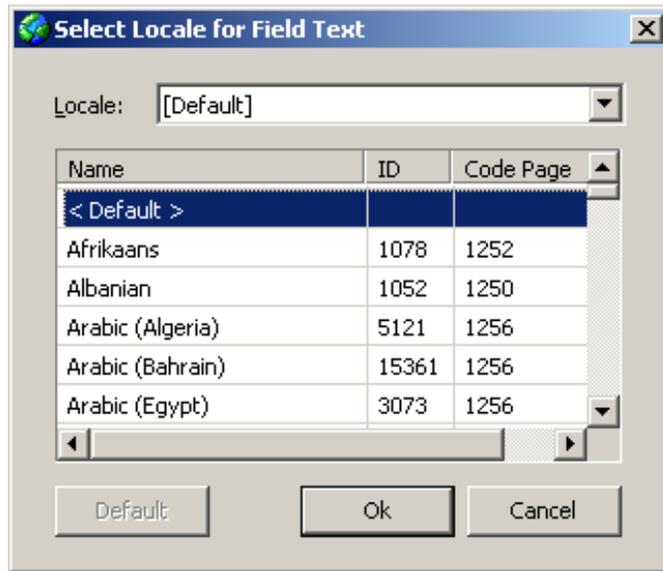


Figure 1-15.

Shapes Tab

The Shapes window allows the user to call up factory pre-defined shapes such as an analog clock. The left side of the window displays a list of available shapes while the right side of the window provides access to configuration options for the selected shape.

Clip Player (Option)

The GS-4000 Clip Player option allows the use of .MOV and .AVI animations within scenes. These can be used for animated bugs, snipes, and animated background banners for crawls and text fields. To import clips for use within the GS-4000 there will be a "Clips" tab within the Library Editor.

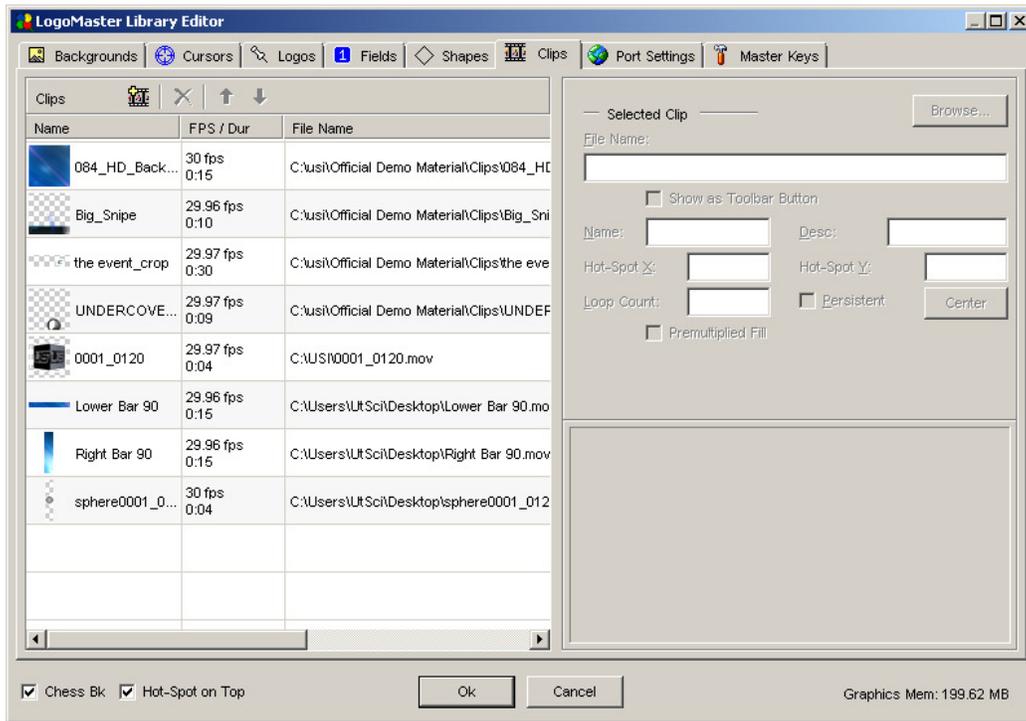


Figure 1-16. Library editor Clips tab

Environment Settings Editor

General

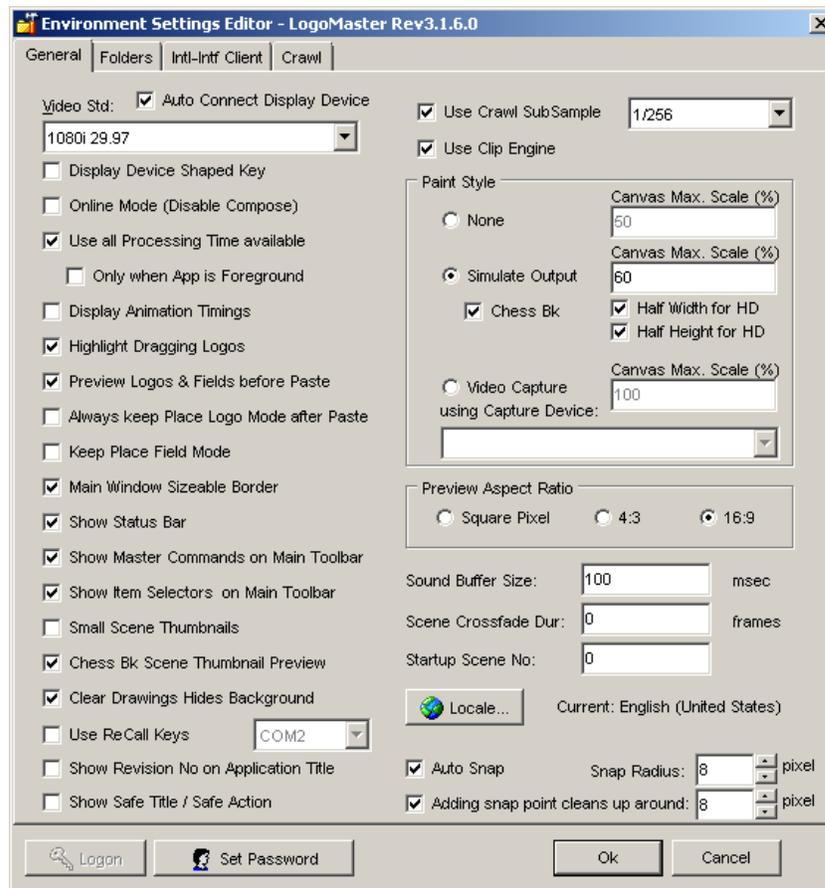


Figure 1-18.

Online Mode (Disable Compose): Scenes can only be called up for playout and can't be modified with this option selected.

Main Window Sizeable Border: The buttons used to Minimize, Maximize and Close the window will be displayed.

Show Status Bar: Located at the bottom of the Logomaster application.



Show Master Commands on Main Toolbar: Displays the “Clear All”, “Clear Logos”, “Clear Fields”, “Undo”, and “Redo” as buttons.

Show Item Selectors on Main Toolbar: Displays the available graphics as buttons.

Small Scene Thumbnails: The size of the thumbnails for the rolling menu.

Snap Radius (pixel): Determines how close an object must be to a snap point before snapping to it.

Preview Aspect Ratio: Aspect ratio for the Preview window. Preview is a separate independent window from the Canvas. Preview is used to display larger version of the scene thumbnails. To display a scene in the Preview window left click on the desired scene thumbnail in the rolling menu then under the “Tools” menu select “Show Scene Preview”.

Folders

Within the Folders tab you can change the directories where LogoMaster stores and recalls elements such as scenes and backgrounds. By default, LogoMaster stores these elements within their own folders inside the LogoMaster program directory.

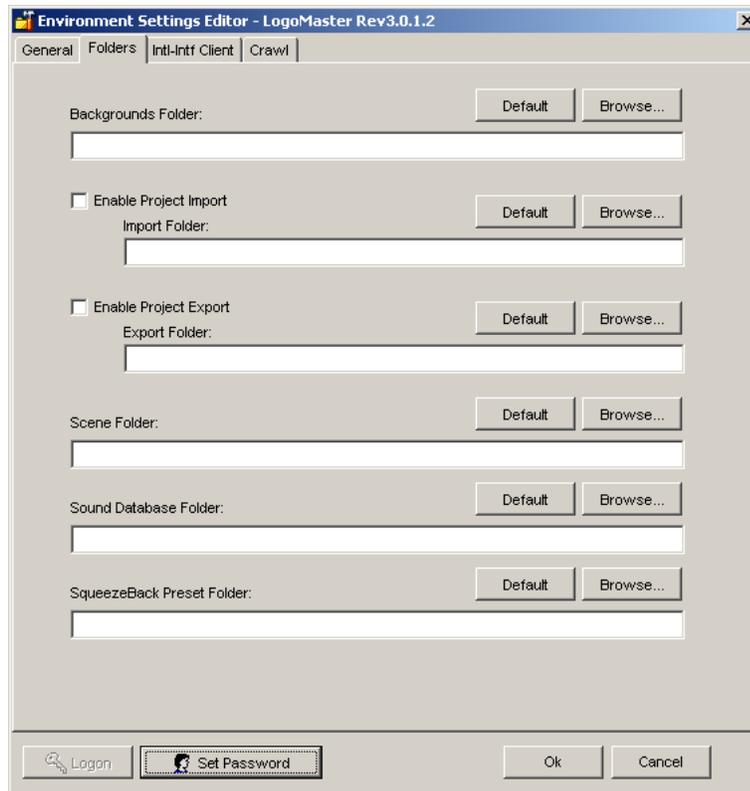


Figure 1-19.



Intl-Intf Client Tab

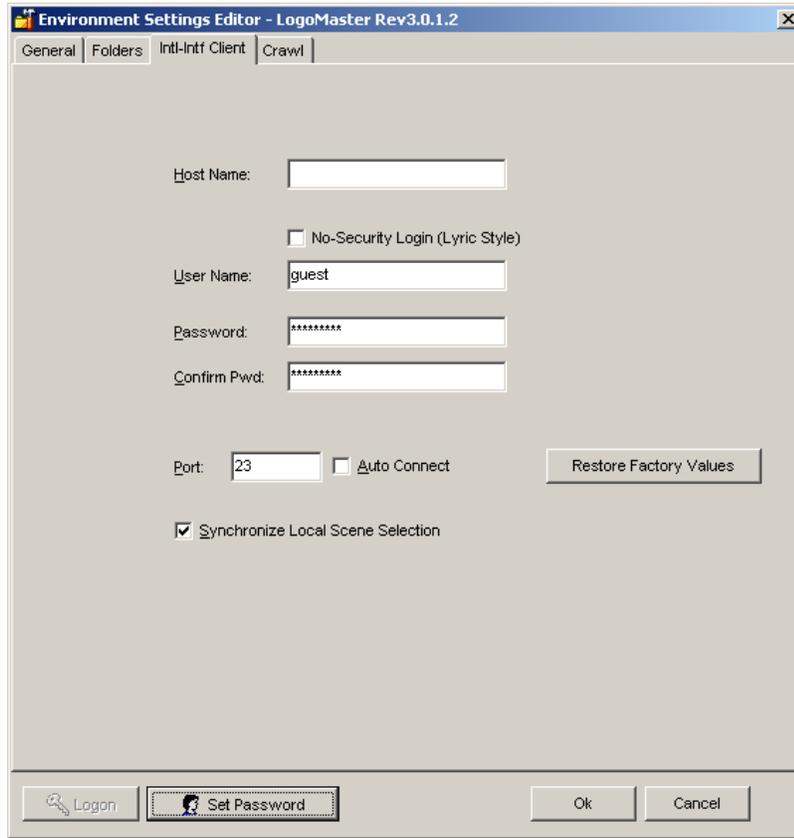
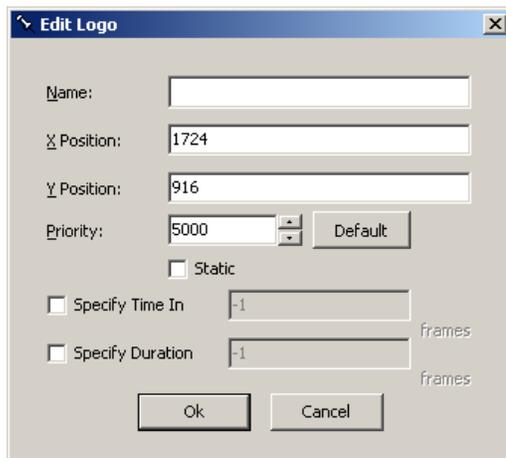


Figure 1-20.

Crawl Tab

Sets the transition speed and whether an Auto Slide On/Off screen is in effect.

Priorities



While in the Enable work mode and double clicking an object in the list, you will get the dialog box Edit Bug where we can give it another Name regarding its characteristics; we can see its actual position on the X and Y axis (the point of origin $(X, Y) = (0, 0)$ being the top left corner) and we can change its position manually, we can specify the Time In (when the object is to appear on screen) and the Duration of its appearance on screen in frames.

In this window we can set a level of Priority – the 5000 priority is by default attributed to all objects (bugs, logos, and fields). The level of priority for a Background is 0.

Priorities range from 0 to 9999. An object with a level of priority will always be hidden by an object of the same category with a superior level (ex: a logo with priority 1 will be hidden by a logo with priority 2). If we have a logo and a field with equal levels of priority, the logo will be hidden by the field.

The channels for crawls also have levels of priority and we have to be careful how we set the priorities in order not to hide the crawl behind the graphic etc. If we have a crawl channel and a field with the same priority, the crawl will always be visible.

Conclusion: If $P_{crawl}=P_{field}=P_{logo}$, the crawl will be more visible than the field and the field will be more visible than the logo. $P_{background}=0$.



Date-Time Feeder

The Date-Time Feeder provides real time clock information that is derived from the PC clock. The left hand section of the Date-Time Feeder window is used to set the Client port number and Starting/Stopping the connection. The check box allows the feeder to Auto Connect to the client when the server application is opened. The Empty checkbox will send a Null command to any Date-Time field and will conceal the on screen Date-Time display and any associated graphic if the “Conceal Graphic when Text is Null” feature has been used.

The right hand section of the window allows the user to define the data that is fed to the Date-Time Fields.

Time Format: Determines the time display format

Date Format: Determines the date display format

Output Format: Determines whether the time and/or date is to be displayed.

Use Time Code: Switches the clock source from the PC clock to an optional internal time code reader.

Edit Formatting: Activates the Format controls

Timer Server

The Timer Server feeds ‘count up’ or ‘countdown’ time to a linked text Field. The left hand section of the Timer Server window is for setting the Client port number and Starting and Stopping the connection. The check box allows the Server to Auto Connect to the client when the server application is opened. The “Empty” checkbox will send a Null command to the Timer field which will conceal the on screen Timer display and any associated graphic if the “Conceal Graphic when Text is Null” feature has been used.

The right hand section of the window provides the means to setup the Timer Format, Start At, Stop At and Countdown/Countup preferences. The timer Start/Stop controls are also located in this section. The Time Server can display any combination of “HH:MM:SS” as long as the “Start At” time format matches. i.e MM:SS > 00:00, HH:MM:SS > 00:00:00.

US Temperature Feeder

The US Temperature Feeder application monitors a NOAA web page for the local outside temperature. The application requires an internet connection and the appropriate NOAA URL for the station location. The Temperature Feeder is not started as part of the GS-4000. Start this application using the Windows Start > All Programs.

The top portion of the Temperature Feeder window contains the XML address field. Selecting the button at the right end of the XML Address field will open a browser that takes you to an initial NOAA web page. The page allows you to select the State from a drop down box. The page will then find all of the locations within the state that have XML weather monitoring. Select the desired location and the NOAA page with the weather conditions will be displayed. Cut and paste the URL from the web browser into the Temperature Feeder XML address field. The application will now feed the temperature from this page to the LogoMaster Field linked to the Temperature feeder port.

The left hand section of the Temperature Feeder window is for setting the Client port number and starting and stopping the connection. The check box allows the Server to Auto Connect to the client when the server application is opened.

The right hand section of the window controls the query attributes.

Update Interval: Determines how often the NOAA site is queried when the Auto Update box is checked.

Display decimals: Check this box to display tenths of degrees.

Display F: Check this box to display "F" (part of temperature display).

Update Now: Forces an immediate query.

The last query and temperature value is displayed below the Update Now button.



Field Feeder

The Field Feeder application can be used to acquire data from a text file and continuously check for any new data or modifications to the source file. The main window is divided into 3 sections. The top section provides a list of connections with information on each including the port being used for communication, the Address/Field name being addressed, the current status, and the Message currently being sent. The middle section of the screen can be used for manually entering text or modifying lines of text in the Message field within the connection list. The bottom window provides Status messages for Events as the source file is reloaded.

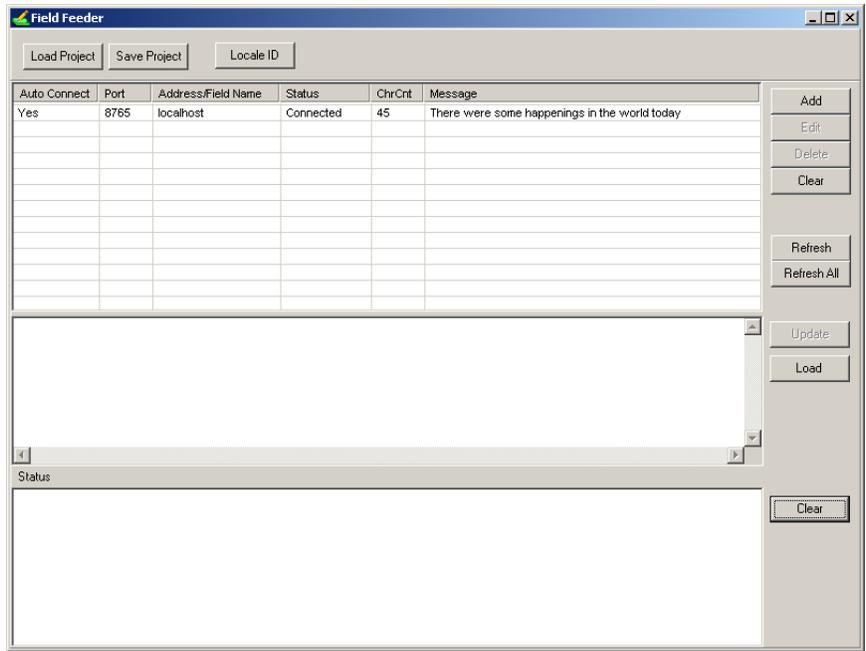


Figure 1-21. Field Feeder

Clicking the “Add” button will open a window where a new connection can be defined. The “Auto Connect” checkbox will cause Field Feeder to automatically attempt to connect to the port defined under “Port Nr.” upon launch. The “Address” field below Port Nr. can be used to specify which machine to connect to and the “Refresh Period” defines how often data is being sent.

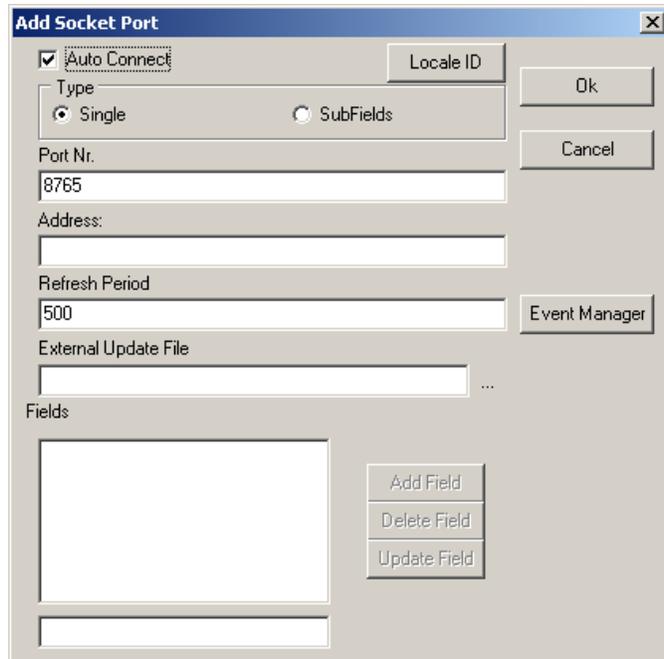


Figure 1-22. Add Socket Port

Clicking on “Event Manager” will open the Events Editor window where you can define when Field Feeder should re-read the data from the source text file. The “Event Type” setting determines how often the source file is polled for data. The options consist of Once, Daily, Weekly, or Every X seconds. The “Event Name” field can be used to provide the event with a name and the “Event Description” field allows for further describing the event. The “Date” field can be used in conjunction with the Once, Daily, and Weekly options whereas the “Time / Interval” field can be used with updating Every X seconds. The filename is the source file containing the data we want to send with Field Feeder and that will be re-polled by Field Feeder based on the previous settings. Once the event is defined clicking “Add” will then add that event to the list of events on the left hand side of the window. Selecting an event from the list on the left and clicking “Delete” will remove that event from the list and clicking update with an event selected will update the parameters for that event with any changes that were made.

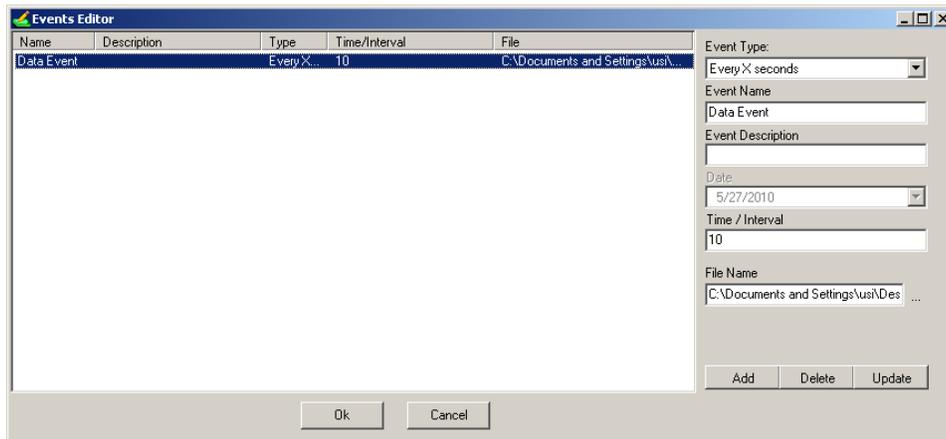


Figure 1-23. Events Editor

News Data Feeder

The News Data Feeder application allows text files to be imported and then sent to either a field in LogoMaster or as part of a crawl from CrawlMaster. The “Client Address” is the IP address of the machine receiving the data from News Data Feeder (the setting “localhost” can be used when running both News Data Feeder and LogoMaster/CrawlMaster on the same machine). Below the Client Address is the port the data is to be sent over (this would correspond to the port number that either a Field or Crawl is listening on for data). The “Send Interval” is the amount of time (in milliseconds) between each transmission of data from News Data Feeder to either LogoMaster or CrawlMaster. The “Auto Connect” checkbox will cause News Data Feeder, when launched, to automatically connect to the field/crawl that will be receiving the data. The “Start” and “Stop” buttons can be used to suspend transmission of data or resume sending and to the right of those buttons there’s a connection status displaying the state of the connection between News Data Feeder and the field/crawl it’s talking to. The two check boxes “Use Enter As Separator” and “Use empty line as separator when import” determines whether headlines in a text file are separated by pressing enter after each or separated by a blank line.

The main window itself is separated into 2 sections. The top section provides a list of all headlines to be sent from News Data Feeder to the field/crawl listening to the appropriate port. The “Import” button allows for the importing of a text file to populate the list while the “Clear” button will clear out the list of headlines. The “Delete” button allows for individual lines in the list to be selected and removed.



The bottom section can be used for manual entry of data or for modifying elements within the list in the upper section. Typing text in to this lower section and then clicking the “Add” button will add that data to the list in the top section as one line of information. Clicking “Add by Lines” will add data to the above list on a line by line basis. Selecting a line of data in the upper list will cause that text to be displayed in the bottom section for editing. After making changes to the text the “Update” button can be used to update that line of information in the list above. The “Load” button allows for a text file to be loaded in to the bottom display area where it can be edited prior to being added to the list of content to be sent to either LogoMaster or CrawlMaster.

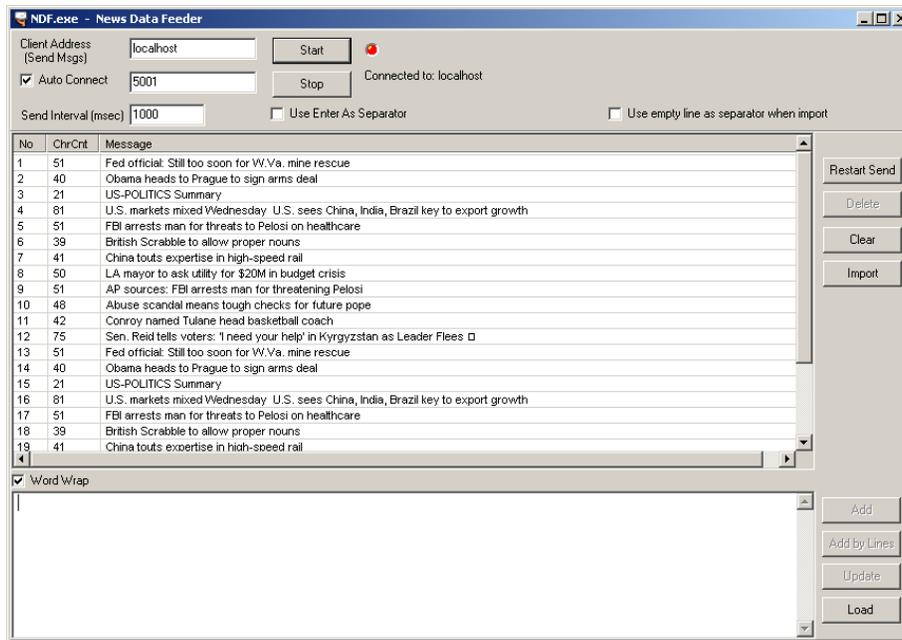


Figure 1-24. News Data Feeder

Command Dispatcher

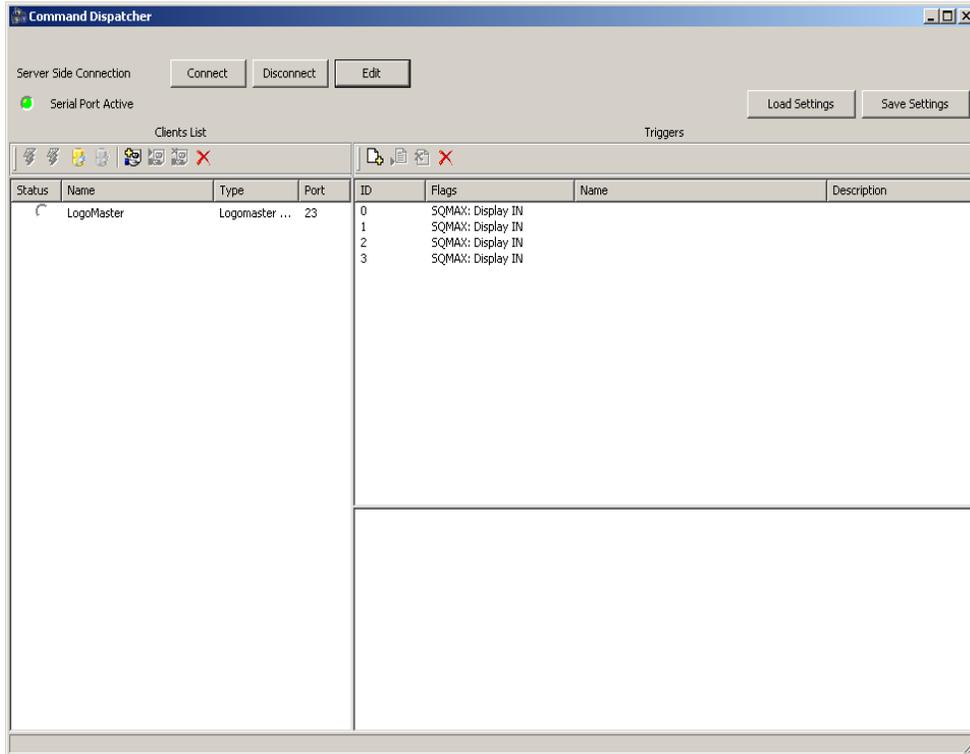


Figure 1-25. Command Dispatcher

Command Dispatcher provides a communications link between the Utah Master Control Panel and the LogoMaster software. This provides the ability to recall graphics directly from the master control panel. When an assigned button is pressed on the Master Control Panel, a trigger is sent to Command Dispatcher software which can then be defined to perform a number of actions (such as recalling a scene, or adding and subtracting scenes from the output) with LogoMaster.



Along the top, left side of the main screen for Command Dispatcher are buttons labeled “Connect”, “Disconnect”, and “Edit”. The “Connect” and “Disconnect” buttons are used to establish connection with the MC-4000 to listen for triggers, or to terminate connection. The “Edit” button opens the Server Editor window which allows for defining communications parameters for the serial connection to the MC-4000.

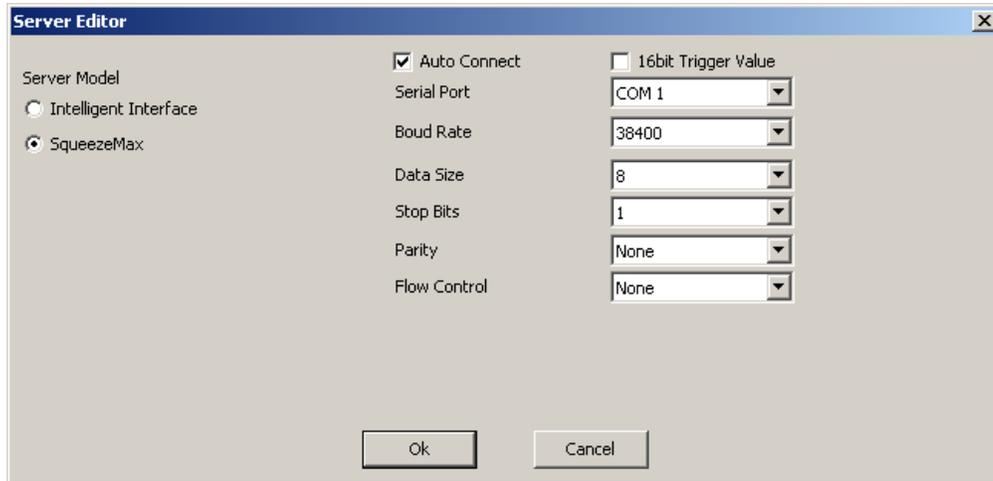


Figure 1-26. Server Editor

The Image above shows the Server Editor default settings in order that Command Dispatcher can communicate with the MC-4000. The proper settings are as follows:

Server Model: Squeeze Max

Serial Port : COM 1

Baud Rate : 38400

Data Size : 8

Stop Bits : 1

Parity : None

Flow Control: None

“Auto Connect” should be checked to have Command Dispatcher automatically connect to the MC-4000 upon launch. The “16bit Trigger Value” should be unchecked. Click “OK” to return to Command Dispatcher

Within the “Clients List” you should see “LogoMaster” client. If this client is ever removed it can be re-added by clicking on the “Add Client” button (the button with a plus sign) which will bring up the Add Client window:

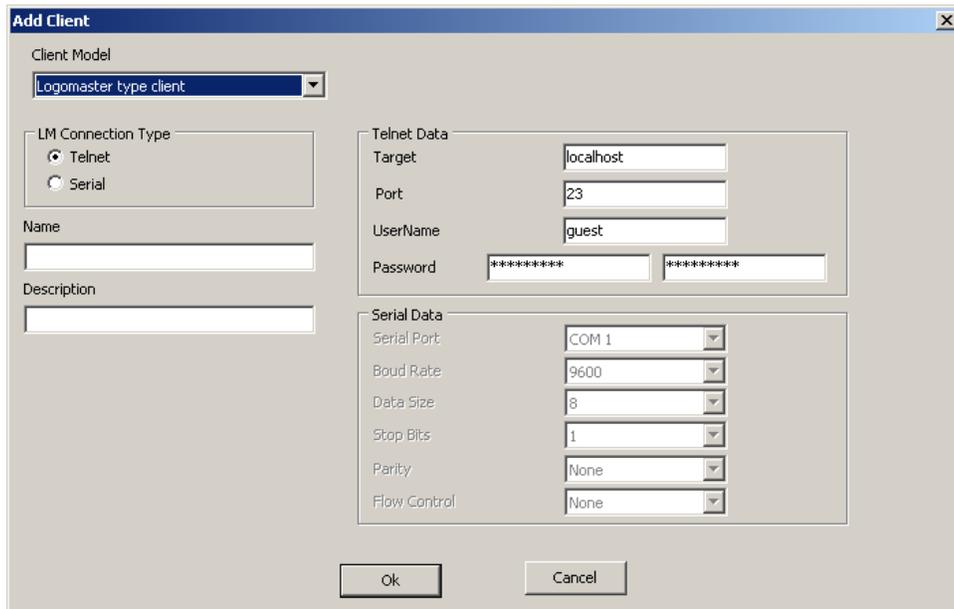


Figure 1-27. Add Client

Once you drop down the Client Model and select “Logomaster type client” you will see the other fields listed and populated with their default values. You optionally can supply a Name and Description for this client. Click “OK” to add the client and return to the main Command Dispatcher window.

To add events that will be triggered by the MC-4000 Control Panel click the “Add Event” button in the Triggers section of the window which will pull up the following window:

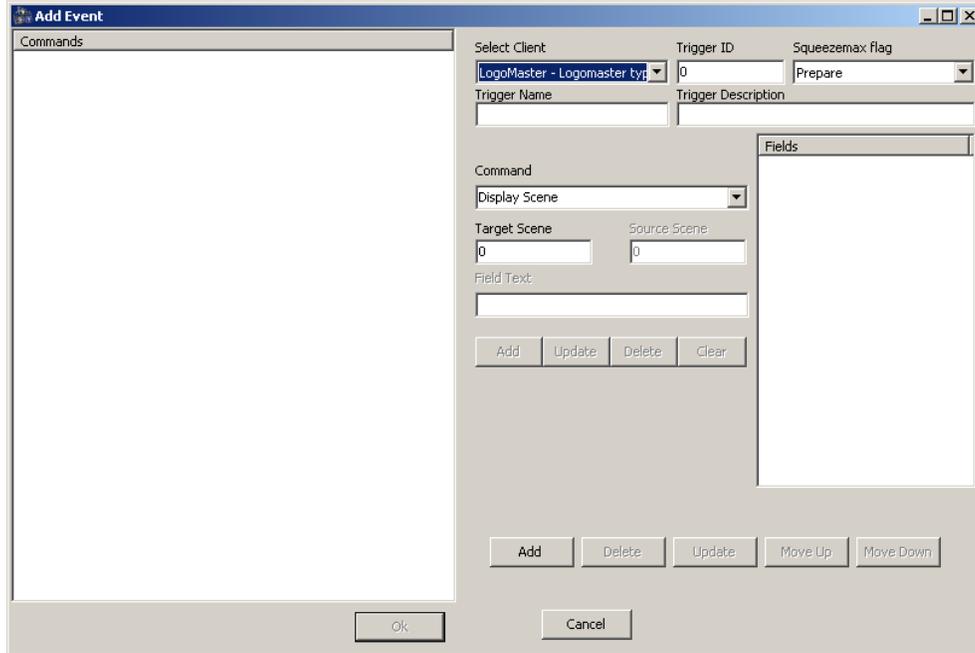


Figure 1-28. Add Event

Selecting the LogoMaster client from the “Select Client” drop down menu will provide options for defining the event.

The “Trigger ID” numeric value defines which trigger being sent from the MC-4000 will activate this event. Setting the “SqueezeMax flag” pull down to Display Preset IN will cause this event to be executed when the MC-4000 panel button is pressed. There are fields for providing a Trigger Name as well as a Trigger description to help identify the event. The “Command” drop down allows you to choose which command will be executed and the “Target Scene” value is where you will define the scene to be either displayed, merged, or subtracted. Once the settings for the event have been defined click the “Add” button at the bottom of the window and you will see the event listed over on the left side of the window under Commands.

Command Dispatcher has the ability to perform multiple actions from one trigger, and more events can be added in the same manner to the list on the right and all be tied to the same trigger value. It is possible to also set a delay between events by using the Generic Client in the “Select Client” drop down menu:

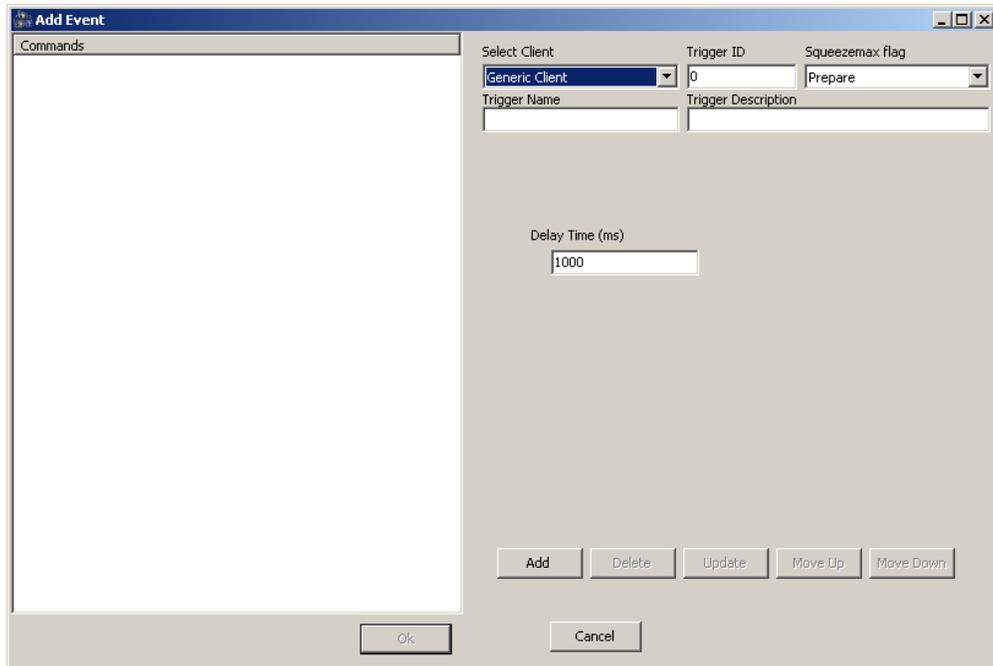


Figure 1-29. Add Event

To store all configuration settings (including server settings and triggers) the “Save Settings” button within the main window can be used to save out a *.proc file. This file can then be loaded in the future with the “Load Settings” button to restore that configuration.



Serial to Telnet Bridge

The Serial to Telnet Bridge is used for serial Intelligent Interface control of the GS-4000. The Logomaster software will listen over the telnet port (port 23) for incoming Intelligent Interface commands. The Serial to Telnet Bridge ties the incoming serial commands over the connection to the telnet port for the Logomaster software to receive.

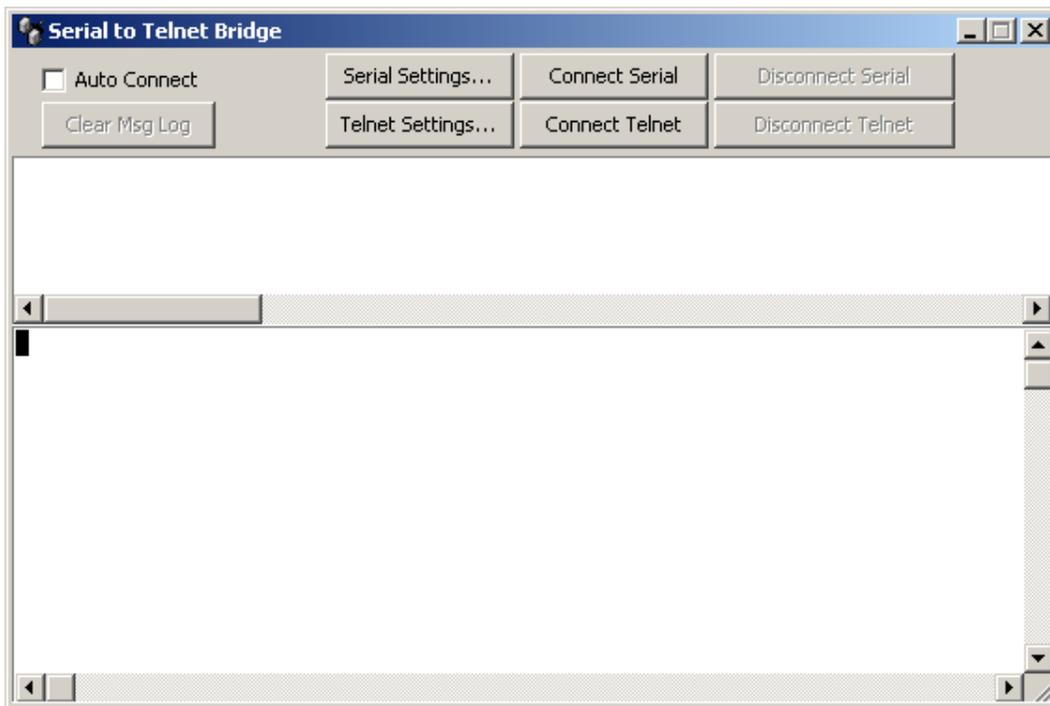


Figure 1-30. Serial to Telnet Bridge

The main screen of the Serial to Telnet Bridge is divided in to two windows. The top window shows the Telnet log for the connection and the bottom window provides a listing of Intelligent Interface commands as they are received.

Clicking on the button labeled "Serial Settings..." will bring up the following menu:

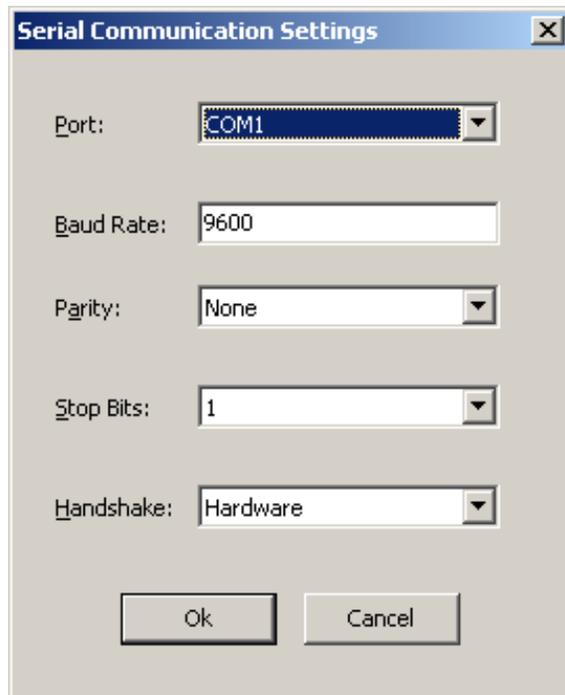


Figure 1-31. Serial to Telnet Bridge Serial Settings



In the "Serial Settings" menu, values for the Port, Baud Rate, Parity, Stop Bits, and Handshaking can be configured for the serial connection.

Clicking on the button labeled "Telnet Settings..." brings up this window:

The screenshot shows a dialog box titled "Telnet Connection Settings". It contains the following fields and values:

- Address: 127.0.0.1
- Port: 23
- User Name: guest
- Password: *****
- Confirm Pwd: *****

Buttons: Ok, Cancel

Figure 1-32. Serial to Telnet Bridge Telnet Settings

The "Telnet Connection Settings" window allows for configuration of the telnet settings for talking to the LogoMaster software. Here you can supply an IP address as well as port for the telnet connection, along with the username and password.



Section 2

CrawlMaster

Overview

The CrawlMaster application is used to place crawl messages on air through LogoMaster. CrawlMaster uses Crawl Channels to add crawls to a LogoMaster page. Multiple crawls (Crawl Channels) can be displayed at the same time. Each Crawl Channel can include up to three types of crawl messages: PROMO, INCOMING and MANUAL.

Each of these Message types is characterized by a style which includes: name, font, speed, background and ID. Crawl message can be separated by Gaps (recommended: 16 pixels), static Pictures or animated Bugs.

Messages Overview

Promo Messages are manually entered into the CrawlMaster application and will crawl continuously until removed by the operator. A Channel can contain and crawl multiple Promo messages.

Incoming Messages get their text information from a data link or from a database. Incoming Messages are fed from an application that provides data to the crawl channel through a data port. Incoming messages can also be retrieved from a database file. A database file also provides a means of updating the information from another location over the network. Similar to a Promo Message, Incoming Messages are designed to crawl continuously.

Manual messages are entered manually into the CrawlMaster application and are triggered as a single crawl event by the operator.

CrawlMaster

The Scheduler is used to combine Promo and Incoming messages into a single crawl channel.

An Incoming message has priority and will be crawled before a Promo message. The Scheduler then determines the sequencing of the Incoming and Promo Messages. A MANUAL message has to be aired from a manual command it will be put online after the guard area.

The CrawlMaster window is dependent on the LogMaster application to get to air. LogoMaster will be started automatically when Launch GS-4000 Graphics Suite is clicked on the GS-4000 Splash Screen.

Note: LogoMaster must be running before opening CrawlMaster

CrawlMaster

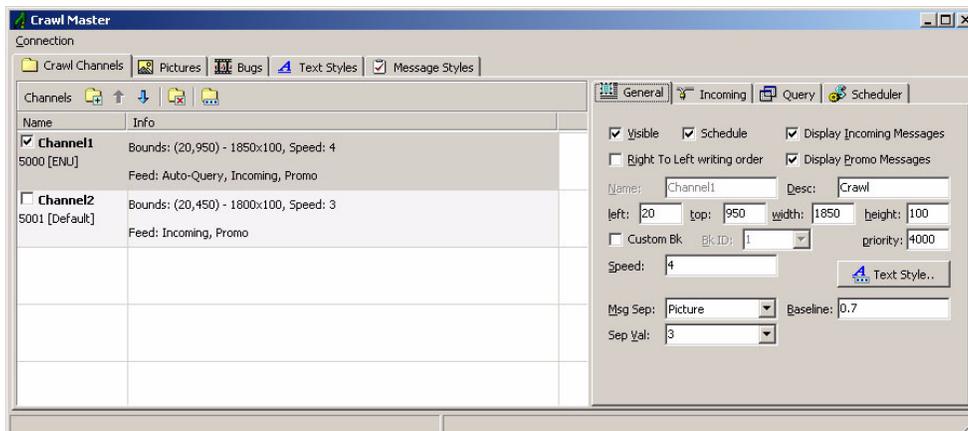


Figure 2-1.

CrawlMaster will look similar to the window shown above.

The top of the window has 5 Tabs: Crawl Channels, Pictures, Bugs, Text Styles, Message Styles.



Crawl Tab

The Crawl Channels Tab is used to add and manage the Crawl Channels and their attributes. The left pane of the Crawl Channels window provides the functions to Add a Crawl Channel, Delete a Crawl Channel, Rename a Crawl Channel and Reorder the Crawl Channels list. This pane also displays the Crawls in the CrawlMaster library. The Channels list includes Name and Info columns. The Name column includes Crawl name i.e Channel 1, Sports, News, etc. and data port link information. A Check mark in front of the channel name indicates the crawl will be visible when called up by the LogoMaster application. The Info field contains the Crawl Position, Size and the Crawl type (Incoming/Promo)

The right side of the window has 5 Tabs: General, Incoming, Query and Scheduler.

The General tab allows the characteristics of the currently highlighted Crawl Channel in the list to be defined.

The Visible check box determines whether or not the Crawl Channel will be visible on the output when called up as part of a LogoMaster page.

The Schedule checkbox tells the application to automatically and continuously load Promo and/or Incoming crawls into the Crawl Channel. If the Schedule box is unchecked Promo and Incoming message types will not be displayed.

Note: Since Manual type messages are sent to air manually by the operator they are not affected by the Scheduler settings.

The Display Incoming Messages check box tells the Crawl Channel to accept crawl information from a data link. The data links for the Crawl Channel are configured using the Incoming and Query tabs.

The Display Promo Messages check box tells the Crawl Channel to crawl the manually entered Promo messages.

The Desc field allows the operator to enter additional information about the Crawl Channel. (Sports Scores, National Headlines, etc).

Additional crawl attributes are set in the middle section of the General pane, such as pixel positioning, crawl width, height and priority. (See Priorities section in the LogoMaster manual.) The Custom Bk check box and Bk ID allow the user to add a graphic banner behind the crawl. The Bk ID drop down list provides the means to access the Pictures ID number that is available for use. The bottom section of the pane allows the user to set crawl Speed (pixels/field), Text Style and the text Baseline. Selecting the Text Style button opens the Edit Channel Text Style window. The font body, edge and outline characteristics are all selectable from this window.

Msg Sep allows the operator to define the “Separator” between messages in a crawl. The separator can be a Gap, Picture or a Logo (animated graphic). The Gap width in pixels can be entered in the Sep Val field. (16 Minimum recommended) When the Msg Sep field is set to Picture or Logo the Sep Val field turns into a drop down selector field for choosing a graphic from the CrawlMaster library using its ID number.



Crawl Channels Incoming Tab

Click the Incoming tab. The Incoming pane is used to set up the link to feeder applications such as the News Data Feeder and Field Feeder which are included with the GS-4000.

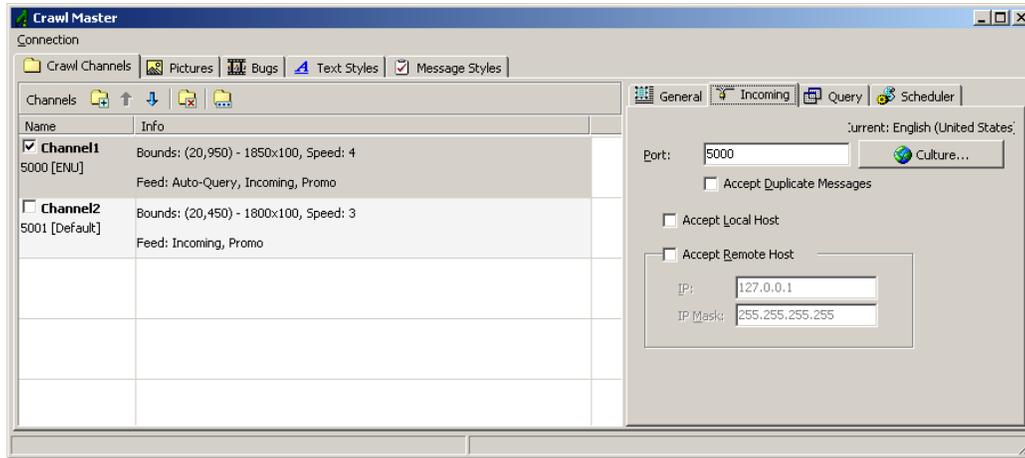


Figure 2-2.

Port number for the selected crawl channel is set to match the port number of where data is coming from such as the News Data Feeder.

The Culture button allows the user to select the language used in the incoming messages.

Accept Duplicate Messages is not used and should not be checked.

Accept Local Host is checked when the data server is running the GS-4000

Accept Remote Host is checked when the data server is running on a another hardware platform.

Crawl Channels – Query Tab

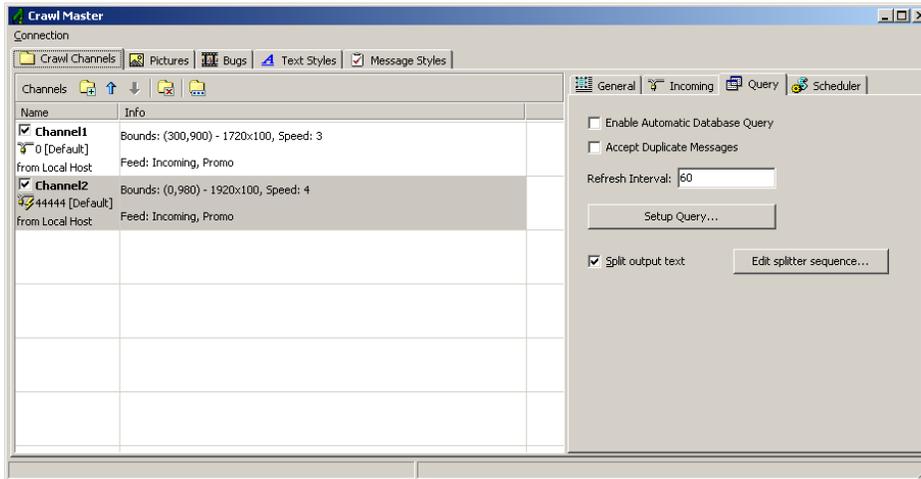


Figure 2-3. Query Tab

The Query pane allows the user to link a Crawl Channel to a database. The database can include the following: crawl text, crawl speed and the crawl order if the database contains multiple text field. The database can be built using an application such as Excel. (See below)

The first row of the Excel database contains the name of the data in each column. The data for each crawl is placed in rows below the column names.

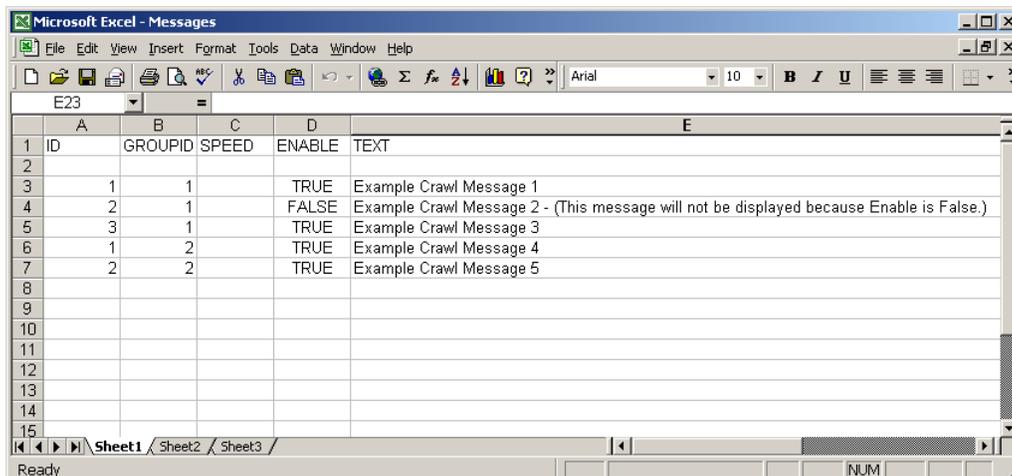


Figure 2-4.



The database text messages will be displayed in order of Group ID number smallest to highest and then the ID number, smallest to highest.

Database Setup Example

The Excel file must be registered as a database before it can be used by the CrawlMaster Query application. Open the Windows Control panel. Click on Administrative Tools. Double Click on Data Sources (ODBC) to open the ODBC Data Source administrator window. Click on the System DSN tab. Click the Add button. Since we are using Microsoft Excel in this example click on "Microsoft Excel Driver" (*.xls). Click Finish which will open the "ODBC Microsoft Excel Setup" window. Enter a Data Source Name. This can be any name including the file name of the database. Use the description field to enter a description such as local news, sports, headlines etc. Click the version button and select the Excel version from the drop down window. Click on "Select Workbook". The Select Workbook window will open. Browse to the location of the file. Select the desired file located in the left hand window and click OK to close the window. At the "ODBC Microsoft Excel Setup" window, click on Options. Enter the number of Excel rows the application should scan to acquire the label and database information. Click OK to close the setup window. Click OK to close the ODBC Data Source window and return to the CrawlMaster Query tab.

The Query pane is used to set up the crawl channel database link and the refresh interval. Set the database time in seconds (10 Seconds minimum) by entering it in the Refresh Interval field.

Note: Accept Duplicate Messages is not currently used and should be left unchecked.

Click on the Setup Query button to set up the link to a database file. Click on the Database button in the Query Setup window to open the Data Link Properties window.

Select the **Provider** tab. Select the OLE DB Provider by clicking on the desired provider in the list. In this example Excel uses the “Microsoft OLE DB Provider for ODBC Drivers”.

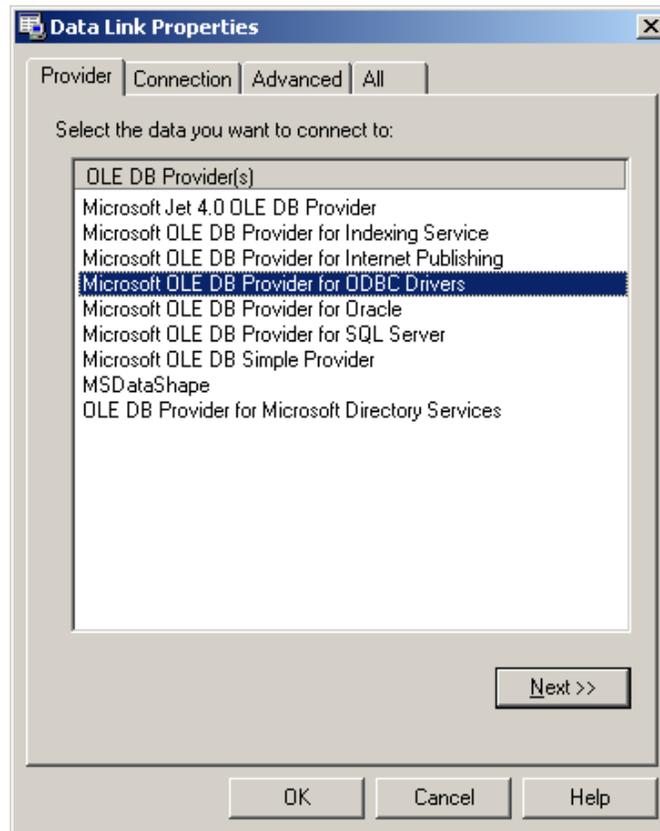


Figure 2-5.

After selecting this provider, click the Next button which will open the Connection Tab. In the Connection pane specify the data source name by first clicking the “Use data source name” radio button. Select the desired database file from the drop down window.



Click the *Test Connection* button. If the link is setup properly a “Test connection succeeded” message will appear. Close the message window.

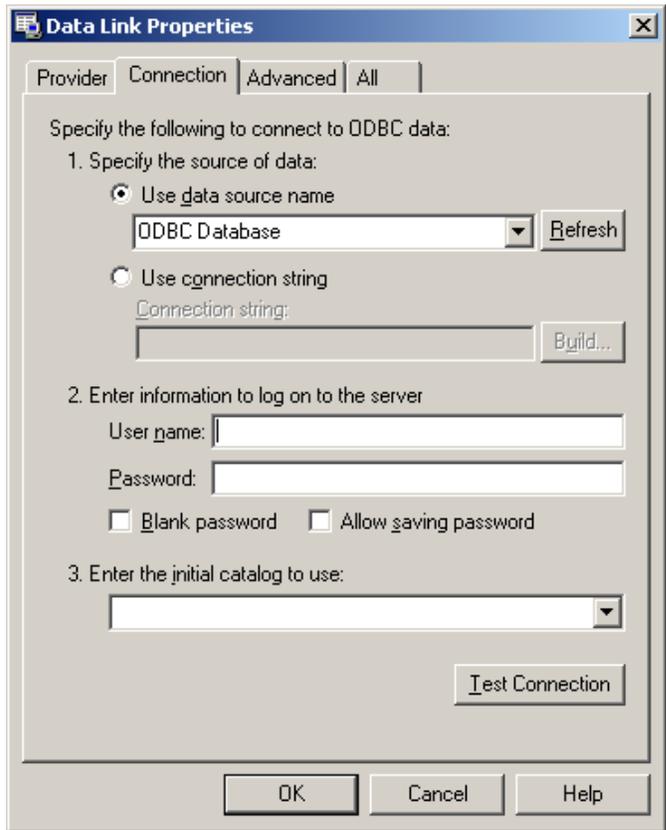


Figure 2-6.

Advanced is the third tab of Data Link Properties dialog box. The Advanced pane is used to view and set other initialization properties for our data. The Advanced pane of the Data Link Properties dialog box is provider-specific and displays only the initialization properties required by the selected OLE DB provider.

The Advanced options are: impersonation level (the level of impersonation that the server is allowed to use when impersonating the client), protection level (the level of data protection sent between client and server), connect timeout (specifies the amount of time (seconds) that the OLE DB provider waits for initialization to complete).

If initialization times out, an error is returned and the connection is not created), access permissions.

All is the fourth tab of Data Link Properties dialog box.– The All pane is used to view and edit all OLE DB initialization properties available for our OLE DB provider. Properties can vary depending on the OLE DB provider that is being used (initialization of properties list: lists all properties and their current values. Edit Value opens the Edit Property Value dialog box for the selected property).

The Edit Property Value dialog box is used to edit the OLE DB initialization properties currently selected in the All tab. Properties can vary depending on the OLE DB provider (property description, property value, reset value).



Click OK to return to the Query Setup window.

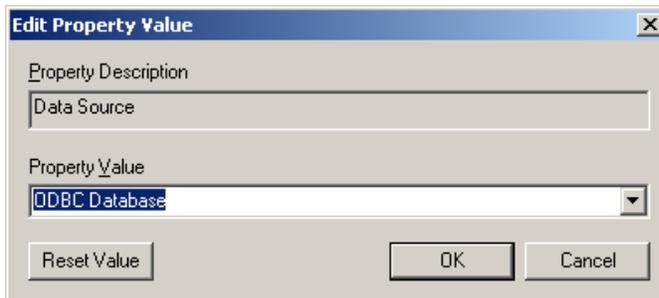
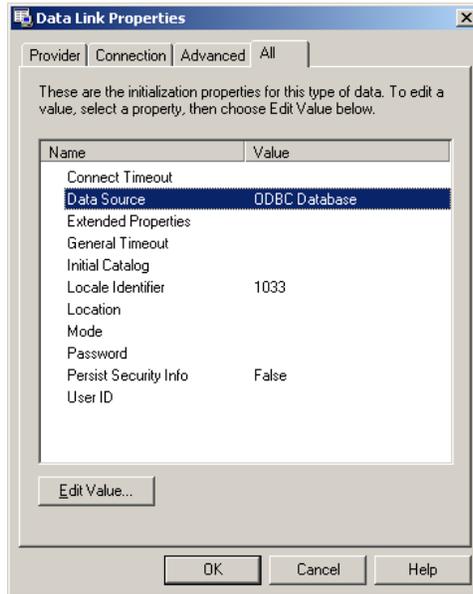


Figure 2-7.

Click on Edit Query to view or build a query. The Query should look similar to one shown in the Query window below.

Click save the “Save as Favorite” button to save you Query.

Click the Load my favorite to load the Favorite Query.

Click the Restore to a fixed Factory default query.

Revert Query

Enter the Text Field Name, Speed Adjust Field, Group ID Field and Use ID Field names that are used in the database columns. Check the Speed Adjust Field, Group ID Field and User ID Field boxes if they are to be used by the Query.

Click Validate Output to confirm the database setup is correct.

Click Show Output to Test the database link. The output will be displayed in the window. Use the horizontal scroll to see all of the information.

Click OK to close the Query Setup window.

The Culture button allows the user to select the language used in the incoming messages.

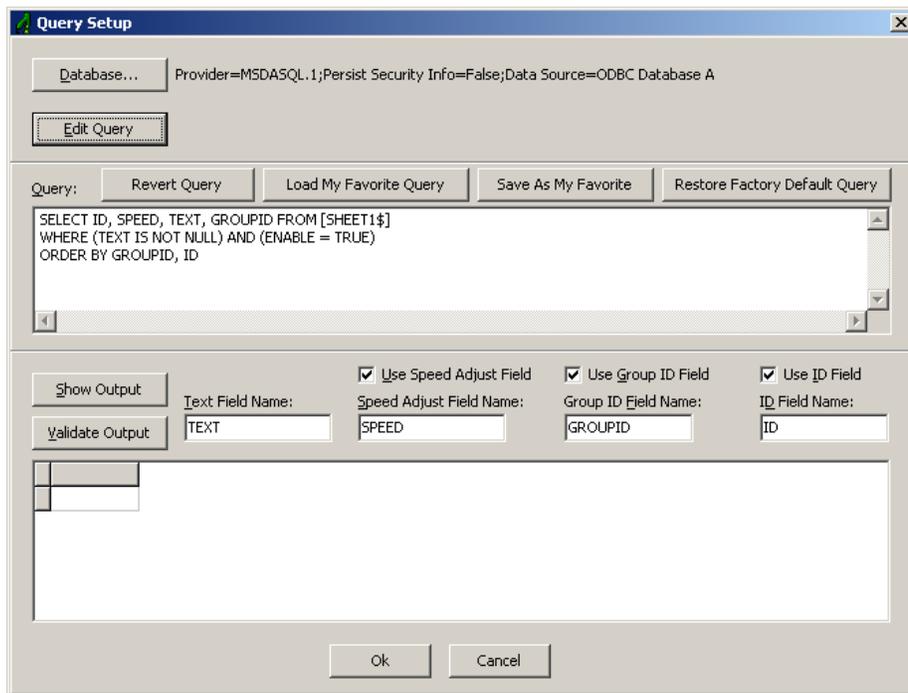


Figure 2-8.



Crawl Channels Scheduler Tab

The Scheduler determines how the Promo and Incoming messages are displayed.

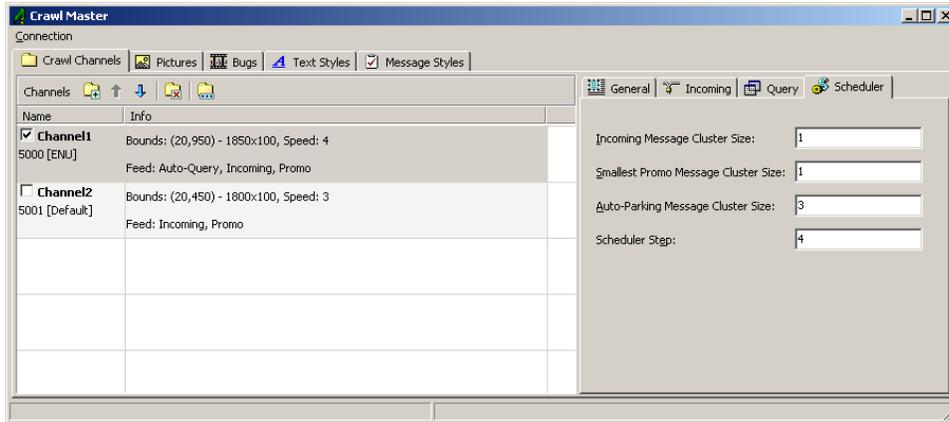


Figure 2-9.

Then Incoming Message Cluster and the Smallest Promo Message Cluster size fields are active when both types of messages exist. The Scheduler determines how many of each type of message are crawled. A "2" in the Incoming field and a "1" in the Smallest Promo field means that 2 Incoming messages will be crawled and then one Promo message.

Auto Parking Message Cluster size field changes the number of messages that have been sent to the LogoMaster que and are ready to crawl. The setting default and minimum is 3.

Scheduler Step sets the number of additional messages that are to be loaded following the Auto Parked messages.

Channel Messages

Double clicking a crawl in the Crawl Channels list will open a editing window for that channel. Promo and Manual messages can be added, viewed or edited and Incoming messages from databases or data feeders can be viewed. The window also displays the Messages being fed to the LogoMaster application as determined by the Scheduler settings.

The left portion of the Channel (Name) window provides tabs to access the 3 message types. The right portion of the window includes a Schedule tab for viewing the message Que and an Editor tab for updating Promo and Manual messages.

Promo Tab

This pane allows Promo Messages to be added, edited and prioritized. A Crawl Channel can have multiple Promo Messages and Promo messages are crawled continuously once they are scheduled. The Promo message actions can be accessed by clicking on the Icons at the top of the pane or by right clicking on one of the Text rows.

Add a new Promo message by clicking on the Add New Promo Message icon. Enter the message in the "Message Text" field. At the top of the window you can name the message and control the attributes. Click "Enable Schedule" if you want this message to enable and available for scheduling. Leaving the "Custom Priority" unchecked will give equal time to all promo messages. If you want this message to be crawled more or less often than other Promo messages click the check box and assign a % to this message. If you have three Promo messages and assign a priority of 20% to this message and assign no custom priority to the second & third Promo messages it will be displayed once for every 2 times the other Promo messages are displayed.

The message will inherit the Message Style from the Crawl Channels General tab. Message Style consists of the font attributes, crawl speed and whether there is a graphic background. Click the "Custom Message Style" to assign a custom Message Style by selecting its ID number from the drop down list. Click OK to close the New Promo Message window. This will place the message in the Promo message list.

Manual Messages

Click on the Manual tab. This pane allows Manual messages to be added, edited and prioritized. A Crawl Channel can have multiple Manual messages. A highlighted message in the Manual list is crawled a single time with a manual command from the operator. The Manual message actions can be accessed by clicking on the Icons at the top of the pane or by right clicking on one of the Text rows.



Manual actions, Schedule Edit, Delete can be accessed by clicking on the icons at the top of the pane or by right clicking on one of the Text rows to access a drop down window.

Add a Manual Message

Add a Manual message by clicking on the Add New Manual Message icon. Enter the message in the "Message Text" field. At the top of the window you can name the message and select a Custom Message Style.

The message will inherit the Message Style from the Crawl Channels General tab. Message Style consists of the font attributes, crawl speed and whether there is a graphic background. Click the "Custom Message Style" to assign a custom Message Style by selecting its ID number from the drop down list. Click OK to close the New Manual Message window. This will place the message in the Manual message list.

Manual messages can be crawled when the message is highlighted and the Schedule icon at the top of the pane is clicked. The highlighted message will be displayed once each time the Schedule icon is clicked.

Incoming Messages

Click on the Incoming Messages tab. This pane displays the Incoming messages as they are received from the Query or Incoming message applications. Also displayed are the Incoming message action icons available which include Delete Selected Message, Delete All Incoming Messages, Edit Selected Message Text, Schedule Selected Incoming Message and Reordering of the Text/Received list. These actions can also be accessed by right clicking on any message in the list. Each Incoming message will remain on the list until it is displayed on the output. Once the message is displayed it is deleted from the list. Each time the Query application runs it checks the database messages against the current Incoming message list. It will reload any message that is not currently on the message list.

Schedule Tab

Click on the Schedule tab located at the top of the right hand pane. The Schedule tab displays the output crawl status and will reflect the message sequencing that was setup in the Crawl Channels Scheduler pane. This pane also provides delete and reorder functions. A happy face located at the left end of the message indicates the messages has been loaded into the crawl buffer and is being processed by LogoMaster. reordered. An Exclamation mark indicates the message has been loaded into the crawl buffer but the crawl channel is not currently being used by LogoMaster. Messages that have been loaded into the buffer cannot be deleted. A spade symbol indicates a Promo message. The network symbol indicates a Query or Incoming message, a network symbol with a red X indicates that no link for an Incoming message is setup only Query messages are being received. The keyboard symbol indicates a manual message.

Editor Tab

Click on the Editor tab. This pane provides a means of editing the Promo, Manual or Incoming messages. A highlighted message in the list is moved to the Editor by clicking the right arrow in the right hand pane. Once the message has been edited it can be returned to its list by clicking the left arrow icon in the Editor pane.

Crawlmaster-Pictures Tab

The Pictures window is used to import and manage the static graphics used with a crawl. These graphics can be used as crawl background banners or as separators between crawl messages.

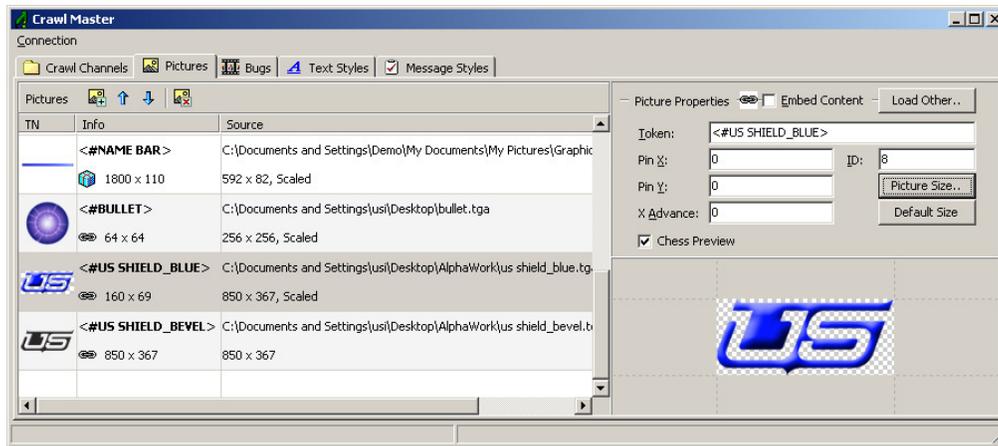


Figure 2-10.

The left pane of the Pictures window provides the functions to Add New Pictures, Delete Selected Picture and Reorder the graphics list. Note: To make sure the graphics are always available for use again in a different size for example, they should be first saved into My Documents Pictures folder.

The left pane also displays a list of the graphics currently loaded into the CrawlMaster library. Each entry includes a thumbnail (TN) of the graphic, graphic name and pixel size as well as the original graphic source and original graphic size.

The right side of the Pictures pane is for setting the picture properties. The Embed Content box must be checked. The Load Other button will allow you to replace the current graphic. The Token field name was generated using the graphic file name when it was imported originally and can be edited. The Token name can be inserted any where in a Promo or Manual message. The graphic(s) will be displayed in that position when the message is crawled. The Pin X and Pin Y fields allow the user to move the graphic in an XY direction with respect to the crawl text position. A positive value will move the graphic right (X) or down (Y). A negative value will move the graphic left or up. This allows custom positioning of the graphic as a separator or as a background with respect to the crawl text position. When XY changes are

made to a separator graphic the positioning change is applied automatically and can be seen while viewing the crawl. When XY changes are made to a background graphic the change has to be applied to the crawl by going to the Crawl Channel General tab and unchecking and rechecking Custom Bk.

The X Advance field changes the pixel spacing between the messages when a graphic is used as a separator. When the value is set to 0 pixels the spacing is determined by the width of the graphic. A value of 1 pixel or more will override the graphic spacing.

The Picture Size button opens the Resize Picture window allowing resizing of graphics. The Picture Bounds section of the size window allows independent resizing of height or width or it can preserve the original aspect ratio. The New Bounds Auto section contains some common conversions that can be applied with a single button push. The Use Resize Presets function allow additional custom sizing presets to be built.



Bugs Tab

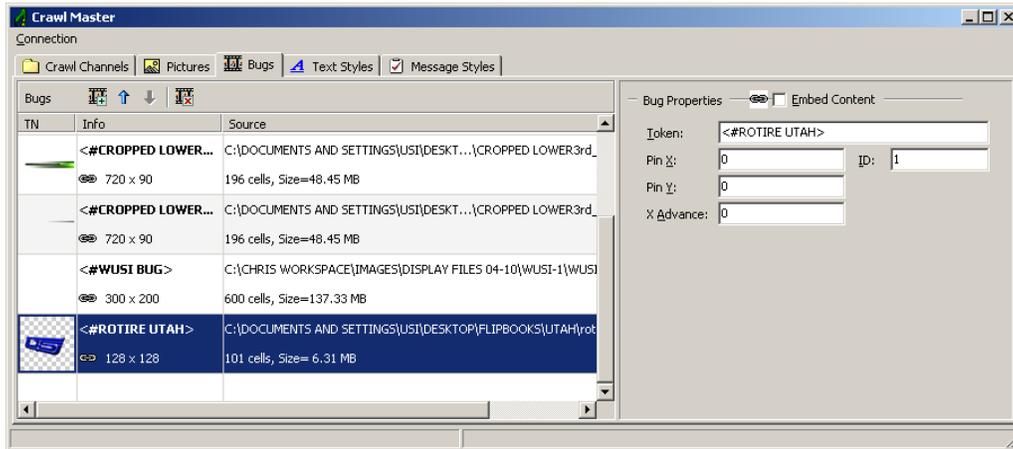


Figure 2-11.

The Bugs window is used to import and manage the animated graphics used with a crawl. These graphics can be used as crawl separators between crawl messages. The left pane of the Bugs window provides the functions to Add New Cell Animation, Delete Selected Cell Animation and Reorder the Bugs list. Note: To make sure the Bug graphics are always available for use again, in a different size for example, they should be first saved under My Documents /MyPictures folder.

The left hand pane also displays a list of the Bugs currently loaded into the CrawlMaster library. Each entry includes a thumbnail (TN) of the graphic, graphic “Token” <name> and pixel size and Source information. The Source column includes the original graphic source file location, the number of cells and memory used.

The right pane of the Bugs window is use to set bug properties. The Embed Content check box will include the graphic when a backup of the crawlmaster database is made for archive or for use on another unit. The Token field name was generated using the graphic file name when it was imported originally and can be edited. The Token <name> can be inserted anywhere in a Promo or Manual text. The bug will be displayed in that position when the message is crawled. The Pin X and Pin Y fields allow the user to move the graphic in an XY direction with respect to the crawl text position. A positive value will move the graphic right (X) or down (Y). A negative value will move the graphic left or up. This allows custom positioning of the graphic as a separator with respect to the crawl text position. When XY changes are made to a separator graphic the positioning change is applied automatically and can be seen while viewing the crawl.

The X Advance field changes the pixel spacing between the messages when a graphic is used as a separator. When the value is set to 0 pixels the spacing is determined by the width of the graphic. A value of 1 pixel or more will override the graphic spacing.

Text Styles Tab

The Text Styles window is used to add and customize fonts to be used for crawl messages. The left pane include the functions to Add New Text Style, Delete Selected Text Style and reorder the font styles list. This pane also displays a list of the font styles currently contained in the CrawlMaster library. Each entry includes an ID number, Token <name>, Font thumbnail (TN), and a Description field. The ID column contains the ID number automatically assigned to font style when the Font was added. The ID number is used in Separator and Background drop down lists located in other Crawl Channel windows. The Token “<name>” can be inserted at the beginning of any Promo or Manual message text to change the text style from the current Crawl Channel font style. Only the message with the token will be affected. All other crawl messages will use the assigned font style. The Description field contains the font type and pixel height.

The right hand pane is used to edit the Text Style Properties. The Mark favorite button will mark the currently highlight text style in the list as the “Favorite” style. The Edit button opens the New Text Style window.

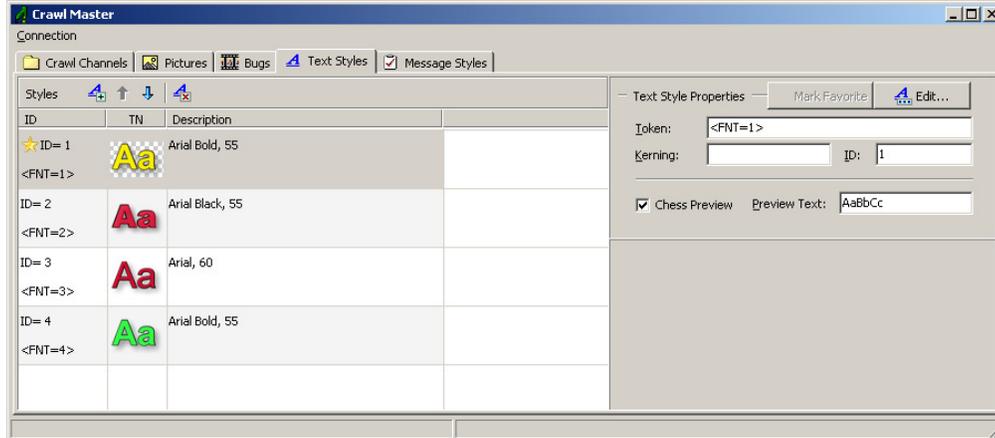


Figure 2-12.



Message Styles Tab

The Message Styles window is used to create a single style that can be applied to a crawl message to set the Text Style, crawl speed and backgrounds with a single selection. The left pane include the functions to Add a New Message Style, Delete Selected Message Style and reorder the Message Styles list. This pane also displays a list of the message styles currently available in the CrawlMaster library. Each entry includes an ID number, the assigned Name and Description columns. The ID column contains the ID number and Token <name> that were automatically assigned to the font style when it was added. The ID number is used in the Separator and Background drop down lists located in the Crawl Channels General window. The Token <name> can be inserted at the beginning of any Promo or Manual message to change the Message style from the current Crawl Channel style. Only the message with the token will be affected. All other crawl messages will use the assigned Message style. The Description column includes a thumbnail of the font.

When a new Message Style is added to the list it will use currently highlighted font from the Text Styles tab. If the Message style has been customized (using the right hand pane) the Description field may also display speed value and thumbnail of the background graphic.

The right hand pane is used to edit the Message Style properties. The Mark Favorite button will mark the currently highlighted Message Style in the list as the Favorite Style to be used. The Token field displays the current token name but it can be changed by the user. The Name field is user defined to allow for quick selection. i.e “Arial 55 Bold”. The ID number field is use for changing the ID number that was automatically assigned to the Message Style. The Custom Bk & Bk ID allows any graphic from the Pictures library to be used as a background with this style. Custom Font/Font ID allows the default font type to be changed to any font from the Text Styles library. The Custom Speed/Speed allows the speed to be defined for this Message Style.

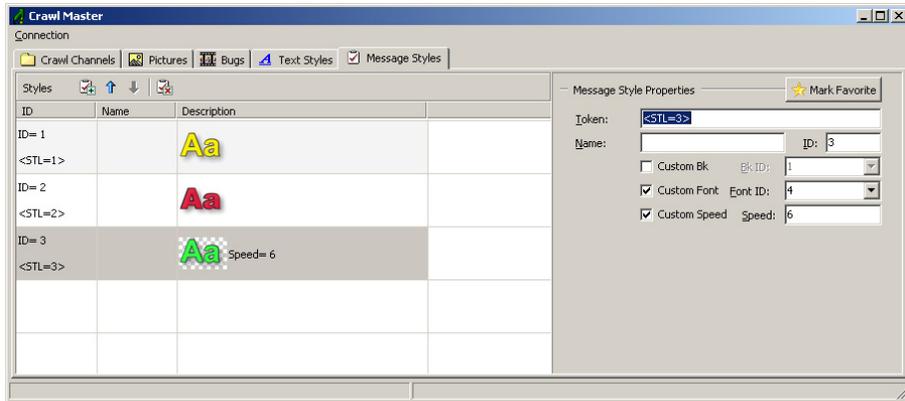


Figure 2-13.

Index

A

Add Client 1-46
Add Event 1-47
Add/Subtract Symbols 1-27
Adj.Aspect 1-25
Adj.Height 1-25
Align 1-25
Alpha 1-28
Aspect 1-26
Auto Connect 1-46
Auto Increment 1-24
Auto Parking Message Cluster 2-13

B

Backgrounds Tab 1-17
Body 1-27
Browse 1-18, 1-19, 1-21
Bugs 1-5
Bugs Tab 2-19

C

Canvas 1-5
Cell Field Dur 1-21
Center 1-18
Center button 1-21
CGKey 1-5
Channel Messages 2-14
Clear All 1-15
Clear Colors 1-28
Clearing the Canvas 1-15
Clients List 1-46
Clip Player 1-30
Command
 drop down 1-47
Command Dispatcher 1-44, 1-45, 1-48
Compose 1-10
Compose Tab 1-5
Conceal Graphics when Text is Null 1-24
Conceal Text 1-24
Copy Keyframes 1-13
Crawl Action on Read 1-6
Crawl Channels – Query Tab 2-6
Crawl Channels Scheduler Tab 2-13
Crawl Tab 1-35, 2-3
CrawlMaster 2-1, 2-2
creating a scene 1-9

CRL 1-5
Cursor 1-6
Cursors Tab 1-19

D

Data Link Properties
 dialog box 2-9
Database Setup Example 2-7
Date Format 1-37
Date-Time Feeder 1-37
Del
 Num Pad 1-15
Display decimals 1-38
Display F 1-38
Duration 1-25
 window 1-12

E

Edge 1-27
Edit Color 1-28
Edit Formatting 1-37
Editor Tab 2-16
Effect 1-25
Embed Content box 2-17
Enable tab 1-5
Environmental Settings Editor 1-32
Ext Update 1-25

F

Field 1-6
Field Feeder 1-39
Field objects 1-6
Field Text Style Function 1-26
Fields Tab 1-23
Fields to Run 1-21
Folders
 tab 1-34
Forward 1-1

H

Height 1-26
Hot spot 1-7
Hotkey 1-7, 1-18, 1-19, 1-26
Hot-Spot X & Y 1-19, 1-21, 1-24
Hue-Sat 1-28

I

Image and Bug 1-24
Incoming Message Cluster 2-13

Incoming Messages 2-15
Installation and Overview 1-3
Intelligent Interface 1-5
Intl-Intf Client Tab 1-35
Italic angle 1-26

K

Kerning 1-26

L

Layers 1-27
Library 1-16
Library Editor 1-16
 window 1-16
Library editor Clips tab
 screenshot 1-30
Library objects 1-4
Load Selected Scene 1-31
Load Settings
 button 1-48
Locale 1-24, 1-29
LogoMaster 1-1
Logomaster type client 1-46
Logos 1-5
Logos Tab 1-20

M

Main Menu 1-4
Main Screen 1-4
Main Toolbar 1-4
Main Window Sizeable Border 1-32
Manual Message
 adding 2-15
Manual Messages 2-14
Master Keys Tab 1-31
Max text width 1-25
Merge Selected Scene 1-31
Message Styles Tab 2-21
Messages Overview 2-1

N

Name and Desc 1-18, 1-19, 1-21, 1-24
News Data Feeder 1-42
Numeric 1-26

O

Online Mode 1-32
Outline 1-27
Output Format 1-37

Overview
 Crawlmaster 2-1

P

Paste Keyframes 1-13
Persistent 1-21
 checkbox 1-31
Picture Size
 button 2-18
Play 1-21
Port number 1-25
Position 1-28
Preview 1-28
Preview Aspect Ratio 1-33
Priorities 1-36
Promo Tab 2-14
Provider tab 2-8

Q

Query Setup
 window 2-11

R

Recalling a Scene 1-15
Resize 1-18, 1-19, 1-21, 1-24
Resize Picture 1-22
 window 2-18
Revert Query 2-12
Right to Left Reading Order 1-24
Rotate 1-26

S

Save Settings
 button 1-48
saving a scene 1-9, 1-14
Scene 1-7
scene management 1-8
Scene Number 1-4
Schedule Tab 2-16
Scheduler Step 2-13
Sel. Hotkey 1-21
Select Client 1-47
 drop down 1-48
Select Colors 1-28
Serial Settings
 menu 1-51
Serial to Telnet Bridge 1-49, 1-50
Server Editor 1-45
Server Sockets (SS) 1-5

Shapes Tab 1-30
Shared Port along with Tab Name 1-25
Show as Toolbar Button 1-18, 1-19, 1-21, 1-24
Show Item Selectors on Main Toolbar 1-33
Show Master Commands on Main Toolbar 1-33
Show Status Bar 1-32
Small Scene Thumbnails 1-33
small tns 1-8
Smallest Promo Message Cluster 2-13
Snap point 1-6
Snap Radius 1-33
Squeezemax flag 1-47
Stick Hotkey 1-22
stills 1-8
Style 1-26

T

Target Scene 1-47
Telnet Settings 1-51
Test Connection
 button 2-9
Text 1-24
Text Anchor X & Y 1-24
Text is a Graphics File Name 1-24
Text Style 1-24
Text Style-Edit Color Function 1-28
Text Styles Tab 2-20
Text Styles-Aux Colors Function 1-28
Thick% 1-27
Time Format 1-37
TimeLine 1-7
Timeline
 generation 1-11
TimeLine Editor 1-12
Timeline Editor
 window 1-12
Timer Server 1-37
tns (thumbnails) 1-8
Trigger ID 1-47
Type Face 1-26

U

Up/Down Arrows 1-27
Update Interval 1-38
Update Now 1-38
US Temperature Feeder 1-38
Use Time Code 1-37

V

Value 1-28

W

W-H Adj% 1-27
Work modes 1-5

X

X & Y Start 1-18
X Advance field 2-18
X-Y Slant 1-27
X-Y% Offsets 1-27