

## Table of Contents

<b>Models &amp; Connections</b> .....	3
<b>MX Player Setup</b> .....	7
<b>Player Network Setup</b> .....	8
<b>Setup Player Properties (INI Files)</b> .....	12
<b>Set the MX to PLAY</b> .....	13
<b>MediaZone Scheduler Software Installation</b> .....	13
<b>MediaZone Scheduler Graphical User Interface (GUI)</b> .....	15
<b>Template Configuration</b> .....	16
<b>Zones and Layers</b> .....	21
<b>TUTORIAL</b> .....	22
<b>Create a New Set</b> .....	24
<b>Add MediaCreator Still Pages to Zones</b> .....	28
<b>ADD A CRAWL</b> .....	38
<b>Add a Logo</b> .....	41
<b>SCHEDULE AND COMMUNICATE</b> .....	47
<b>ADD A SET TO THE SCHEDULE</b> .....	48
<b>COMMUNICATIONS</b> .....	50
<b>ADDITIONAL FEATURES and FUNCTIONS</b> .....	52
<b>ADVANCED COMMUNICATIONS</b> .....	58
<b>SCHEDULED EVENTS</b> .....	59
<b>INSTANT COMMANDS</b> .....	83
<b>Appendix A SETTINGS.INI</b> .....	106
<b>Appendix B SCHEDULER PROPERTY SETTINGS</b> .....	117
<b>Appendix C Local Internet Weather Setup and Operation</b> .....	122
<b>Appendix D Multi-Head AUDIO Appendix</b> .....	127
<b>Appendix E Data Acquisition</b> .....	128
<b>Appendix F X-Warp Geometry Correction</b> .....	140
<b>Appendix G Really Simple Syndication (RSS) Feeds</b> .....	148
<b>Appendix H Warranty</b> .....	151

## Keywest Technology MediaXtreme MediaZone System

MediaXtreme (MX) MediaZone is Keywest Technology’s Digital Signage and Information Channel product series. The series software and hardware is designed for easy content creation and display with minimal graphics or video expertise. The device is capable of multi-zone and layer compositing at the High-Definition output--the power to combine motion backgrounds, multiple graphics pages, crawls, rolls, High-Definition MPEG1, 2, 4, WMV, AVI picture-in-picture effects, stereo, 5.1, WAV and MP3 audio, transitions effects, logos, fades, and more. Check [www.mediaxtreme.tv](http://www.mediaxtreme.tv) for all the latest product specifications and features.

\*\*\*\*\***WARNING**\*\*\*\*\*

Lethal operating voltages present at system power supply unit—internal and external units. Completely disconnect main power cord prior to opening cover or removing any panels. Only trained and authorized personnel should attempt any internal modifications, repairs, or service.

\*\*\***CAUTION**\*\*\*

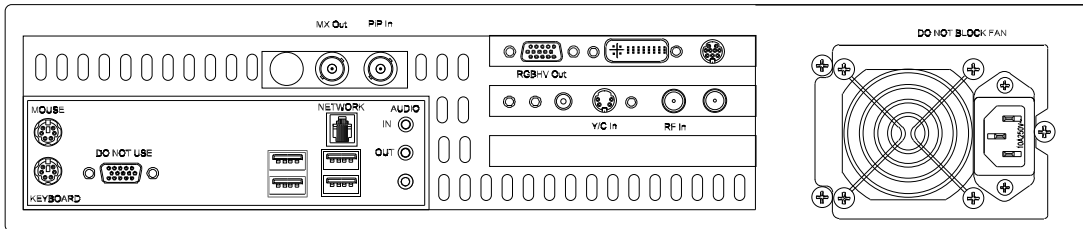
Unit operates on 100 – 220 VAC 50 – 60 Hz Main Power. Inadequate power grounding can result in equipment damage or destruction and could void warranty. Ensure you utilize provided power supply unit only. Use of improper power supply can damage or destroy the unit and will void the warranty.

\*\*\***CAUTION**\*\*\*

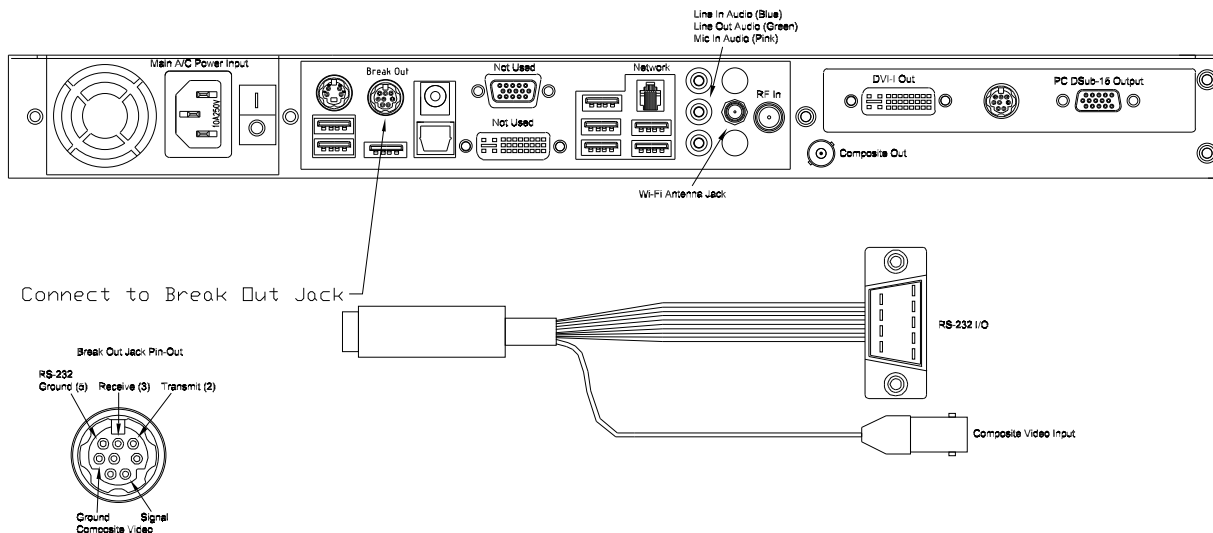
If the player is to be rack-mounted, do so using four heavy duty rack screws—rear support is recommended. Do not use the MX as a shelf to support any weight other than its own. In any mounting configuration, ensure the unit is in a clean, environmentally controlled location and ensure filters are cleaned regularly

**Models & Connections**

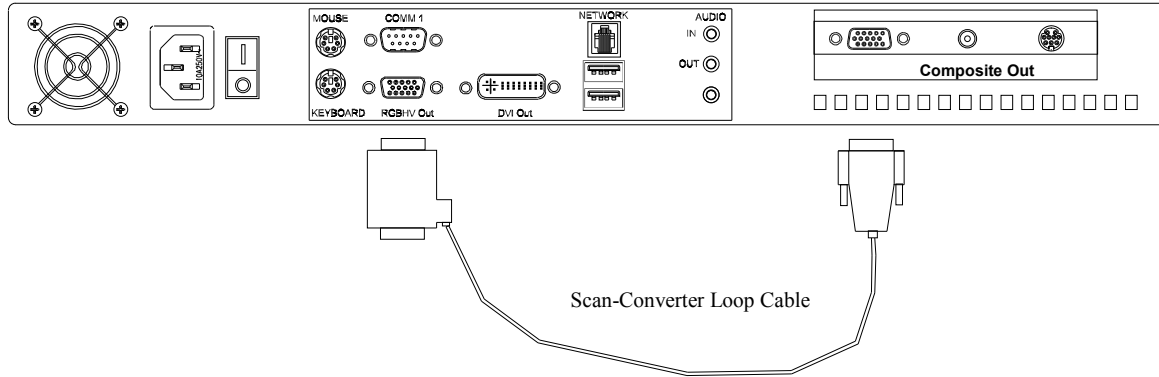
**MXB-AV 2-Rack Unit Chassis Rear Panel I/O**



**MXB-AV 1-Rack Unit Chassis Rear Panel I/O**



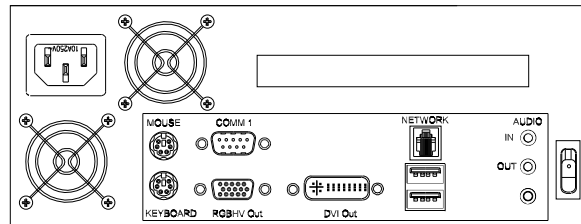
MXB-A Rear Panel I/O



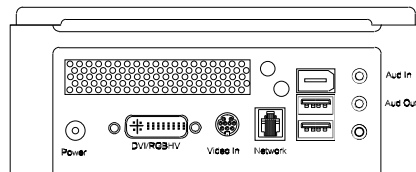
MXB-A Notes

Scan Converter Loop Cable is required to Activate Composite Video Output.  
Power supply configuration may vary.

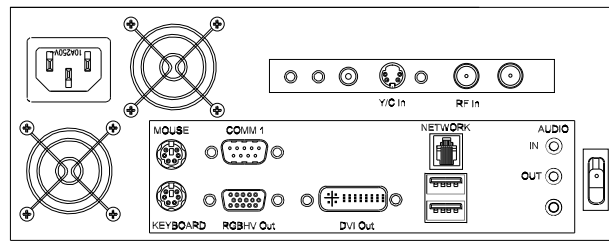
MXS-MZ (G7) Rear Panel I/O



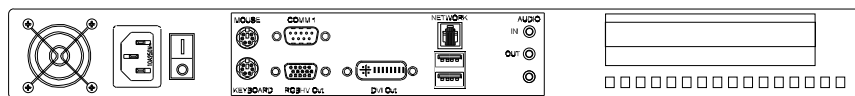
MXS-MZ (G8) Rear Panel I/O



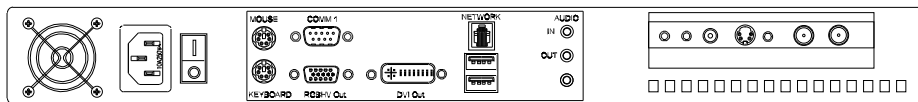
MXS-MZV Rear Panel I/O



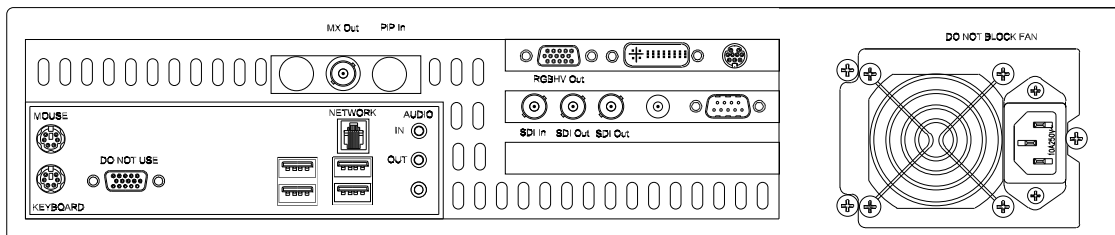
MXS-MZR Rear Panel I/O



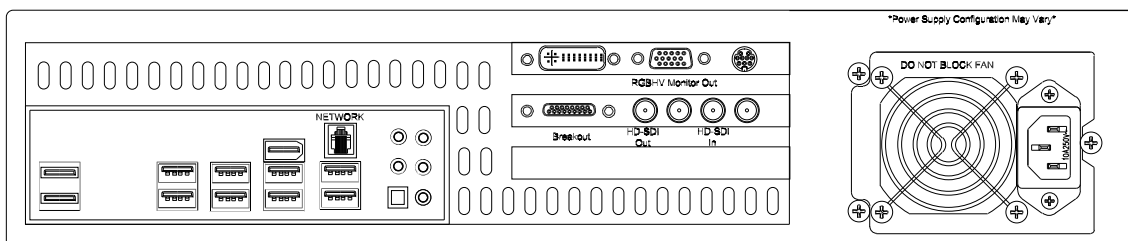
MXS-MZRV Rear Panel I/O



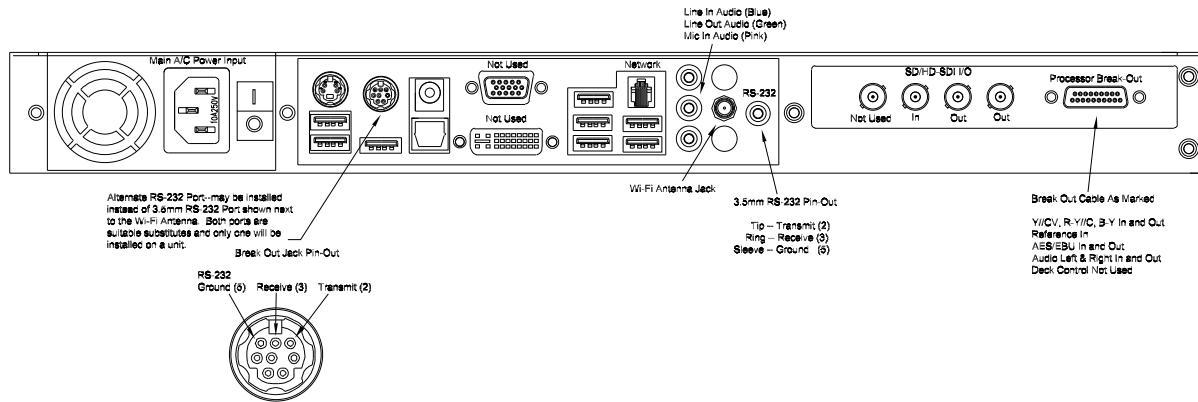
MXS-SDI Rear Panel I/O



MXS-HD 2-Rack Unit Chassis Rear Panel I/O



## MXS-HD 1-Rack Unit Chassis Rear Panel I/O



Standard Connection Definitions (“\*” = required connection for normal operation; “+” = required for initial setup only and may be removed after setup; all other connections not marked with “\*” or “+” are optional)

+ MOUSE: Standard PS/2 style mouse

+ KEYBOARD: Standard PS/2 style keyboard

USB 1 & 2: Universal Serial Bus (any number of add-in peripherals such as printer, mouse, keyboard)

PARALLEL PORT: Standard printer port

IOIO: Standard RS-232 serial port

AUDIO LINE OUT: Connect with 3/8” Stereo plug to audio amplifier or switcher for audio broadcast over cable or broadcast television system. Required if you desire audio on-air capability.

AUDIO LINE IN: Use 3/8” stereo plug to connect radio receiver, CD player, tape player, etc... to line-in to loop through external audio source over the video presentation.

AUDIO MIC IN: Can serve as microphone input or secondary audio source input.

\*+ VIDEO Out: Depending on your model hardware one or multiple video connections can be made simultaneously—Composite Video Out (BNC connector outputting standard baseband (unmodulated) video) NTSC or PAL; DVI Out (typical for PC, HD or Flat Panel displays); RGBHV Out (typical for PC, HD or Flat Panel displays).

NETWORK: RJ45 WAN/LAN port used to connect your MX to a network for remote control of the device. Factory default setting for an MX player is Dynamic Host Configuration Protocol (DHCP) used to force the player to automatically acquire an IP address.

#### CAUTION

If you must set or change the IP address in your MX and are unfamiliar with networks or do not understand the steps in this manual, contact IT trained personnel prior to changing any settings

\*Main Power: Standard 100 to 220 VAC, 50 to 60 Hz input. Utilize the A/C power supply cord and DC Transformer (if applicable) shipped with your unit. Connect this only when you are ready to run the unit. As soon as you plug in the AC Main Power, the device will power-up, Power-On-Self-Test (POST), and begin to run the current schedule.

#### \*\*\*CAUTION\*\*\*

Units operate on 100 – 220 VAC 50 – 60 Hz Main Power. Inadequate power grounding can result in equipment damage or destruction and could void warranty. Ensure you utilize provided power supply unit only. Use of improper power supply can damage or destroy the unit and will void the warranty. Only use power cords and transformers supplied by Keywest Technology to maintain warranty.

## MX Player Setup

Once you have made the minimum appropriate connections (be sure to connect an output video and power!) the unit will start, initialize, and begin to play the currently loaded schedule. The first playback will be a factory test schedule.

#### \*\*\*NOTE\*\*\*

MX Players may take up to 60 seconds to completely POST, load sets, and begin playing its schedule. Please be patient during this process.

Should an MX device be shut down through its operating system, it will be necessary to use the power switch on the unit to restart. Power switch locations will vary depending on the hardware model but will always be on the front or rear of the player. Certain models will require opening of a door or panel to access the main power button. All Keywest Technology provided hardware devices are set to auto-start with the application of AC power and will return to ON state after AC power loss automatically as long as no other method of shut-down has been used.

Remote communication with an MX player is accomplished by Ethernet, Serial, or optional telephone modem. The selected path is the method used to send content (pages, crawls, videos, logos, pictures) from a computer running editor software to the Player. Because of the inherent superiority of network communications (Ethernet; Wide-Area Network (WAN); Local Area Network (LAN), Wireless LAN (Wi-Fi), Broadband Air Cards, or any other term or method) this manual will assume it is the method used.

## Player Network Setup

A network by definition means there are at least two machines or computers tied together through some communications link and can share resources over that network.

To configure a network connection connect a PC monitor (use the proper RGBHV connector and DVI to VGA adapter as required—Do Not Use Any Connector Labeled “DO NOT USE”), a keyboard, a mouse, a network cable, and power.

Power the unit and watch the monitor for the POST sequence. Once the device finishes start-up it will begin playing the current schedule.

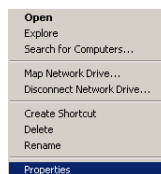
With the player displaying content press the “ESC” key on the keyboard. The unit will cease playback and the operating system (OS) desktop will appear. If “ESC” doesn’t respond use “CTL-ALT-DEL” and end the appropriate MX5Player task. Note: If a PS/2 keyboard was installed after the unit was started, the player will require a reboot to recognize the keyboard.

Setup the Network Adapter just like any Windows XP© based computer.

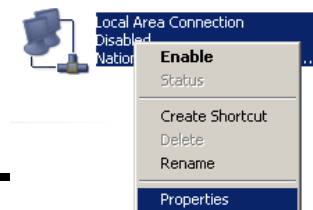
Use the mouse and right click on the My Network Places Icon.



Then single left-click PROPERTIES

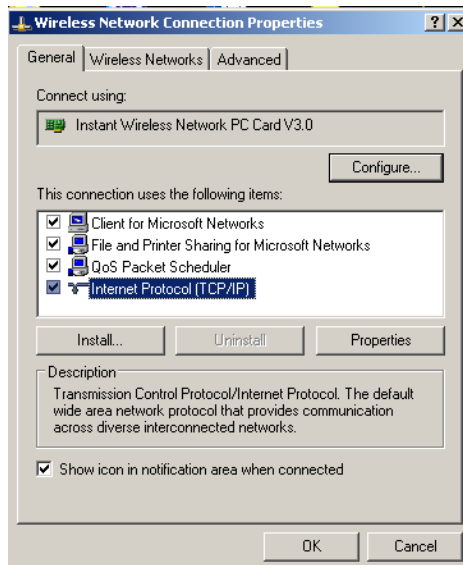


Next right-click on the appropriate Network Connection Icon, and left-click PROPERTIES again

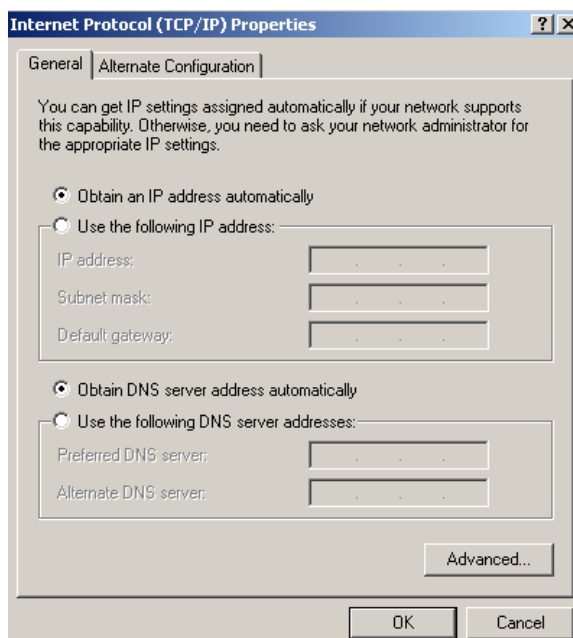




Highlight INTERNET PROTOCOL TCP/IP and left-click PROPERTIES one more time...



If there is any question on what settings are valid contact an IT professional before proceeding!



There are two ways to obtain a network address. One is DHCP. This method allows an external device, such as a router, to assign an address automatically. This is the most popular method of

addressing because it allows for maximum flexibility within a network and it is also the safest and most secure because the assigned IP address changes over time.

The limitation of DHCP it is the same as its strength--the IP number can change over time. Since IP address is used to connect to the player, it's rather important to know this IP number at all times (when the IP changes via DHCP you won't necessarily even know it happened).

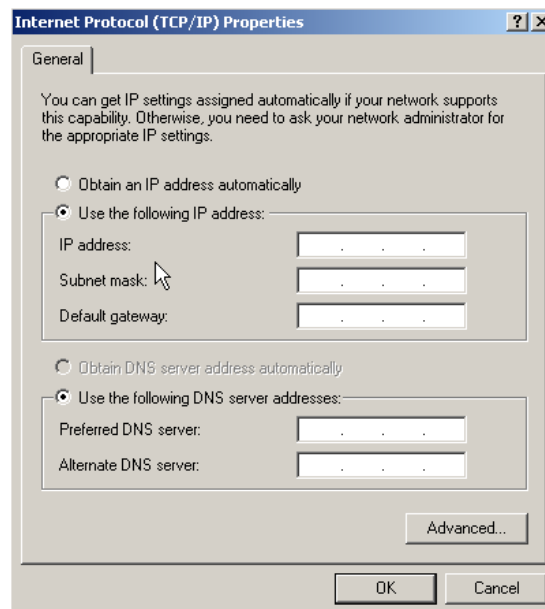
This makes the second method addressing, called STATIC IPs, the most desirable for this application. STATIC IPs must be protected by network firewalls and routers. While DHCP is safer on its own, STATIC IPs are easily guarded.

If DHCP is to be used then simply click OK on the window pictured above.

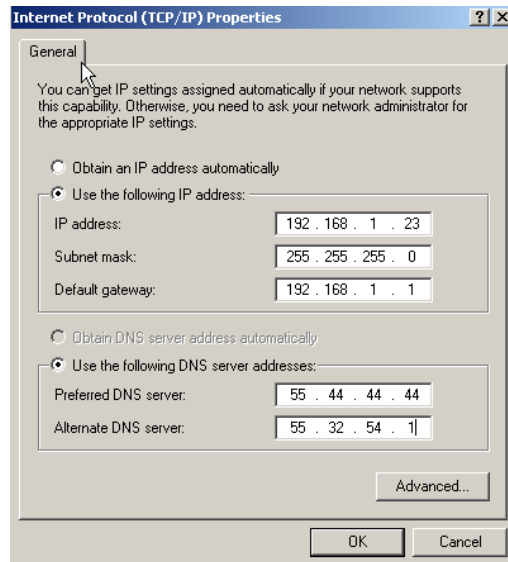
If there is a DHCP router on the network the player will automatically receive an IP address and be ready to communicate.

If, on the other hand, a STATIC IP is to be used set it with the IP Properties window (shown below). This IP address must be something that is compatible with the attached network and is provided by the IT department or network administrator.

To set the STATIC IP, left-click the USE THE FOLLOWING IP ADDRESS radio button.



Enter data in the IP ADDRESS block and the SUBNET MASK block as a minimum. If available, enter the DEFAULT GATEWAY, PREFERRED DNS SERVER, and ALTERNATE DNS SERVER numbers also. The IT department or network administrator should provide those numbers or make these settings.



If the player is going to need internet access, for instance to connect from a different network (as in connecting from a home internet connection) or to utilize dynamic external data like weather forecasts or headline news services, then gateway and DNS numbers are mandatory.

There are a myriad of IT methods that can be applied, such as virtual private networks, host files, aliasing, to truly complicate connections. It is best to work cooperatively with the IT department to ensure smooth operations.

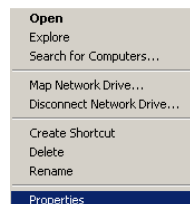
One may also use STATIC IP and a direct connection via a cross-over cable, simply set the IP number and Subnet Mask to compatible ranges on the creator computer and the MX...but ensure the IP numbers on both are not the same in the final octave—for example, using a cross-over cable, if the MX receives an IP number of 10.0.0.5, the creator computer should get an IP something like 10.0.0.10 (anything from 0 to 255, but not 5 in that last set)! Subnets SHOULD be identical (255.255.255.0 on both would be typical).

Verify that your IP address you set has “taken” in the MX or confirm the IP address a DHCP device assigned to the MX by taking the following steps:

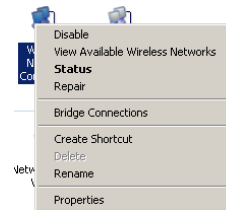
1. While still at the MX’s desktop, right click on the MY NETWORK PLACES icon



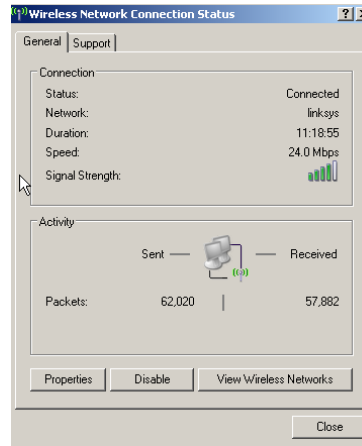
2. Then single-left-click PROPERTIES



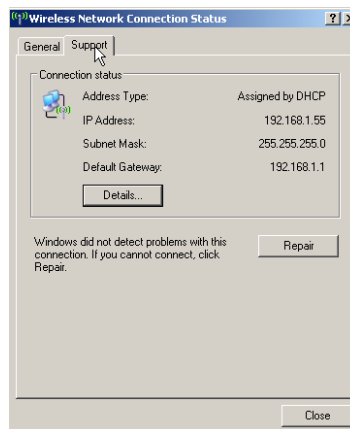
3. Right-click on the network connection's icon



4. Single-left click on STATUS



5. Click the SUPPORT Tab to verify IP settings



If the IP Address, Subnet Mask, and Default Gateway all appear proper, it is time to move on—if something is wrong, repeat the network setup or contact an IT professional.

### Setup Player Properties (INI Files)

The player can be configured for several modes of operation. Those property settings are made in the SETTINGS.INI initialization file. See Appendix A.

### Set the MX to PLAY



Locate the GREEN 5X (a nod to the legacy of the product line) icon on the Player desktop and double-left-click it to restart the application (all mouse references in this manual assume right-handed mouse).

The VGA monitor, keyboard, and mouse can be disconnected at this time (they aren't required though they don't detract from any operation if left connected). The bare necessities are the video connection(s), the communications connection (Ethernet), and Power. If there's audio involved, ensure it remains connected as well.

The configured MX should playing content now (the test reel if this is the first time the machine is ran or if a new schedule has not yet been sent). If something in the previous steps did not work, contact the IT department, the product dealer, or Keywest Technology for further assistance.

## MediaZone Scheduler Software Installation

### Minimum Editor System Recommendations

To enjoy the full features and functions of the scheduler software, including rendered full motion previews, the following minimum requirements should be met:

- P4 at 2GHz (or better—Centrino© adequate for Laptops)
- 400MHz Front Side Buss Motherboard
- 256MB 2100 DDR RAM
- 7200 RPM IDE HDD with at least 150MB open space
- CD-ROM or DVD-ROM drive
- High-Speed Internet Connection
- Video Card or Chipset equivalent to or better than ATI 9000 Rage© with 64MB Video Memory
- Windows 2000 Pro© or Windows XP© Operating System

#### \*\*\*\*\*VISTA NOTE\*\*\*\*\*

For users with Windows Vista, when installing, right click on the SETUP.EXE package and select RUN AS ADMINISTRATOR. Also, when running the software for the first time after installation, right click on the start icon and again select RUN AS ADMINISTRATOR. Failure to follow these steps will render some functions unusable on a VISTA loaded PC. In addition, if the user does not have full administrator rights, regardless of operating system installed, certain functions may not work or the entire application may fail to operate. Contact the IT department or Keywest Technology with questions.

MediaXtreme systems are not compatible with Macintosh© Operating Systems but are run on Mac computers using Windows emulator programs.

The scheduler software will run on older or less powerful machines, but fully rendered preview will not be available. We will cover both preview versions later in this manual.

### **Install Software**

Insert the CD that came with the system. If auto run is on a splash screen will appear—if the CD doesn't auto-run, browse to the CD drive, and click autorun.exe.

Click the INSTALL MX SCHEDULER button. The Install Wizard should start.

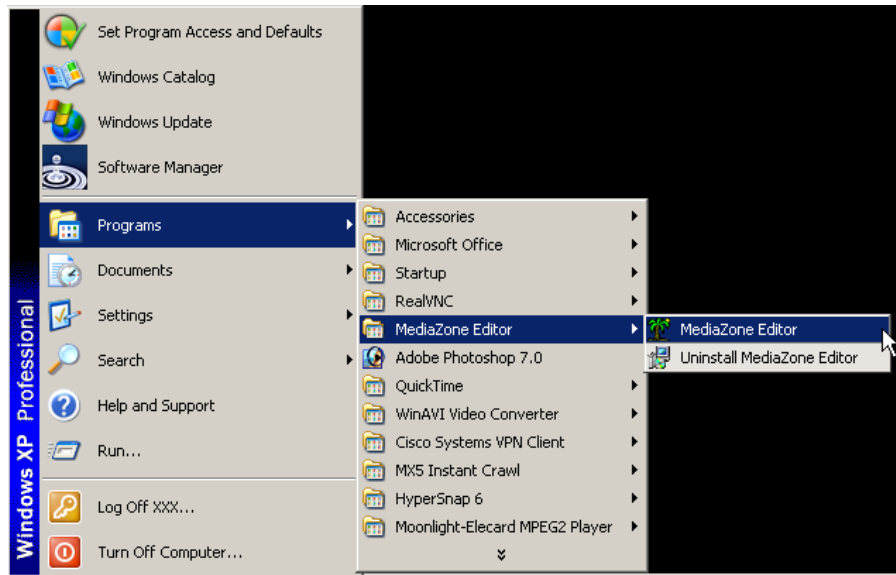
Click NEXT then follow the on-screen prompts and instructions to install the software.

Install all the components listed. Failure to install one of those components might render a feature or function unavailable.

Once the software is completely installed locate the MX icon on the desktop



If there isn't a desktop icon, click the Windows START button, locate the MX item, and click MX.exe as pictured below.



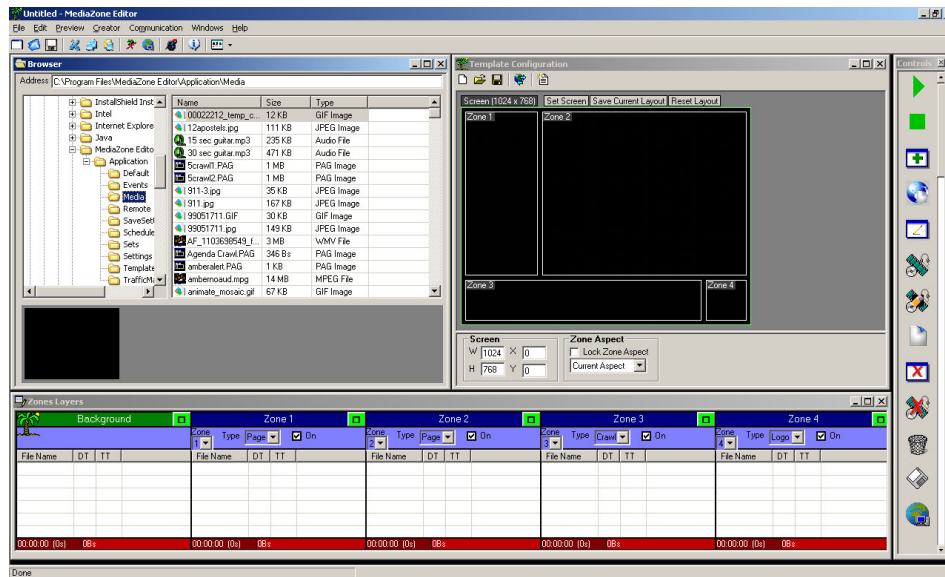
## Software Registration & Seat Licenses

MediaZone Scheduler software has no seat-license limits. As many copies as desired may be installed and will be fully operational. Registration is necessary however to access warranty support.

To register, proceed to [www.mediaxtreme.tv](http://www.mediaxtreme.tv) and follow instructions located there.

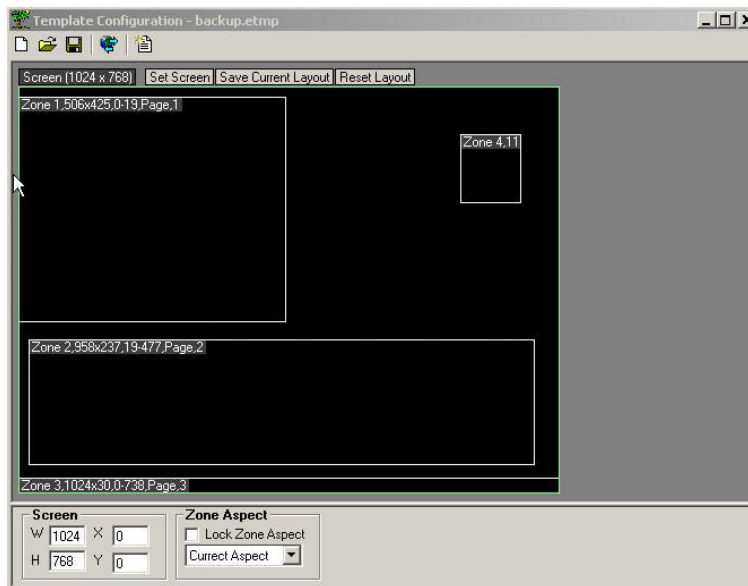
## MediaZone Scheduler Graphical User Interface (GUI)

Open the software either by the desktop icon or the start menu. The full graphical user interface (GUI) will open. Editor settings can be made as with the player. See Appendix B.



### Template Configuration

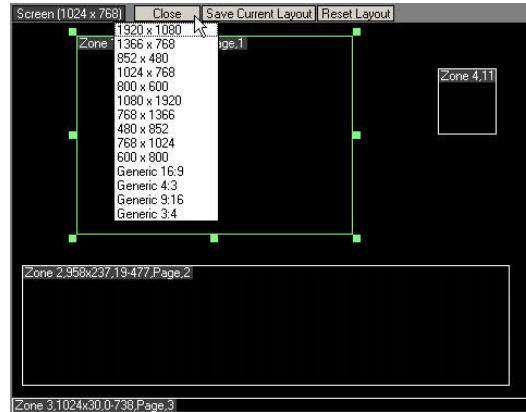
The Template Configuration Editor provides the means to create zoned playback screen layouts. This is not to be confused with content templates. The screen template is only the screen layout for each of the five zones.



Each zone correlates to a layer in the editor. The background zone is always full screen; zones one, two, three and four can be used page media, crawls, rolls and logos.

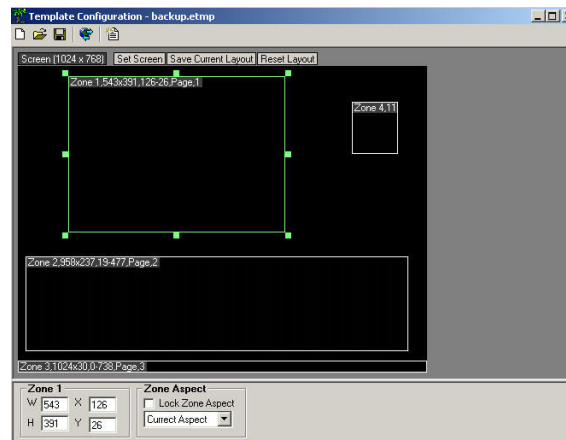


The first step is to select the target screen aspect ratio or resolution. The most common sizes are available in the Screen Size drip down box. If in doubt of true resolution, simply select a generic aspect ratio.

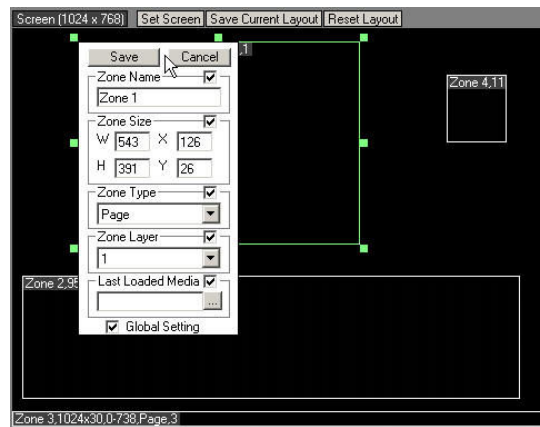


Any content dragged into any zone will automatically be resized to fill the zone. This eliminates the need to manually adjust media to fit the screen. Individual zones should then be setup with the optimum and desired screen look in mind and content should be developed to maintain appear when used within a particular zone dimension.


The user may adjust each zone by using cursor handles. The handles allow for movement as well as resizing. Zone size and position data is reflected in the upper left data tab in each zone.




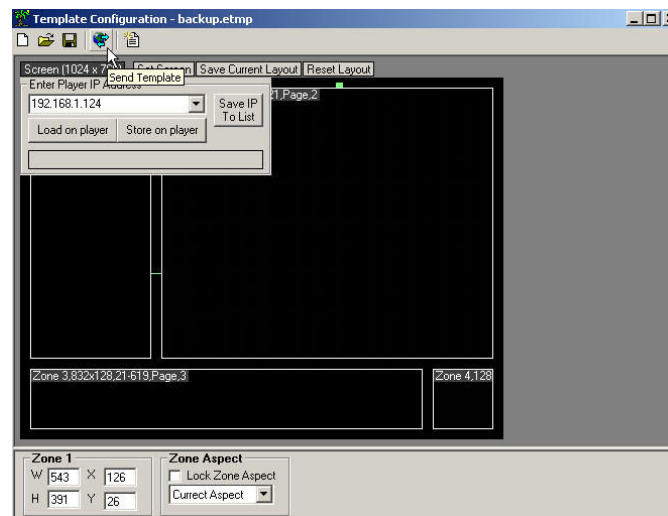
Zone parameters may be manually entered into a dialogue box accessed by clicking on the zone information tab.



Adjustments are implemented when SAVE is clicked, making for very simple resolution and layout configuration. Using the proper settings ensures the proper alignment once the data reaches the player (and should match the settings in the player).

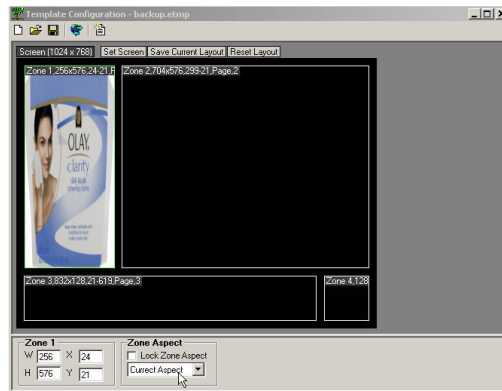
Once the zones are configured, saving the template layout using the save button is required. 

The final step is to transmit this zone template information to the player in question. To transmit the template, select the Transmit button, enter the destination IP and send. 

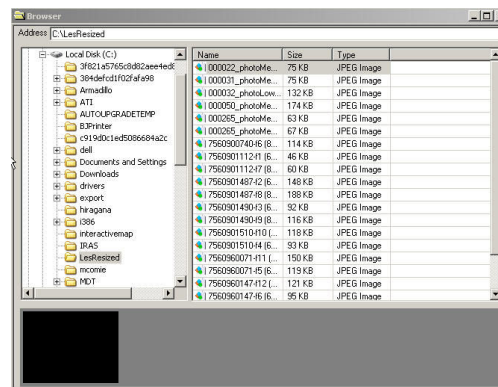


Be sure to click SAVE CURRENT LAYOUT to set the local preview window to the current template for ease of editing.

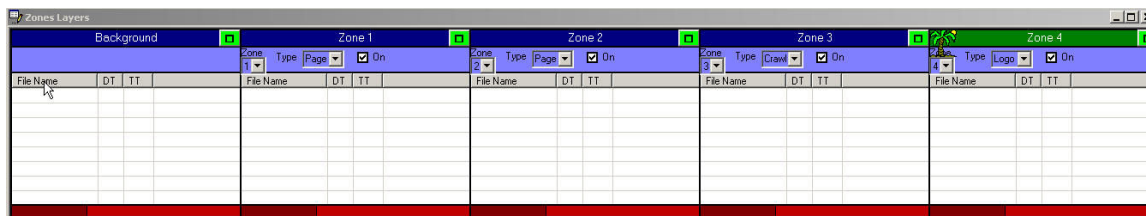
Content may be dragged directly in to zones from the file browser...when done this way, the content will become the last entered item in a zone play list and the content will appear in the zone window (PAG files and Video Files will not appear in the template window).



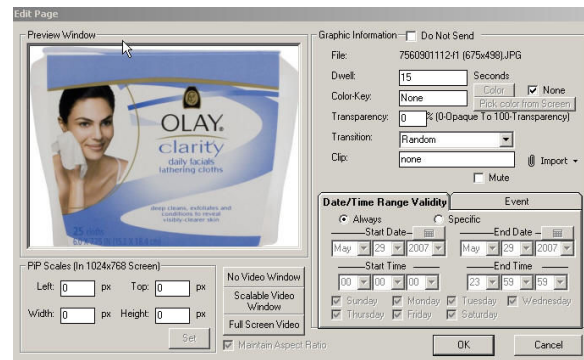
Use the file browser is similar to using Windows explorer tools to access any connected folder. From within the folder, select files for use in a set.



Drag content directly into a zone in the template configuration window or drag content to a zone play list in the set editor. Double-left-clicking on content will also add content to the selected layer.

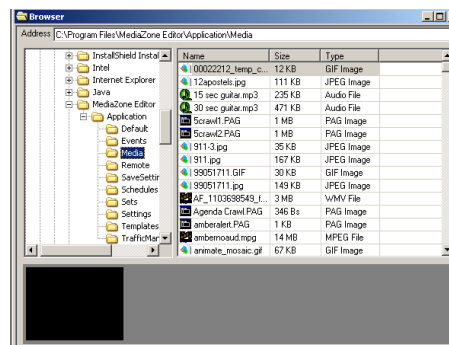


When content has is added to a zone play list, an attributes window will open. Use the attributes window to set playback parameters of the newly added content asset.



## Browser

The browser is used to access any drives or folders attached to the scheduler computer, including all physical drives, virtual drives, and all network drives and folders. The MX series software allows the storage of content, sets, and schedules on any drive (remote or local). The trick to using that feature is ensuring any remote drives are accessible when they are needed or portions of sets may go missing and force lengthy unnecessary troubleshooting and down time.



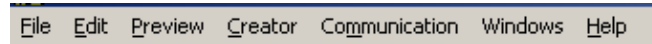
Use the directory browser window on the left side of the main Browser window to select the drive or folder that contains the media that to be scheduled.

Once the folder is selected, use the file browser on the right side of the main Browser window to select the media asset to be scheduled. The file browser works in conjunction with the directory browser. The content displayed in each file browser changes based on which directory selected. This window also features sorting capability: click NAME, SIZE, or TYPE to sort.

At the bottom of the browser window is a thumbnail viewer for a small preview of the selected media element.

## Menu Bar

Above the other portions of the GUI rests a Menu Bar. The menu bar is a secondary method to access MediaZone controls.



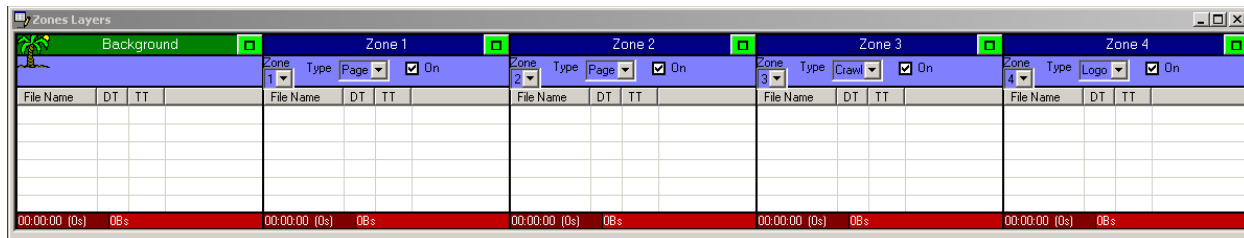
## Quick Controls

The right edge of the application features a vertical Quick Control pane. This provides quick access to the Preview Window, the Time Specific Preview, Add Media Files, Save, Send, Cut, Copy and Paste.



## Zones and Layers

The Zones and Layers portion of the MediaZone editor is the heart of content scheduling. This is where a collection of media becomes a SET. To define SET: A SET is a list of clips and/or media that are grouped as a sub-section of an entire show. A show is a schedule, and can consist of only one set, or you can have a show that consists of many sets.



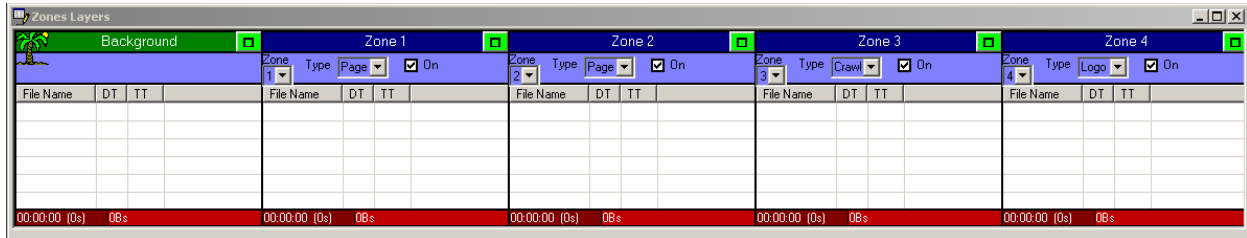
As an analogy, a two-hour motion picture taken all together is one show (one schedule). Within that two-hour show are many sets—outdoors scenes, indoor scenes, chase scenes...each of these scenes are separate sets. Put the scenes together, you have a movie—put sets together, you have a schedule. In the editing room, the sequence of sets can be changed--the MediaZone scheduler gives you that ability to edit and create the show.

The bottom line is in order to have a schedule, there must be at least one set.

## TUTORIAL

The TUTORIAL section of this manual is a tour that will result in the creation of a set and a schedule that is playing. Feel free to substitute any tutorial sample files real files as desired.

Open the MediaZone Editor and take a look at the ZONES LAYERS section at the bottom of the interface.



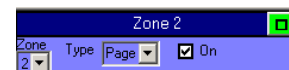
Notice there are five columns in the set list. Each column represents an independent layer of graphics and images. The first column, labeled BACKGROUND is always the background layer—its order can't be changed but it is not required to be used at all times (in fact, no Zone is required to be used). BACKGROUND is typically used for full-screen motion background files, background stills, background live video, or any other background image. The BACKGROUND zone is always full screen size and does not feature any transitions, keying, PiP windows, or transparencies.

Columns listed as Zone 1, 2, 3, and 4 can consist of:

- Pages: These are images, some call them slides, that consist of proprietary .PAG files, .bmp, tga, tiff, gif, jpg, pcx, png, live web pages, Macromedia Flash© files, full screen motion videos (MPEG, WMV, AVI, etc....)
- Crawls: This is a continuous text line that will “crawl” or move horizontally across your screen left to right or right to left
- Rolls: These are pages that roll from top to bottom or bottom to top—much in the manner of credits at the end of a movie or television show.
- Logos: Logos are images (bmp, jpg, etc....) that can be resized and repositioned anywhere on the screen. Logos can also be animated GIF files for a power motion logo effect.

### Zone Attributes

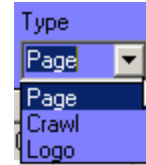
Each layer has a few attributes that must be set. The first is turning the zone on or off. The check mark in the ON box indicates the layer is on. Clicking the ON box will toggle the check mark and the layer's on/off status.



Remember, the system functions as independent layers and zones. The BACKGROUND is always the base layer (the bottom layer). The remaining four columns can have their layer assignments changed at will.

*Zone Type (Page, Crawl, Roll, or Logo)*

The last thing to set for each column is the type of graphic element. Each of the three choices has a different reaction when played.

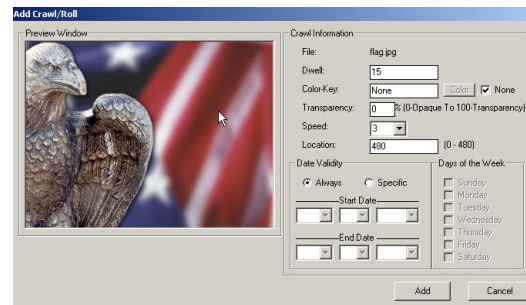


*Page*

A Page type is adds the graphic to the zone within that column as a full-zone-size image.

*Crawl*

Selecting Crawl will change what attributes one can set. Since it is a crawl—it’s going to move, and there are settings to be made for each aspect of that movement (speed, direction, etc...)



Crawl will be covered more in-depth later in this manual.

*Roll*

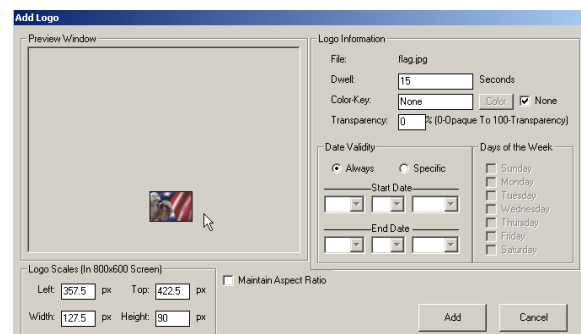
Selecting Roll will change what attributes one can set for your graphic. Since it is a roll—it’s going to move vertically--and there are settings to be made for each aspect of that movement (speed, direction, etc...)



Rolls will be covered more in-depth later in the tutorial.

*Logo*

As with crawls, attributes and settings change. Since a logo is usually a branding mark over all other graphics and video, they have special attributes such as size and position.



Logo will be covered more in-depth later in this manual.

Sets can use one column, five columns, or no column (of course that results in a black screen at playback!).

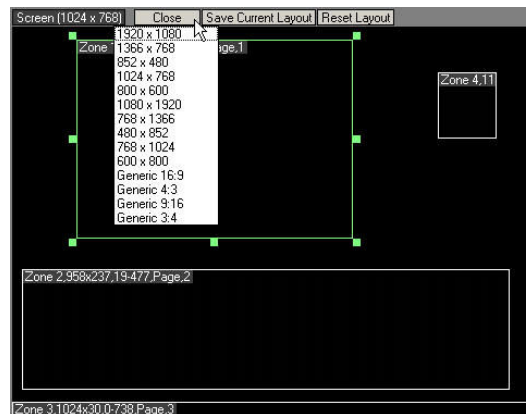
## Create a New Set

On the menu bar, click FILE and NEW to start from scratch.

## Setup the Zone Template Configuration

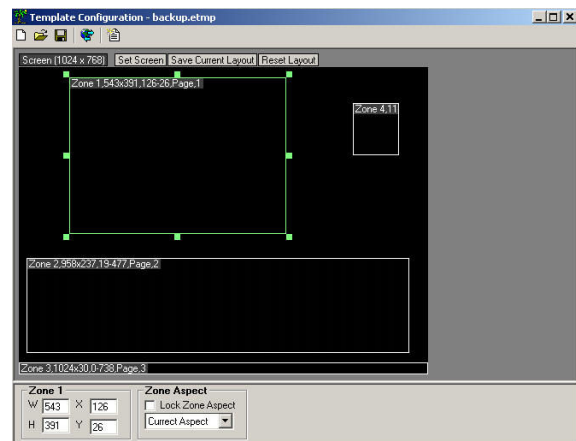
Each zone correlates to a layer in the editor. The background zone is always full screen; zones one, two, three and four can be used page media, crawls, rolls and logos.

The first step is to select the target screen aspect ratio or resolution. The most common sizes are available in the Screen Size drip down box. If in doubt of true resolution, simply select an generic aspect ratio.



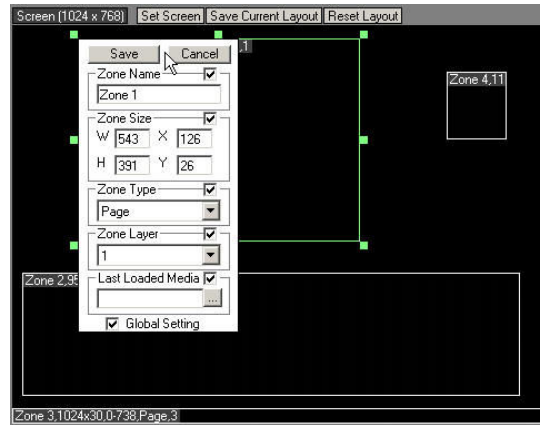
Any content dragged into any zone will automatically be resized to fill the zone. This eliminates the need to manually adjust media to fit the screen. Individual zones should then be setup with the optimum and desired screen look in mind and content should be developed to maintain appeal when used within a particular zone dimension.

The user may adjust each zone by using cursor handles. The handles allow for movement as well as resizing. Zone size and position data is reflected in the upper left data tab in each zone.





Zone parameters may be manually entered into a dialogue box accessed by clicking on the zone information tab.

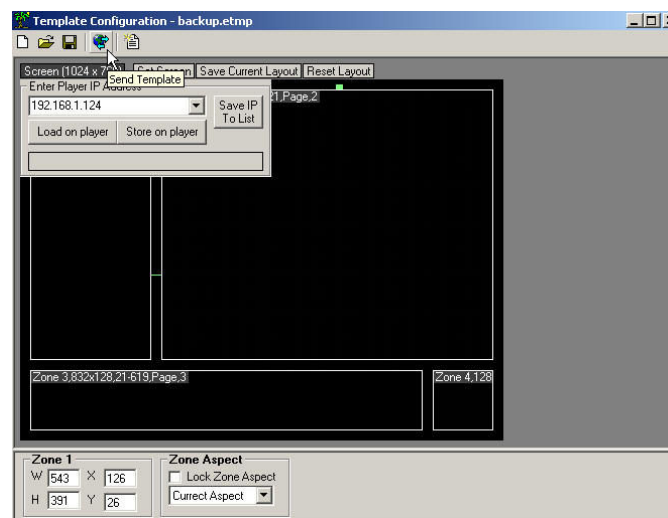


Adjustments are implemented when SAVE is clicked, making for very simple resolution and layout configuration. Using the proper settings ensures the proper alignment once the data reaches the player (and should match the settings in the player).

Once the zones are configured, saving the template layout using the save button is required.



The final step is to transmit this zone template information to the player in question. To transmit the template, select the Transmit button, enter the destination IP and send.

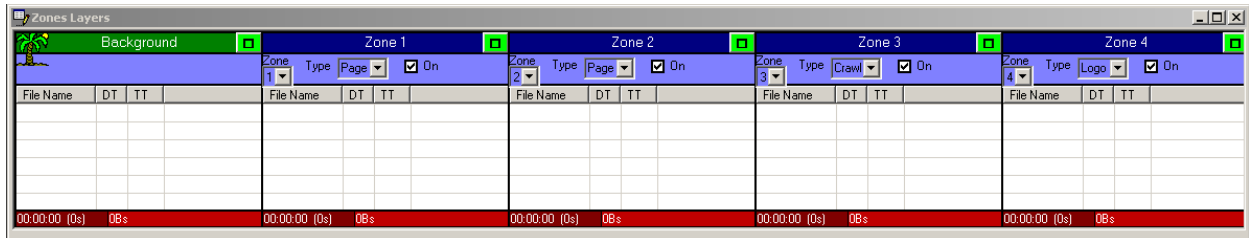


Be sure to click SAVE CURRENT LAYOUT to set the local preview window to the current template for ease of editing.

**Background Zone**

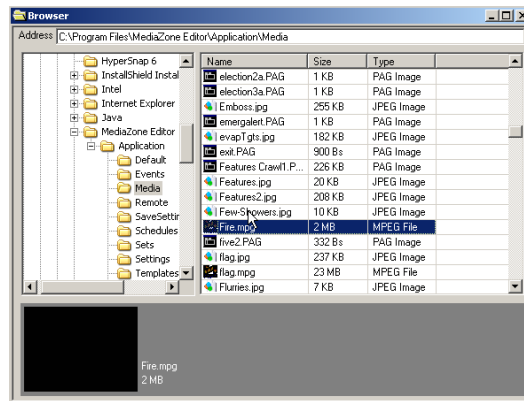
Remember, a background is not required but will be used for the example.

Select the background layer by clicking the column header highlighting it green (palm tree icon will follow).



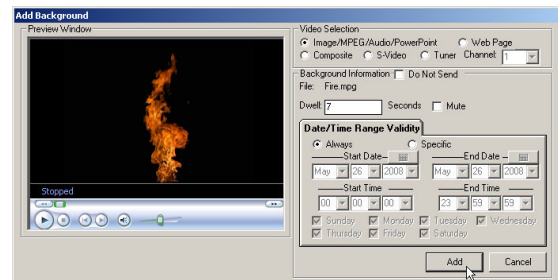
Use the BROWSER window to locate a video file for the background. The system comes with sample files located in the application folder (typically C:\Program Files\MX\Application\Media).

Browse to the Media folder. The File Browser window will list the folder contents. There are several sample MPEG files in the folder. Double left-click on “fire.mpg”—remember, you can use anything you like for the background...we are using “blueearth.mpg for the tutorial only).



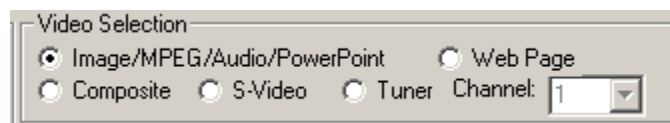
The Background Attributes window will open.

The attributes window provides a preview. If the media selected has a preset dwell time (such as a video file) the actual dwell time will appear in the Dwell window. This may be adjusted but remember, if a 30 second clip has dwell time changed to 10 seconds, the clip will cut off at 10 seconds.



This attributes window can be used to set date validity as well as day of the week validity. If ALWAYS is selected, as pictured, anytime the player encounters the clip in a valid SET and SCHEDULE, it will play it. If SPECIFIC is selected, and START DATES and END DATES are filled in, when the player encounters the file, it will validate if the current real date falls within those selected START and END dates—if so, it will play the clip, but if not, the clip will be ignored. Also, DAYS of the WEEK can be selected with the checkboxes below the time validity selection boxes. DATE VALIDITY allows you to change the entire look of play out based on calendar days, days of the week, or time while only having to create the set and schedule one time.

At the top of the background attributes window, notice the alternate background settings panel.



The Video Selection panel shown above defaults to IMAGE/MPEG/AUDIO/POWERPOINT to indicate that a media file located on the player will be the background. Alternatively, a Web Page can be used as a background fill. If the hardware supports it a composite video feed, S-Video Feed, or even modulated video feed can be used as background video (a modulated feed would be a direct cable channel or off-air channel feed). Choosing one of these alternate background sources will override any file previously selected through the file browser.

Once all the attributes are set, click ADD—the clip will be loaded as the first entry in the background column. The “DT” column indicates the dwell time of the particular clip—the “TT” column indicates the running dwell time of the column. The red cell at the bottom of the column is the total time of the column (the layer).

File Name	DT	TT
File.mpg	7	7
00:00:07 (7s) 2MB		

The set could be complete at this point. True, not a very interesting set maybe, but as long as one piece of media is in a set, there enough to play. This would be a good time to try out preview. Click the Preview button on the right panel (or use the F12 button on the keyboard).



A preview window should appear and will play the set as it will appear on the player (as long as the same template has been already sent to the player). The preview window can be sized and positioned. Use the mouse and left button to select corners for sizing and select the middle of the window for dragging. The application will remember the size and position automatically. The size and aspect panel to the left of the preview window may be used for setup as well.

Preview quality is purely based on the hardware quality in the creator computer. If the video card or chipset is limited in speed or memory, or the processor and RAM have bandwidth limitations, the preview video will stutter. Stuttering is usually just dropped video frames and can also result from the type of display being used as well as the native resolution and refresh frequencies. This is normal on preview—player hardware is specifically selected to play back at full broadcast smooth frame rates. Preview should perform well enough though to present a very good idea what the set will look like when finally played out from the MX.

**Operational Note:** If the preview window appears to not play motion videos (MPEG, AVI, WMV, VOB, etc...) check the INI settings for the scheduler and ensure VIDEO=TRUE in SETTINGS.INI (See Appendix B for details). **Black** screens or **Static** (noise) filled screens are indications of improper motion video playback

The editor computer may require an updated CODEC. Codecs are small programs that “decode” compressed video (such as MPEG) for playback. There are many Codecs available on the internet (some free, some for a fee). Keywest Technology does make recommendations...browse to the following link to download and install approved Codecs:

<http://www.mediaxtreme.tv/downloads/Codecs/>

Special Instructions will be Included in Read Me Files if Applicable

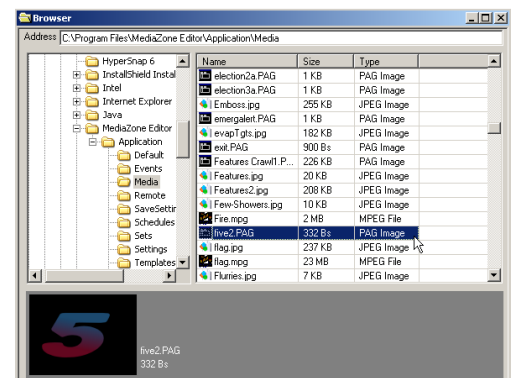
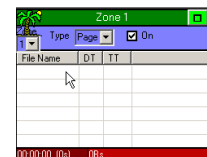
## Add MediaCreator Still Pages to Zones

Select Zone 1 and set the TYPE to PAGE.

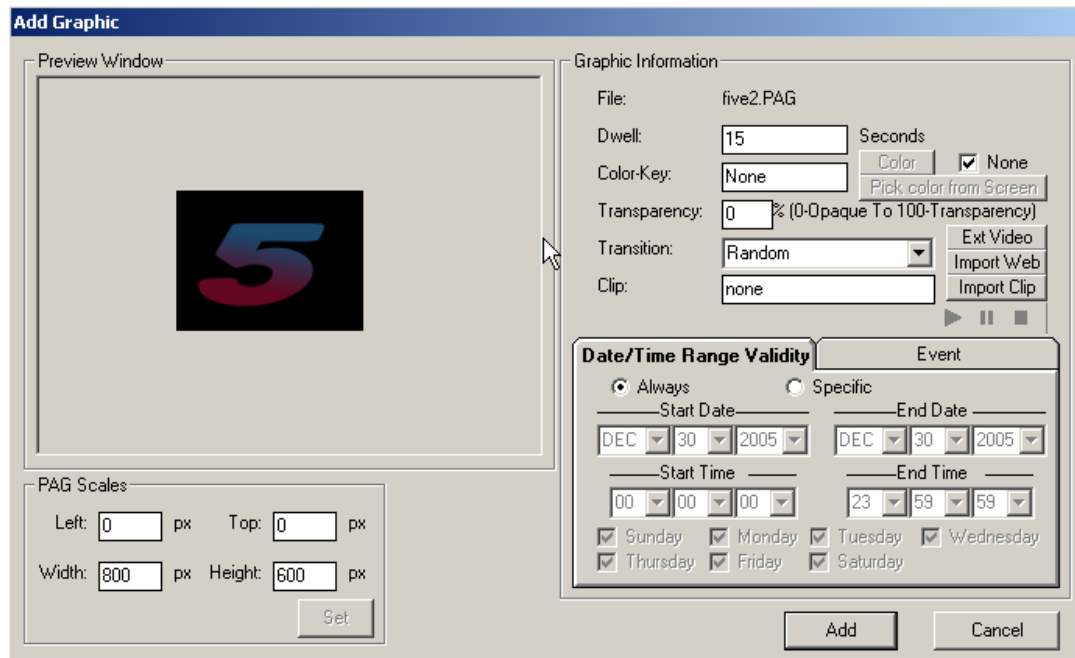
MediaCreator is the professional Character Generator (CG) software module included with MX systems. Content pages made by MediaCreator have the extension “.PAG”. For specific MediaCreator details see the MediaCreator manual.

Choose a MediaCreator page to add. The directory browsers should still be set to “C:\Program Files\MediaZone Editor\Application\Media”, and the file browser window is probably still displaying the contents of that folder.

Choose “five2.PAG” to add to the selected Zone 1 column. Double-Click the page name in the file browser.



The ADD GRAPHIC dialog box will open. This dialog has its own preview window as shown below.



This dialog box provides the means to set attributes for all pages.

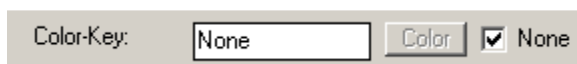
### *Dwell*

Dwell time is the duration that a page will stay on-screen. To change the dwell time simply highlight and type a new dwell. Dwell is measured in seconds (default is 15 seconds). Default dwell may be changed in the settings.ini file (See Appendix B).

### *Color-Key*

The Color-Key box allows one to choose a color to be keyed out when the page is played. A color that is keyed out becomes transparent at playback. This special effect attribute will allow you to add graphics or “floating” text and objects over other pages and backgrounds.

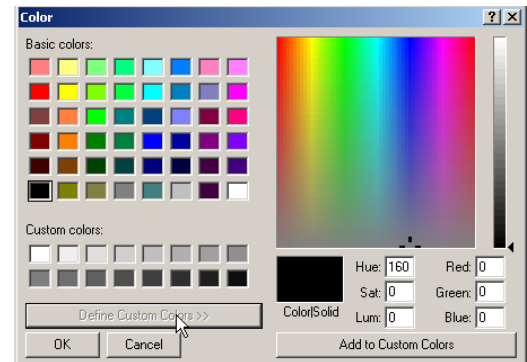
Color-Key can also be turned off to ensure all colors show during playback.



For a .PAG MediaCreator page, if the background is blank (black) it will automatically be keyed out—no need to select black as the key color.

To choose another color to key out either enter the standard hexadecimal value of the color or click the COLOR button, and select the key color from the pallet (as pictured on right).

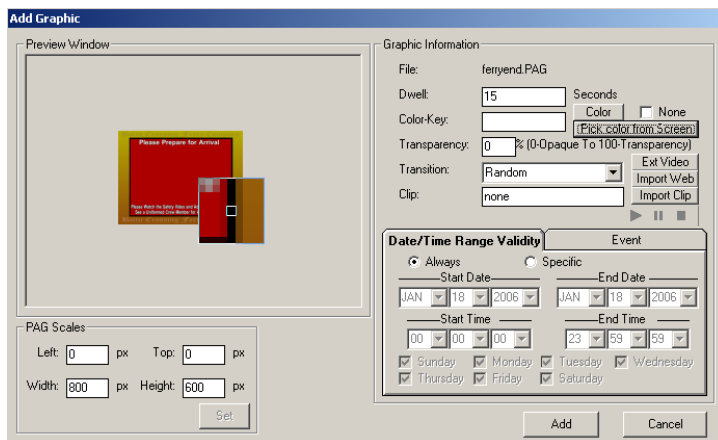
This window will initially open in basic view—to open the expanded view as shown in the picture to the right, click the DEFINE CUSTOM COLORS button.



### *Pick Color From Screen*

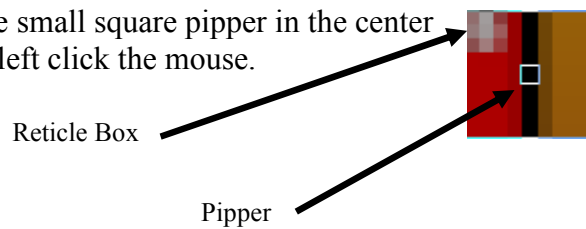
Another option for selecting which color to key (or cut) out of an image is Pick Color From Screen. This option selects a color from anywhere on the screen to serve as the key color—so if there is a graphic with a large red field to be made transparent, use Pick Color From Screen to select that exact color. This is extremely useful if the colors to be keyed are of unknown exact RGB value

To use, first click the NONE check box in the Color Key area of the attributes window to remove the check mark. Next, click the PICK COLOR FROM SCREEN button:



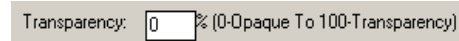
A reticule box will appear that can be moved around the screen. This reticule will magnify the pixels it is currently over, allowing one to choose colors down to pixel precision.

To choose the desired key color, simply place the small square piper in the center of the reticule box over the color you desire and left click the mouse.



*Transparency*

Transparency values can be set for an entire page.



This transparency control refers to the transparency level of the entire page as a single unit. Set the value by entering a number from 0 to 100 in the text box. 0 means 0% transparent, or not transparent at all—completely opaque; 100 means 100% transparent, or completely invisible (probably not a commonly used setting)--if something is set to 100% transparent, no one will ever see it play (although, it will play in its own invisible way).

Transparency works independently of Key Colors. Certain colors can be keyed out completely and still make the rest of the page partially transparent (or partially opaque, depending upon the angle at which is it viewed).

*Transition*

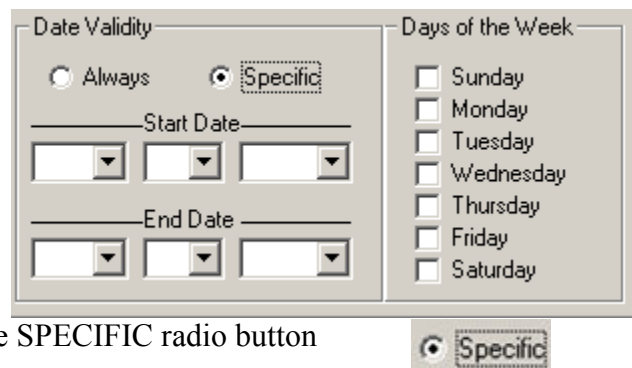
Transitions are set to add interest to a presentation. A transition is a special effect entrance applied to a page. Current transitions are available under the TRANSITIONS drop down arrow as shown to the right. The Transition control will default to RANDOM (default can be changed in settings.ini, see Appendix B). When selected, a Random transition will be used each time the page plays.



Remember, transitions define how a page or graphic enter the viewing area.

*Date Validity*

Just as backgrounds can be always valid (meaning they play every time the player comes across them regardless of day of week or date) or have specific day and date validities set.



To set specific days and date validities, click the SPECIFIC radio button

(a radio button is the white circle to the left of a selection that fills with a black dot when selected).

Then it's as simple as clicking the down arrows for Start Date Month, Day and Year and doing the same for End Date.



This sets a WINDOW of VALIDITY. Any time the player encounters a page or element that has specific day/date settings, and the current real date is within that WINDOW of VALIDITY, the page or element will be played as normal.

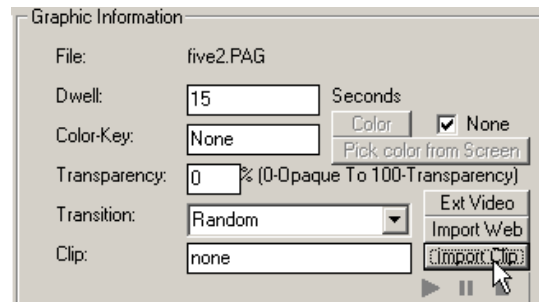
When the player encounters a page outside its WINDOW of VALIDITY, the page or element will be ignored as though it weren't even scheduled.

*Add Clip*

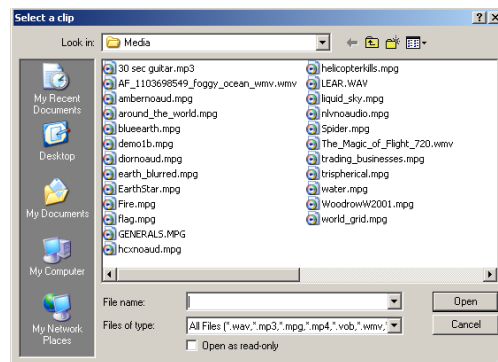
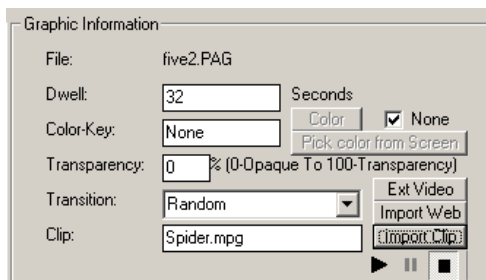
MediaCreator pages can have Picture-in-Picture (PiP) windows. These windows are set in the MediaCreator program and become an attribute of the page. The only way to add a PiP window to a .PAG is through MediaCreator.

If a .PAG has a PiP window, one can add a clip to play in that PiP window each time the page plays.

Click the IMPORT CLIP button on the attributes window.



*A file browser window will open...select the clip of your choice*



The example creator chose "spider.mpg". Once selected, the PiP clip will be listed in the Clip text box, and play controls are available now until the Import Clip button—use these controls to preview your clip if desired. Please wait to move on until the clip name appears in the CLIP box

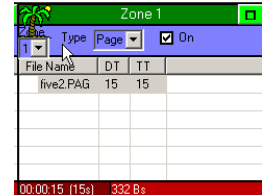


and the dwell time changes to the clip length or the clip will not be attached. The sample page five2.pag does not have a PiP window embedded—therefore when this page plays, no video PiP will appear.

### Add the Page

Now that all the attributes for the page are set, click the ADD button. The new page should now be the first entry in the Zone 1 column.

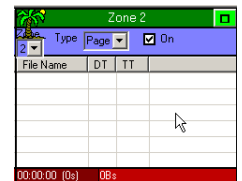
Click the Preview Icon again... playback should now be the background video fire.mpg playing and five2.pag playing over the top (with random transitions each time the dwell time cycles).



Remember the big 5 is keyed over the background even though no key color was chosen because it is a MediaCreator .PAG file with a blank (black) background. .PAG files automatically key the blank backgrounds without further user intervention.

### Add BMPs, JPGs, PNGs and Other Media to Zones

Click on Zone 2 column to select it active. The column header will turn green, and the little palm tree will follow.

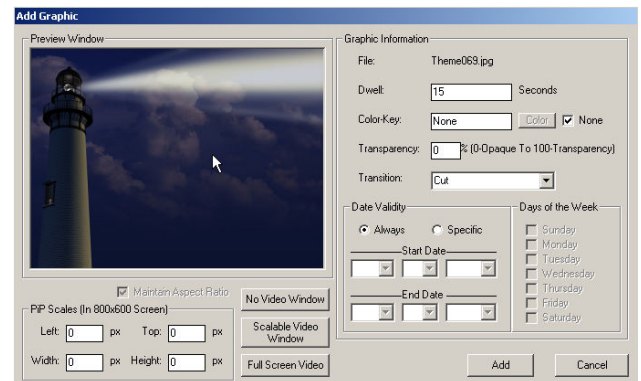


Use the browser to locate “C:\MediaCreator5\Images”.

Choose “Theme069.jpg” to add to Graphic B column. Double-Click the page name in the file browser. (And remember, substitute files as desired).

The ADD GRAPHIC dialog box will open. This dialog has its own preview window as shown below.

This dialog box also allows us to set attributes to all pages.



### DWELL

Dwell time is the duration that a page will stay on-screen. To change the dwell time simply highlight and type a new dwell. Dwell is measured in seconds.

### COLOR-KEY

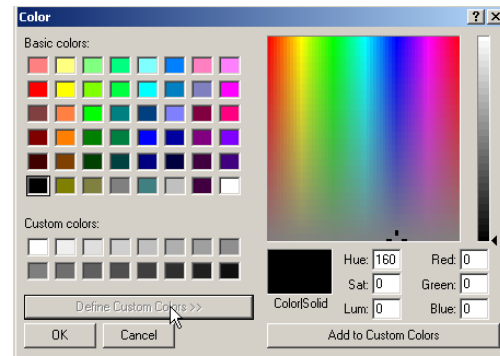
The Color-Key box allows you to choose a color to be keyed out when the page is played. A color that is keyed out becomes transparent at playback. This special effect attribute will allow

you to add odd shapes or “floating” text and objects over other pages and backgrounds. Color-Key can also be turned off to ensure all of your chosen colors show at playback.



If you desire a color be keyed out, you can either enter the standard hexadecimal value of your color (if you have this value handy) or click on the COLOR button, and select your key color from the pallet.

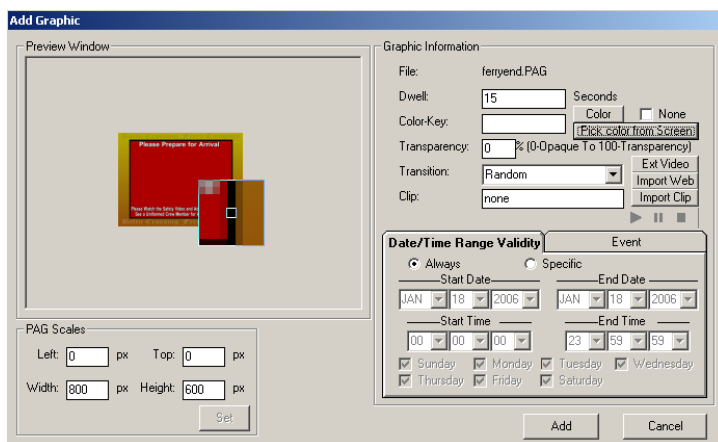
This window will initially open in basic view—to open the expanded view as shown in the picture to the right, click the DEFINE CUSTOM COLORS button.



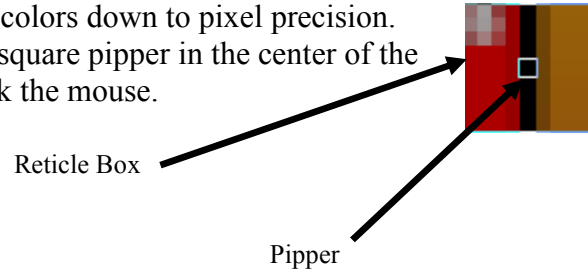
### ***Pick Color From Screen***

Another option for selecting which color to key (or cut) out of an image is Pick Color From Screen. This option allows you to select a color from anywhere on your screen to serve as the key color—so if you have created a graphic with a large red field that you wish to be transparent, you can use Pick Color From Screen to select that exact color. This is extremely useful if the colors you are using for keying are unknown (their exact RGB values are unknown).

To use, first click the NONE check box in the Color Key area of the attributes window to remove the check mark. Next, click the PICK COLOR FROM SCREEN button:



A reticule box will appear that you can move around the screen. This reticule will magnify the pixels it is currently over, allowing you to choose colors down to pixel precision. To choose your key color, simply place the small square pipper in the center of the reticule box over the color you desire and left click the mouse.



## TRANSPARENCY

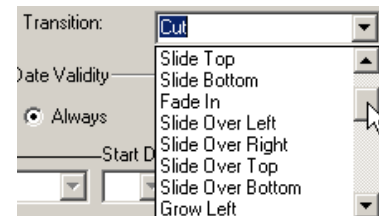
You can also set transparency values for your entire page.

Transparency:  % (0-0paque To 100-Transparency)

This transparency control refers to the transparency level of the entire page as a single unit. Set the value by entering a number from 0 to 100 in the text box. 0 means 0% transparent, or not transparent at all—completely opaque; 100 means 100% transparent, or completely invisible (probably not a commonly used setting!). Yes, if you set something to 100% transparent, no one will ever see it play back. Transparency works independently of Key Colors. You can key certain colors out completely and make the rest of the page partially transparent (or partially opaque, depending upon how you look at it).

## TRANSITION

Transitions are set to add interest to your presentation. A transition is a special effect entrance applied to a page. Current transitions are available under the TRANSITIONS drop down arrow as shown to the right. The Transition control will default to RANDOM. When selected, a Random transition will be used each time the page plays.



Remember, transitions define how a page or graphic enter the viewing area.

## DATE VALIDITY

Just as backgrounds can be always valid (meaning they play every time the player comes across them regardless of day of week or date) or have specific day and date validities set.

Date Validity	Days of the Week
<input type="radio"/> Always <input checked="" type="radio"/> Specific	<input type="checkbox"/> Sunday
Start Date: <input type="text"/> <input type="text"/> <input type="text"/>	<input type="checkbox"/> Monday
End Date: <input type="text"/> <input type="text"/> <input type="text"/>	<input type="checkbox"/> Tuesday
	<input type="checkbox"/> Wednesday
	<input type="checkbox"/> Thursday
	<input type="checkbox"/> Friday
	<input type="checkbox"/> Saturday

To set specific days and date validities, click the SPECIFIC radio button (a radio button is the white circle to the left of a selection that fills with a black dot when selected).



Then it's as simple as clicking the down arrows for Start Date Month, Day and Year and doing the same for End Date.



This sets a WINDOW of VALIDITY. Any time the player encounters a page or element that has specific day/date settings, and the current real date is within that WINDOW of VALIDITY, the page or element will be played as normal.

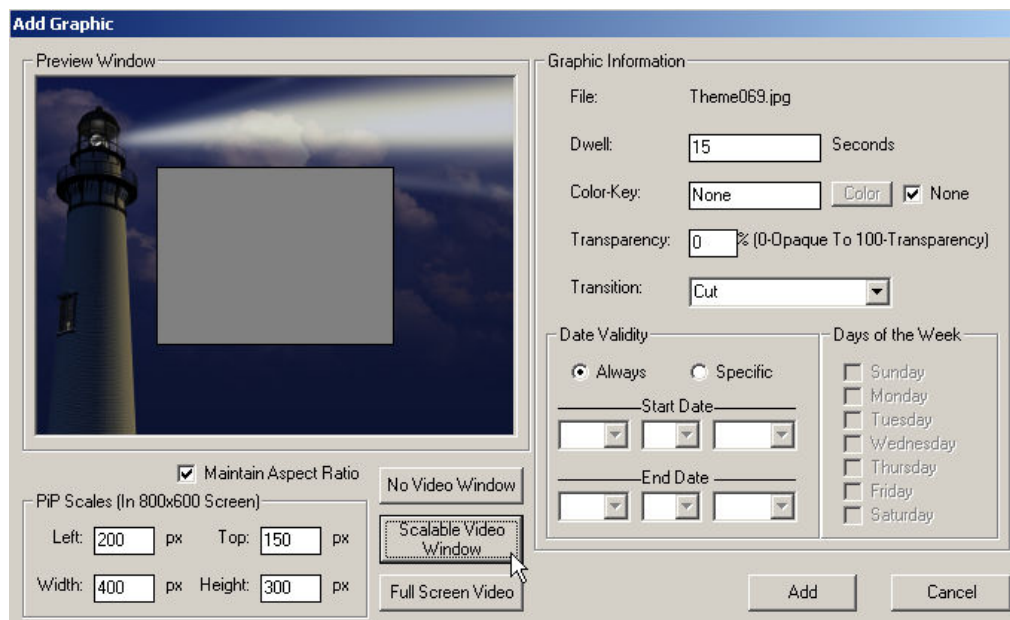
When the player encounters a page outside its WINDOW of VALIDITY, the page or element will be ignored as though it weren't even scheduled.

## ADD A PICTURE-IN-PICTURE WINDOW

### PIP SETTINGS

When you add a .bmp, .jpg, or other PC type graphic as a page, you can attach a Picture-in-Picture window. This differs from the MediaCreator .PAG type files in that the PiP window is added in the scheduler and not at the time of the graphics creation.

This PiP window will allow a digital movie file to be played within that page. Click the SCALABLE VIDEO WINDOW button.



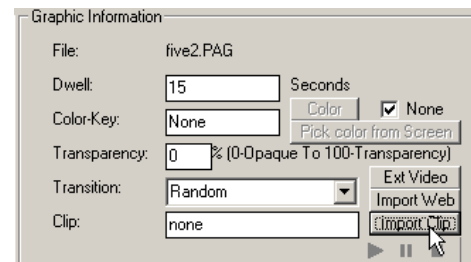
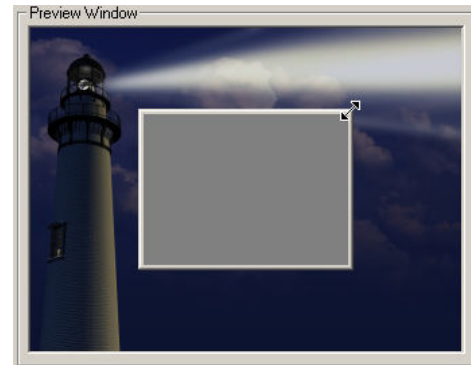
You will see a gray box appear in the preview window...this is the PiP window. We will use that gray box to size and position the PiP window. We will use that gray box to size and position the PiP window. To change size or position of the PiP window, simply left click anywhere within the gray box and drag it around for position. Click on the corners or edges of the box to resize.

You can remove the 4:3 aspect ratio restrictions by deselecting the MAINTAIN ASPECT RATIO checkbox below the preview window.

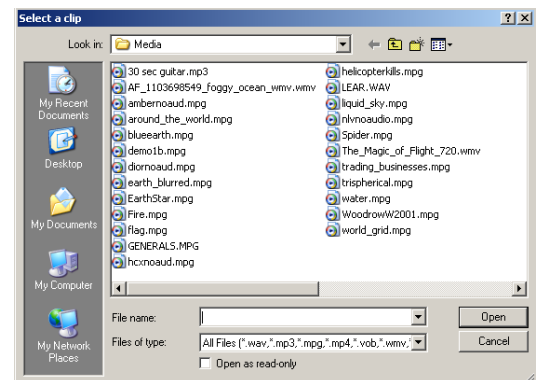
### ADD CLIP

After you have added a PiP window you can add a clip to play in that PiP window each time the page plays.

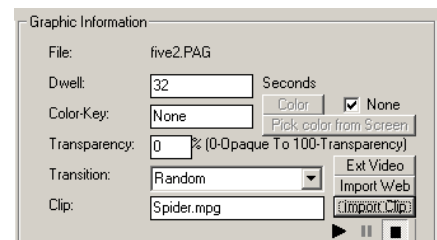
Click the IMPORT CLIP button on the attributes window.



*A file browser window will open...select the clip of your choice*

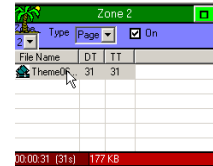


We chose “spider.mpg”. Once selected, you will see your PiP clip listed in the Clip text box, and notice the play controls are available now below the Import Clip button—use these controls to preview your clip if desired. Our sample page five2.pag does not have a PiP window embedded—therefore when this page plays, no video PiP will appear. Please substitute your own page with a PiP window if you desire. Notice the dwell time of the page changes to match the dwell time of the attached clip. This is not adjustable.



**ADD THE PAGE**

Now that we've completed setting all the attributes for the page, click the ADD button at the bottom of the screen. Our page should now be the first entry in the Zone 2 column.



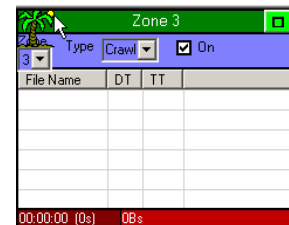
To the left of our page's name, there is a "filmstrip" icon. This indicates that a video clip is attached to the page.

**ADD A CRAWL**

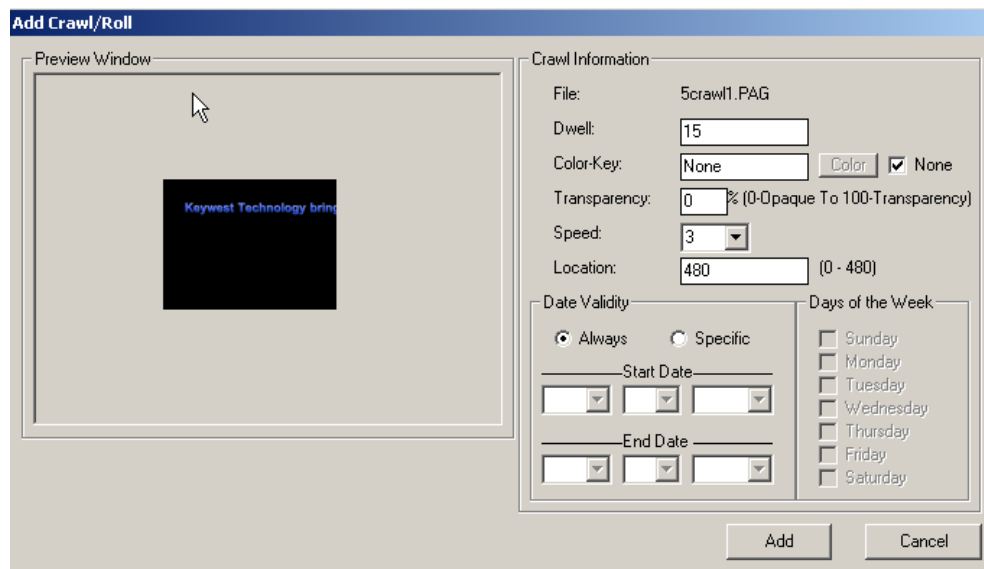
The system can "CRAWL" any graphic or page. MediaCreator Crawl pages are specifically made to crawl, but you can also use graphics, pictures, or other image files as well.

Let's do this ZONE 3. Select column ZONE 3 by clicking on it; Set its type to CRAWL. The next step will be to select a graphic to crawl.

In the media folder "C:\Program Files\MediaZone Editor\Application\Media" choose a sample crawl "5crawl1.PAG".



This opens the crawl attributes window—similar to page attributes, but with a few key differences.

**Crawl Dwell**

Crawl dwell time is basically the same setting as a page dwell, except a crawl will finish. So, if you have a long crawl but give it a 3 second dwell, it will play the whole thing and may cause

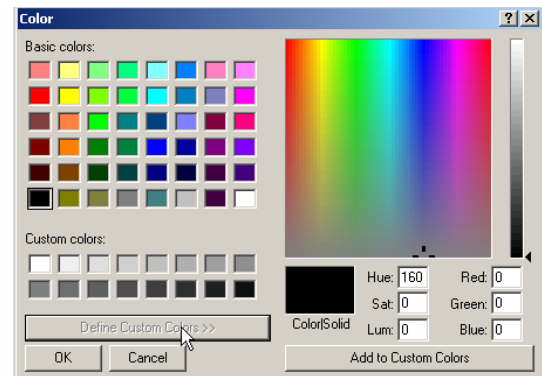
you timing issues later down the scheduling process. See the INI settings section for alternate crawl attributes.

### Color-Key

The Color-Key box allows you to choose a color to be keyed out when the crawl is played. A color that is keyed out becomes transparent at playback. This special effect attribute will allow you to add odd shapes or “floating” text and objects over other pages and backgrounds. Color-Key can also be turned off to ensure all of your chosen colors show at playback.



If you desire a color be keyed out, you can either enter the standard hexadecimal value of your color (if you have this value handy) or click on the COLOR button, and select your key color from the pallet.

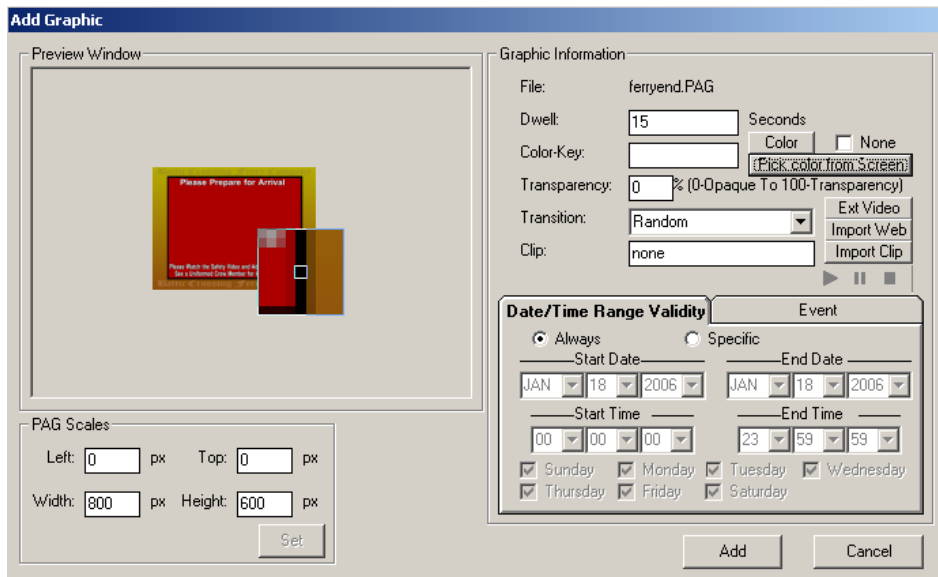


This window will initially open in basic view—to open the expanded view as shown in the picture to the right, click the DEFINE CUSTOM COLORS button.

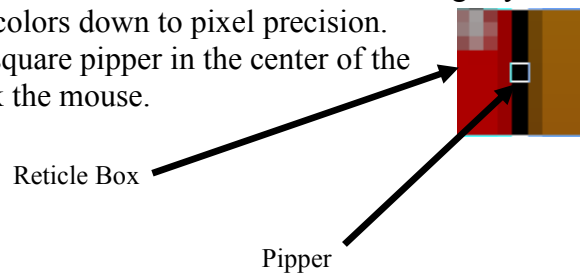
### Pick Color From Screen

Another option for selecting which color to key (or cut) out of an image is Pick Color From Screen. This option allows you to select a color from anywhere on your screen to serve as the key color—so if you have created a graphic with a large red field that you wish to be transparent, you can use Pick Color From Screen to select that exact color. This is extremely useful if the colors you are using for keying are unknown (their exact RGB values are unknown).

To use, first click the NONE check box in the Color Key area of the attributes window to remove the check mark. Next, click the PICK COLOR FROM SCREEN button:

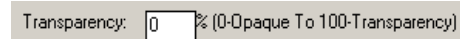


A reticule box will appear that you can move around the screen. This reticule will magnify the pixels it is currently over, allowing you to choose colors down to pixel precision. To choose your key color, simply place the small square pipper in the center of the reticule box over the color you desire and left click the mouse.



### Transparency

You can also set transparency values for your entire crawl.

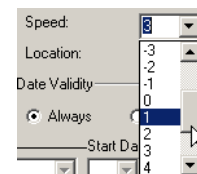


This transparency control refers to the transparency level of the entire crawl as a single unit. Set the value by entering a number from 0 to 100 in the text box. 0 means 0% transparent, or not transparent at all—completely opaque; 100 means 100% transparent, or completely invisible (probably not a commonly used setting!). Yes, if you set something to 100% transparent, no one will ever see it play back.

Transparency works independently of Key Colors. You can key certain colors out completely and make the rest of the page partially transparent (or partially opaque, depending upon how you look at it).

### CRAWL SPEED and DIRECTION

You can set and change crawl speeds and direction with this control





A negative Speed will create a crawl that moves from LEFT to RIGHT. A positive crawl Speed will create the standard crawl that moves from RIGHT to LEFT.

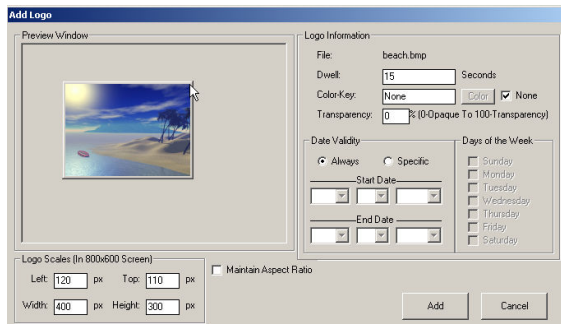
### Crawl Location

A crawl zone within a screen template will override the Location setting. Screen template positions will determine where the crawl will appear and the crawl will fill the zone.

### Add a Logo

The system is capable of running a LOGO on any of the graphics columns just as a page or a crawl.

The difference being that a LOGO is a graphic that can be sized or positioned within that layer.



Step one is to setup the column as a LOGO column, turn the Layer ON, and set the Layer Priority.



Next, select a graphic from our File Browser window to add in as a logo. The LOGO ATTRIBUTES WINDOW WILL OPEN.

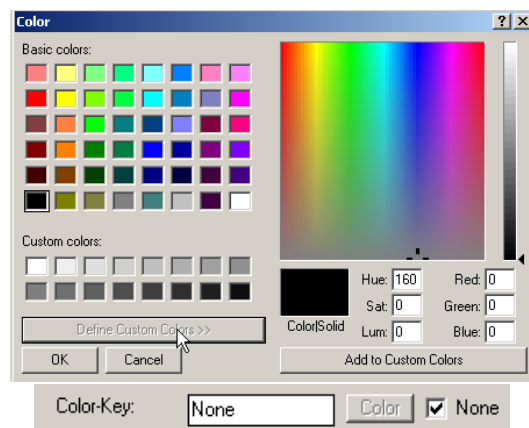
### Logo Dwell

Dwell time is the duration that a logo will stay on-screen. To change the dwell time simply highlight and type a new dwell. Dwell is measured in seconds.

### Color-Key

The Color-Key box allows you to choose a color to be keyed out when the logo is played. A color that is keyed out becomes transparent at playback. This special effect attribute will allow you to add odd shapes or “floating” text and objects over other pages and backgrounds.

Color-Key can also be turned off to ensure all of your chosen colors show at playback.



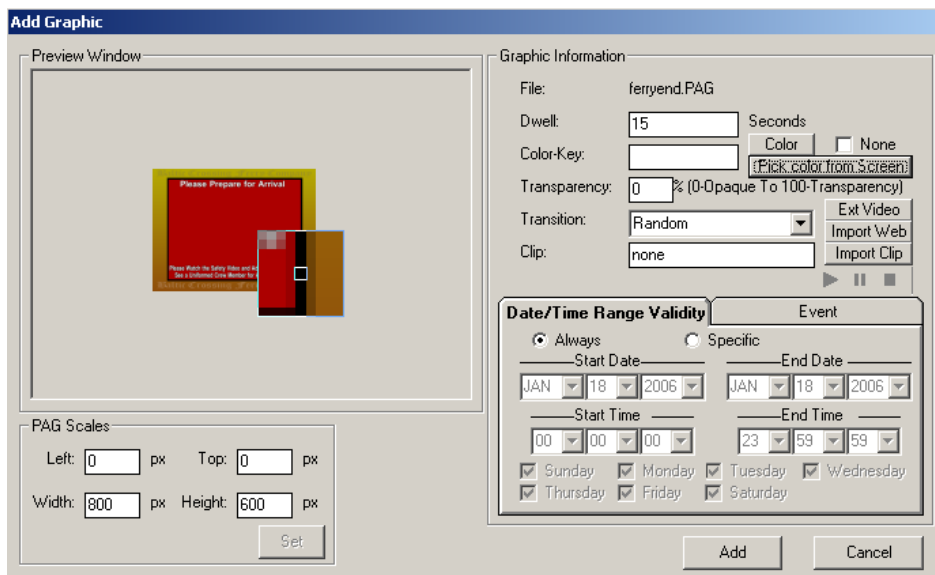
If you desire a color be keyed out, you can either enter the standard hexadecimal value of your color (if you have this value handy) or click on the COLOR button, and select your key color from the pallet.

This window will initially open in basic view—to open the expanded view as shown in the picture to the right, click the DEFINE CUSTOM COLORS button.

### Pick Color From Screen

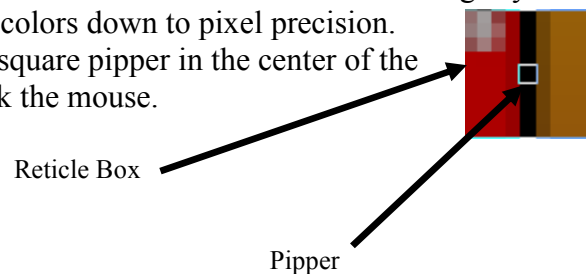
Another option for selecting which color to key (or cut) out of an image is Pick Color From Screen. This option allows you to select a color from anywhere on your screen to serve as the key color—so if you have created a graphic with a large red field that you wish to be transparent, you can use Pick Color From Screen to select that exact color. This is extremely useful if the colors you are using for keying are unknown (their exact RGB values are unknown).

To use, first click the NONE check box in the Color Key area of the attributes window to remove the check mark. Next, click the PICK COLOR FROM SCREEN button:



A reticule box will appear that you can move around the screen. This reticule will magnify the pixels it is currently over, allowing you to choose colors down to pixel precision.

To choose your key color, simply place the small square piper in the center of the reticule box over the color you desire and left click the mouse.



## Transparency

You can also set transparency values for your entire logo.

Transparency:  % (0-Opaque To 100-Transparent)

This transparency control refers to the transparency level of the entire logo as a single unit. Set the value by entering a number from 0 to 100 in the text box. 0 means 0% transparent, or not transparent at all—completely opaque; 100 means 100% transparent, or completely invisible (probably not a commonly used setting!). Yes, if you set something to 100% transparent, no one will ever see it play back.

Transparency works independently of Key Colors. You can key certain colors out completely and make the rest of the logo partially transparent.

## Animated Logos

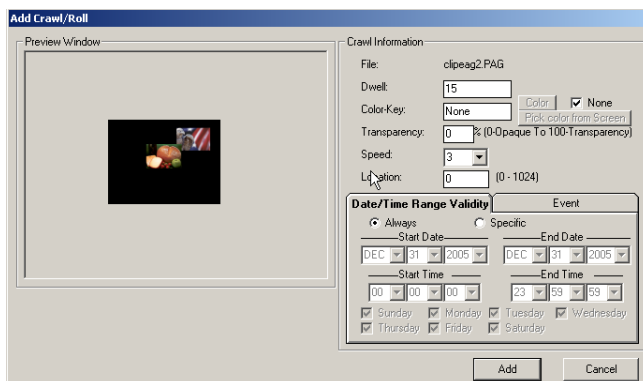
The MX is capable of playing back Animated GIF files as logos. Simply add the animated GIF with the same procedures listed above for any other graphic. No special settings are required and resizing is allowed.

## Add a Roll

Related to crawls, but in another dimension, the MX is capable of running a roll independently on each one of the Graphics Layers.

The MX can “ROLL” any graphic or page. The ROLL feature will dock roll pages together if the speed and dwell are set properly to achieve a continuous rolling graphic. See the AdvancedDemo.Set for several ROLL samples.

Roll attributes are similar to crawl attributes.



## Roll Dwell

ROLL dwell time is the same setting as a crawl dwell.

## Color-Key

The Color-Key box allows you to choose a color to be keyed out when the roll is played. A color that is keyed out becomes transparent at playback. This special effect attribute will allow you to add odd shapes or “floating” text and objects over other pages and backgrounds. Color-Key can also be turned off to ensure all of your chosen colors show at playback.



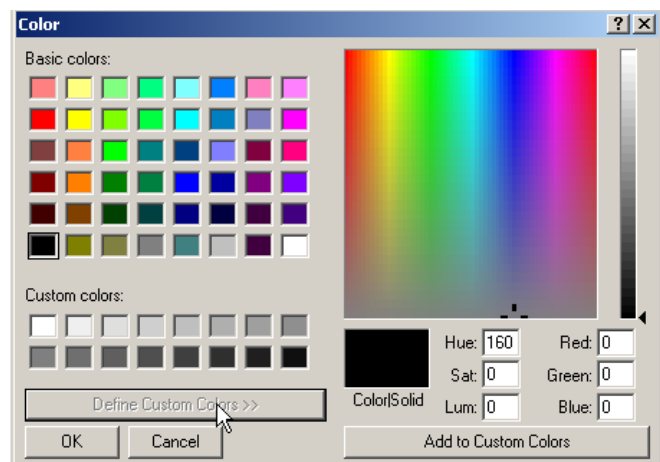
If you desire a color be keyed out, you can either enter the standard hexadecimal value of your color (if you have this value handy) or click on the COLOR button, and select your key color from the pallet.

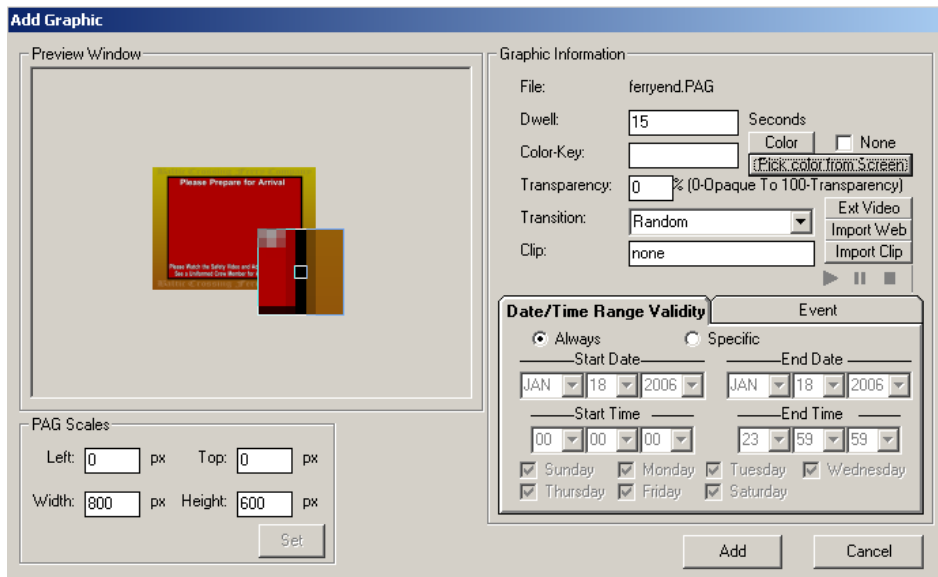
This window will initially open in basic view—to open the expanded view as shown in the picture to the right, click the DEFINE CUSTOM COLORS button.

### Pick Color From Screen

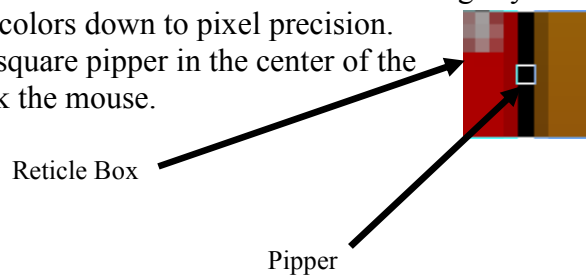
Another option for selecting which color to key (or cut) out of an image is Pick Color From Screen. This option allows you to select a color from anywhere on your screen to serve as the key color—so if you have created a graphic with a large red field that you wish to be transparent, you can use Pick Color From Screen to select that exact color. This is extremely useful if the colors you are using for keying are unknown (their exact RGB values are unknown).

To use, first click the NONE check box in the Color Key area of the attributes window to remove the check mark. Next, click the PICK COLOR FROM SCREEN button:



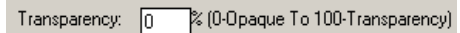


A reticule box will appear that you can move around the screen. This reticule will magnify the pixels it is currently over, allowing you to choose colors down to pixel precision. To choose your key color, simply place the small square pipper in the center of the reticule box over the color you desire and left click the mouse.



### Transparency

You can also set transparency values for your entire roll.

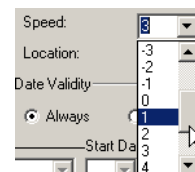


This transparency control refers to the transparency level of the entire roll as a single unit. Set the value by entering a number from 0 to 100 in the text box. 0 means 0% transparent, or not transparent at all—completely opaque; 100 means 100% transparent, or completely invisible (probably not a commonly used setting!). Yes, if you set something to 100% transparent, no one will ever see it play back.

Transparency works independently of Key Colors. You can key certain colors out completely and make the rest of the page partially transparent (or partially opaque, depending upon how you look at it).

### Roll Speed and Direction

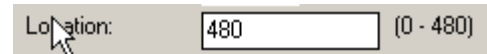
You can set and change roll speeds and direction with this control



A negative Speed will create a roll that moves from Bottom to Top...A positive Speed will do the opposite.

### Roll Location

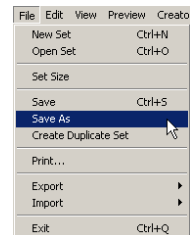
A roll can be located anywhere horizontally on the play out screen. Simply choose the pixel that you want the crawl to run at, 0 to 1024. Note the limits and pixel counts may change from application to application—the sample picture to the right may not be identical to your installation.



### Save Set

Once your set is complete, and you are satisfied with it. It will need to be saved so it can be scheduled.

Click FILE and select SAVE AS then enter a name for your set.



### Edit Content Within a Set

Editing Pages or other elements within a set is done to change dwell times, transitions, add or remove PiP windows, etc....

To Enter the Edit mode either double-left click the Page or element within it's column, or click on the EDIT button in the controls section (not EDIT CLIP, we'll save that for MPEGs).

You can also access edit functions by right clicking the page to be edited within the column

The PAGE ATTRIBUTES window will open (same window initially used to set everything for the page when it was originally added) for changes.

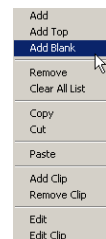
### Blanks

Blanks give us the ability to hold off events within a column. For example, if there is a background that should run for five seconds before any other zones come into play the zones will have to be held. Do this by adding a BLANK period within the column.

BLANKS can be added by clicking on the BLANK button in the controls section.



BLANKS can also be added by right clicking within the column. Let's add a blank to our Zone 2. After right clicking Zone 2 select and left-click "ADD BLANK"



A “BLANKS” dialog box will appear allowing us to set the BLANK DWELL and TRANSITION. Type “5” in the blank.

We now have a blank set in column B below the first page.

Now, a blank won’t do much good at the end there other than it would cause the page “Theme069.jpg” to start 5 seconds later than column A’s first entry the second time around. The blank would continue to add 5 seconds to the total play time of that column.

Perhaps though, we want to hold off column B for five seconds at the very beginning of the set. We have to rearrange the content within that column.

### Rearrange Elements Within a Layer

Right click on the page that we want to move...in this case, that is “Theme069.jpg”.

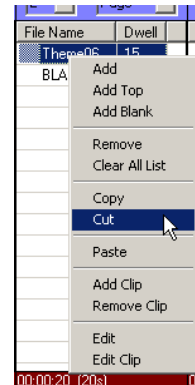
Then click CUT.

“Theme069.jpg” should disappear from the column now.

Next, simply right click in the column again, and click PASTE.

“Theme069.jpg” should now reappear in the column, but now below the BLANK instead of above it.

Start the PREVIEW window now—notice the BACKGROUND and COLUMN A start immediately while COLUMN B starts 5 seconds later.



Now, as you build your set, you can time events to come and go.

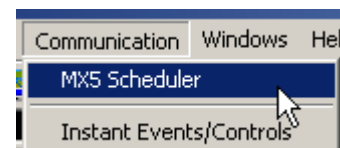
One trick to a professional looking set is that each layer (or column) should end up with the same total duration. That way, every time the Set Recycles, your timing and events will maintain their relationships as you intended. Check the ADVANCEDDEMO.SET to see how a complicated set can be timed to interact between columns and layers.

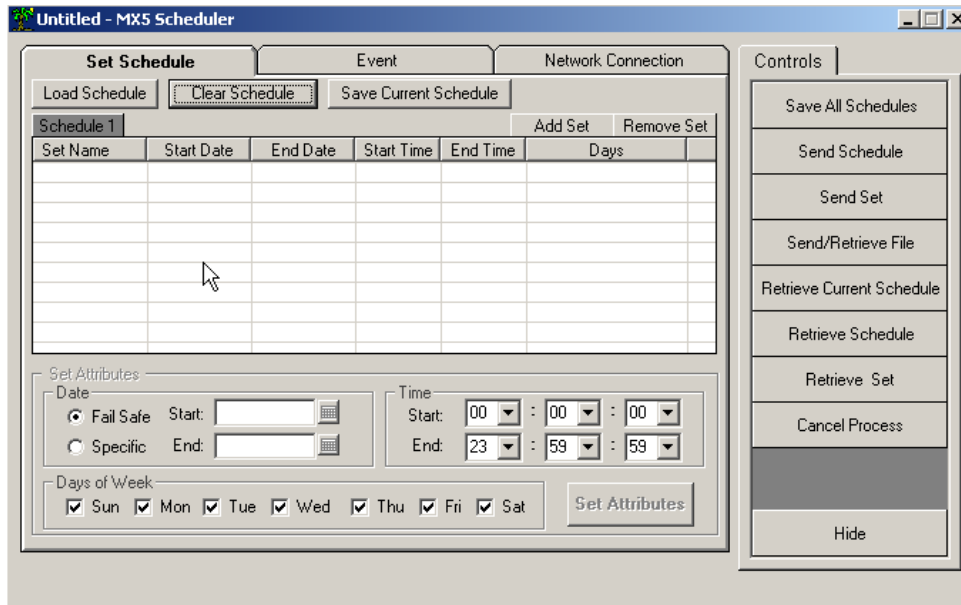
## SCHEDULE AND COMMUNICATE

The final step to being on air with your graphics is communications.

On the Menu Bar, Click COMMUNICATION then MX SCHEULER

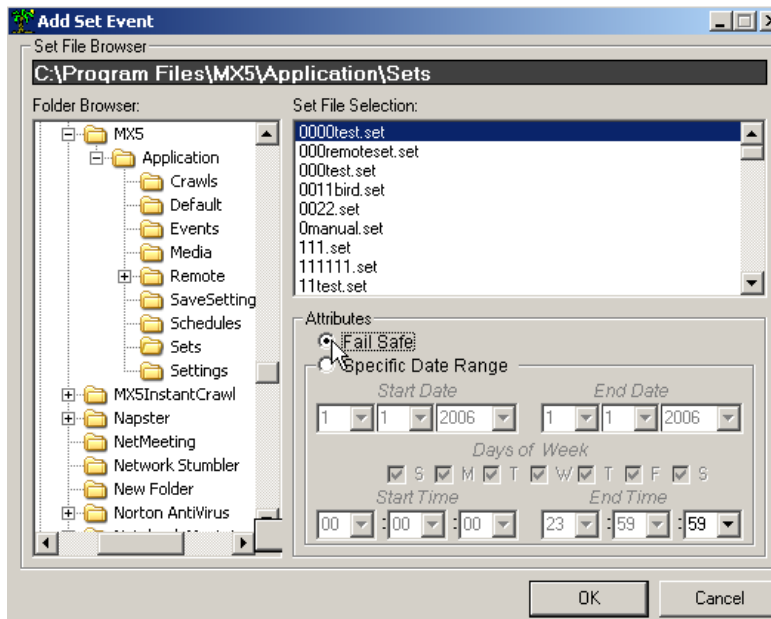
The SCHEDULER WINDOW will open.





### ADD A SET TO THE SCHEDULE

Step one is to add a set to the schedule. Click ADD SET and select the first Set you wish to place in the schedule





Browse to your set with the left-hand side FOLDER BROWSER. Remember, you can save sets on any attached drive, including network drives. Once you locate your set, ensure you have your desired attributes set:

**FAIL SAFE or SPECIFIC DATE RANGE:** Sets can be scheduled in two ways...FAIL SAFE or SPECIFIC DATE RANGE. Every schedule must have a FAIL SAFE set. FAIL SAFE sets play when no other scheduled sets are valid, and of course when they are the only set in a schedule. Fail Safe is designed to prevent “black air”—so that no matter what the date or what the time, at least one set is always valid within a schedule. If the set you are scheduling is to be the only set in the schedule (as it would be for a tutorial) ensure you click the FAIL SAFE radio button.

A SPECIFIC DATE RANGE setting allows you to program a set within your schedule to play at certain times and to be bypassed at other times. For instance, you can have two sets in your schedule: One is your fail safe (the set that plays when no others are valid) and the other set to a SPECIFIC DATE RANGE of perhaps every day for the month of December, with time set at 12:00:00 to 15:00:00...this would result in your fail safe set playing most of the day, but each day in December between 12:00 PM and 3:00 PM, your specific set will play. This is an extremely valuable tool if you are matching advertising to time of day demographics, or selling time blocks on a schedule, or just have different content for different periods. Not only can time and date be specified, so can specific days of the week.

After your attributes are set, click OK on the Set Attributes Window. Your set will now be listed in the first row of the scheduler.

Notice, you can highlight any set on this form and adjust the Start/Stop Dates, TIMES and Days of week as well as make a fail safe set specific or vice versa. Finally, we need to save the

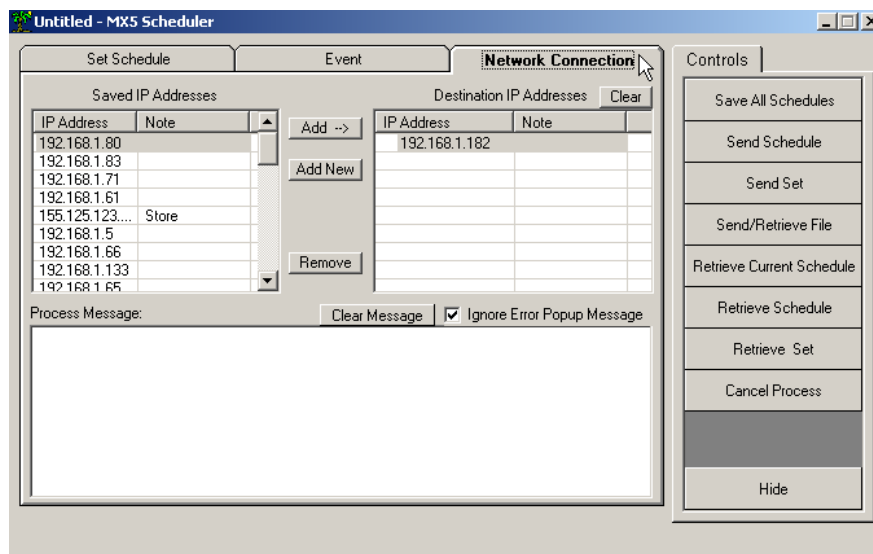
schedule and name it. Click the SAVE CURRENT SCHEDULE or SAVE ALL SCHEDULES, and provide a name for the schedule in the browser window that opens. If your schedule already has a name, SAVE CURRENT and SAVE ALL will save under the same name.

You can determine if your set is programmed as a valid FAIL SAFE if the Start Date, End Date, Start Time, and End Time all have the value “ANY”.

## COMMUNICATIONS

The final step is to send you schedule to the player.

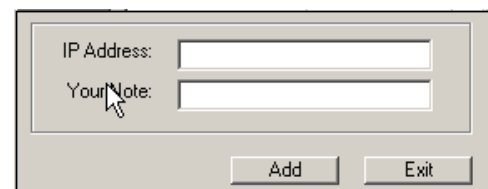
Click the NETWORK CONNECTION Tab.



Click ADD, or ADD NEW if the IP isn't listed on the left, to add the IP address of your MX. This address was set when you first installed the device.

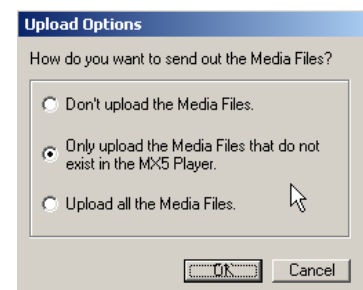
Enter the IP here and a note if you'd like to identify the address to yourself (useful mostly with multiple devices).

Note: You can use the network name of your MX in lieu of an IP address.



Once an IP address is set, click the SEND SCHEDULE Button. The UPLOAD OPTIONS dialog will open. Choose the first option if you know all of your media already exists on the player and you want the fastest way to send a schedule change only.

Choose the middle option for true SMART UPLOADS. This option will poll the player, compare your schedule and send only the files



that are necessary for the new schedule to play. SMART UPLOADS may not register existing media during the first upload after software installation or software upgrades as attributes can change between software versions.

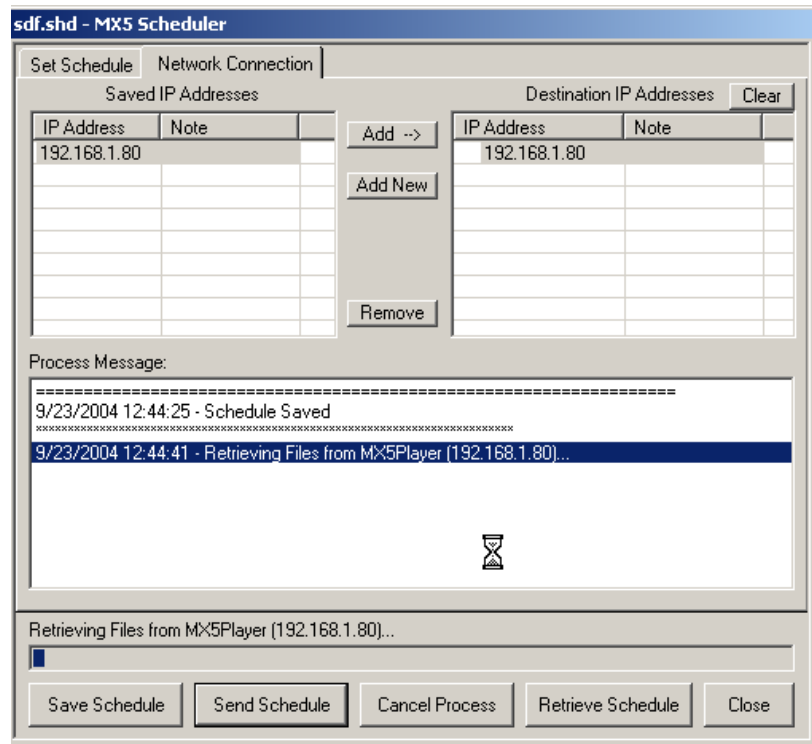
The final option is to Upload all Media—Use this to ensure an upload of all the contents of your MEDIA folder. This option could take a very long time to progress. This would be used if you wanted to pre-load all of your media on the player, and only make minor changes later to just the schedule.

Click OK.

The text box in the network window should give you progress and feedback on the sending process.

Once the send is complete, you will get a green check mark next to the IP address in the upper right box, or a red X if communications was unsuccessful.

If communications was successful, your set and your schedule should now be playing on your MX.

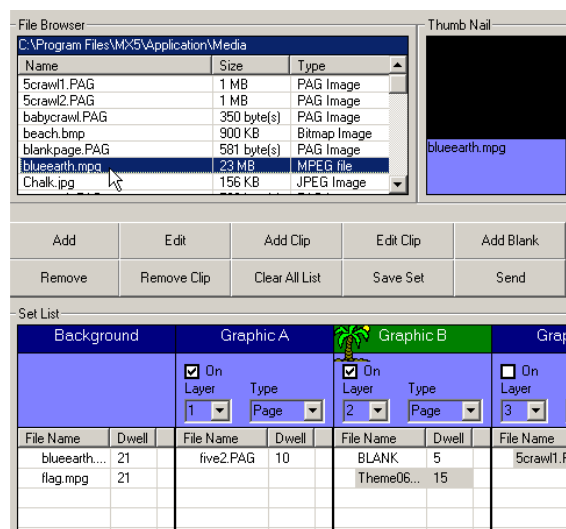


## ADDITIONAL FEATURES and FUNCTIONS

### ADD VIDEO CLIP to PiP PAGE AFTER PAGE ADDED TO LAYER

As we already have covered, the MX is capable of playing back a video file in a PiP window within a set. Remember a page must have a PiP window in order for a video clip to be attached to it. If we have such a page and did not attach a clip to the page at the time we added it to a layer, we can still do so after the fact.

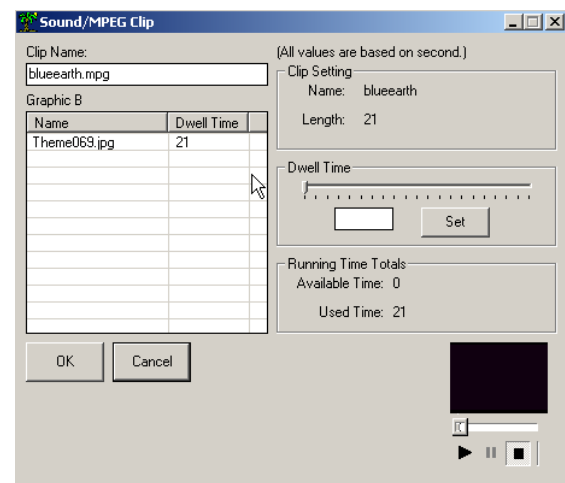
Going through the tutorial, we added a PiP window to “Theme069.jpg”, and we did add a clip to the page...but if we hadn’t...



As shown above, select the page to receive the MPEG, and then select the Clip to be added from the file browser. Click ADD CLIP in the control section, or right click and select ADD CLIP.

The Add Clip window will open.

This window will allow you to adjust the clip dwell, which will change the dwell of the page. The system defaults to the actual length of the clip, but it is available for change. This form allows for a clip to be added over multiple pages. This might be an interesting addition for you if you wish to play a 30 minute clip and want to change the graphics and backgrounds, or crawls and logos during the show.



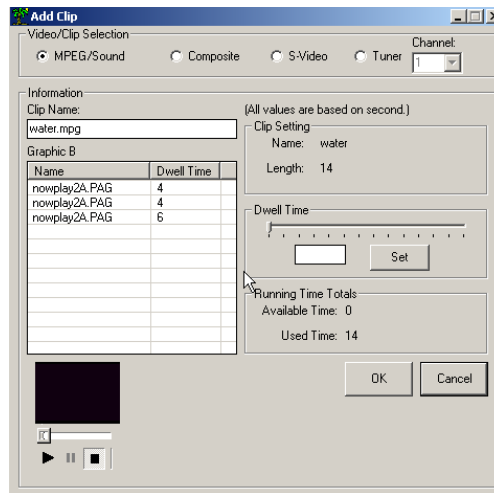
To add an MPEG over multiple pages, simply highlight multiple pages on the COLUMN SET LIST (each page must already have a PiP Window on-board).

To multi-select pages, hold down the SHIFT key on the keyboard, and click on the sequential list of pages you wish to add a single clip to.

Then, click on the clip name in the FILE BROWSER WINDOW followed by ADD CLIP in the control buttons or Right Click on the clip and select ADD CLIP

The MPEG ATTRIBUTES window will open, and this time you'll see three pages there.




File Name	Dwell
BLANK	5
Theme06...	15
Theme06...	15
Theme06...	15



You can then add the clip to all three pages so that the clip will play once while the pages change at the dwell periods you set. Notice at the top of this window that you can also add video inputs (composite, S-Video, or a Tuner Input) as well as sounds to multiple pages (maybe voice-overs for a classified add channel).

The DWELL times will be evenly spread over all the pages you selected. You can adjust those times as desired on the previous attributes window.

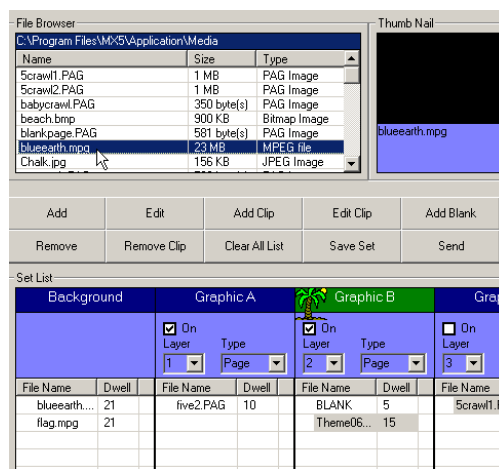
Once you have selected the MPEGS over three different pages you will see RED "filmstrip" icons to the left of each page to indicate a clip is attached.

File Name	DT	TT
Theme06...	32	32
 nowplay2...	4	36
 nowplay2...	4	40
 nowplay2...	6	46

## ADD AUDIO to a PAGE or MULTIPLE PAGES AFTER PAGES ADDED TO LAYER

As we already have covered, the MX is capable of playing back an Audio file attached to a specific page. This may be a soundtrack for a page or maybe a voice over (such as those used in common advertising). If we did not attach an audio clip to a page at the time we added it to a layer, we can still do so after the fact.

Select any page in our set that does not have a clip of some sort already attached. Note that you can attach a video clip, or web page, or video source, or audio clip to a page, but only one of those may be attached at any given time.

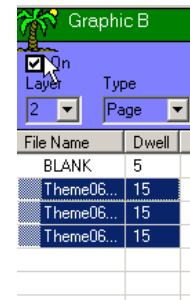


As shown above, select the page to receive the audio clip, and then select the Clip to be added (wav or mp3) from the file browser. Click ADD CLIP in the control section, or right click and select ADD CLIP.

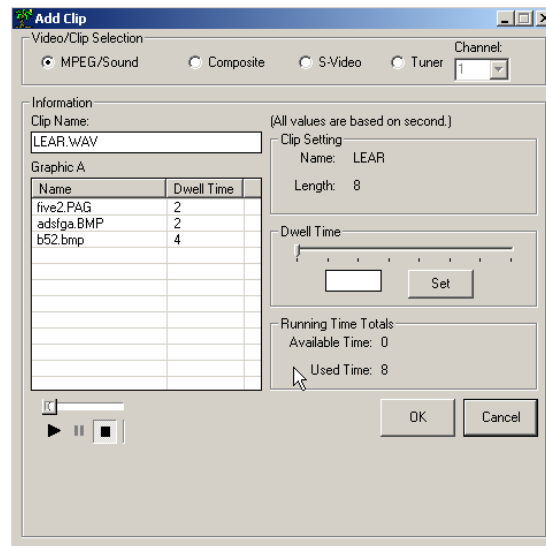
To add audio over multiple pages, simply highlight multiple pages on the COLUMN SET LIST.

To multi-select pages, hold down the SHIFT key on the keyboard, and click on the sequential list of pages you wish to add a single clip to.

Then, click on the clip name in the FILE BROWSER WINDOW followed by ADD CLIP in the control buttons or Right Click on the clip and select ADD CLIP



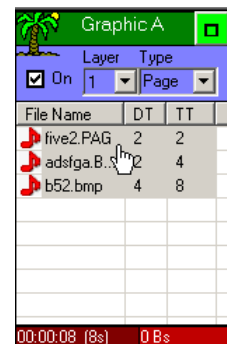
The CLIP ATTRIBUTES window will open, and this time you'll see three pages there.



You can then add the clip to all three pages so that the clip will play once while the pages change at the dwell periods you set.

The DWELL times will be evenly spread over all the pages you selected. You can adjust those times as desired on the previous attributes window.

Once you have selected the MPEGS over three different pages you will see RED musical note icons to the left of each page to indicate a clip is attached. If you had added audio to just one page, the musical note icon will be black.



## PLAY POWERPOINT

PowerPoint© is an application unto itself, so there are some limitations when playing back. Mainly, this limitation is that PowerPoint© has priority over all other media, so the presentation will be the only visible media on the output. Any effects, such as embedded video, text animations, transitions, and audio must be embedded in the PowerPoint© as the remaining layers of MX will be inhibited during playback. PowerPoint© can only be added to the background layer.

To add PowerPoint©, simply make the Background Layer active and use the file browsers to find and select your presentation. Add it to the background in the same method used to add any other content to the background layer.

Operational Note: PowerPoint presentations must be properly configured to play as a slide show on the MX series players per the following directions:

1. Open PPT file in MS PowerPoint, select menu Slide Show -> Set Up Show:
  - In frame Show type
    - Check option **Presented by a speaker(full screen)**
    - Check option **Loop continuously until 'ESC'**
  - In frame Advance slides
    - Check option **Using timings, if present**
2. Select menu Slide Show -> Slide Transition:
  - In frame Advance
    - Check option **Automatically after**
    - And set the [xx:xx] (seconds)

## PLAY FLASH

The MX and devices are capable of playing Flash files as standard content. These can be Macromedia Flash© or any of the third party flash generating products available on the market (such as Xcelsius©).

Rules for Flash files are similar to PowerPoint©--they can be added to the background layer only. The difference between PowerPoint© and Flash is that Flash behaves as though it were a background MPEG video—you can key other content over the top including PiP windows, crawls, rolls, and logos.

To add FLASH, it must be saved as a .SWF file. Simply browse to the folder containing your Flash files and add them to the background in the same method you would use to add an MPEG to the background.



**DISPLAY WEB PAGE**

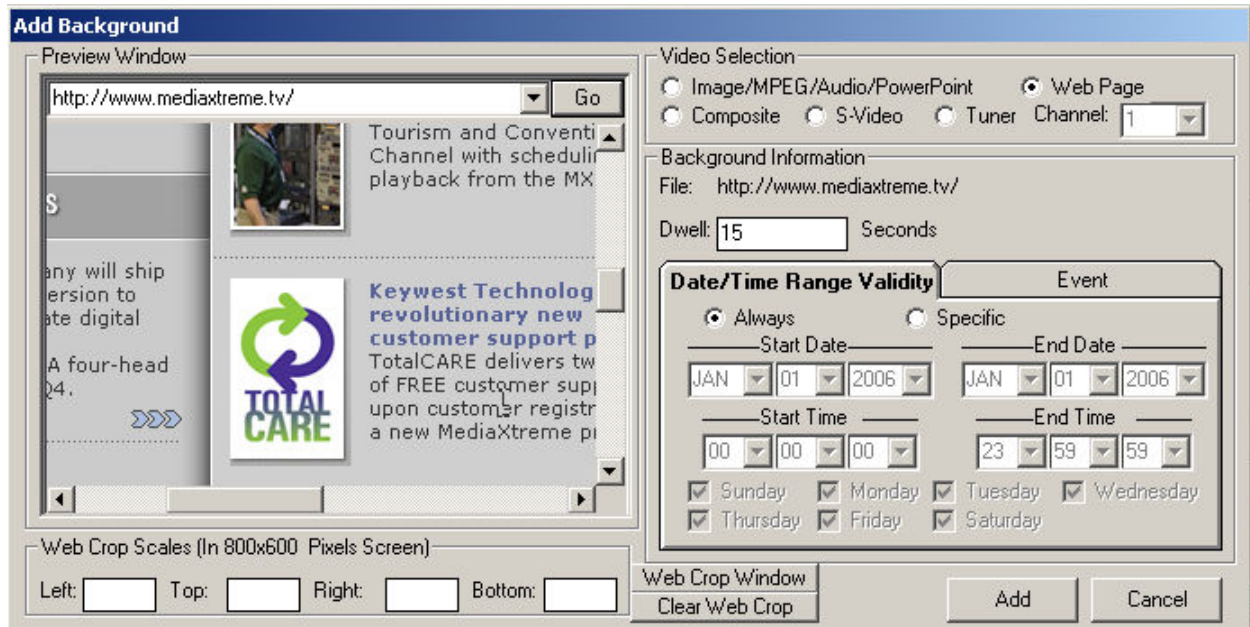
Web pages can be displayed as background layer items or within PiP windows. To add as a background, activate the background layer by clicking on it. Then, right click on the background layer and select ADD WEB PAGE.

Add Item To Top	Ctrl+T
Add Item	Ctrl+A
Add Web Page	Ctrl+W
Add Blank	Ctrl+B
Add Clip	Ctrl+M
Edit Item	Ctrl+E
Edit Clip	Ctrl+P
Copy	Ctrl+C
Cut	Ctrl+X
Paste	Ctrl+V
Remove Item	Del
Remove Clip	Ctrl+R
Clear All	Ctrl+L

Or click the ADD ITEM icon on the right quick start pane then select WEB PAGE on the select window



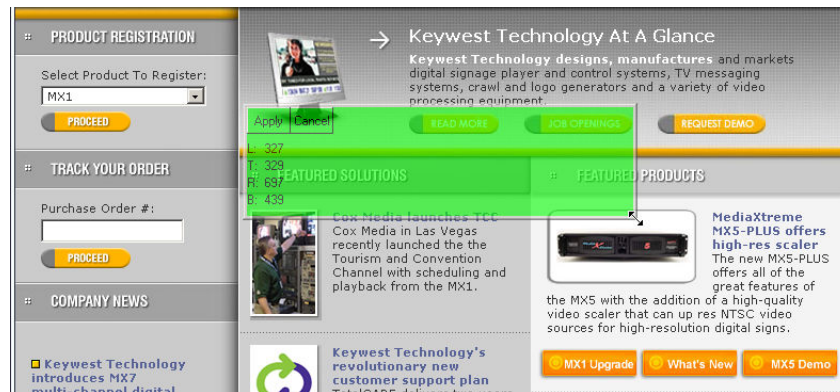
The Web Page Attributes window will appear



The Preview Window will start blank—type in the URL (the web address) that you wish to display. In our example, we used www.mediaxtreme.tv (there is no need to type the http:// portion of the address). After entering the URL, click GO and your web page will be displayed live in the Preview Window.

Once you verify this is the web page you are after, you can set the Dwell time of the page and the Date/Time validity. Click the ADD button when you are ready to add the web page to your set.

An additional feature of the Web Page tool is WEB CROP WINDOW. This function allows you to choose just a portion of a web page for display. To use, after you have selected your URL and have it displayed in the preview window, click the WEB CROP WINDOW button.



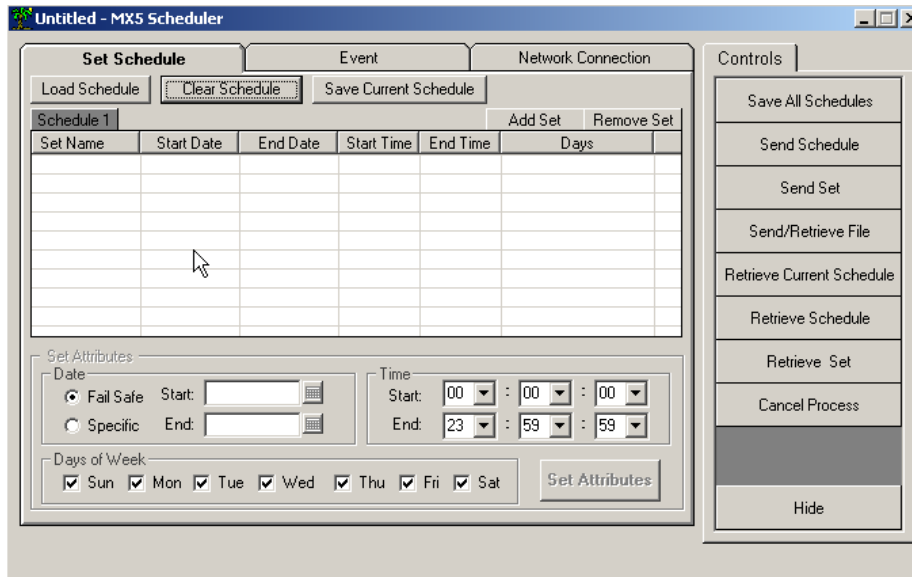
A full screen representation of your web page will appear with a translucent green box. This box is the actual crop area. Use the mouse and drag the corners of the green box to select the area to be cropped. Once satisfied with the crop area, click the APPLY button within the green box. This will set the actual size and position of an area of that web page that will be displayed in your set.

It is important to note that the crop box has no knowledge of the content that is within its borders. If you are cropping a specific section of a web page that you have no control over (like a map, or crawl, or active content) and the web master in control of that page moves elements around, the crop box will not automatically compensate, rather will still crop the exact same size and position you set in this step.

## ADVANCED COMMUNICATIONS

Earlier in the Tutorial Section of this manual we covered the basic communications. As you've probably noticed, the Communications item has several additional buttons we didn't use. Let's start with the Scheduler.

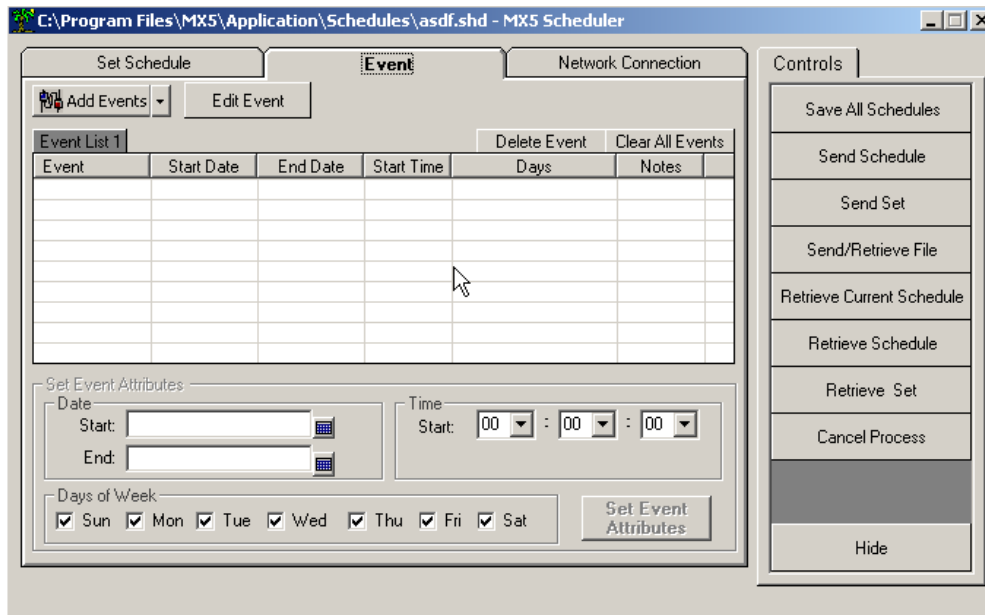
If not already open, click COMMUNICATIONS and MX SCHEDULER.



We have already looked at the SET SCHEDULE tab and the NETWORK CONNECTION tab. Let's take a look at the EVENTS tab.

### SCHEDULED EVENTS

Click the EVENT tab on the scheduler:

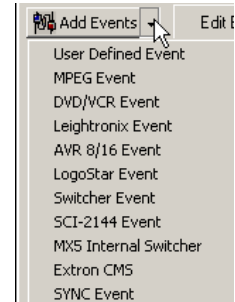


Notice the event window has some of the same control as the set schedule tab. The key differences being that pre-programmed events must be selected through the ADD EVENTS drop

down box and that there is no stop time to an event—only start. An event doesn't require a stop time because it is a single fire event—it is something that is triggered at an exact time—functions such as controlling a matrix, starting a DVD, triggering a tape deck.

To add a scheduled EVENT, click the ADD EVENTS drop down box. You'll see different events supported by the MX system.

We will cover each possible event individually. Please note that the events available in your system can differ from the image on the right. Keywest Technology's famed flexibility means that we are adding new device control very often to make our customer's jobs easier. Contact Keywest Technology with any requests—most can be accommodated at minimal cost. Any Serial, Network, or IR device can be controlled. Now let's look at each event:



## USER DEFINED EVENT

A User Defined Event is the epitome of flexibility. This function allows you to create your own event for serial controlled devices. This can be used to program events to turn off and on monitors at specific times, or make matrix switches to devices not currently supported, or make absolutely any RS-232 control command for your system. Click User Defined Event:

The most important block is the COMMAND STRING block. This is where you type in the actual RS-232 command string to control your device. For instance, if you are commanding a serially controlled switcher, the string found in that switchers manual might be something like IN1OUT1 (meaning input one to output 1). Simply type that command string exactly as it is shown in the device under control's manual—in our example, you would type IN1OUT1.

Next the event is going to require a name...type a name that has meaning to you so you can call this event again and again (if it's a switcher event, perhaps the name of the event would be "switch"—as long as it's something you can use).

Below the command string block, you'll need to use the Start Date and End Date to set the validity of your event. If you want the event to be valid always, simply click the End Date year drop down and go as far into the future as possible—10 years probably would cover any "forever" in the video business. You'll also set the valid Days of the Week for your event, and most importantly, the Start Time...the Start Time is the exact second your event will trigger.

Use the Comment block below the Start Time to add any reminder comments for yourself. These comments have no function other than pure information.

Next, you have to set the COMM port that is connected to the device under control. This is the COMM port of the MX or 7 player that is physically connected to your device. The COMM ports on your MX/7 are labeled. If your serial commands aren't working, this is the first place to look—ensure you have selected the proper COMM port for your event.

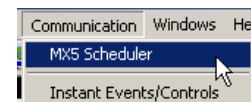
Below the port selection, you'll program the parameters of the RS-232 control. See the manual for the device you are controlling for BAUD RATE, DATA BITS, PARITY, STOP BITS, and FLOW CONTROL.

Finally, on the USER EVENT window you can assign an icon to your event. With an assigned ICON, EVENTS can be drag and dropped into timelines—useful if you want a specific event to be timed with a specific page or video. Your icon can be bitmap, jpeg, or gif.

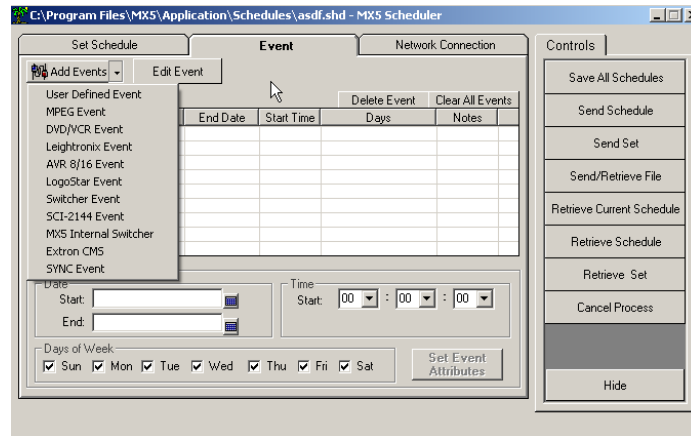
## MPEG EVENT

The MX system is capable of controlling external video servers via RS-232 serial control.

To add an MPEG EVENT to your schedule, click Communications and then MX Scheduler.

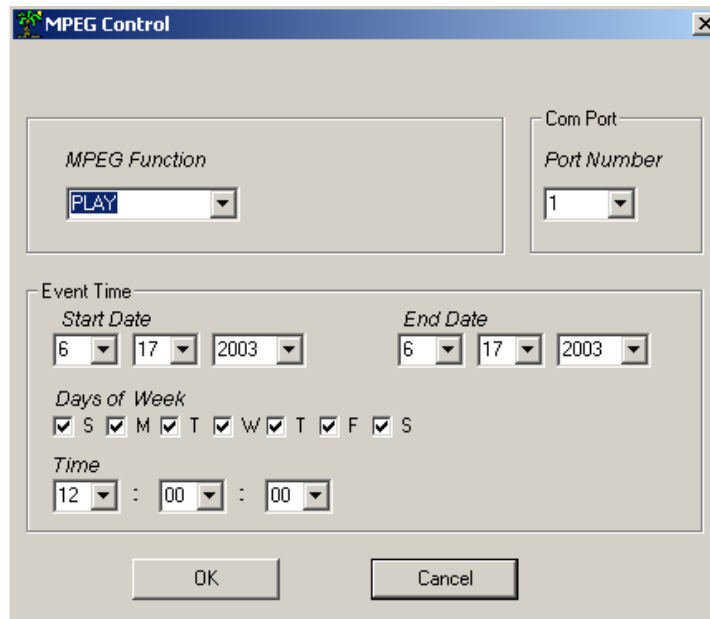


Click the EVENT tab and the ADD EVENT drop-down.



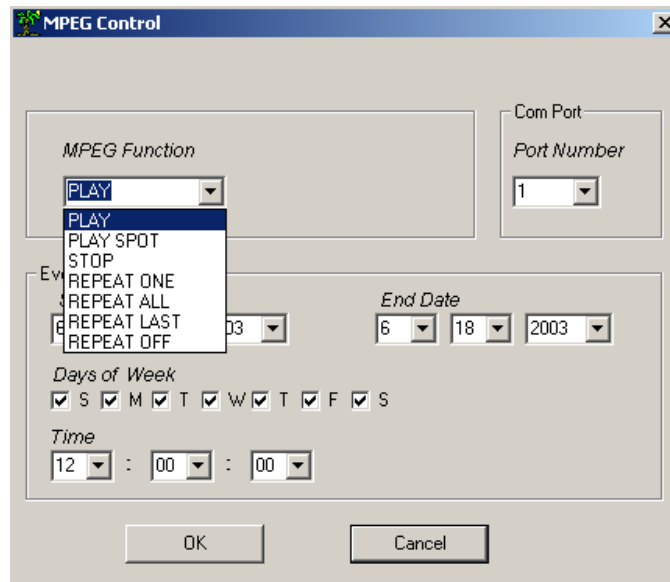
Select MPEG EVENT

These events would be used to control MPEG player devices such as the Keywest Technology's MX2-PRO or Adtec Edge and Soloists.



Your MPEG player device should be connected serially to your MediaXtreme so commands are relayed between the two devices. Ensure COM PORT is set to the proper MediaXtreme Port Number.

Under the category MPEG Function, there are several available options:



*PLAY*—Plays the current spot (Clip) from the MPEG player’s Play List (next in queue)

*PLAY SPOT*—Play a specific spot by name

*STOP*—Stops any spot that is playing

*REPEAT ONE*—Repeats the current spot until stopped

*REPEAT ALL*—Cycles through entire list or inventory of clips on MPEG player

*REPEAT LAST*—Plays entire list to the end, and repeats the last spot only

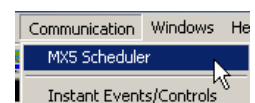
*REPEAT OFF*—Plays list to conclusion, then stops

As with all other control events, page events, or crawl events, you can set your MPEG event to be “always on”, or select certain days, dates, and times for the event to be active.

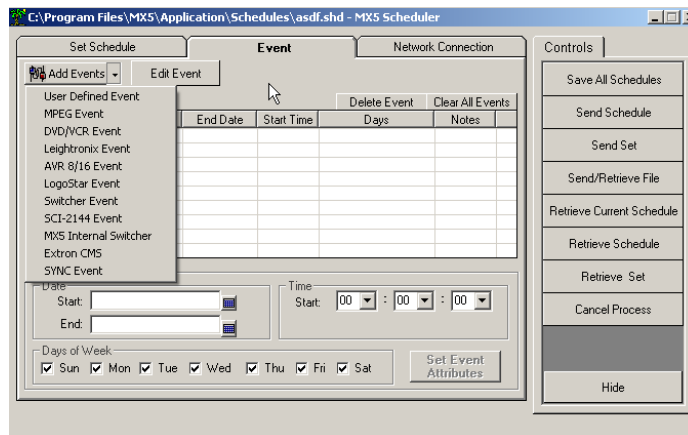
## DVD/VCR EVENT

The MX system is capable of controlling external DVD and VCR devices via RS-232 serial control.

To add a DVD/VCR EVENT to your schedule, click Communications and then MX Scheduler.

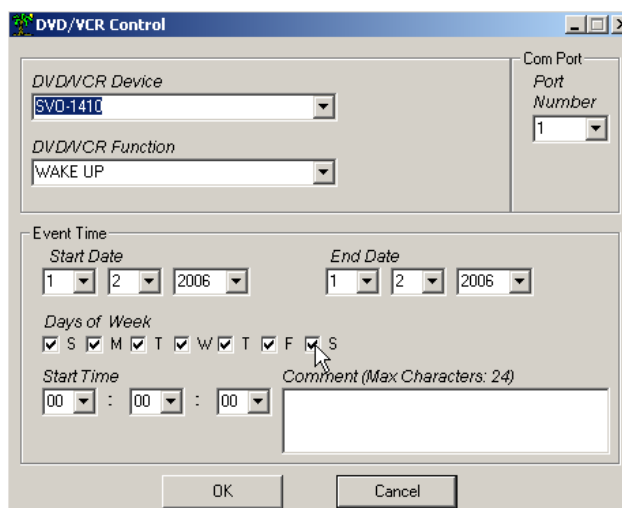


Click the EVENT tab and the ADD EVENT drop-down.



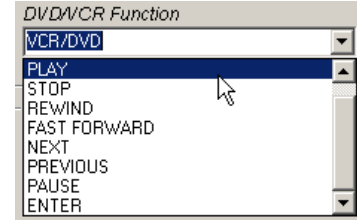
Select DVD/VCR EVENT

The MX series can be programmed to trigger several events on tape decks or DVD players. These events include playing, stopping, rewinding, Power On and Power Off, selecting chapters and more.





Choose your DVD/VCR Device using the drop-down menu. Next, choose the event you wish to occur under DVD/VCR Function. Be aware that available events will change based on the device selected. All devices feature the basics (Play, Stop, Pause).



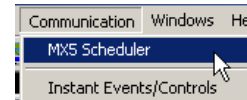
As with all other MX events, utilize the lower section of the EVENT window to set dates and times for events. Also, as a reminder, ensure you have the proper COMM PORT set prior to saving your event list.

Finally, for success, ensure you have the tape or DVD you wish to trigger inserted in the device and power applied.

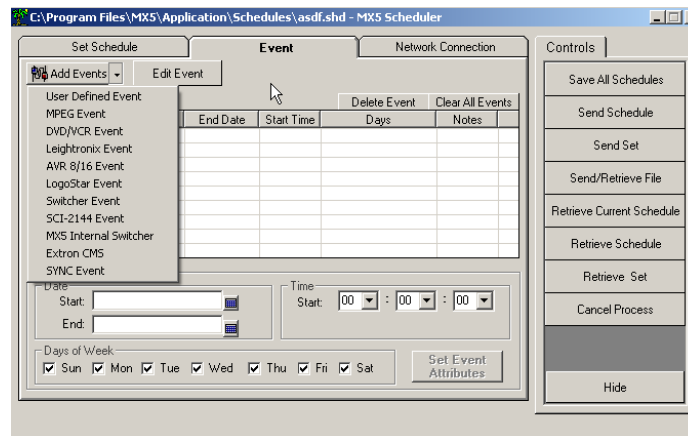
LEIGHTRONIX CONTROL EVENT

The MX system is capable of controlling external Leightronix devices via RS-232 serial control.

To add a LEIGHTRONIX EVENT to your schedule, click Communications and then MX Scheduler.



Click the EVENT tab and the ADD EVENT drop-down.



Select LEIGHTRONIX EVENT

This function creates events for legacy Leightronix controllers. The events tell the Leightronix to trigger selected functions on the devices it controls or to create switcher events. There are three different Leightronix controllers that can be used, the MINI-T, the PRO-8 and the PRO-16.

Devices controlled by these units include tape decks and laser discs. Later Leightronix devices are not supported because of a decision by Leightronix to no longer provide control protocol. Keywest Technology has replaced the Leightronix device with the AVR-8 switcher and device controller. This section of the manual is purely for customers who already own the original Leightronix devices and wish to continue using them.

You can program 3 Leightronix events simultaneously with this window. This allows you to program a Play, Stop and Rewind sequence on one screen. Select the controller type being used from the Type drop down menu in the Controller area.

Select the device that will be controlled from the Device drop down menu in the Controller area. If a switcher event is being programmed, select No Device and go on to the discussion about switcher events (**Error! Reference source not found.**).

Choices for the MINI-T include:

- No Device (selected when switcher events will be programmed)
- Tape Deck (which deck will be specified next)
- All Decks (indicating all decks controlled by the system)
- Laser Disc (which disc will be specified next)

All Discs (indicating all laser discs controlled by the system).

Choices for the PRO-8 and PRO-16 do not include laser discs and are limited to:

No Device (selected when switcher events will be programmed)

Tape Deck (which deck will be specified next)

All Decks (indicating all decks controlled by the system)

Select Tape Deck to continue building the sample event. If Tape Deck or Laser Disc has been selected, define what device number it is in the Number drop down menu, which is activated by those selections.

Each deck or disc is defined in the system by a number. When several devices of the same type are controlled by the system, it is important that the system know which one is going to be controlled in the event.

Choices are device numbers 1 through 8. Select 1 as the device for the sample event being built.

Select the control function for the selected device in the Function drop down menu.

If a tape deck device selection has been made, the function choices include:

Stop  
Rewind  
Play  
Record

If a laser disc device selection has been made, the function choices include:

Stop  
Play Segment  
Play  
Still

If Play Segment is selected for a laser disc event, the Start and Stop fields in the Laser Disc area are activated for a segment range to be defined. The valid ranges are from 0 to 54000.

The sample event is programmed to play the tape deck, so select Play. Select the com port that the Leightronix is connected to with the Port Number drop down menu in the Comm Port area.

Port number choices are 1, 2, 3, and 4. This specification tells the Display Station where to look for the Leightronix input. Select 2, which is the usual port, for the sample event being programmed. Typically, the Creation Station is connected to port 1. Program the time and date elements for the event in the Event Time area.

These parameters define the time and date range within which the event will run.

Start Date and End Date come up with the current date as their defaults. Whatever the date range must be is specified using the drop down menus for month, day and year.

The sample event is programmed to run throughout the month of November, so specify Nov 1, 1999 through Nov 30, 1999 as the date range.

Days of the Week determines on which days of the week within the date range the event will run. Click off any day when the crawl should not display. Remember, this selection defines the days for every week within the date range. So if Sunday is deselected, for instance, the event will never display on any Sunday in the date range.

The sample event runs every day, so leave all the days of the week checked off.

Time determines the time of day that the event should be triggered using a twenty-four hour clock. The sample event plays the tape machine starting at 4 PM, so specify 16:00:00. Click on OK. The control event is programmed.

*Based on the programming in the sample event, the event will play a tape machine every day at 4 PM during the month of November 1999.*

*The Leightronix Event window for this event with all the programming would look like the one pictured here.*

*A second event would be programmed with similar elements, but with Rewind as the Function and 16:30:30 as the Time to rewind the deck after play out is complete.*

*The result of this programming appears on the Schedule window as seen on that window at the beginning of this discussion. The type of event is noted as Control Event but only the date and time parameters appear in the Schedule window. No indication of what kind of control event is scheduled appears on the window.*

*To find out more information about the event, highlight the event in the Schedule list and click on Edit Event. That brings up the Leightronix Event window for the event. Event information can be checked and changed if desired.*

Switcher events are programmed in the Switcher area of the Leightronix Event window.

The other parameters in the Leightronix Event window must be accessed as needed to program the switcher event in the same manner as they were for programming the device control event. Refer to the steps in the discussion above for the specific details of these operations. Switcher events are programmed in the Switcher or Router area of the Leightronix Event window.

Switcher events and device control events can be programmed to occur together, in which case the Controller area would be programmed as appropriate for the device control event desired. For any event, the Port Number in the Comm Port area must be correctly specified (typically 2). This is usually set once and left alone for all future operations since it will not change.

The Event Time parameters apply to switcher events just as they do to device control events, so Start Date, End Date, Days of the Week, and Time parameters for when a switcher event should be triggered must be specified. If both a switcher event and a device control event are programmed together, the Event Time specification applies to both.

The three supported Leightronix controllers each have different Switcher or Router areas that reflect their individual input/output capabilities. Switcher or router capabilities are defined by how many inputs come into a unit and how many outputs go out.

That means for multiple inputs and outputs, decisions must be made as to which input to select and from which output or outputs the unit sends its signal. The Switcher or Router area is used make these specifications, so it's Input and Output drop down menus offer the appropriate choices for each unit.

The MINI-T is an 8 X 1 (8 inputs, 1 output). Since it has only one output, when it is the selected device, this area is designated as Switcher. The Input drop down menu offers input selections from 1 – 8 to choose from and there is no output drop down menu. An input selection of “—“ indicates no switch.

The PRO-8 is an 8 X 3 (8 inputs, 3 outputs). Since it has three outputs to choose from, when it is the selected device, this area is designated as Router and an Output drop down menu appears on the window. The Input drop down menu offers input selections from 1 – 8 and the Output drop down menu offers output selections from 1 – 3 to choose from. Multiple outputs can be chosen for any event. An input selection of “—“ indicates no switch.

The screenshot shows the 'Leightronix Events' configuration window. It is divided into several sections:

- Controller:** Type is set to 'MINI-T'. Below it are 'Device' (No Device) and 'Number' (0) dropdowns.
- Laser Disc:** Start and Stop fields are both set to '00000'.
- Com Port:** Port Number is set to '8'.
- Event Time Selection:** Checkboxes for 'Event Time 2' and 'Event Time 3' are present.
- Event Time 1, 2, and 3:** Each section contains:
  - Switcher:** Input dropdown (set to '-') and Delay dropdown (set to '0').
  - Start Date:** Month (8), Day (3), Year (2004) dropdowns.
  - End Date:** Month (8), Day (3), Year (2004) dropdowns.
  - Days of Week:** Checkboxes for S, M, T, W, T, F, S.
  - Time:** HH:MM:SS dropdowns (set to 00:00:00).
  - Function:** Dropdown set to 'No Function'.
  - Comment:** Text box with '(Max Characters: 24)'.

At the bottom are 'OK' and 'Cancel' buttons.

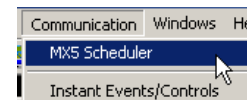
The PRO-16 is a 16 X 4 (16 inputs, 4 outputs). Since it has three outputs to choose from, when it is the selected device, this area is designated as Router and an Output drop down menu appears on the window. The Input drop down menu offers input selections from 1 – 16 and the Output drop down menu offers output selections from 1 – 4 to choose from. Multiple outputs can be chosen for any event. An input selection of “—“ indicates no switch.

The Delay drop down menu for all controller types allows a delay in seconds from 0 – 99 to be specified for each switcher event.

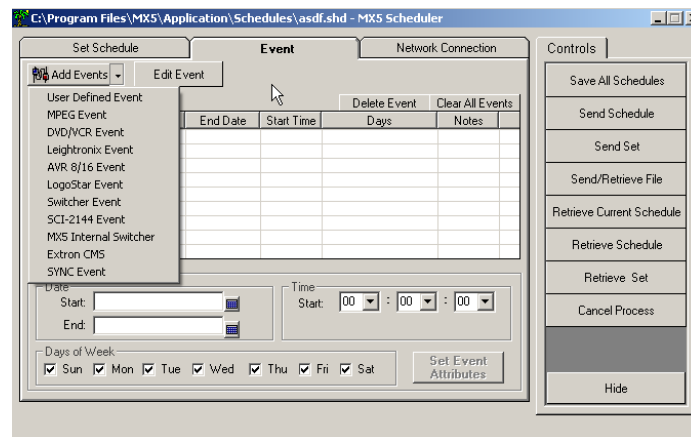
## ADD AVR8 EVENT

The MX system is capable of controlling external AVR8 switchers via RS-232 or TCP/IP control protocol.

To add an AVR8 EVENT to your schedule, click Communications and then MX Scheduler.

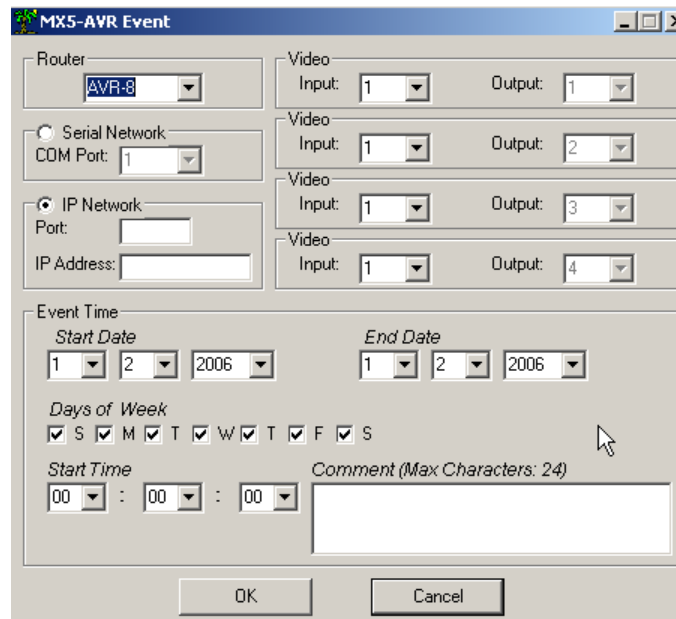


Click the EVENT tab and the ADD EVENT drop-down.



## Select AVR8/16 EVENT

The Keywest Technology AVR8 device is an eight input, four output AV switcher device with network and serial control capability. The AVR8 comes with a manual specific to its operation. The MX series products can control the AVR8 directly as with other devices already discussed.



Select the Router (typically AVR-8) and select control method. There AVR8 differs from other matrix switchers in that it can be controlled by serial commands (RS-232) or Ethernet via IP. Setup of the AVR8 is covered in the AVR8 manual—there are specific settings for both types of control protocols.

Keywest Technology recommends using IP Network control. To use IP Control set the IP NETWORK port by entering the port number set on the AVR8 (typically this value is 3000). Next set the IP address of the AVR8 (per the AVR8 manual).

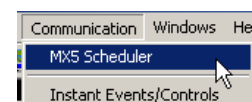
Choose the Input and Output configuration for the event. This event scheduler is programmed by the outputs—that is, there are four outputs on the AVR8, so those choices are static. What is changed is the input that is routed to the particular outputs. Set your input to output configurations using the provided drop-down boxes.

Set the event date/time and day of week trigger time, add any comments desired, and click OK to set the event in the scheduler.

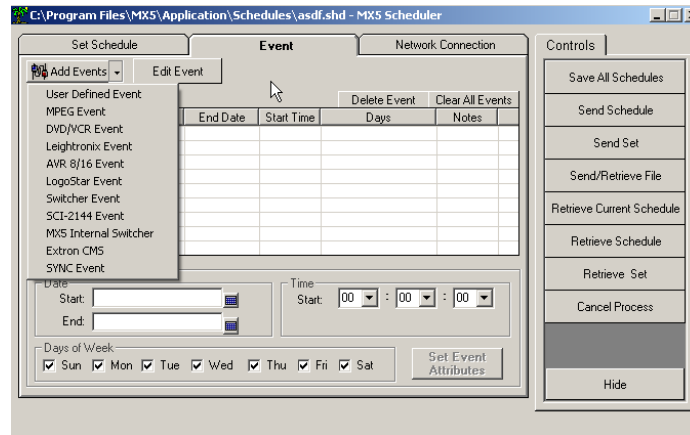
#### ADD LOGOSTAR EVENT

The MX system is capable of controlling external LogoStar 200 devices via RS-232 serial control. LogoStar 200s are used to insert static downstream logos.

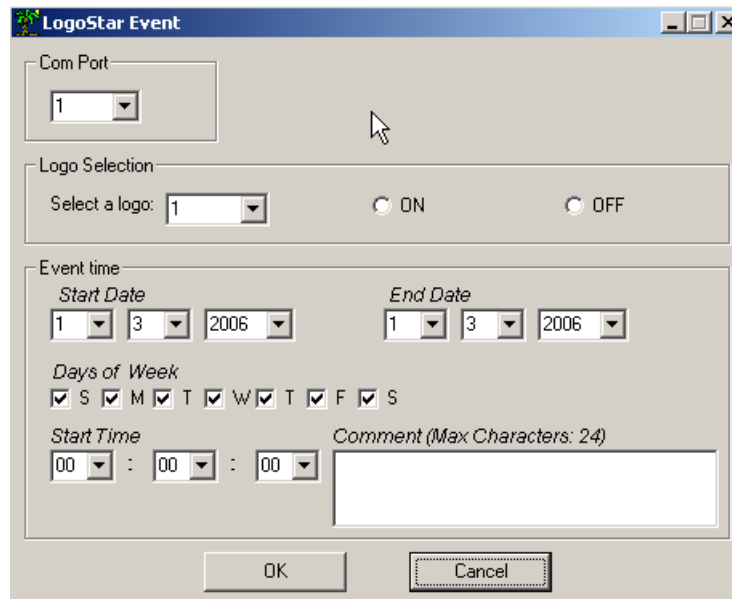
To add a LOGOSTAR 200 EVENT to your schedule, click Communications and then MX Scheduler.



Click the EVENT tab and the ADD EVENT drop-down.



Select LOGOSTAR EVENT



To trigger a logo event (logo on or logo off) set the Com Port that is connected directly to the LogoStar 200.

Select the logo you wish to trigger by number (see the LogoStar 200 manual to load and set logos).



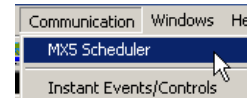
Select the event—LOGO ON or LOGO OFF—by selecting the appropriate radio button.

Set the event time, date, and days of week—when you are satisfied with the event click OK to add it to the EVENT programming.

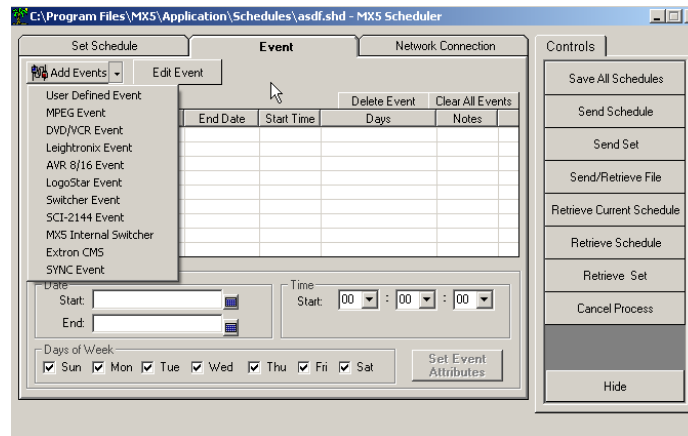
**ADD SWITCHER EVENT**

The MX system is capable of controlling external switcher devices via RS-232 serial control.

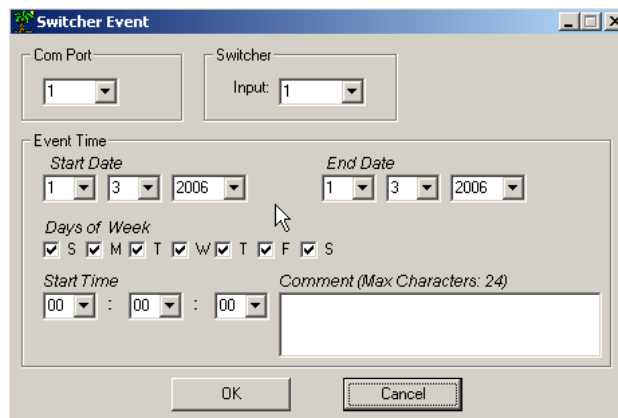
To add a SWITCHER EVENT to your schedule, click Communications and then MX Scheduler.



Click the EVENT tab and the ADD EVENT drop-down.



Select SWITCHER EVENT



Set the COM PORT to the actual MX port connected to the Switcher.

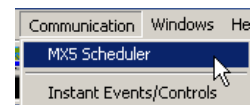
Next, set the input desired; set the start and end dates, valid days of the week, and the time for the triggered event.

Once set, click OK to program.

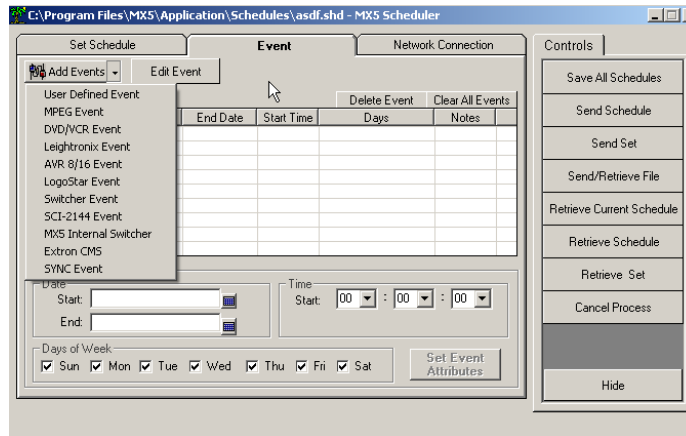
### ADD MX INTERNAL SWITCHER EVENT

The MX system has an optional four input one output internal audio and video switcher. If your player is so equipped, you can program switcher events through the Scheduler

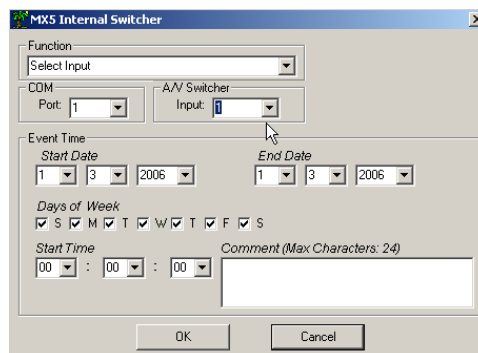
To add an INTERNAL SWITCHER EVENT to your schedule, click Communications and then MX Scheduler.



Click the EVENT tab and the ADD EVENT drop-down.



Select MX INTERNAL SWITCHER.



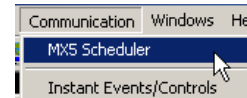
FUNCTION should be set to SELECT INPUT. Select the desired input (1 through 4). Set the start date, end date, days of the week and the Start Time for the triggered event.

When you have all desired settings loaded, click OK to set the event in the scheduler.

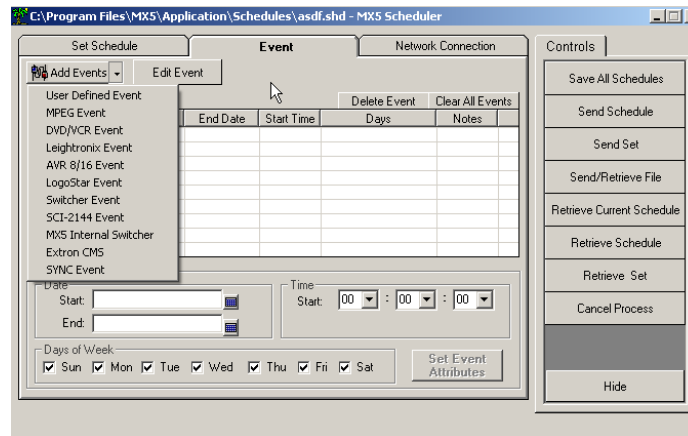
### ADD EXTRON SWITCHER EVENT

The MX system is capable of controlling external switcher devices via RS-232 serial control.

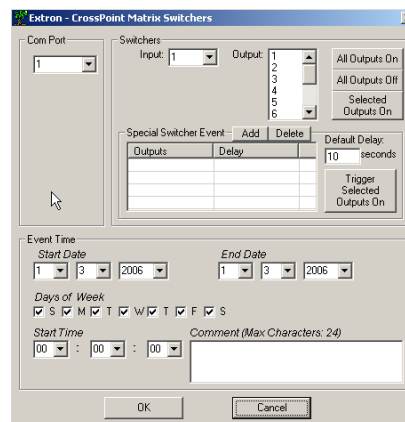
To add an EXTRON SWITCHER EVENT to your schedule, click Communications and then MX Scheduler.



Click the EVENT tab and the ADD EVENT drop-down.



Select EXTRON CMS



The MX family of products also supports RS-232 control of Extron switchers. Extron has a varied line of switchers and matrices with multiple inputs and outputs. See the SCHEDULER SETUP INI section to set your specific I/O count. Most Extron switchers use the same protocol, making this interface very flexible.

To use, ensure you have the proper com port set (the port on the MX that is physically attached to the Extron Switcher).

Choose your input number and output number for this specific event with the drop down boxes.

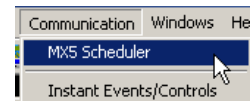
The SPECIAL SWITCHER EVENT section is special purpose and not normally used.

Set your valid days and dates along with trigger time and click OK to save the event.

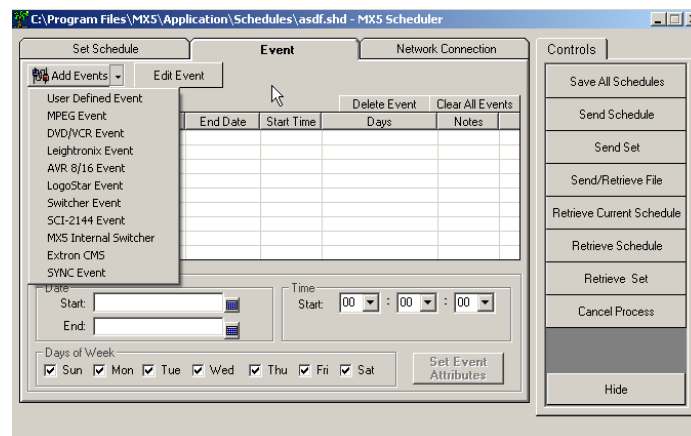
#### ADD SYNC ON SYNC OFF EVENT

The MX system has the capability to turn its video sync signals on or off on a triggered event. When used in a digital signage application, the MX device is typically connected to a flat panel or PC display via RGBHV or DVI connections. New displays of these type have auto-off features that cause them to turn off when no video sync signals are present. By triggering the MX to shut down sync at the end of the day for example, you can effectively turn off the connected displays at night—you can then add a SYNC ON event for every morning to automatically turn on your displays in the mornings.

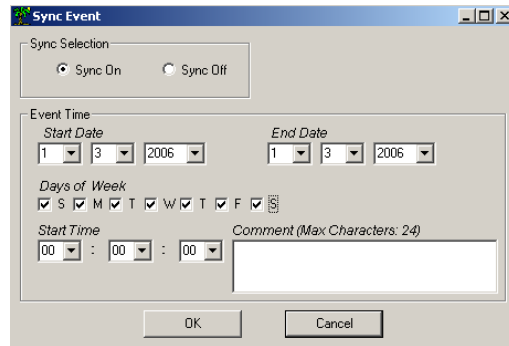
To add a SYNC ON or SYNC OFF EVENT to your schedule, click Communications and then MX Scheduler.



Click the EVENT tab and the ADD EVENT drop-down.



Select SYNC EVENT.



Select either SYNC ON or SYNC OFF by clicking the associated radio buttons.

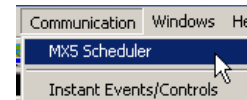
Set the valid days and dates and the trigger time.

Click OK to add the event to the scheduler.

Remember, SYNC ON and OFF are only applicable to the RGB outputs (RGBHV or DVI)—composite outputs are not affected.

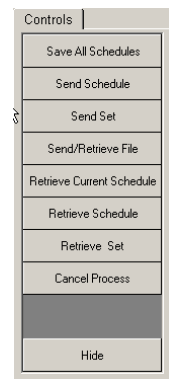
### COMMUNICATION CONTROLS PANEL

To access the COMMUNICATION CONTROL PANE, click Communications and then MX Scheduler.



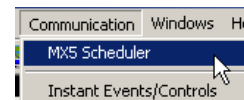
These buttons each have specific communications functions related to sending and retrieving data within the MX system. See the tutorial section of this manual for the SAVE ALL SCHEDULES and SEND SCHEDULE button function.

The remaining buttons have specific uses we'll cover individually



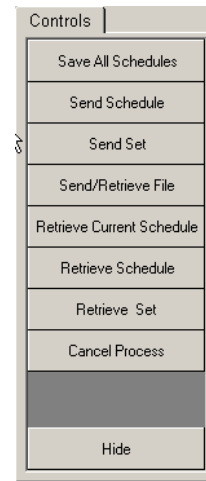
### SEND SET

To SEND SET, click Communications and then MX Scheduler.



On the right side CONTROLS PANE select SEND SET

The SEND SET function allows you to send a set to the MX player individually, without having to send an entire schedule and causing a restart of the schedule.

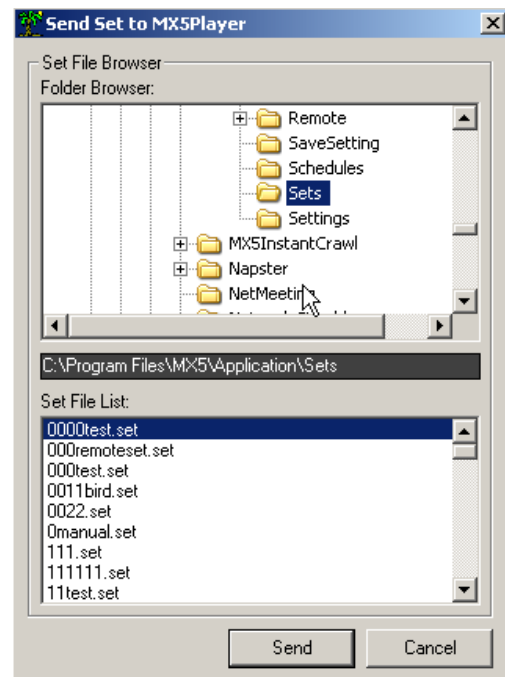


The SET FILE BROWSER window will open.

Browse to the folder that contains your set and then select the set name in the lower portion of this dialogue box.

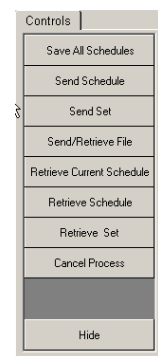
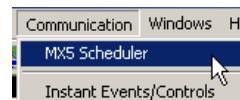
Once selected, click SEND to transfer the set from your scheduler computer to your MX player.

You must already have your network tab on your scheduler window setup with the proper IP address or network name to send to. To set this up, see the NETWORK TAB section of the SEND SCHEDULE portion of the tutorial earlier in this manual.



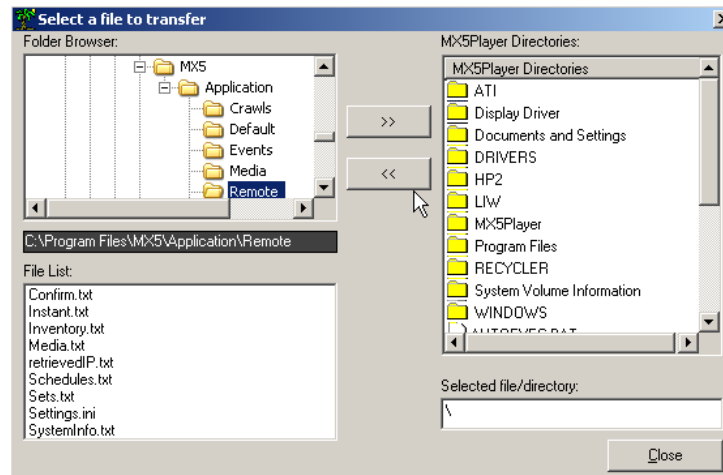
### SEND and RETRIEVE FILE

To SEND and RETREIVE FILE, click Communications and then MX Scheduler.



On the right side CONTROLS PANE select RETREIVE SCHEDULE

There are occasions it is useful to transfer individual files to or retrieve individual files from your player: Remote Upgrades; Log Files, Updated Media; Updated Text Files, etc...

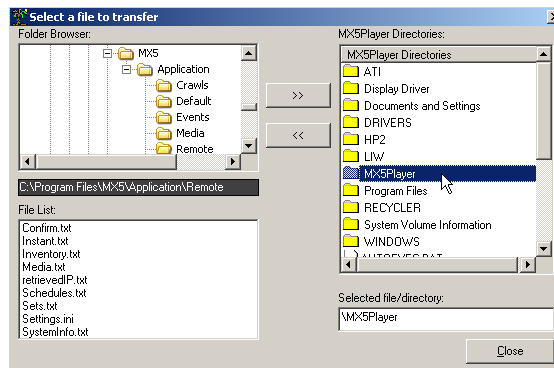


This function works much like a standard File Transfer Protocol application. To use, simply select the file you wish to transfer—either on the left side which is your local computer or the right side which is the player your are connected to. This means you must have your NETWORK TAB of your SCHEDULER WINDOW already configured (see the NETWORK TAB section of the SEND SCHEDULE portion of the tutorial earlier in this manual if not already configured).

Once you select which file you wish to transfer, you must select where you are going to transfer to.

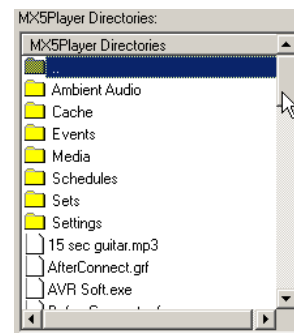
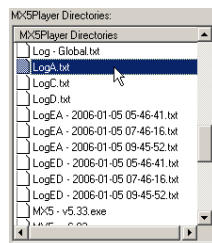
As an example, we will retrieve a log file from the player to your local computer:

With the SEND/RETRIEVE dialogue window open, browse to the MXPLAYER folder on the right side (the player browser).

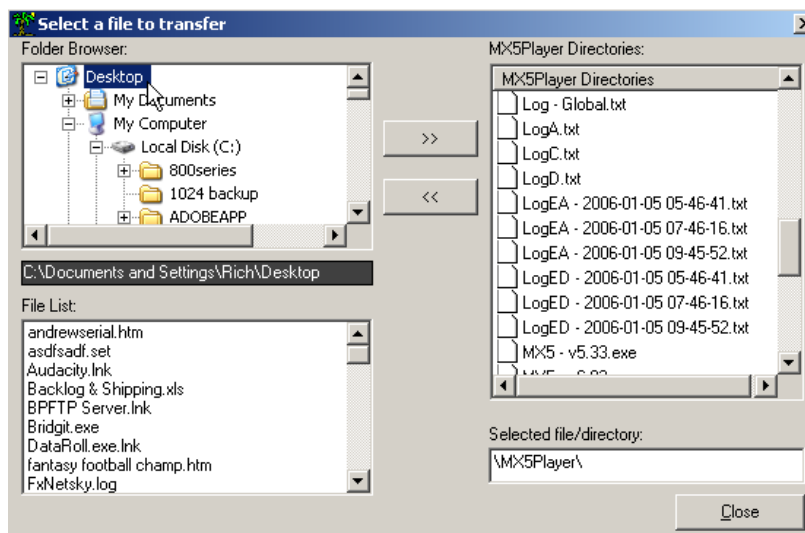


Open the MXPlayer Folder (should appear as shown on the right)

For our example, browse down to LOGA.txt and select.




Next, select on the left side of the dialogue box, the folder we wish to transfer the file into.

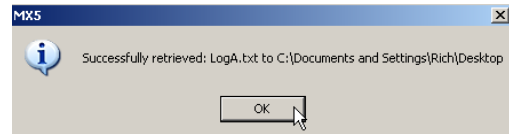




For our example, I have chosen my Desktop (makes it very simple to remember where I transferred the file).

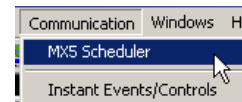
Next, click the left-pointing dual-arrows to begin the transfer . Remember, if we were transferring the other way, from your local PC to the Player, we'd use the right-pointing arrows.

After the file transfer is complete, you should see a message box verifying the successful transfer.



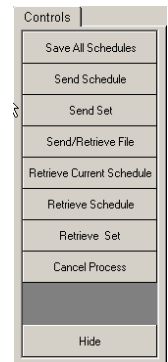
## RETRIEVE CURRENT SCHEDULE

To RETRIEVE CURRENT SCHEDULE, click Communications and then MX Scheduler.

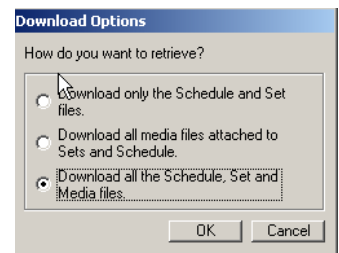


At times you may have multiple users or multiple scheduler PC's in control of your MX player. Or perhaps the control software has been loaded on a new PC. In this case you will probably need to download the schedule that is currently running on the MX player.

On the right side CONTROLS PANE select RETREIVE CURRENT SCHEDULE

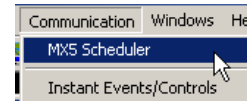


Normally, select the last option (as shown on the right) to download the schedule file, the set file, and all the associated media. This would not be necessary if you were just needing to download the media or the set files separately.

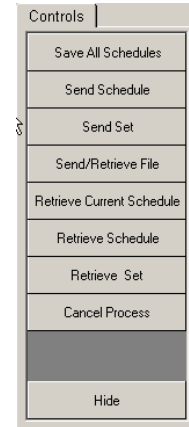


RETRIEVE SCHEDULE

To RETRIEVE a SCHEDULE, click Communications and then MX Scheduler.

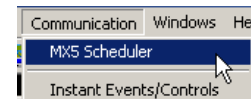


On the right side CONTROLS PANE select RETREIVE SCHEDULE

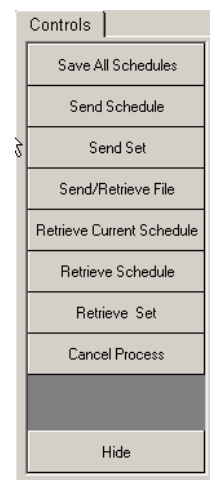


RETRIEVE SET

To RETRIEVE a SET, click Communications and then MX Scheduler.



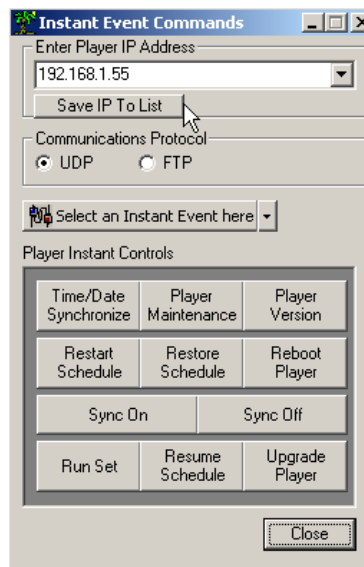
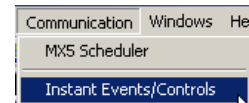
On the right side CONTROL PANEL select RETRIEVE SET



## INSTANT COMMANDS

The MX systems are capable of instant control commands that can be used for many valuable purposes: Remote Upgrading Players, Player Maintenance, Troubleshooting, Triggering Events, etc....

To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



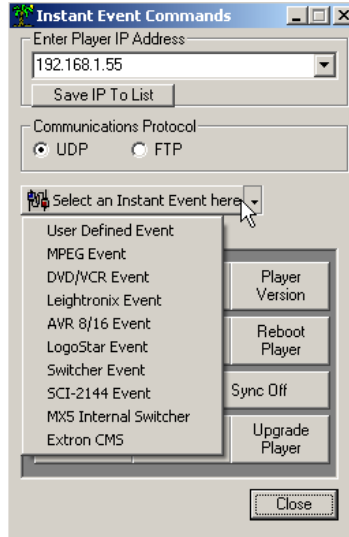
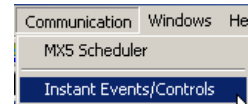
The first step to any instant command is to set the IP address or network name of the player to be controlled. Enter the IP or network name in the drop-down box or select if already saved (click SAVE IP TO LIST to enter it).

Communications Protocol can be either UDP or FTP. Do not change this setting unless you have trouble with the default. If there is an issue, you can change from UDP to FTP or vice versa by clicking the appropriate radio button. Changes should only be necessary if your network has certain ports closed or other security blockades.

The first section is INSTANT EVENTS

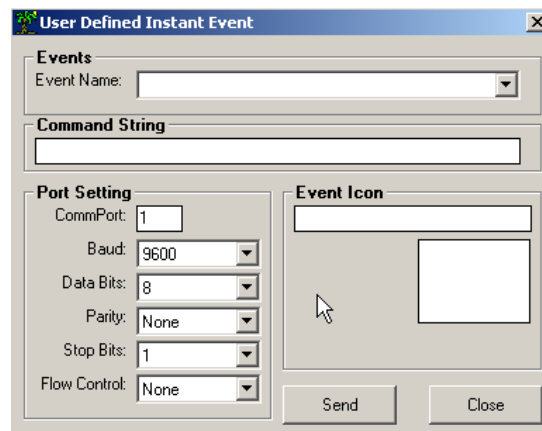
## INSTANT EVENTS

To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



### USER DEFINED EVENT

A User Defined Event is the epitome of flexibility. This function allows you to create your own event for serial controlled devices. This can be used to program events to turn off and on monitors at specific times, or make matrix switches to devices not currently supported, or make absolutely any RS-232 control command for your system. Click User Defined Event:



The most important block is the COMMAND STRING block. This is where you type in the actual RS-232 command string to control your device. For instance, if you are commanding a serially controlled switcher, the string found in that switchers manual might be something like

IN1OUT1 (meaning input one to output 1). Simply type that command string exactly as it is shown in the device under control’s manual—in our example, you would type IN1OUT1.

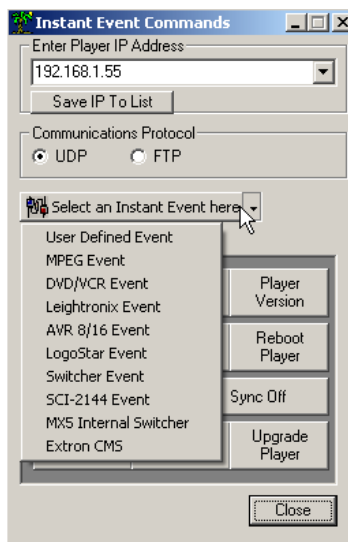
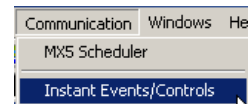
Next the event is going to require a name...type a name that has meaning to you so you can call this event again and again (if it’s a switcher event, perhaps the name of the event would be “switch”—as long as it’s something you can use).

Next, you have to set the COMM port that is connected to the device under control. This is the COMM port of the MX or 7 player that is physically connected to your device. The COMM ports on your MX/7 are labeled. If your serial commands aren’t working, this is the first place to look—ensure you have selected the proper COMM port for your event.

Below the port selection, you’ll program the parameters of the RS-232 control. See the manual for the device you are controlling for BAUD RATE, DATA BITS, PARITY, STOP BITS, and FLOW CONTROL.

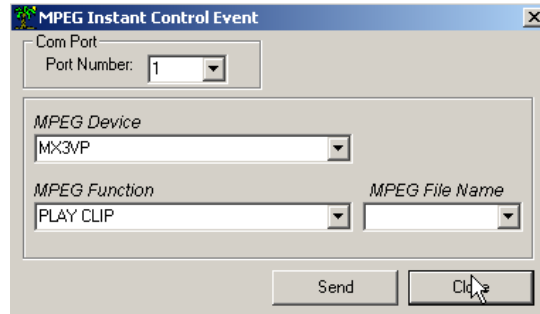
### MPEG EVENT

To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



Select MPEG EVENT

These events would be used to control MPEG player devices such as the Keywest Technology’s MX2-PRO or Adtec Edje and Soloists.



Your MPEG player device should be connected serially to your MediaXtreme so commands are relayed between the two devices. Ensure COM PORT is set to the proper MediaXtreme Port Number.

Under the category MPEG Function, there are several available options:

*PLAY*—Plays the current spot (Clip) from the MPEG player's Play List (next in queue)

*PLAY SPOT*—Play a specific spot by name

*STOP*—Stops any spot that is playing

*REPEAT ONE*—Repeats the current spot until stopped

*REPEAT ALL*—Cycles through entire list or inventory of clips on MPEG player

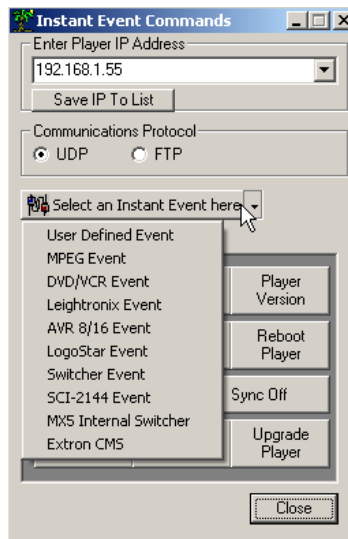
*REPEAT LAST*—Plays entire list to the end, and repeats the last spot only

*REPEAT OFF*—Plays list to conclusion, then stops

#### DVD/VCR EVENT

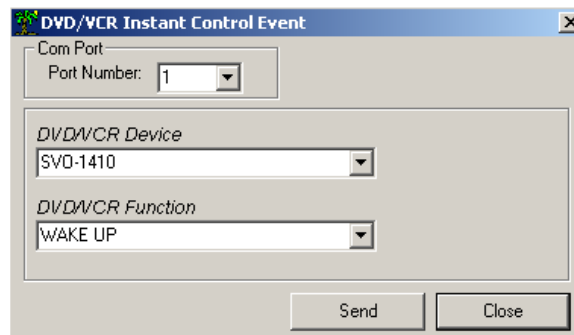
To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



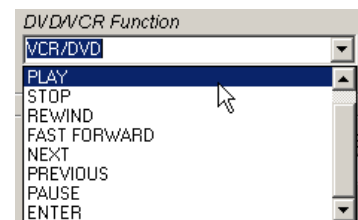


Select DVD/VCR EVENT

The MX series can be programmed to trigger several events on tape decks or DVD players. These events include playing, stopping, rewinding, Power On and Power Off, selecting chapters and more.



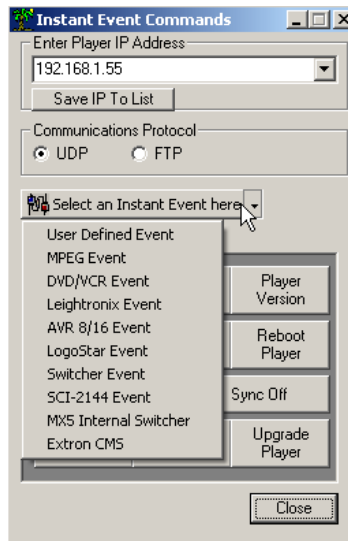
Choose your DVD/VCR Device using the drop-down menu. Next, choose the event you wish to occur under DVD/VCR Function. Be aware that available events will change based on the device selected. All devices feature the basics (Play, Stop, Pause).



Finally, for success, ensure you have the tape or DVD you wish to trigger inserted in the device and power applied.

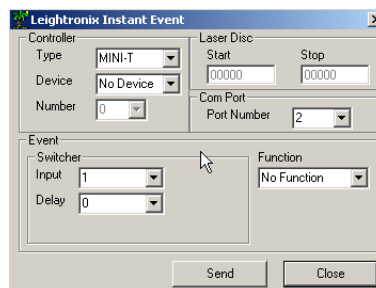
## LEIGHTRONIX CONTROL EVENT

To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



### Select LEIGHTRONIX EVENT

This function creates events for legacy Leightronix controllers to trigger selected functions on the devices it controls or to create switcher events. Only the MINI-T, the PRO-8 and the PRO-16 can be used with the MX system. Devices controlled by these units include tape decks and laser discs. Later Leightronix devices are not supported because of a decision by Leightronix to no longer provide control protocol. Keywest Technology has replaced the Leightronix device with the AVR-8 switcher and device controller. This section of the manual is purely for customers who already own the original Leightronix devices and wish to continue using them.





Select the device that will be controlled from the Device drop down menu in the Controller area. If a switcher event is being programmed, select No Device and go on to the discussion about switcher events (**Error! Reference source not found.**).

Choices for the MINI-T include:

No Device (selected when switcher events will be programmed)

Tape Deck (which deck will be specified next)

All Decks (indicating all decks controlled by the system)

Laser Disc (which disc will be specified next)

All Discs (indicating all laser discs controlled by the system).

Choices for the PRO-8 and PRO-16 do not include laser discs and are limited to:

No Device (selected when switcher events will be programmed)

Tape Deck (which deck will be specified next)

All Decks (indicating all decks controlled by the system)

Select Tape Deck to continue building the sample event. If Tape Deck or Laser Disc has been selected, define what device number it is in the Number drop down menu, which is activated by those selections.

Each deck or disc is defined in the system by a number. When several devices of the same type are controlled by the system, it is important that the system know which one is going to be controlled in the event.

Choices are device numbers 1 through 8. Select 1 as the device for the sample event being built.

Select the control function for the selected device in the Function drop down menu.

If a tape deck device selection has been made, the function choices include:

Stop

Rewind

Play

Record

If a laser disc device selection has been made, the function choices include:

Stop

Play Segment

Play

Still

If Play Segment is selected for a laser disc event, the Start and Stop fields in the Laser Disc area are activated for a segment range to be defined. The valid ranges are from 0 to 54000.

Switcher events and device control events can be programmed to occur together, in which case the Controller area would be programmed as appropriate for the device control event desired. For any event, the Port Number in the Comm Port area must be correctly specified (typically 2). This is usually set once and left alone for all future operations since it will not change.

The three supported Leightronix controllers each have different Switcher or Router areas that reflect their individual input/output capabilities. Switcher or router capabilities are defined by how many inputs come into a unit and how many outputs go out.

That means for multiple inputs and outputs, decisions must be made as to which input to select and from which output or outputs the unit sends its signal. The Switcher or Router area is used make these specifications, so it's Input and Output drop down menus offer the appropriate choices for each unit.

The MINI-T is an 8 X 1 (8 inputs, 1 output). Since it has only one output, when it is the selected device, this area is designated as Switcher. The Input drop down menu offers input selections from 1 – 8 to choose from and there is no output drop down menu. An input selection of “—“ indicates no switch.

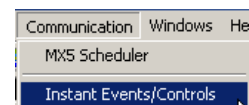
The PRO-8 is an 8 X 3 (8 inputs, 3 outputs). Since it has three outputs to choose from, when it is the selected device, this area is designated as Router and an Output drop down menu appears on the window. The Input drop down menu offers input selections from 1 – 8 and the Output drop down menu offers output selections from 1 – 3 to choose from. Multiple outputs can be chosen for any event. An input selection of “—“ indicates no switch.

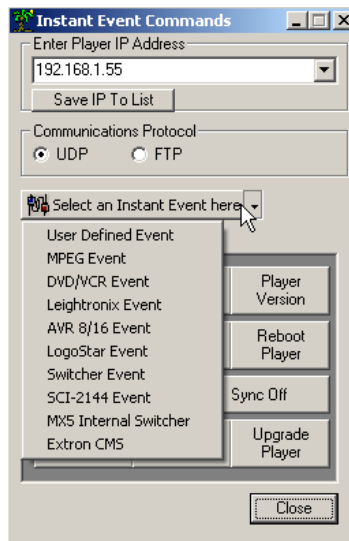
The PRO-16 is a 16 X 4 (16 inputs, 4 outputs). Since it has three outputs to choose from, when it is the selected device, this area is designated as Router and an Output drop down menu appears on the window. The Input drop down menu offers input selections from 1 – 16 and the Output drop down menu offers output selections from 1 – 4 to choose from. Multiple outputs can be chosen for any event. An input selection of “—“ indicates no switch.

The Delay drop down menu for all controller types allows a delay in seconds from 0 – 99 to be specified for each switcher event.

## ADD AVR8 EVENT

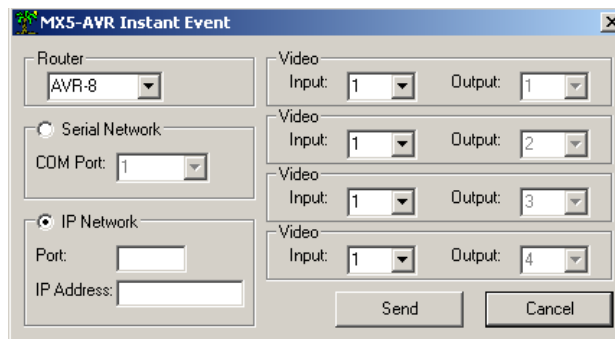
To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS





Select AVR8/16 EVENT

The Keywest Technology AVR8 device is an eight input, four output AV switcher device with network and serial control capability. The AVR8 comes with a manual specific to its operation. The MX series products can control the AVR8 directly as with other devices already discussed.



Select the Router (typically AVR-8) and select control method. The AVR8 differs from other matrix switchers in that it can be controlled by serial commands (RS-232) or Ethernet via IP. Setup of the AVR8 is covered in the AVR8 manual—there are specific settings for both types of control protocols.

Keywest Technology recommends using IP Network control. To use IP Control set the IP NETWORK port by entering the port number set on the AVR8 (typically this value is 3000). Next set the IP address of the AVR8 (per the AVR8 manual).

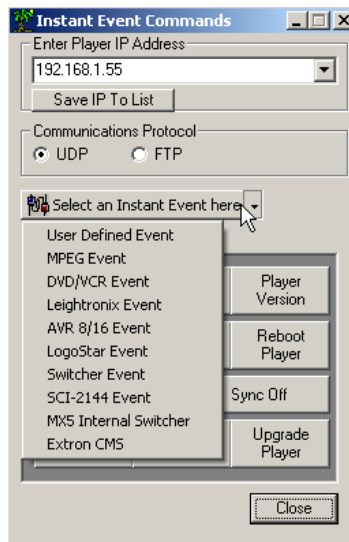
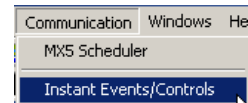
Choose the Input and Output configuration for the event. This event scheduler is programmed by the outputs—that is, there are four outputs on the AVR8, so those choices are static. What is

changed is the input that is routed to the particular outputs. Set your input to output configurations using the provided drop-down boxes.

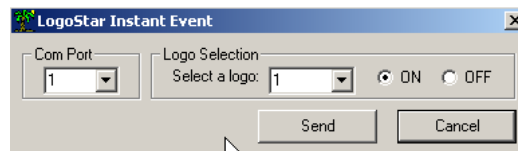
Click OK to send the event in the scheduler.

### ADD LOGOSTAR EVENT

To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



Select LOGOSTAR EVENT



To trigger a logo event (logo on or logo off) set the Com Port that is connected directly to the LogoStar 200.

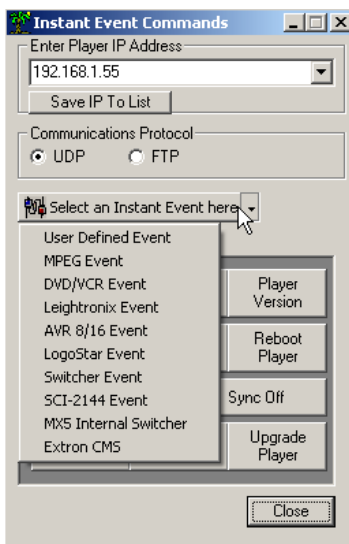
Select the logo you wish to trigger by number (see the LogoStar 200 manual to load and set logos).

Select the event—LOGO ON or LOGO OFF—by selecting the appropriate radio button.

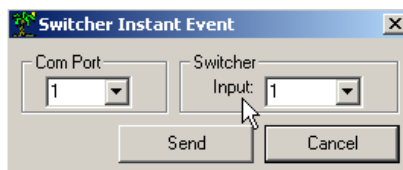
Click OK to trigger the event.

### ADD SWITCHER EVENT

To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



Select SWITCHER EVENT

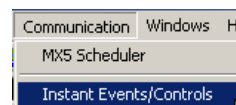


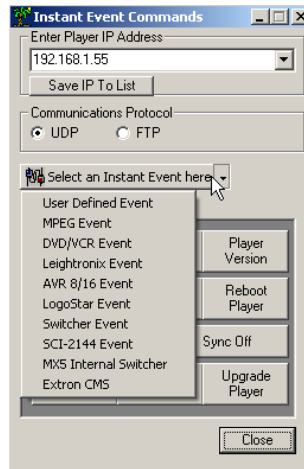
Set the COM PORT to the actual MX port connected to the Switcher.

Once set, click OK to trigger.

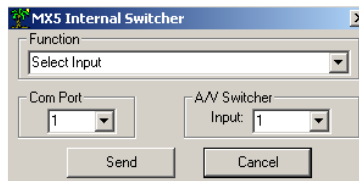
### ADD MX INTERNAL SWITCHER EVENT

To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS





Select MX INTERNAL SWITCHER.

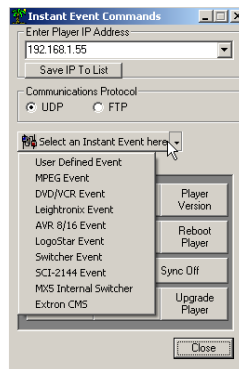
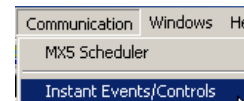


FUNCTION should be set to SELECT INPUT. Select the desired input (1 through 4). Set the start date, end date, days of the week and the Start Time for the triggered event.

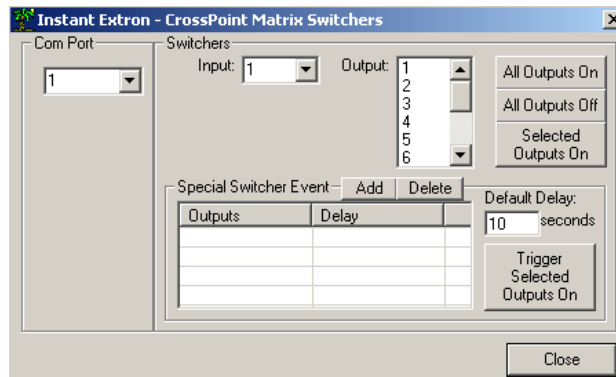
When you have all desired settings loaded, click OK to trigger the event.

### ADD EXTRON SWITCHER EVENT

To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



## Select EXTRON CMS



The MX family of products also supports RS-232 control of Extron switchers. Extron has a varied line of switchers and matrices with multiple inputs and outputs. See the SCHEDULER SETUP INI section to set your specific I/O count. Most Extron switchers use the same protocol, making this interface very flexible.

To use, ensure you have the proper com port set (the port on the MX that is physically attached to the Extron Switcher).

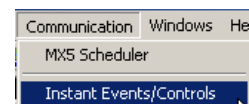
Choose your input number and output number for this specific event with the drop down boxes.

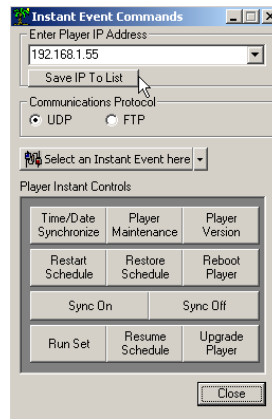
The SPECIAL SWITCHER EVENT section is special purpose and not normally used.

Click OK to trigger the event.

## INSTANT CONTROLS

To access the INSTANT COMMAND menus and functions click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS





## TIME/DATE SYNCHRONIZE

Clicking the Time/Date Synchronize button will send a time/date string command from the scheduler computer to the player. Be very careful, because the time on the player will be changed to exactly what is on the scheduler—so, if your player is in Germany, your controller is in Kansas City and you Time/Date Synchronize, your player in Germany will be about seven hours wrong.

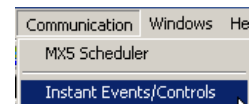
Also, MX players are factory set to auto-sync time with atomic time as long as they are connected to the Internet and have access to web sites.

If you need to Time/Date Synchronize simply click the TIME/DATE SYNCHRONIZE button. You will receive a message if the attempt was successful or not.

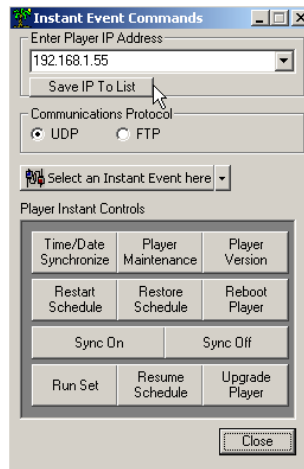
## PLAYER MAINTENANCE

The PLAYER MAINTENANCE Instant Control will connect to designated player and delete all motion video files (mpg, wmv, vob, avi) that are not in a current set or schedule. This allows you to clear large amounts of storage space on the player remotely.

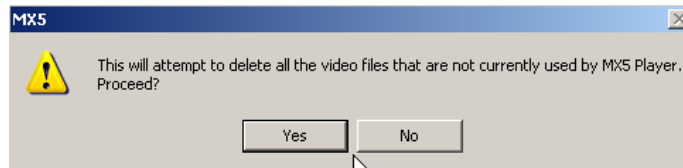
To access the PLAYER MAINTENANCE function, click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS







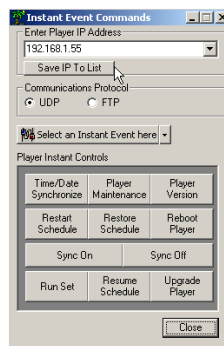
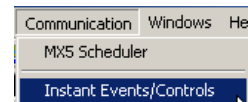
Click PLAYER MAINTENANCE. The following warning will appear:



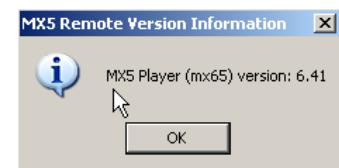
If you are satisfied that it is safe to proceed, click YES. The system will automatically delete the unused content.

### PLAYER VERSION

To access the PLAYER VERSION control click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



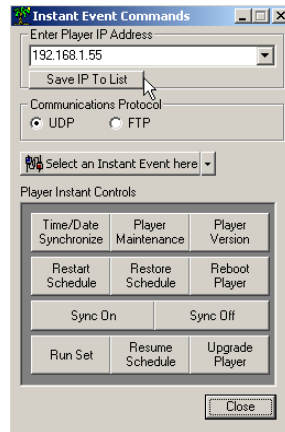
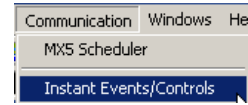
Ensure you have the proper IP address or network name entered in the IP ADDRESS block, then click PLAYER VERISON.



The Version Information message box should become visible. Your version number will most likely differ from the version shown in the illustration to the left.

### RESTART SCHEDULE

To access the RESTART SCHEDULE control click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS



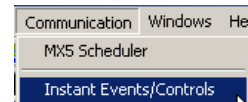
Ensure you have the proper IP address or network name entered in the IP ADDRESS block, then click RESTART SCHEDULE.

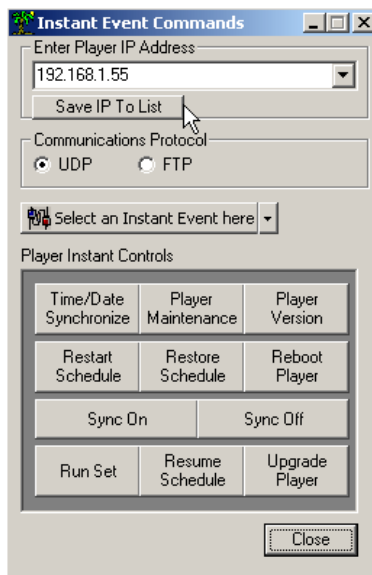
Restart Schedule is used to command the player to stop the currently playing schedule and restart it...or to start a schedule that has been stopped for some other reason.

You will receive a positive or negative acknowledgement after this command is sent.

### RESTORE SCHEDULE

To access the RESTORE SCHEDULE control click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS

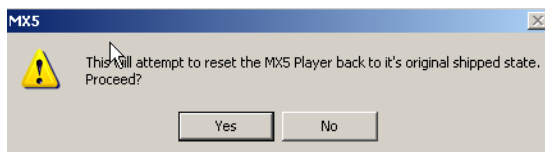




Ensure you have the proper IP address or network name entered in the IP ADDRESS block, then click RESTORE SCHEDULE.

**USE THIS CONTROL WITH CAUTION**

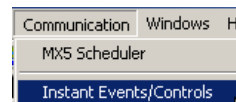
Clicking this control will return the MX player to shipped state. Software will all be reset to default parameters. Proceed only with extreme prejudice.

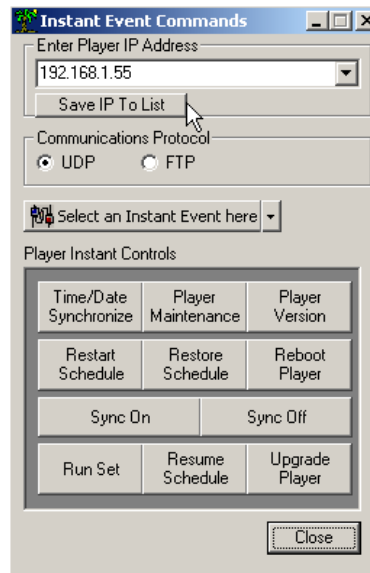


### REBOOT PLAYER

There may be cause to reboot the player remotely...especially if you believe for some reason playback has stopped or has become errant.

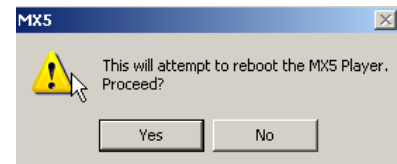
To access the REBOOT PLAYER control click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS





Ensure you have the proper IP address or network name entered in the IP ADDRESS block, then click REBOOT PLAYER.

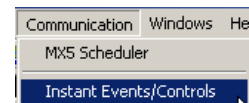
Clicking YES on the warning message will cause immediate reboot of the player.

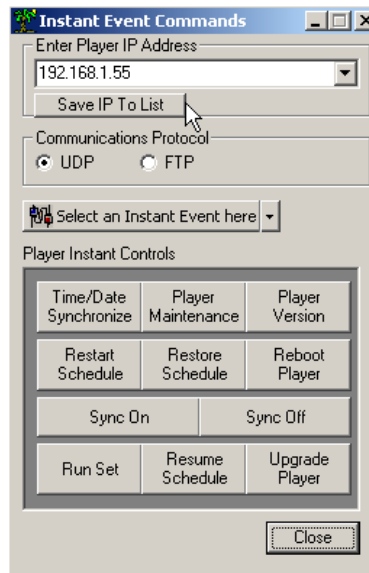


### SYNC ON and SYNC OFF

The MX system has the capability to turn its video sync signals on or off on a triggered event. When used in a digital signage application, the MX device is typically connected to a flat panel or PC display via RGBHV or DVI connections. New displays of these types have auto-off features that cause them to turn off when no video sync signals are present. By triggering the MX to shut down sync you can effectively turn off the connected displays—you can then add a SYNC ON event to turn them back on

To access the SYNC ON and SYNC OFF control click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS





Select either SYNC ON or SYNC OFF by clicking the associated buttons.

Remember, SYNC ON and OFF are only applicable to the RGB outputs (RGBHV or DVI)—composite outputs are not affected.

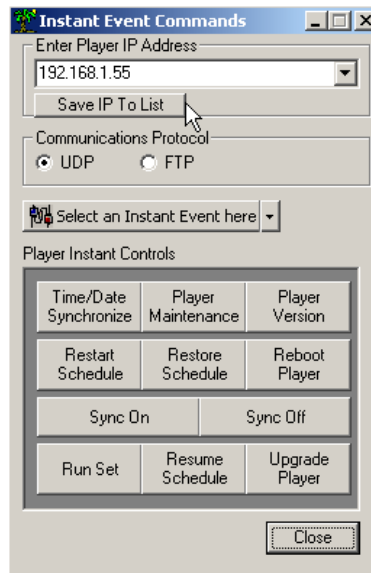
## RUN SET

The RUN SET instant command can be used as an EMERGENCY SET trigger. For example, you can create a set that is intended to only be played during emergencies (or any other time you have an instant message to get out—boil orders, evacuations, special sales, etc...). Pre-position that set (or sets) and associated media on the player.

To pre-position sets and media on the player (that are not part of a schedule) use the SEND SET function described in ADVANCED COMMUNICATIONS.

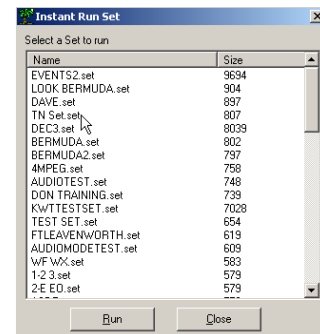
To access the RUN SET control click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS





Click RUN SET and choose the set to run from the dialogue box.

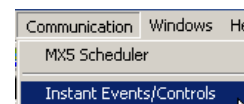
Click RUN to begin the set. This set will continue to run until you click either RESUME SCHEDULE or RESTART SCHEDULE.

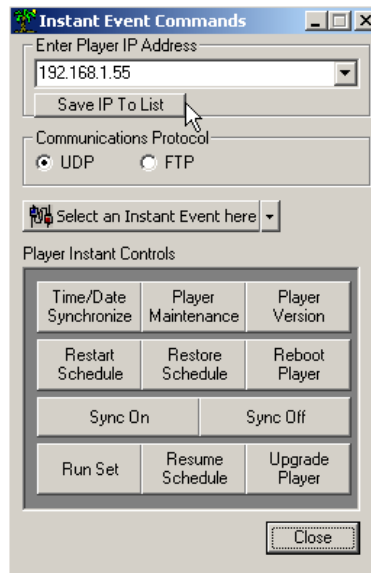


### RESUME SCHEDULE

The RESUME SCHEDULE instant command is typically used to return to normal playback after running an EMERGENCY SET.

To use the RESUME SCHEDULE control while an emergency or instant set is running (see RUN SET instant command) click COMMUNICATIONS and select INSTANT EVENTS/CONTROLS





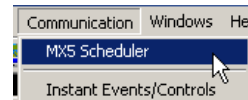
Click RESUME SCHEDULE to activate control.

### UPGRADE PLAYER

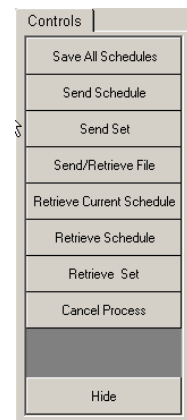
The instant command menu contains the UPGRADE PLAYER command. This command is used to upgrade a remote MX player without having to go to the player and connect peripherals.

The first step in upgrading a player remotely is transferring the upgrade file to the player. Send only Keywest Technology approved upgrade packages to the player and only when instructed to do so by Keywest Technology Technical Support Engineers.

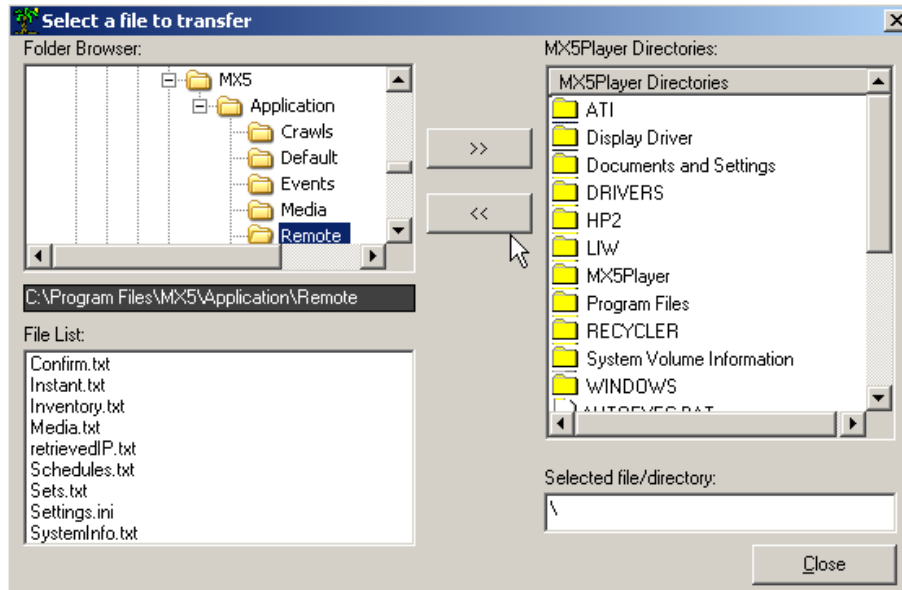
Once you have been emailed an upgrade package or downloaded an authorized upgrade package, save it to a file location you can easily browse to (such as your desktop). Next, click COMMUNICATIONS and MX SCHEDULER



On the right side CONTROLS PANE select SEND/RETREIVE FILE



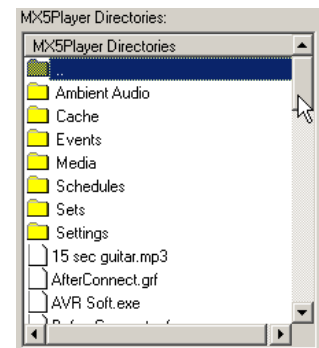
The FILE TRANSFER dialogue will open



This function works much like a standard File Transfer Protocol application. To use, simply select the file you wish to transfer to the MX player. You must have your NETWORK TAB of your SCHEDULER WINDOW already configured (see the NETWORK TAB section of the SEND SCHEDULE portion of the tutorial earlier in this manual if not already configured).

Once you select the upgrade package you wish to transfer, you must select where you are going to transfer to. All upgrade packages must be transferred to the player CACHE folder (path = C:\MXPlayer\CACHE).

Double-click CACHE to open the folder.

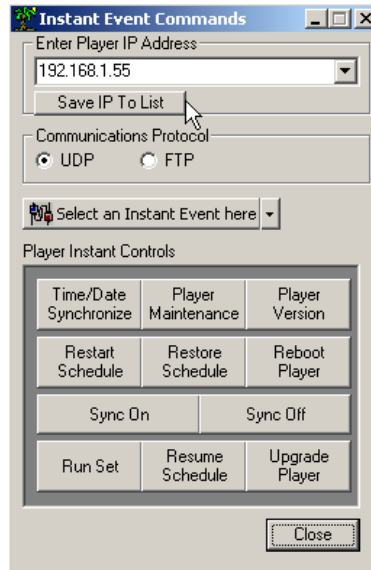


Click the Right-Pointing double arrow button between the browser windows to transfer the upgrade package to the player.

Close the MX SCHEDULER WINDOW. Next reopen the INSTANT COMMANDS window by clicking COMMUNICATIONS and INSTANT CONTROLS/EVENTS.



Click the UPGRADE PLAYER button



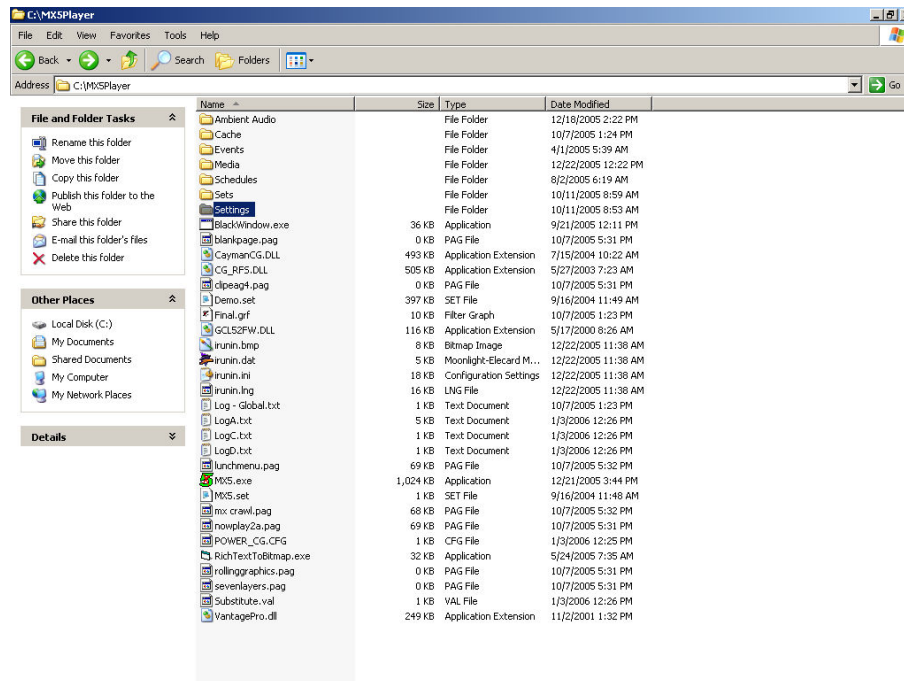
Select the UPGRADE PACKAGE to run on the player and click OK to activate. The MX player will process the command by running the upgrade package on the player and initiating a reboot to complete the process.

To verify if the upgrade was effective use the PLAYER VERSION function.

## Appendix A SETTINGS.INI

To open the SETTINGS.INI file, connect a keyboard, monitor, and mouse to the player if not already connected. Stop the player application by pressing ESC and return to the player desktop if not already there.

Double-click on MY COMPUTER icon; browse to C drive and open MXPLAYER folder.



Open the SETTINGS folder and open the SETTINGS.INI file (use Notepad if not already selected). Only change Initialization (INI) settings after completely understanding what those changes will do.

The following INI values can be set (factory defaults shown):

```
[Display]
Width=1024
Height=768
Refresh=60
Monitors=1
Rotation=0
Dynamic Textures=True
```

```
[Options]
CrawlCutoff=False
```

VariablesUpdateSpeed=10000  
Video=True  
CrawlSync=False  
Flash=True  
HTML=True  
PowerPoint=True  
Resource Thread Timeout=60000  
Render Thread Timeout=60000  
Unwanted Minimize Check Frequency=15000

[Audio]  
AudioAutoLoopMinDuration=10000  
LINE\_MAX=100.0  
LINE\_HALF=50.0  
MIC\_MAX=100.0  
MIC\_HALF=50.0  
WAVE\_MAX=100.0  
WAVE\_HALF=50.0  
MODE=2a  
RAMP\_LENGTH=1000  
STEP\_LENGTH=10

[Communications]  
TCP Enabled=True  
TCP Port=80  
UDP Enabled=True  
UDP Port=4098

[Startup]  
Delay=2500  
Schedule Delay=7500

[Weather]  
DavisVantagePro=False  
DavisVantagePro COM Port=1  
DavisVantagePro Baud Rate=19200

[Folders]  
Media=C:\MXPlayer\Media  
Schedules=C:\MXPlayer\Schedules  
Sets=C:\MXPlayer\Sets  
Events=C:\MXPlayer\Events  
Confirm=C:\MXPlayer\Settings  
Ambient Audio=C:\MXPlayer\Ambient Audio

[Security]  
Password=  
[Ambient Audio]  
Enabled=False

INI Parameter Definitions:

Display - controls various aspects about the screen  
[Display]

Width - Screen resolution width, in pixels.  
Width=1024

Height - Screen resolution height, in pixels  
Height=768

Refresh - Refresh rate of the monitor. The application will attempt to run at this many frames per second as well, which affects the speed of crawls/rolls, since their speed is defined in terms of pixels per frame. The more frames you have per second, the more pixels a crawl or roll will move per second, and thus the faster it moves.

Refresh=60

Note on Width, Height and Refresh - The values specified must be supported by the hardware--if they are not the program will default to 800 by 600 at 60 Hz.
--

Rotation - Sets the rotation of the screen to some multiple of 90 degrees. Can be 0 (which is normal), 90, 180, or 270. Use this to orient a display sideways, or even upside down.

Rotation=0

Monitors - Specifies the number of monitors that are to be used. Standard hardware supports only one monitor—customized hardware may support up to four.

Monitors=1

Dynamic Textures - Specifies whether or not the MX will use dynamic textures. Use of these textures aids in preventing jerks when new content is uploaded into the video memory. Some cards do not support these textures. Only Matrox quad head cards fall under this category, thus - MH4 must have this setting at False—all others would be true.

Dynamic Textures=True

Options - controls miscellaneous options  
[Options]

CrawlCutoff - Can be either True or False. If True, then crawls will end immediately at the end of their dwell time. If False, they will continue to be displayed until they reach the end of the crawl, and only then will the next crawl be displayed (if there is a next crawl.)

CrawlCutoff=True

CrawlSync - Can be either True or False. If True, then crawls will base their number of iterations off of dwell times more accurately so that the crawls remain synchronized overall with the dwell times specified. Sometimes a crawl will play longer than its dwell time to finish off a full iteration, and sometimes it will play one less iteration, thus playing less than its dwell time. In some cases, this can result in a crawl being completely skipped. Note that this setting has no effect if the CrawlCutoff setting is TRUE, as that setting forcibly keeps everything synchronized. If both of these settings are false, however, then every crawl will play for at least its dwell time and will then finish off its iteration (meaning that most crawls will play longer than their specified dwell time, causing them to get out of sync with the rest of the set).

CrawlSync=True

VariablesUpdateSpeed - The rate at which MediaCreator pages are redrawn in order to update variables. This is measured in milliseconds. Setting this value too low can push the processor too hard, and resources might load too late.

VariablesUpdateSpeed=10000

Video - Can be either True or False. Turns videos on or off. If off, they are replaced by gray Static. This setting might be needed for troubleshooting video issues.

Video=True

Flash - Can be either True or False. Turns Flash support on or off. If off, they are replaced by gray static. This setting might be needed for troubleshooting Flash issues

Flash=True

HTML - Can be either True or False. Turns HTML support on or off. If off, they are replaced by gray static. This setting might be needed for troubleshooting HTML issues.

HTML=True

PowerPoint - Can be either True or False. Turns PowerPoint support on or off. If off, slideshows are replaced by gray static. This setting might be needed for troubleshooting PowerPoint issues.

PowerPoint=True

Resource Thread Timeout - Time in milliseconds that the program will wait for the resource thread to indicate that it is still running correctly before the player application forces a hard termination and restart of itself (application restart). A value of 0 means that this will never happen no matter how long the resource thread hangs.

Resource Thread Timeout=60000

Render Thread Timeout - Time in milliseconds that the program will wait for the render thread to indicate that it is still running properly before it forces a hard termination and restart of itself. A value of 0 means that this will never happen no matter how long the render thread hangs.

Render Thread Timeout=60000

Unwanted Minimize Check Frequency - Time in milliseconds between each check to ensure the MX is not minimized. A value of 0 indicates that no check is ever done.

Unwanted Minimize Check Frequency=15000

Audio - controls settings regarding sound

[Audio]

AudioAutoLoopMinDuration - determines the minimum length that an audio clip needs to be in order to loop when played. If a clip is longer than this value (measured in milliseconds), then the clip will play once, and then remain quiet for the remainder of its dwell time. If the clip is less than this length, then it will loop until its dwell time is up.

AudioAutoLoopMinDuration=10000

LINE\_MAX - The volume that Line-In is at when it is the primary audio source. The value is from 0.0 (silent) to 100.0 (max allowable volume), and is roughly linear not exponential.

LINE\_MAX=100.0

LINE\_HALF - The volume that Line-In is at when it is active, but is not the primary audio source. The value is from 0.0 (silent) to 100.0 (max allowable volume) and is roughly linear not exponential.

LINE\_HALF=50.0

MIC\_MAX - The volume that Mic-In is at when it is the primary audio source. The value is from 0.0 (silent) to 100.0 (max allowable volume), and is roughly linear not exponential.

MIC\_MAX=100.0

MIC\_HALF - The volume that Mic-In is at when it is active, but is not the primary audio source. The value is from 0.0 (silent) to 100.0 (max allowable volume), and is roughly linear, not exponential.

MIC\_HALF=50.0

WAVE\_MAX - The volume that files are at when they are the primary audio source. The value is from 0.0 (silent) to 100.0 (max allowable volume), and is roughly linear not exponential.

WAVE\_MAX=100.0

WAVE\_HALF - The volume that files are at when they are active, but are not the primary audio source. The value is from 0.0 (silent) to 100.0 (max allowable volume), and is roughly linear, not exponential.

WAVE\_HALF=50.0

MODE - The audio mode that is being used by the MX. Available modes are listed below and described:

0 - All audio sources always play at max volume.

1a - Ambient audio plays through Line-In, and will ramp down to silence whenever a file with audio is active.

1b - The same as 1a, except that instead of ramping down to silence, Line-In will ramp down to half volume (LINE\_HALF).

2a - Ambient audio plays through Mic-In, and will ramp down to silence whenever either a Video-In or a file with audio is active. Similarly, Video-In audio plays through Line-In, and will ramp down to silence whenever a file with audio is active.

2b - The same as 2a, except that instead of ramping down to silence, Mic-In and Line-In will ramp down to half volume (MIC\_HALF and LINE\_HALF, respectively).

Mode=0

RAMP\_LENGTH - The duration (in milliseconds) over which audio will ramp from a starting volume to a final volume.

RAMP\_LENGTH=1000

Communications - controls settings regarding communications.

[Communications]

TCP Enabled - True or False. Informs the MX to listen for incoming messages through a TCP port.

TCP Enabled=True

TCP Port - Specifies the port number on which the MX is to listen for TCP messages. Ignored if TCP Enabled is false.

TCP Port=1000

UDP Enabled - True or False. Informs the MX to listen for incoming messages through a UDP port.

UDP Enabled=True

UDP Port - Specifies the port number on which the MX is to listen for UDP messages. Ignored if UDP Enabled is false.

UDP Port=4098

Serial Enabled - True or False. Informs the MX to listen for incoming messages through a serial port.

Serial Enabled=True

Serial Device - Indicates the name of the serial device or port to use to listen for incoming messages. Ignored if Serial Enabled is false.

Serial Device=COM1

Serial Flow Control - Indicates the flow control used when listening for incoming messages. Ignored if Serial Enabled is false. Can be x for software (Xon/Xoff); H for hardware (Rts/Cts); N for none.

Serial Flow Control=N

Serial Baud Rate - Indicates the baud rate used when listening for incoming messages. Ignored if Serial Enabled is false.

Serial Baud Rate=9600

Serial Parity - Indicates the parity used when listening for incoming messages. Ignored if Serial Enabled is false. Can be O (odd); E (even); N (none); M (mark); or S (space).

Serial Parity=N

Serial Data Bits - Indicates the data bits used when listening for incoming messages. Ignored if Serial Enabled is false. Can be 5, 6, 7, or 8.

Serial Data Bits=8

Serial Stop Bits - Indicates the stop bits used when listening for incoming messages. Ignored if Serial Enabled is false. Can be 1, 1.5, or 2. If Data Bits is 5, then a Stop Bits value of 2 will be interpreted as 1.5.

Serial Stop Bits=1

Folders - Sets custom locations for various folders  
[Folders]

Media - Sets a custom location for the folder containing all the media used by the MX. Note that sets are also able to use absolute paths for filenames, so that alternate folders can be used for individual files.

Media=C:\MXPlayer\Media

Schedules - Sets a custom location for the folder containing all the schedules used by the MX.  
Schedules=C:\MXPlayer\Schedules

Sets - Sets a custom location for the folder containing all the sets used by the MX. Note that schedules are also able to use absolute paths for filenames, so that alternate folders can be used for individual files.

Sets=C:\MXPlayer\Sets

Events - Sets a custom location for the folder containing predefined events.

Events=C:\MXPlayer\Events

Confirm - Sets a custom location for the folder to look in for the file Confirm.txt.



Confirm=C:\MXPlayer\Settings

Ambient Audio - Sets a custom location for the folder to look in for all audio files that are played as ambient audio.

Ambient Audio=C:\MXPlayer\Ambient Audio

Security

[Security]

Password - a password used by the front-end before allowing instant commands to be sent to the back-end. Blank after the equal sign indicates that there is no password.

Password=

Ambient Audio - controls details concerning the playback of ambient audio from the ambient audio folder

[Ambient Audio]

Enabled - determines whether or not the files in the ambient audio folder will be played as ambient audio or completely ignored

Enabled=False

Startup - controls settings related to program startup

[Startup]

Delay - The amount of time (in milliseconds) that the program will wait before actually beginning. Used only to attempt to avoid a problem where the program will start up minimized after booting the computer. Set to a low number to increase the initial execution speed.

Delay=1000

Schedule Delay - The amount of time (in milliseconds) that a newly loaded schedule will wait before actually starting. This gives the resource manager time to load resources that are needed at the very beginning of the schedule, so that once the schedule starts everything is there as it should be.

Schedule Delay=5000

Weather - Settings associated with weather equipment

[Weather]

DavisVantagePro - Can be True or False, to enable reading from the Davis Vantage Pro Weather Station (DVPWS).

DavisVantagePro=True

DavisVantagePro COM Port - Specifies the COM port used by the DVPWS.

DavisVantagePro COM Port=1

DavisVantagePro Baud Rate - Specifies the baud rate used by the DVPWS.

DavisVantagePro Baud Rate=19200

DavisVantagePro Direction Style - Specifies the style used to display directions (such as wind direction). Current styles are either degrees (or numbers) and boxed (or letters).

DavisVantagePro Direction Style=Letters

LIW\_FTP\_IP

LIW\_FTP\_IP=127.0.0.1

LIW\_FTP\_USERNAME

LIW\_FTP\_USERNAME=guest

LIW\_FTP\_PASSWORD

LIW\_FTP\_PASSWORD=guest

LIW\_SRC\_FOLDER

LIW\_SRC\_FOLDER=.

LIW\_VAL\_FILE

LIW\_VAL\_FILE=

EMS

[EMS]

EMS\_FTP\_IP

EMS\_FTP\_IP=127.0.0.1

EMS\_FTP\_USERNAME

EMS\_FTP\_USERNAME=guest

EMS\_FTP\_PASSWORD

EMS\_FTP\_PASSWORD=guest

EMS\_SRC\_FOLDER

EMS\_SRC\_FOLDER=.

EMS\_GET\_FILE

EMS\_GET\_FILE=

News

[News]

NEWS\_FTP\_IP  
NEWS\_FTP\_IP=ftp.mediaxtreme.tv

NEWS\_FTP\_USERNAME  
NEWS\_FTP\_USERNAME=guest

NEWS\_FTP\_PASSWORD  
NEWS\_FTP\_PASSWORD=guest

NEWS\_SRC\_FOLDER  
NEWS\_SRC\_FOLDER=news/guest

NEWS\_GET\_FILE  
NEWS\_GET\_FILE=hp2gen.txt

Datafeed  
[Datafeed]

DATAFEED\_FTP\_IP  
DATAFEED\_FTP\_IP=127.0.0.1

DATAFEED\_FTP\_USERNAME  
DATAFEED\_FTP\_USERNAME=guest

DATAFEED\_FTP\_PASSWORD  
DATAFEED\_FTP\_PASSWORD=guest

DATAFEED\_SRC\_FOLDER  
DATAFEED\_SRC\_FOLDER=.

DATAFEED\_GET\_FILE  
DATAFEED\_GET\_FILE=.

VideoIn Cropping - The feature displays only a subwindow of a video-input.  
[VideoInCropping]

Enabled - True or False. If false, this feature is ignored.  
Enabled=True

Left, Top, Width, Height - Can be either a percentage or a pixel value. If there is a percent sign % after the number, then it is a percentage value, from 0% to 100%. Else, it is a pixel value. For most videos, this should be from 0 to 720 for horizontal settings, and 0 to 480 for vertical settings.

Left - Determines the left edge of the sub-window to obtain from the video-in stream.

Left=0%

Top - Determines the top edge of the subwindow to obtain from the video-in stream.

Top=0%

Width - Determines the width of the subwindow to obtain from the video-in stream.

Width=100%

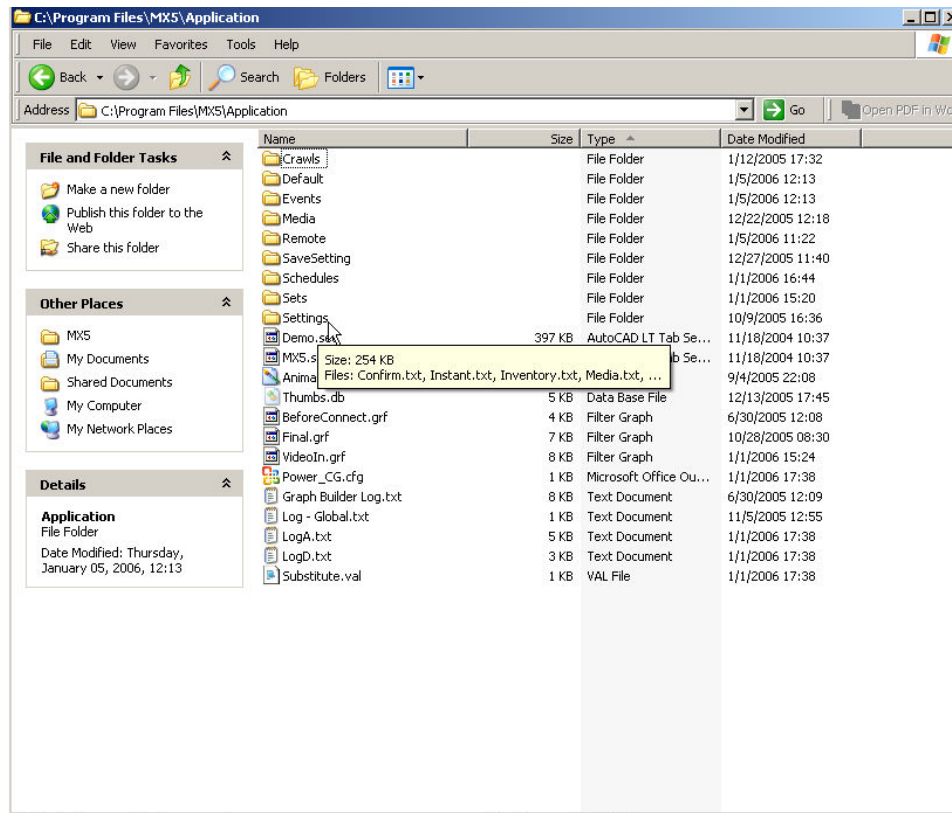
Height - Determines the height of the subwindow to obtain from the video-in stream.

Height=100%

## Appendix B SCHEDULER PROPERTY SETTINGS

### Set Scheduler Properties (INI Files)

Browse to the installed directory, typically C:\Program Files\MX\Applications\Settings



Open the SETTINGS.INI file (use notepad if not already selected). This initialization file (INI) provides the means to set certain parameters for the scheduler program:

```
[Display]
Width=1024
Height=768
Refresh=60
Monitors=1
```

```
[Options]
CrawlCutoff=True
Video=True
PowerPoint=True
```

Flash=True  
HTML=True

[Preview]  
Width=315  
Height=227  
Left=460  
Top=156

[RESOLUTION]  
width = 1024  
height = 768

[BROWSERS\_INFO]  
browser1=f:\  
browser2=C:\Documents and Settings\Rich\My Documents  
browser3=C:\Program Files\MX\Application\Media  
view=3

[CONTROL]  
IR=

[TRANSITION]  
default=Random

[DWELLTIME]  
default=15

[DEVICE\_CONTROLS]  
EXTRON\_CMS\_INPUT=12  
EXTRON\_CMS\_OUTPUT=12  
DEFAULT\_DELAY=10  
AVR\_ROUTER=0  
AVR\_NETWORK\_OPTION=1  
AVR\_INPUTVIDEO\_TO\_OUTPUT1=0  
AVR\_INPUTVIDEO\_TO\_OUTPUT2=0  
AVR\_INPUTVIDEO\_TO\_OUTPUT3=0  
AVR\_INPUTVIDEO\_TO\_OUTPUT4=0  
DVD\_VCR\_COMPORT=1  
DVD\_VCR\_DEVICE=0  
INTERNAL\_SWITCHER\_COMPORT=1  
[Communications]  
UDP Enabled=True  
UDP Port=4098

The following is a description of each parameter:

#### [Display]

These selections set the function of the preview window (so the preview window simulates the actual player setup)

Width—sets the width of the video window in pixels

Width=1024

Height—sets the number of horizontal lines (768 typical setting to support 720P High-Definition TV)

Height=768

Refresh—sets the refresh rate of the video displays to be used

Refresh=60

Monitors—sets the number of monitors supported by the player (1 for MX, 2 for MX7)

Monitors=1

#### [Options]

Various Preview Options

CrawlCutoff—sets if the crawl stops at dwell time or after last character

CrawlCutoff=True

Video—turns video file playback (such as MPEG) on or off (True or False); this is used when the scheduler is playing on a PC with limited resources that can't support full preview functions.

Video=True

PowerPoint—turns PowerPoint playback on or off (True or False); this is used when the scheduler is playing on a PC with limited resources that can't support full preview functions.

PowerPoint=True

Flash—turns flash playback on or off (True or False); this is used when the scheduler is playing on a PC with limited resources that can't support full preview functions.

Flash=True

HTML—turns HTML playback on or off (True or False); this is used when the scheduler is playing on a PC with limited resources that can't support full preview functions.

HTML=True

#### [Preview]

These settings store last used size and position of the preview window. These settings change each time preview is used.

Width=315

Height=227

Left=460

Top=156

#### [RESOLUTION]

These settings are used to direct the preview window (or windows) the size of playback display to simulate

width = 1024  
height = 768

#### [BROWSERS\_INFO]

These settings are dynamic and store the last setting of each browser window in the scheduler  
browser1=f:\  
browser2=C:\Documents and Settings\Rich\My Documents  
browser3=C:\Program Files\MX\Application\Media  
view=3

#### [CONTROL]

This setting is used to set the type of IR device used for RS-232 to IR control conversions. More details on IR control provided in DEVICE CONTROL section  
IR=

#### [TRANSITION]

This setting determines the default transition for all pages if no other selected  
default=Random

#### [DWELLTIME]

This setting determines the default dwell time of each page if no different selection made  
default=15

#### [DEVICE\_CONTROLS]

Individual settings for various devices under control of the MX  
EXTRON Settings allow you to set the number of inputs and outputs of any Extron device under control and set the default delay for the switcher command

EXTRON\_CMS\_INPUT=12

EXTRON\_CMS\_OUTPUT=12

DEFAULT\_DELAY=10

AVR Router settings allow you to choose the number of inputs and outputs along with saved communication values

AVR\_ROUTER=0

AVR\_NETWORK\_OPTION=1

AVR\_INPUTVIDEO\_TO\_OUTPUT1=0

AVR\_INPUTVIDEO\_TO\_OUTPUT2=0

AVR\_INPUTVIDEO\_TO\_OUTPUT3=0

AVR\_INPUTVIDEO\_TO\_OUTPUT4=0

DVD/VCR settings used to configure DVD/VCR device control parameters

DVD\_VCR\_COMPORT=1

DVD\_VCR\_DEVICE=0

INTERNAL\_SWITCHER\_COMPORT=1

[Communications]



Communications settings allow the user to choose the instant command port (player port must match).

UDP Enabled=True

UDP Port=4098

## Appendix C Local Internet Weather Setup and Operation

The Local Internet Weather option allows you to display basic local weather parameters on your MediaXtreme Pages and Crawls (parameters listed below in variables table) without purchasing a full weather instrument hardware package.

Operational Note: Local Internet Weather **REQUIRES** the MX have a constant connection to the **INTERNET** and ports be open allowing browsing rights for the player.

### Setup Instructions:

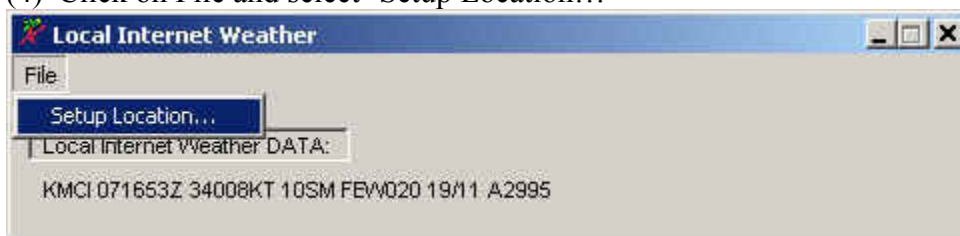
If not already present, connect a Keyboard, Mouse, and Local Monitor to the MX and reboot the player. After the reboot and a schedule has started to play, press the ESC (Escape) key to access the MX desktop.

Double click the LIW icon that should be on the system tray:

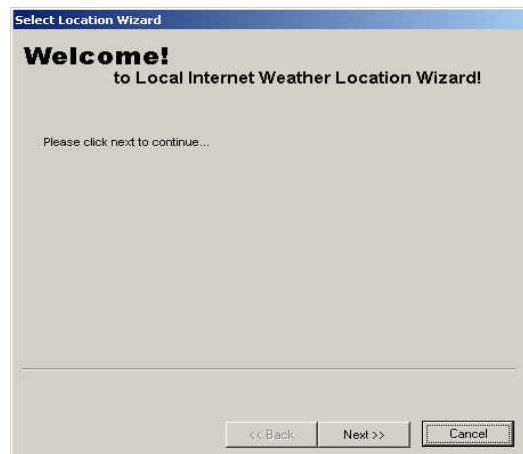
- (1) Double click on the My Computer icon on the desktop; select MediaXtreme (C:)
- (2) Open the 'LIW' Folder; Double click on the *LIW.exe* application. The application should now be open, but it will be minimized at the bottom of the screen in the taskbar. Click on it to open it.
- (3) You should see the following:



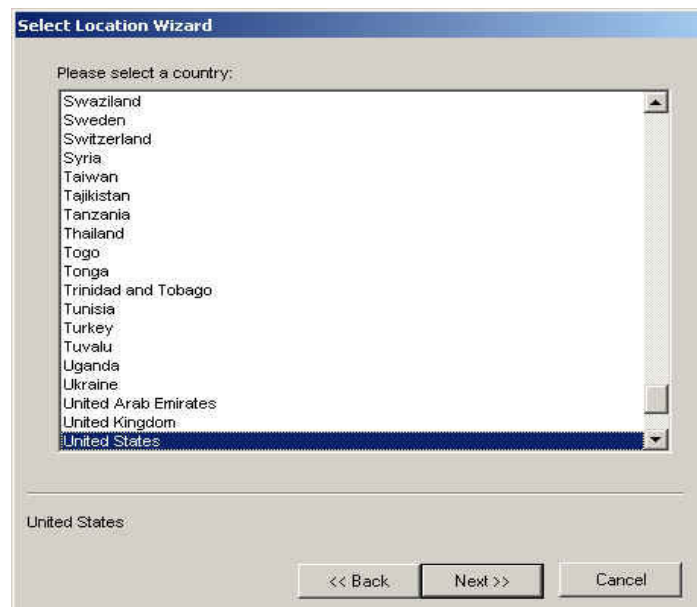
- (4) Click on File and select 'Setup Location...'



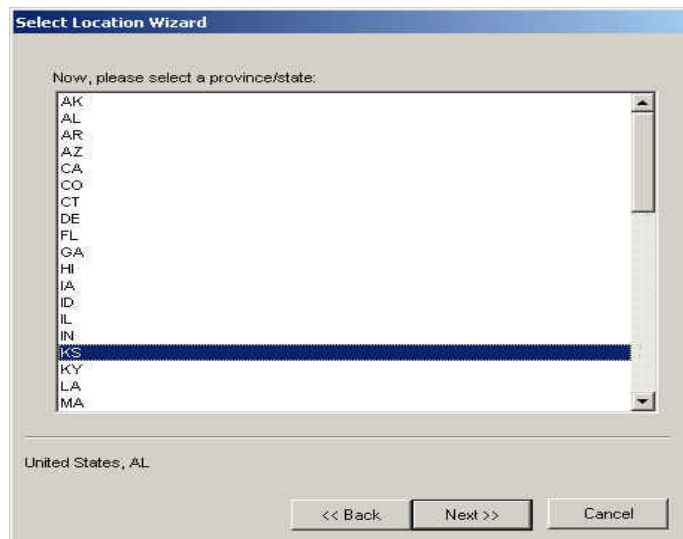
- (5) Now you will be prompted with a series of screens to set up your Local Internet Weather.



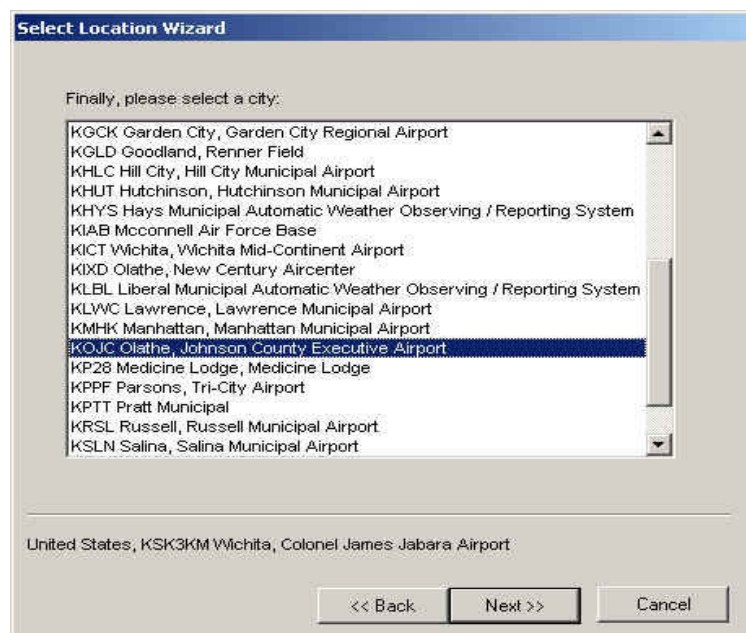
Select 'Next >>' to move the next screen.



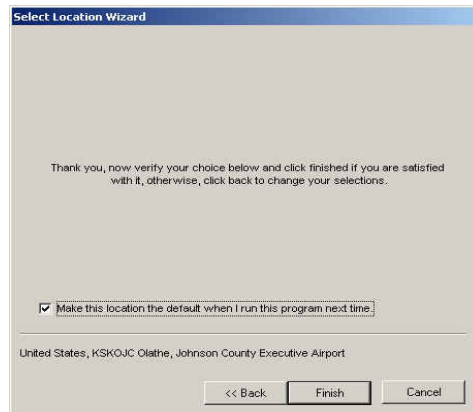
Select the Appropriate Country. The software Defaults to the United States. Select 'Next >>' when you are ready to move on.



Now select the corresponding State. Select 'Next >>' When you are Ready to continue.



Select the Airport that is closest to your location. Press 'Next>>' to Continue.



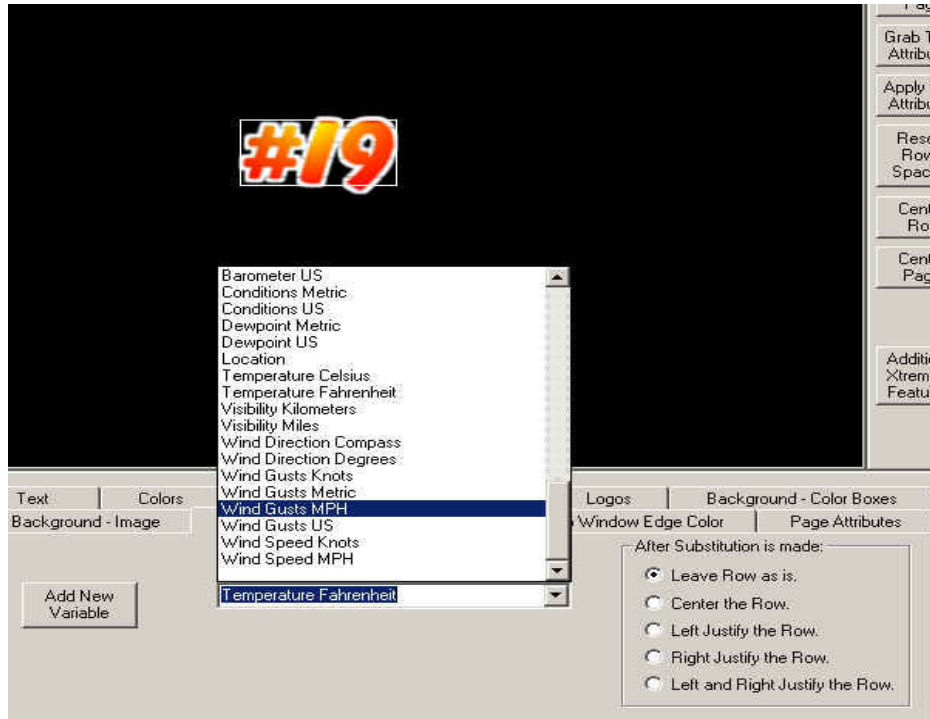
Please Verify your choice and select check the box so you will not have to go through this setup again. Click on the 'Finished' button when you are ready.

Now that you have setup your Local Internet Weather, close the application. Make sure the MediaXtreme can access the World Wide Web. If you cannot access the Internet, Please contact your Network Administrator for further assistance. Now move over to the Media Creator side.

Nothing will change with the operation of the Media Creator. The only additions are 19 new variables. They are listed below:

Wind Gusts US=#I0  
Wind Gusts Metric=#I1  
Wind Gusts MPH=#I2  
Wind Direction Compass=#I3  
Visibility Kilometers=#I4  
Visibility Miles=#I5  
Barometer Metric=#I6  
Barometer US=#I7  
Temperature Celsius=#I8  
Temperature Fahrenheit=#I9  
Dew point Metric=#IA  
Dew point US=#IB  
Wind Speed MPH=#IC  
Wind Speed Knots=#ID  
Wind Gusts Knots=#IE  
Wind Direction Degrees=#IF  
Location=#IG

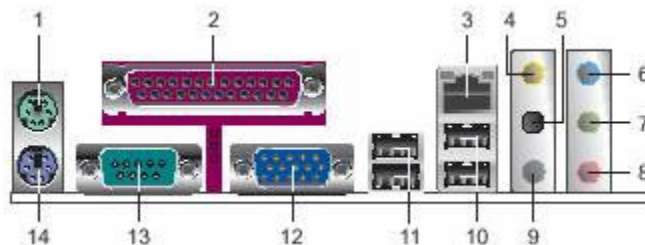
The figure below shows you how to insert a variable. Once you have inserted a variable you will only see the #I Code on the Media Creator. When the page is displayed on the MediaXtreme it will be updated with the correct Weather information.



## Appendix D Multi-Head AUDIO Appendix

1. Connect a keyboard, and mouse to the player. Ensure you can see at least monitor 1.
2. Restart the player to recognize the keyboard and mouse
3. Stop the MX A software by hitting the ESC key on the keyboard
4. Open MY COMPUTER and Browse to the C Drive
5. Open MXPLAYER>APPLICATION>SETTINGS
6. Open SETTINGS.INI
7. Locate the AUDIO section of the INI file; Locate SPEAKER MODE and set it to SPEAKER MODE=1.1
8. Save and close the file; close open windows
9. In the System Tray, locate the REALTEK HD AUDIO MANAGER icon (small brownish speaker icon); Open the Audio Manager
10. Select the AUDIO I/O Tab and ensure the speaker mode is set to 6 Channels (5.1); Hit OK and close

That should set the player up...the last step is to connect your audio to the speakers or distribution system:



Connector #7 in the Drawing is the Left and Right Front Speaker Output

Connector #9 is the Left and Right Rear Speaker Output

The channels output in this configuration:

Front Left = 1st Schedule  
 Front Right = 2nd Schedule  
 Rear Left = 3rd Schedule  
 Rear Right = 4th Schedule

## Appendix E Data Acquisition

Displaying dynamic text data on a MediaXtreme player is not limited to tie-ins with third party data management software. It is also possible to bring in data from text files or Excel files. These text and Excel files can reside on the local player or can be remotely located on a FTP server.

### Local Files

The first step is to locate on the player the Settings.INI file. Connect a keyboard, monitor and mouse to the player (if not already done) and reboot. After the player starts up and is running the MediaXtreme schedule, press the ESCAPE key on the attached keyboard. The player desktop should now be visible.

Open the MY COMPUTER icon and browse to C:\MX5Player\Settings\settings.ini. Open the Settings.Ini file (using Notepad if requested to select the program to open with).

Within Settings.Ini, scroll down to the DATA ACQUISITION section, which should appear as below:

```
[Data Acquisition]
Ftp Address=
Ftp Folder=
Ftp File=
Ftp Username=
Ftp Password=
Local File=
Ftp Refresh=
Local Refresh=
```

#### CAUTION

Modifying any entries in Settings.INI **will** change the function of your player. Do not make any changes that you are not sure about. It is highly recommended to save a backup copy of Settings.Ini in a separate folder prior to making any changes.

To set a local text file to be the dynamic data source, a few steps need to occur. First, in the Settings.Ini, entries need to be placed that will instruct the MX player where to look for data.

This is done with entries in [DATA ACQUISITION]. Set the path to the local file, an example is below:



```
[Data Acquisition]
Ftp Address=
Ftp Folder=
Ftp File=
Ftp Username=
Ftp Password=
Local File=c:\data\my.txt
Ftp Refresh=
Local Refresh=00:00:30
```

With these settings, the player will look in the local “C” drive, in a folder named “DATA” for a text file named “MY.TXT”

The player will look there for refreshed data every 30 seconds as indicated by the Settings.Ini entry “Local Refresh=00:00:30”.

Data paths maybe a local or network mapped drive, indicated by a drive letter...such as “c:\data\my.txt” or “g:\data\my.txt”. The path may also be a network name path such as “\\ourdataserver\myfolder\my.txt”.

The next step is to actually have data in the location for the player to obtain. For TEXT data, the file must be laid out in INI file format...headers are not required other than for organization, but a field name and a value is required for each element of dynamic data.

For example, a text file that holds scores might look like this:

```
[SUBSTITUTIONS]
Royals=7
Yankees=3
Chiefs=43
Raiders=3
Jayhawks=102
Tigers=3
Kings=122
Nuggets=60
```

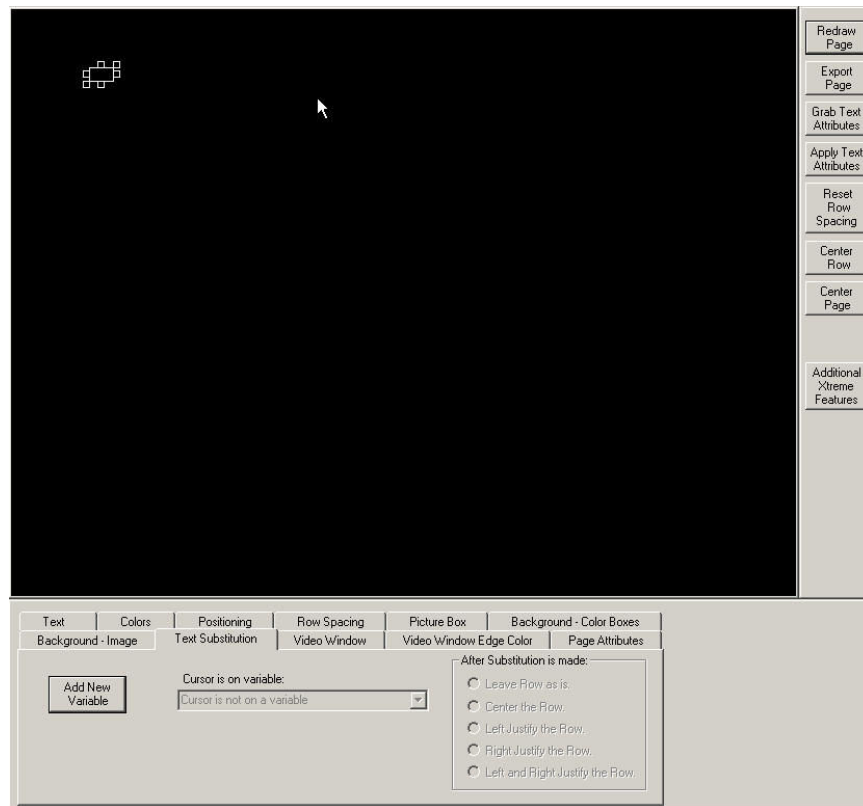
And in our example would be saved as “my.txt” in a folder named “data” on the player’s “c” drive.

The settings in Settings.Ini would cause the player to acquire this data, exactly as saved in our file “my.txt” and copy it to the file SUBSTITUTE.VAL in the player’s folder “c:\mx5player”.

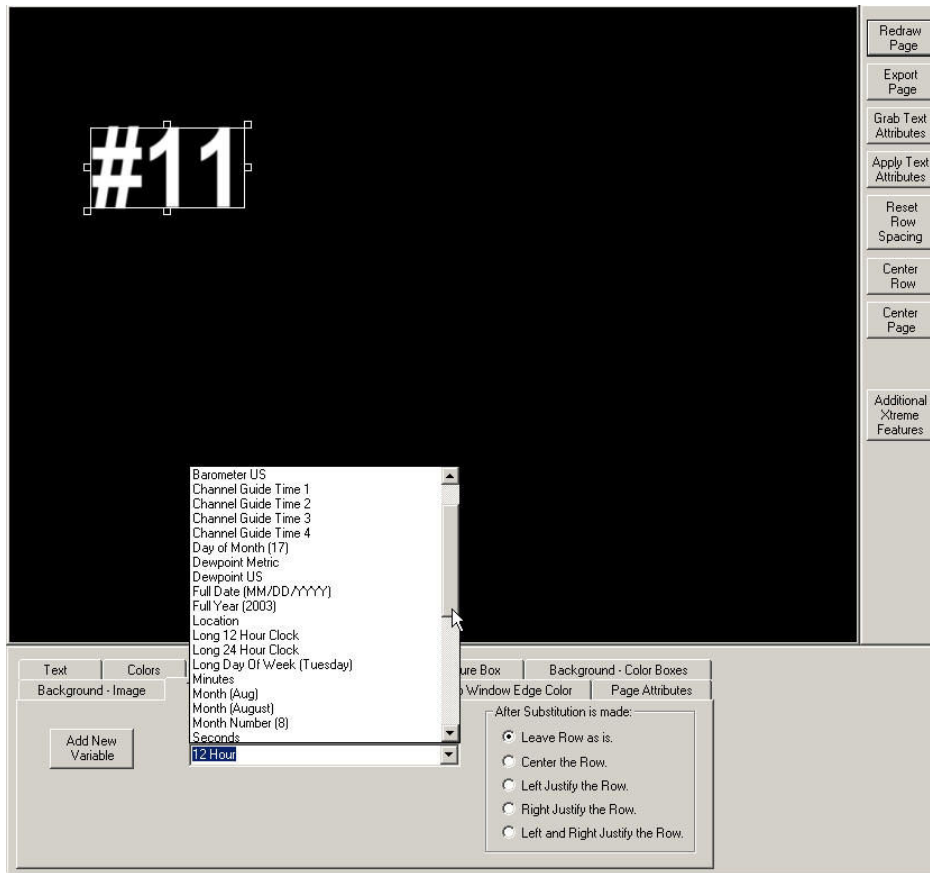
SUBSTITUTE.VAL is the final home for any dynamic data held for use on a display. With the addition of the above example data, a player's SUBSTITUTE.VAL file might appear as below:

```
[SUBSTITUTIONS]
Full Date (MM/DD/YYYY)=04/09/2007
Full Year (2003)=2007
Short Year (03)=07
Month Number (8)=4
Day of Month (17)=9
Month (Aug)=Apr
Month (August)=April
Short Day Of Week (Tue)=Mon
Long Day Of Week (Tuesday)=Monday
Seconds=24
Minutes=56
12 Hour=10
24 Hour=10
Long 24 Hour Clock=10:56:24
Short 24 Hour Clock=10:56
Long 12 Hour Clock=10:56:24 AM
Short 12 Hour Clock=10:56 AM
Visibility Kilometers=13
Visibility Miles=8
Barometer Metric=100.7
Barometer US=29.74
Temperature Celsius=7
Temperature Fahrenheit=44
Dewpoint Metric=0
Dewpoint US=32
Wind Speed MPH=11
Wind Direction Compass=SE
Royals=7
Yankees=3
Chiefs=43
Raiders=3
Jayhawks=102
Tigers=3
Kings=122
Nuggets=60
```

This leads us to the next step in the process....making this data available to an editor so it may be included on pages. Variable (or Dynamic) data may only be displayed in the MX system within .PAG graphics files. .PAG files are created by Keywest Technology MediaCreator5. To include the variable data on a MediaCreator page (.pag) we must use TEXT SUBSTITUTIONS

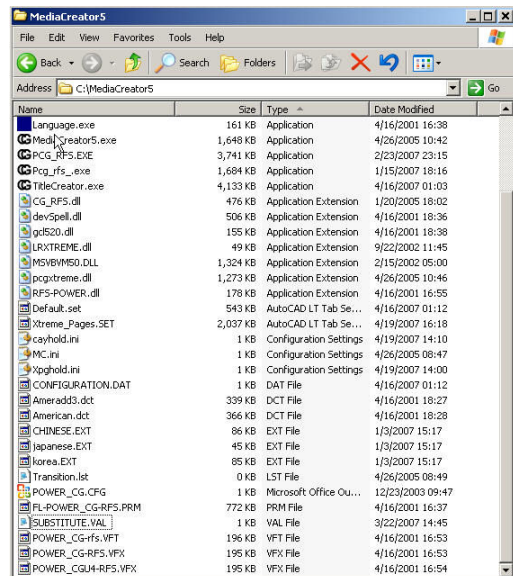


The detailed use of Text Substitution is covered in the MXA manual. In general though, under the TEXT SUBSTITUTION tab, click ADD NEW VARIABLE. A default variable will appear in the editor window at the current cursor position. This needs to be changed to the actual variable you desire by using the drop down arrow on the Text Substitution tab.



Now we must include your new data variables as options to Text Substitution. To do so, we need to modify the SUBSTITUTE.VAL on the EDITOR PC... **Do not confuse this Substitute.val with the file by the same name on the player!**

To add your dynamic data variables to your local editor Substitute.val file, browse to "C:\MEDIACREATOR5", locate SUBSTITUTE.VAL and open it with Notepad.



Then all we need to do is add your variable keys and the displayed variable “token” to substitute.val. The file in your editor will appear something like below:

```
[SUBSTITUTIONS]
Full Year (2003)=#2003
Full Date (MM/DD/YYYY)=#MM/DD/YYYY
Short Year (03)=#03
Month Number (8)=#5
Day of Month (17)=#13
Month (Aug)=#MON
Month (August)=#MONTH
Short Day Of Week (Tue)=#Tue
Long Day Of Week (Tuesday)=#Tuesday
Seconds=#18
Minutes=#54
12 Hour=#11
24 Hour=#23
Long 24 Hour Clock=#HH:mm:ss
Short 24 Hour Clock=#HH:mm
Long 12 Hour Clock=#hh:mm:ss PM
Short 12 Hour Clock=#hh:mm PM
Wind Gusts US=#I0
Barometer Metric=#I6
Barometer US=#I7
Temperature Celsius=#I8
Temperature Fahrenheit=#I9
Dewpoint Metric=#IA
Dewpoint US=#IB
Wind Speed MPH=#IC
```

Notice this file is very similar to SUBSTITUTE.VAL on the MX Player, with the exception that real data appearing on the player is represented by a “token” in the editor. A token is the place holder you will see on the editor and is prefaced by the “#” sign.

To continue with our example, we will add our scores variables from the Player to our editor. First assign the token...for example, let’s use the following:

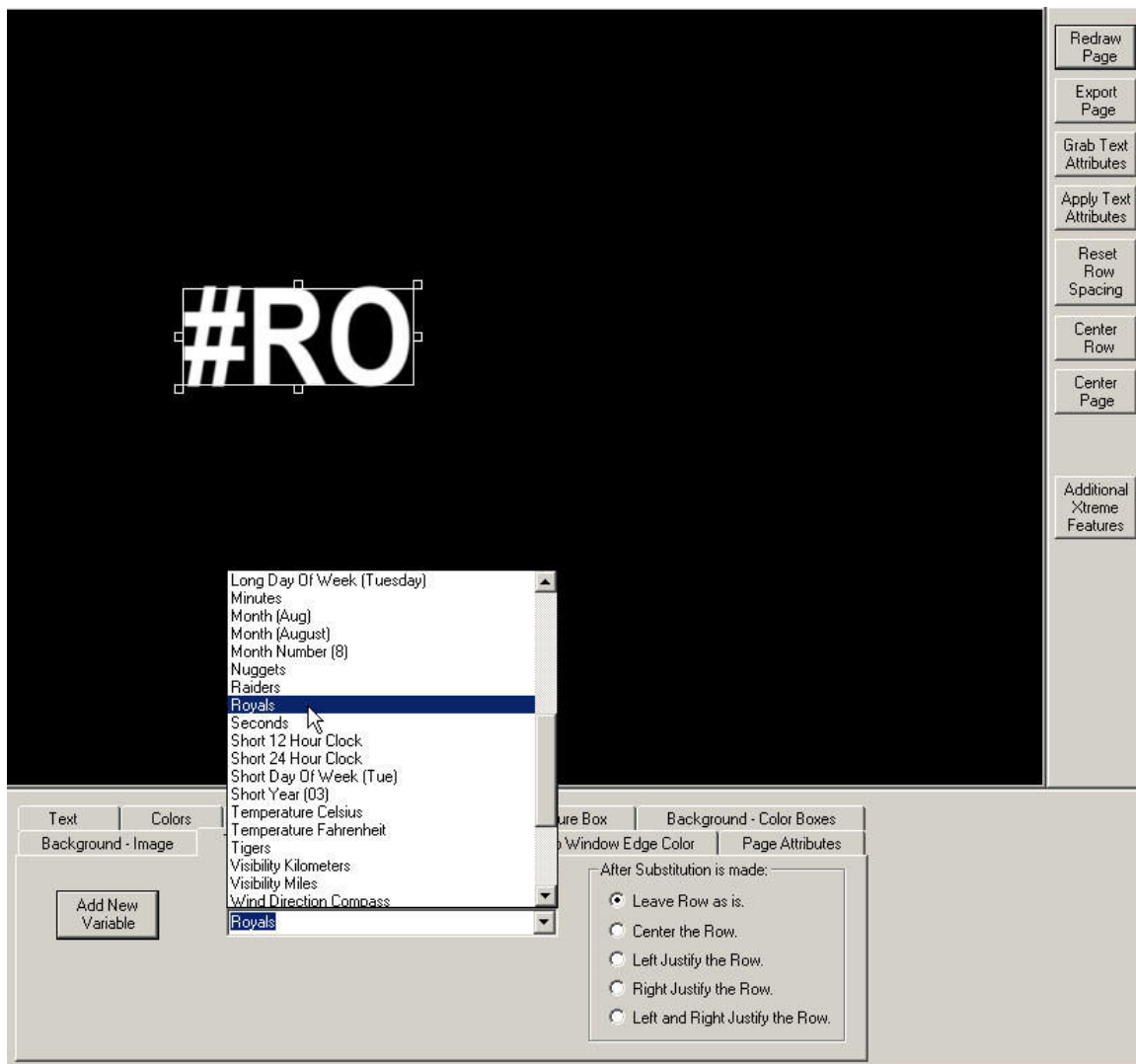
```
Royals=#RO
Yankees=#YA
Chiefs=#CH
Raiders=#RA
Jayhawks=#JA
Tigers=#TI
Kings=#KI
```

Nuggets=#NU

And adding them to the editor substitute.val, we end up with:

```
[SUBSTITUTIONS]
Full Year (2003)=#2003
Full Date (MM/DD/YYYY)=#MM/DD/YYYY
Short Year (03)=#03
Month Number (8)=#5
Day of Month (17)=#13
Month (Aug)=#MON
Month (August)=#MONTH
Short Day Of Week (Tue)=#Tue
Long Day Of Week (Tuesday)=#Tuesday
Seconds=#18
Minutes=#54
12 Hour=#11
24 Hour=#23
Long 24 Hour Clock=#HH:mm:ss
Short 24 Hour Clock=#HH:mm
Long 12 Hour Clock=#hh:mm:ss PM
Short 12 Hour Clock=#hh:mm PM
Wind Gusts US=#I0
Barometer Metric=#I6
Barometer US=#I7
Temperature Celsius=#I8
Temperature Fahrenheit=#I9
Dewpoint Metric=#IA
Dewpoint US=#IB
Wind Speed MPH=#IC
Royals=#RO
Yankees=#YA
Chiefs=#CH
Raiders=#RA
Jayhawks=#JA
Tigers=#TI
Kings=#KI
Nuggets=#NU
```

If we go back to the editor now (after saving SUBSTITUTE.VAL and closing and reopening MediaCreator) we will find our new variables available for use.



The simple theory of operation therefore is: Pages are created that contain variable tokens (#RO); that variable token is programmatically attached to an entry in a local Substitute.Val file (Royals=#RO); when that page is sent to the player within a set and actually appears on an output the player software recognizes the token (#RO) as an object that is tied to a key in SUBSTITUTE.VAL (ROYALS) and dynamically replaces the #RO with the real data "7" in our example.

This function can be used for any data...scores, weather, machine data, prices, election results, etc...use your imagination.

The player is also capable of using local Excel data as variables. All the above procedures still apply, but the player software will recognize a data file extension of .xls as Excel instead of standard Text.

In this case every worksheet is opened, and every cell that contains data is read, and inserted into the Player SUBSTITUTE.VAL under the variable name Sheet<sheet><column><row>, where <sheet> is the number for the sheet (starting at 1), <column> is the name of the column (starting with A), and <row> is the number of the row (starting at 1). So an example of the first cell in the first sheet would be Sheet1A1. If the contents of that cell were "Blue", then the line that would be inserted into the player SUBSTITUTE.VAL would be "Sheet1A1=Blue".

This still requires the user to open SUBSTITUTE.VAL on the editor PC and add variables for each Excel Cell that is planned to be used. An entry of "Sheet1A1=#S1A1" would be appropriate on the editor pc side (in other-words, on your editor PC, you will have variables such as #S1A1 on .PAG files, and when those .PAG files play on the player, #S1A1 will be replaced by whatever data is in the local .xls file listed in the path).

### **File Transfer Protocol (FTP) Data**

Along the same lines as the local file procedures listed above, data may also be stored on remote FTP servers. These remote files may be Text (.txt) or Excel (.xls) as listed above.

To setup, on the player, follow the above procedures to access the Player's SETTINGS.INI file. Open with Notepad and scroll down to the Data Acquisition category, which will appear as below if no data has ever been entered:

```
[Data Acquisition]
Ftp Address=
Ftp Folder=
Ftp File=
Ftp Username=
Ftp Password=
Local File=
Ftp Refresh=
Local Refresh=
```

To access the remote ftp data, we simply must enter the proper FTP data...as follows:

```
[Data Acquisition]
Ftp Address=ftp.myserver.com
Ftp Folder=mydatafolder
Ftp File=my.txt
Ftp Username=username
Ftp Password=password
Local File=
```



Ftp Refresh=00:00:30

Local Refresh=

These settings would cause the player access a remote site (anywhere in the world with internet access) and contact the server named “ftp.myserver.com”, open the folder “mydatafolder” on that ftp server, and open the text file “my.txt” (remember, could be an Excel file .xls). FTP servers require usernames and passwords to access the data...these security entries must be made in Settings.Ini. FTP Refresh will cause the player to check in every thirty seconds if set to 00:00:30 as in the above example.

#### NOTE

FTP data acquisition requires a connection over an intranet or the Internet (usually both). FTP also requires User ID and Passwords. All entries in SETTINGS.INI must be exact...any error will cause a failure to acquire data. If data is not coming through properly, check all of these settings first—they may be confirmed by manually accessing the FTP site from any PC

### Long Variable Crawls

At times, variable data of extended length may be desired. This may be news crawls, stock tickers, informational crawls, etc...using standard variables is not feasible. The LONG VARIABLE CRAWLS feature was designed for these type long data strings.

LONG VARIABLE CRAWLS works a bit differently than standard variables in that TEXT SUBSTITUTION and TOKENS (#RO) are not used, instead the actual name of a CRAWL PAGE created in MediaCreator5 is the trigger for the system to use dynamic data.

To setup the player for LONG VARIABLE CRAWLS access the SETTINGS.INI file again on C:\MX5Player\Settings. Open with notepad and scroll down to the [LONG VARIABLE CRAWLS] division. Simply specify the variable and related page name as follows (multiple entries are permissible so that multiple crawls may be used):

```
[Long Variable Crawls]
News_Ticker=news.pag
AirportFeed=airport.pag
Stocks=stocks.pag
```

The three variable entries are News\_Ticker, AirportFeed, and Stocks...each entry is tied to a MediaCreator5 Crawl Page (news.pag, airport.pag, and stocks.pag respectively).

This still requires a data source. As with the standard local and ftp variables described above, use Settings.Ini [Data Acquisition] entries to acquire the data. For instance, the settings

[Data Acquisition]

Ftp Address=

Ftp Folder=

Ftp File=

Ftp Username=

Ftp Password=

Local File=c:\data\my.txt

Ftp Refresh=

Local Refresh=00:00:30

Would cause the player to search its “C” drive for a folder named “data” and a file within “data” named “my.txt”. If the LONG VARIABLE CRAWL we are looking to use comes from our example such as NEWS\_TICKER, then inside “my.txt” in INI file format (as described above in standard data acquisition) there must be an entry with the key NEWS\_TICKER...such as:

[SUBSTITUTIONS]

NEWS\_TICKER=Miss America 1944 has a talent that likely has never appeared on a beauty pageant stage: She fired a handgun to shoot out a vehicle's tires and stop an intruder.

The long string of data will be acquired by the player and placed inside its SUBSTITUTE.VAL file for use when triggered. To display the data on-screen, the trigger is a crawl page created by MediaCreator5 with the name assigned in the SETTINGS.INI LONG VARIABLES CRAWL section:

[Long Variable Crawls]

News\_Ticker=news.pag

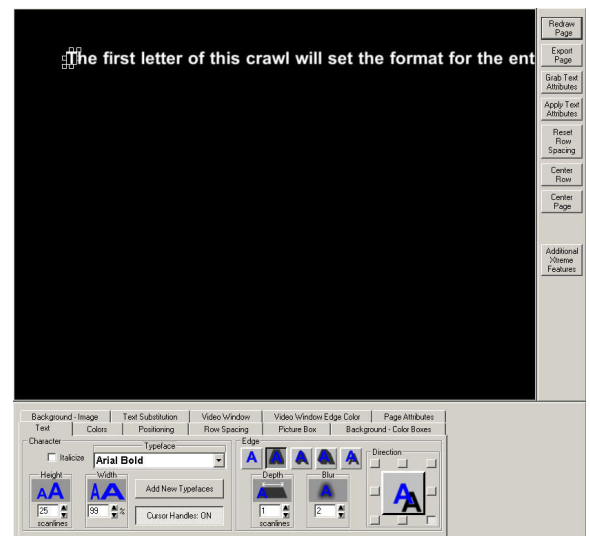
AirportFeed=airport.pag

Stocks=stocks.pag

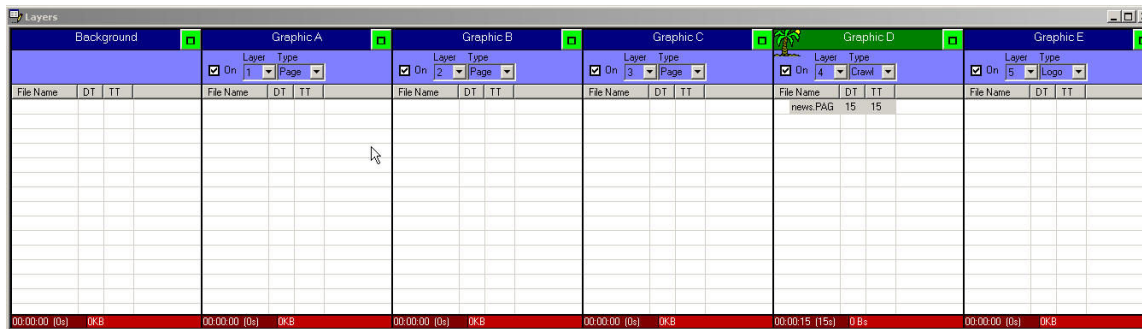
Which in this case will be ANY crawl page named NEWS.PAG. Any time the player encounters a page by that name (NEWS.PAG) it will replace the data originally saved in the .PAG with the actual dynamic data in SUBSTITUTE.VAL under the same KEY.

Additionally the player will use the format of the first letter in the crawl saved as NEWS.PAG as the text format for the entire LONG VARIABLE CRAWL that actually plays.

As show at the right, the format of the “T” which begins our crawl page (that we’ll name NEWS.PAG) will set the format for the Variable crawl in its entirety:



And the set that appears below will cause the player to constantly cycle NEWS\_TICKER data from the SUBSTITUTE.VAL file:



Of course the above set would be completely black except for the news crawl since all other layers are blank.

Remember that LOCAL as well as REMOTE FTP data may be used not only as standard Data Acquisition Variables but also as Long Variable Crawls.

## Appendix F X-Warp Geometry Correction

Digital Signage applications continue to increase in number globally—video presentations continue to be a mainstay of the business meeting and conferences world wide. Video projectors are the tool of choice for presentations and are occasionally used for digital signage.

Projectors allow for displays much larger than plasma or LCD and at an affordable cost. Flat panel displays can run \$10,000 for a quality 61” device, and currently are limited to that size or smaller (although sizes upwards of 100” are imminent). LED walls offer huge sizes (displays at stadiums, outdoor signage on buildings, etc...) but at a hefty price—\$2000 per square foot for coarse resolution at 22mm distance between LEDs up to \$5000 per square foot for 3mm LED placement (higher resolution). To achieve a 10’ or greater diagonal display, the choices are either LED at \$64,000 to \$160,000 with limited close-viewing resolution or projection in a price range of \$2,500 to \$10,000 depending upon the quality of the projector and screen material.

### Simple Geometry

While economy is the attractive feature of projectors in large format applications, the projector itself is the major con—especially in digital signage. The physical characteristics of projection mandate that the projector be placed as close to perpendicular to the screen as possible and at a “throw distance” that fills the screen. In some presentation applications the hindrance of placing a table in the middle of the room shooting straight onto a screen is not significant...but in an open venue, this is rarely viable and in staging applications, the desired placement of a projector would be hidden from view.

The projector needs to be placed out of the general traffic flow for simple viewing angle reasons but also for safety reasons. Rear projection can help, but if the screen that needs to be filled is large enough, a significant amount of room behind the projector must be allocated to give the projector throw distance.

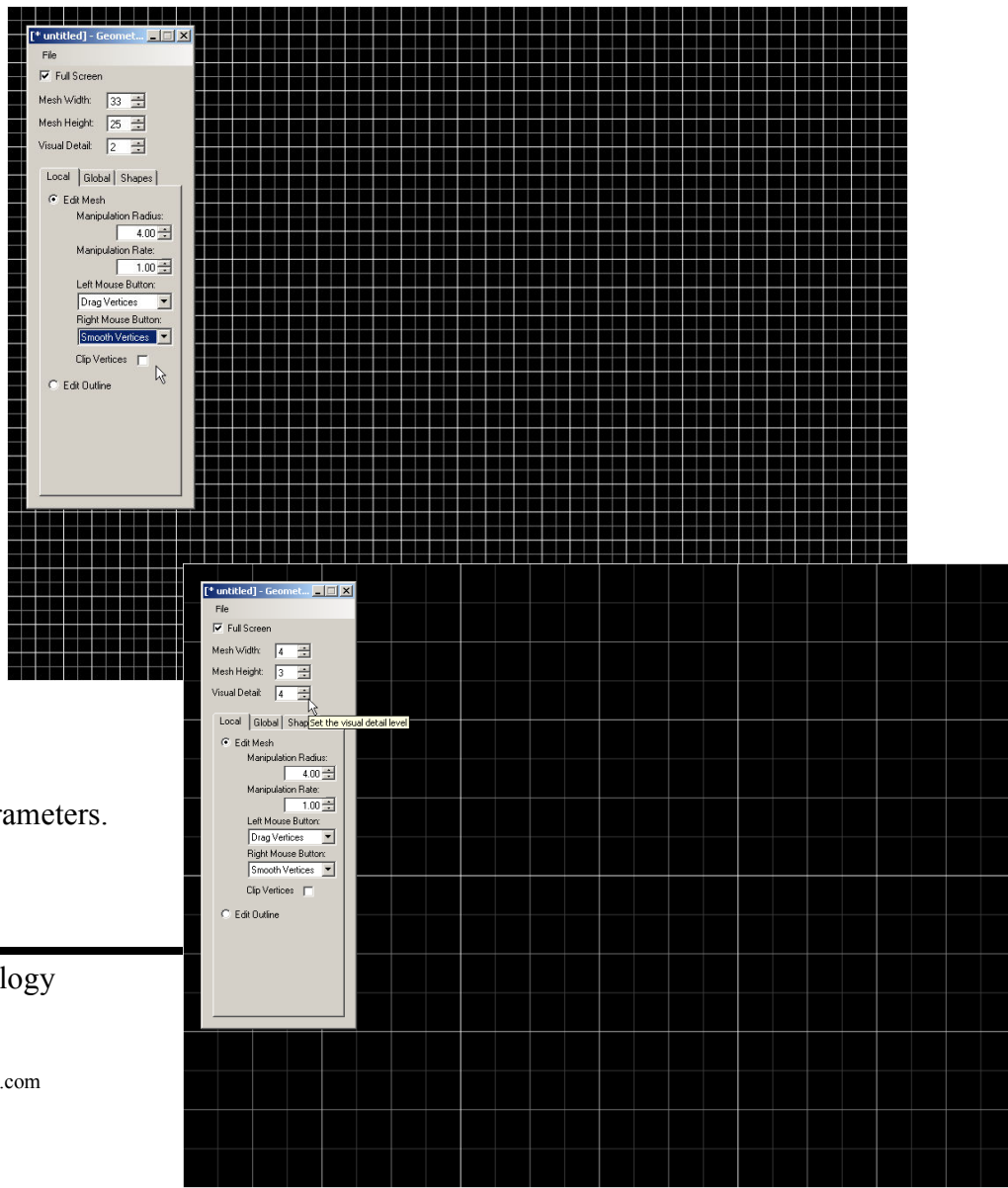
The need then is to place the projector in a location other than “straight on”. Most projectors, even the lowest cost models, have basic alignment functions such as keystone or trapezoid compensation. These controls allow the projector to be imperfect in placement; however any placement that exceeds the functional limits of the projectors adjustments requires geometrical compensation devices.

There are very few hardware based video processor devices that perform scan-conversion as well as some geometric conversion functions. Such device adds at the minimum \$2,500 to the installation per channel. The bill of materials for such an application consists of a projector, a screen, a playback device (media player, PC, other), and a video processor.

Adding Keywest Technology MX-XWarp software to the MediaXtreme player combines the media player, video processor/scan converter, and the geometric correction device. This melding

creates a pixel specific correction capability that is faster, more accurate, and lower cost than any competitive device available.

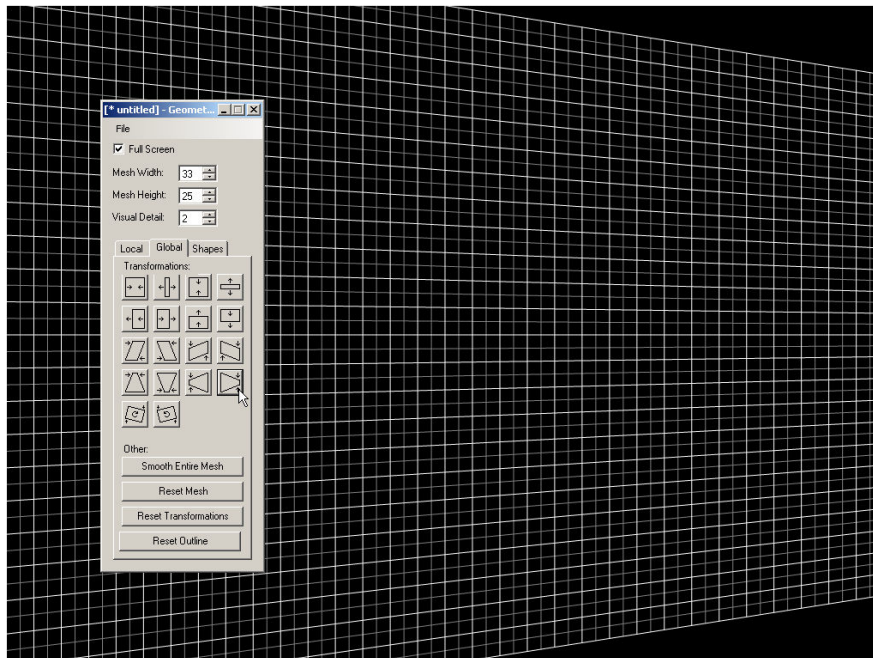
In real-world applications, video projector alignment with the MX-XWarp software was performed in 1/10<sup>th</sup> the time as the same alignment with an external device. The most popular competitive external processor requires the user to connect an external computer to the projector in question; the connected computer must be then loaded with the competitor's geometry software; the user opens the software and performs the manual alignment through the projector. The alignment file is saved and downloaded into the external processor and finally activated for use. With the Keywest Technology MX-XWarp software installed on the actual media player, the user is able to simply stop the current schedule, open the alignment tool, make the adjustments and save the file. A process that took at least 30 minute per channel with an external device is reduced to three minutes with MX-XWarp and since calibration is made on the actual playback device (eliminating known variables from adjustment software running on devices other than the actual playback hardware) huge increases in alignment precision are realized. MX-XWarp software produces a full-field grid pattern through the actual projector being used, on the actual screen, with the actual player. All external variables are removed. The user is able to use a mouse



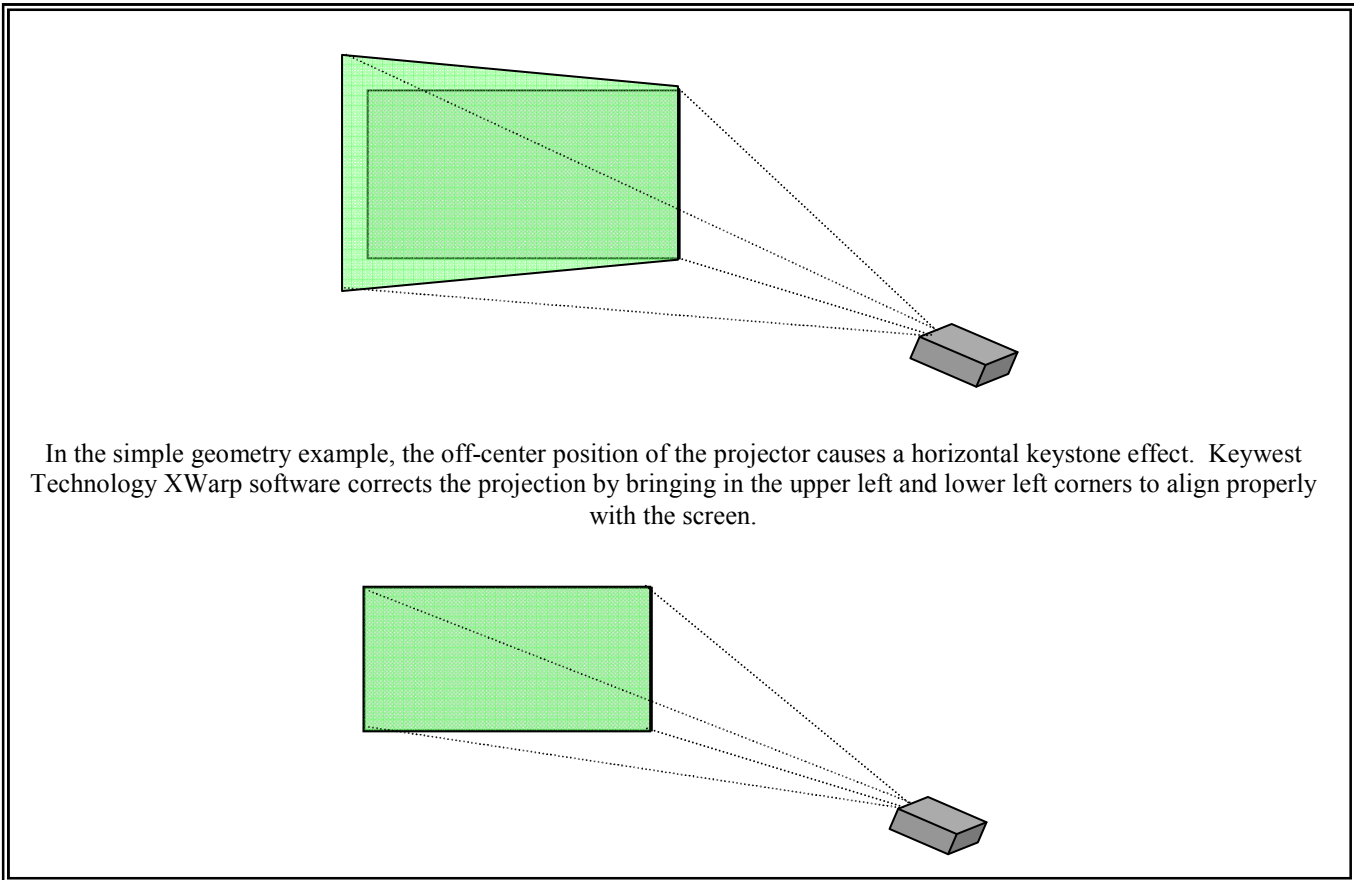
to set various parameters.

Grid size, adjustment rates, and even mouse functions are user-settable features. Each installation has unique needs, and in the finest tradition of Keywest Technology, MX-XWarp is flexible for all those needs. Reduced grid sizes for example can make the simple alignments for minor corrections easier—or even can increase precision when overlaying two projected images.

Once a grid size and manipulation attributes are set, creating an MX-XWarp map is simple.



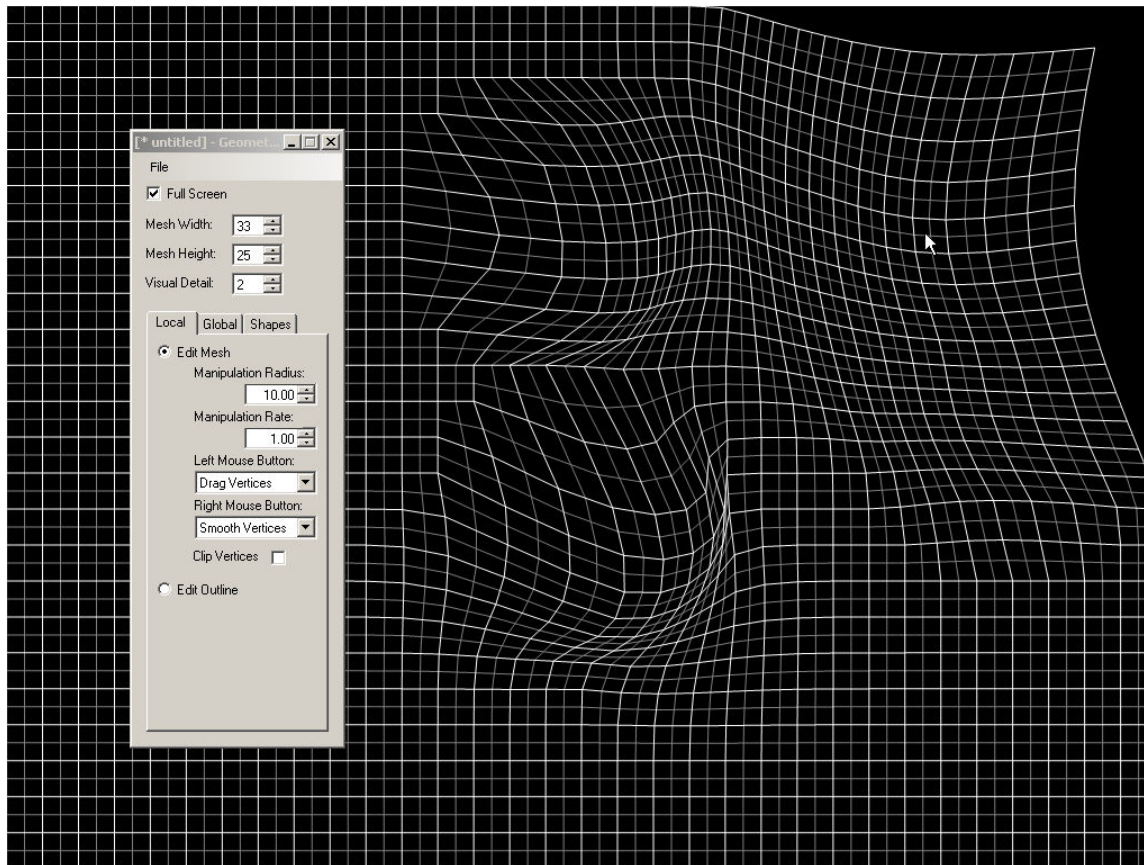
If the display requires simple correction for an offset projector, the user is able to use the global transformation buttons to compensate for keystoneing, trapezoiding, or even rotation.



### Complex Geometry

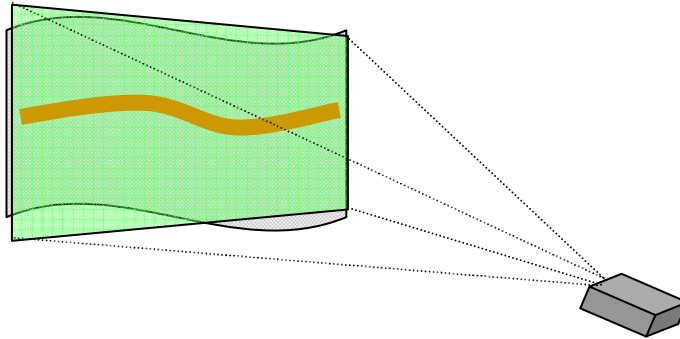
While most projectors contain basic correction functions, those in the right price range for presentations or digital signage do not contain any non-linear capabilities. Keywest Technology MX-XWarp software not only corrects the standard functions such as perspective, keystone, and size required for projector placement, but also corrects complex curves and odd shapes.

Specialized convex or concave projection screen dimensions can be corrected by a manual alignment consisting of setting the grid to the desired precision and detail, and grabbing and dragging vertices to virtually “straighten” the grid on the actual screen. Multiple correction methods can be combined, for example, to correct for a convex screen and an extreme angle projector placement simultaneously.

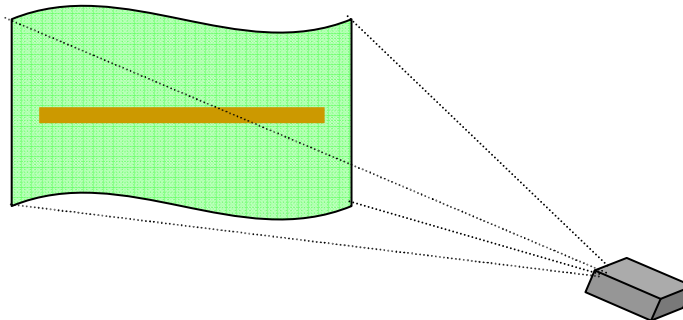


The operator uses the mouse to grab vertices and drag—while viewing on the actual screen, the operator is actually straightening the grid... while the output shape on a flat screen would be significantly distorted, the result on the abstract screen will be an effect of “aligned” visuals as though the screen were flat.





The complex geometry example illustrates a projector offset creating a horizontal keystone problem. The application is further complicated by the wave-shaped screen. Step one would be to offset the keystone using XWarp software by pulling in the upper and lower left corners. Next, the operator would use the XWarp alignment grid to create a projection warp map. The map is immediately applied to the output video, effectively “canceling” the geometry of the screen. The gold line in the upper figure demonstrates how a projected straight line would appear without XWarp—the lower figure demonstrates the XWarp correction.

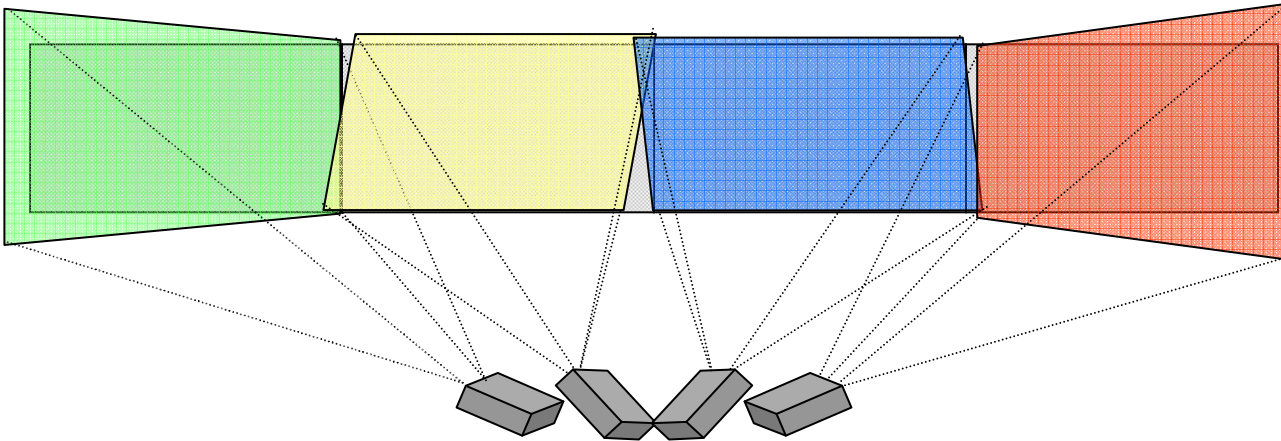


### Multiple Projectors

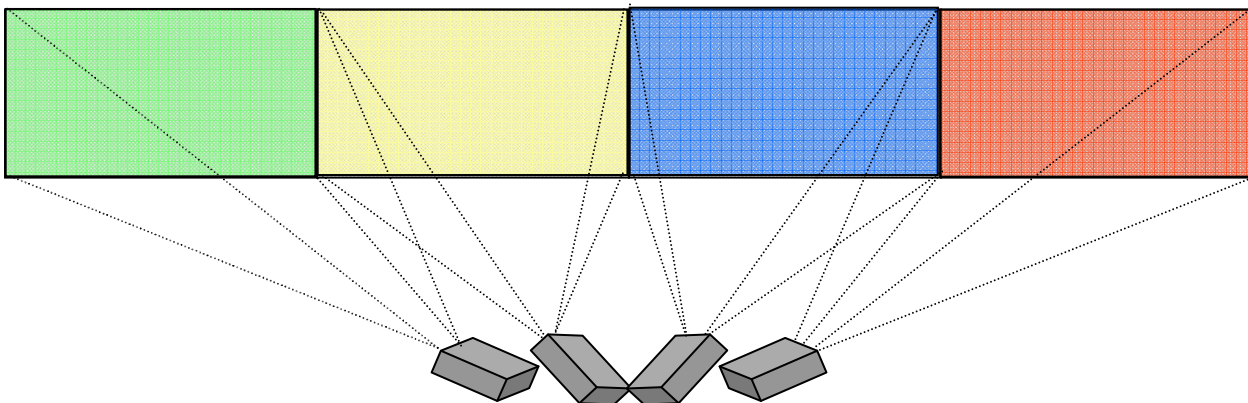
Additional parameters in a projection application include the use of multiple projectors to increase the viewing area and angle or for special effects. Also, content play out usually will require synchronizing between projectors—this is an expensive problem unless a single multi-channel playback device is used. The only multi-channel playback devices available with geometry correction software installed is the Keywest Technology MX series.

Geometry correction with multiple projectors allows for easy mounting—projector placement can be compensated for by the geometry software. MX-XWarp gives the MX series devices the power to run individual geometric correction algorithms (saved patterns) on each individual

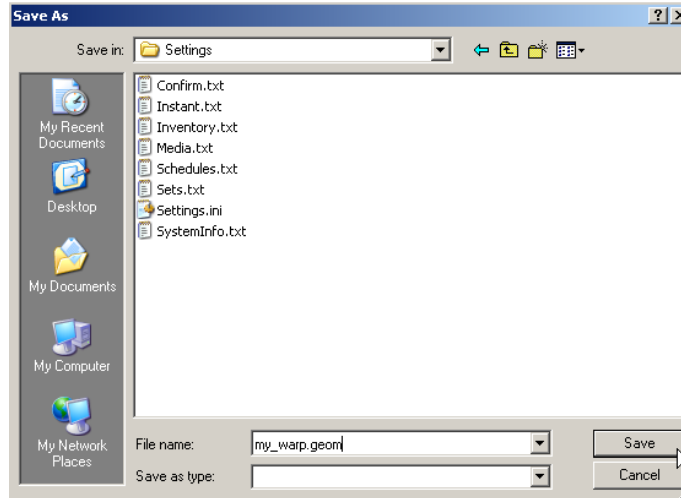
channel simultaneous. For example, a quad-channel MX device feeding 4 projectors for four screens aligned edge to edge in a landscape fashion; the four projectors can be set in one small area, fed by one player, each channel correcting image geometry independently—the flexibility simply removes the bounds that prevented wide-spread projection proliferation in the digital signage market and creates new possibilities.



Since correction on a multi-channel device, such as the Quad-head MX IV is independent per channel, an array of projectors is easily aligned for stunning presentations. Perhaps the application is a string of four 16:9 landscape video screens, rear-projected, running the length of a corridor or along a single wall in a concourse—without great expense or significant effort, a 12’ tall by 48’ long presentation would leave a lasting impression on viewers.



Finally, saving and implementing the warp and/or mask files is as simple as saving the map in the SETTINGS folder and denoting it as the active geometry correction file in the player Setting.INI file. Multiple map files can be stored in the player for multiple locations.



## Appendix G Really Simple Syndication (RSS) Feeds

MediaXtreme RSS Reader is a software add-on created by Keywest Technology to allow RSS feeds to be utilized in a media zone in the form of horizontally crawling text. RSS allows news organizations, Web portals, bloggers, government agencies or anyone else to feed their content to Internet subscribers as XML files. Keywest Technology's RSS and PC Data Reader add-on can automatically retrieve the headlines and body of RSS stories from user specified Web sites and reformat them as digital signage news crawls. In essence, the add-on turns RSS feeds into a specialized news wire service, providing constantly updated information, depending, of course, upon the company or individual creating the RSS feed.

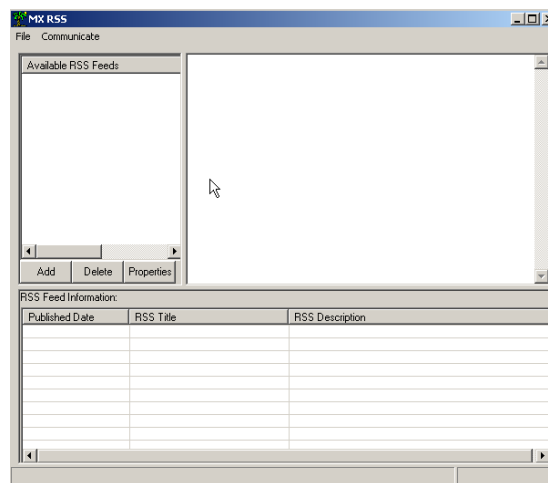
### How It Works

RSS Reader works with a Keywest Technology MediaXtreme player and access to the Internet, whether that be through the existing Local Area Network or a dedicated wired or wireless connection.

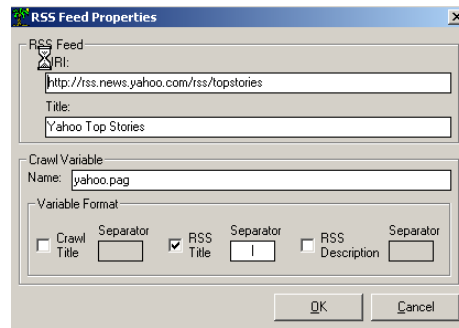
RSS reader installed on an MX MediaZone player utilizes its internet connectivity to retrieve one or many RSS feeds. These feeds are then automatically inserted as crawls at the appropriate time, position, speed, size, typeface and color selected by the user in the schedule.

The process begins within the MediaZone software on the user's computer, which we will refer to here as the Media Creation Station.

Under the Communication menu, RSS is selected.



Click ADD on the main RSS window to open the RSS Properties window:



Use the properties window to set the Unique Resource Identifier (URI) (which is the path to the RSS feed normally just cut and pasted from the address bar or properties page of an RSS feed on the internet.

In the example a URI for the Top Stories from Yahoo News is used. The Title is simply a user-defined, descriptive title for the RSS feed. The title entered can be set to display at the beginning of the RSS crawl if the Crawl Title check box is selected under Variable Format. Additionally, in the Variable Format section the RSS Title and RSS Description can be selected to display or stay hidden and a character such as a vertical bar or dash can be set up to display as a separator between entries in the RSS feed.

For example, if the Title Local News is set to display, Crawl Title contains a colon as the separator, and the RSS Title was also set to display with a vertical bar as a separator the crawl may appear as below.

Local News: City council announces new meeting dates | large item trash pickup day set for the 3rd | County officials appeal to state government to keep paper ballots |

Finally, a Crawl Variable name must be given. The Crawl Variable name should be noted and will be crucial later in the process of inserting the RSS feed into the MediaXtreme schedule. Be sure to not add .pag to the crawl variable name as that will be done automatically later...if you add .pag the variable name will end up as name.pag.pag which will of course not function at run-time. For the above example, enter only YAHOO.

Once the URI is entered, a name and title is given, and the Variable Format choices are selected, the new RSS feed must be sent to the MediaXtreme player. In order to do this, the Communication button within the MX RSS popup window is clicked.



Next, the IP address or DNS name of the MediaZone player is entered or selected in the Communication window and the Update button is clicked. This copies the RSS feed name and properties onto the player but we still have not yet scheduled it to be played. The final step is to open MediaCreator from within the MediaZone software (F2) and click File, New, Crawl Page. In the Crawl Page at least one character must be entered in order to set the

typeface, edge, and color of the crawl. After at least one character has been entered the crawl page must be saved with the exact same name used in the Crawl Variable Name section of the MX RSS window.

The crawl page is then inserted into a crawl layer in the MediaZone software where the speed and dwell time of the crawl are chosen. The zone's size and position in the Template Configuration window will dictate the size and position of the RSS crawl. The set is scheduled and sent through the MX Scheduler window under the Communications menu of the MediaZone software. The MediaXtreme player automatically aggregates all entered RSS feeds and replaces the text of the corresponding MediaCreator crawl page with the appropriate RSS data.

## Appendix H Warranty

Keywest Technology's "no-worry" warranty program is called TotalCARE®. TotalCARE® coverage includes hardware, software and 24/7 support for one year after date of purchase for any Signage or Broadcast hardware. Software only purchases are governed by a separate End User's License Agreement. Extended warranty agreements can be purchased up to five years total.

All MediaXtreme Broadcast and Digital Signage products can be diagnosed and maintained remotely through an IP connection. A broadband connection is required.

Support includes telephone, instant messaging, live chat (via our web site), email, and interactive WebEx support and on-going training.

Keywest Technology, Inc. warrants all Keywest Technology products to be free from defects in material and workmanship for a period of one year from the original date of purchase. At its option, Keywest Technology will repair or replace at no charge any Keywest Technology product which proves to be defective within such warranty period. This limited warranty shall not apply if the product has been damaged by unreasonable use, accident, negligence, service or by any other causes unrelated to defective materials or workmanship.

The standard warranty period may be increased by purchase of warranty extensions as offered by Keywest Technology, Inc.

To receive in-warranty service, a defective product must be identified to Keywest Technology no later than 30-days after the end of the warranty period. The product must be accompanied by proof of date satisfactory to Keywest Technology and by a Return Material Authorization Number (RMA) issued by Keywest Technology. For an RMA number and the location of the nearest authorized service center contact Keywest Technology, Inc. at 14563 W. 96<sup>th</sup> Terrace, Lenexa, Kansas 66215, 913-492-4666, or [www.keywesttechnology.com](http://www.keywesttechnology.com). Any product returned to Keywest Technology must be packaged securely using the original packing materials (unless previously waived). Keywest Technology recommends insurance for replacement value as Keywest Technology assumes no liability for any loss or damage occurring during shipment.

Except for the stated warranty above, Keywest Technology makes no other warranties, expressed or implied, with respect to the Keywest Technology products. All implied warranties, including those of merchantability and fitness for a particular purpose are limited to the duration of the expressed warranty set forth above.

The limited warranty set forth above constitutes the sole and exclusive remedy of the original purchaser with respect to any defective Keywest Technology product and is in lieu of all other obligations or liabilities of Keywest Technology. In no event shall Keywest Technology be held liable for any costs of procurement of substitute goods, loss of profits, or any consequential,

incidental, and/or other damages of any kind resulting from a breach of any applicable express or implied warranty, breach of any obligation arising from a breach of warranty, or otherwise with respect to the manufacture and sale of any Keywest Technology product, whether or not Keywest Technology has been advised of the possibility of such loss or damage. This limited warranty gives the purchaser specific legal rights who may also have other rights that vary from state to state. Some states do not allow limitations on implied warranty durations and/or do not allow the exclusion of incidental or consequential damages.

### Keywest Technology Repair and Exchange Policy

Within 14-days of date of purchase, Keywest Technology will exchange defective units at no cost to the customer. Keywest Technology technicians and engineers may authorize RMA for exchange under this clause only after reasonable technical support efforts to resolve the issue and the problem is deemed not at user negligence. Units within 15-days to 30-days of date of purchase may be exchanged or repaired at Keywest Technology's discretion. Units within 31-days to one year of date of purchase will repair or exchange the unit under warranty (see warranty statement for details) at its discretion. Any product outside of warranty period will be processed as non-warranty repair.

### Documentation

Every reasonable effort has been made to ensure that Keywest Technology product manuals and promotional materials accurately describe Keywest Technology product specifications and capabilities at the time of publication. However, because of ongoing improvements and development, Keywest Technology cannot guarantee the accuracy of printed materials after the date of publication and disclaims any liability for changes, errors or omissions.

### Technical Support

TotalCARE© is the Keywest Technology Technical Support system. All TotalCare support is FREE for the warranty period of your Keywest Technology product including telephone technical support at 800-331-2019 (USA) or +01-913-492-4666 outside of the United States and Canada. Extended coverage is available for a nominal fee. The TotalCARE® Support Center is open from 12:00 AM Mondays to 11:59 PM Fridays USA Central Time (GMT -6) excluding holidays. 24/7/365 after hours, weekend, and holiday support is available by several means—follow the recorded messages posted at the normal TotalCare® phone numbers for assistance. In addition, Keywest Europe and Keywest Asia are available during regional business hours.

For electronic support, Keywest Technology uses all popular Instant Message applications—ask us a question for a quick response during standard tech support hours. Screen names available at [www.mediaxtreme.tv](http://www.mediaxtreme.tv) or [www.keywesttechnology.com](http://www.keywesttechnology.com).



Web Support--Sometimes tech issues may need additional support. Our application engineers have WebEx in their toolbox and can host a live session with you right over your own computer.

Live Chat: Keywest Technology TotalCARE© includes live chat during regular business hours to support any technical related issues. This service can be accessed from the “Chat with an Expert” link on [www.mediaxtreme.tv](http://www.mediaxtreme.tv) or [www.keywesttechnology.com](http://www.keywesttechnology.com).

Email Support: Email remains a popular way to communicate with tech support at Keywest Technology. According to your needs, attachments are added to provide you with software patches, instructions, or informative brochures that will resolve your issues, usually within a couple hours. Email: [tech@keywesttechnology.com](mailto:tech@keywesttechnology.com)

#### Out of Warranty Support

Telephone support may not receive “warranty priority queuing” after the warranty period has expired. Non-voice electronic means of support are provided free of charge for the lifetime of the product (chat, IM, email). (\*This policy is subject to change at the discretion of Keywest Technology and without prior notice\*)

#### Out of Warranty Repairs

Out of Warranty repairs will be subject to a Base Charge (Includes 3 hours of labor and minor parts – major parts and extended time are extra (subject to change after warranty period expires)).

#### Payment Terms

Standard payment terms are full or partial payment prior to shipment, collect on delivery (COD), or net-thirty (30) days from date of invoice. To obtain Net-30 terms, an application for credit must be submitted to, and approved by Keywest Technology’s Credit Department. Should a credit account be granted, all decisions with respect to the extension or continuation of the account shall be at the sole discretion of Keywest. Invoices are due and payable to its main office in Lenexa, Kansas. All invoices not paid when due shall carry a late payment charge of 1 ½ % per month. Should an account be placed in the hands of an attorney or agency for collection, the purchaser shall be liable for reasonable attorney or collection fees along with all costs incurred in the collection of the indebtedness. The laws of the State of Kansas apply to all transactions and disputes that may arise. Any litigation for the collection of indebtedness shall be brought in the District Court of Johnson County Kansas where proper venue shall lie.

#### Delivery Terms

Delivery dates quoted by Keywest Technology are best estimates and are not guarantees of delivery by such date. System installations will adhere to schedules in all ways possible.

Keywest Technology will use its best efforts to comply with such dates but shall not be liable for damages or otherwise, nor shall purchaser be relieved of its obligations relating to the purchases from Keywest Technology should Keywest Technology not meet such delivery dates. All prices are F.O.B. destination. Title to and risk of loss or damage to products (except title to any software comprised in the products) shall pass to purchaser upon delivery or installation.

#### Keywest Technology Maintenance & Service Contracts

Keywest Technology, Inc. and customers may enter into on-going maintenance agreement contracts that may include on-site routine maintenance, content creation, remote data management, or any other service mutually agreed to by both or all parties in a binding legal contract. These agreements will be negotiated on a case-by-case basis.

Registration is required to validate the warranty.