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MX3-PLUSPlus is the most flexible broadcast character generator (CG) on the market. Available in a compact ½ rack-wide chassis or a full 19" one rack unit (1RU), this device is capable of running stand-alone and in remote control configurations.  The MX3-Plus features playback versatility, convenient Keywest Technology drag & drop scheduling, as well as simple CG media creation.  The MX3-Plus is capable of playing slides of various graphic formats (.bmp, .jpg, .tif, .gif, .png, .pcx) as well as Microsoft PowerPoint© and Flash© movies.  The intuitive software provides the means to create slides from scratch and lay-out playlists in seconds.  Playlists can be run on a time/date scheduled basis or a continual loop.  For a wide range of  applications, such as CCTV, CATV, or broadcast video; schools, info channels, kiosk, and more; the MX3-Plus delivers composite, Y/C, and RGBHV (Progressive) NTSC or PAL video to your system.  Stereo audio output rounds out the display offerings.  MX3-Plus is controllable stand-alone or via serial or even the Internet.  This is your high-quality, low-cost, ultra-reliable media player.

## FEATURES

- Composite or Y/C and RGBHV output
- NTSC and up to XGA
- Stand-alone remote control software
- Built-in Ethernet
- Stereo audio output
- Serial Controllable for System Integration and System Control
- Ruggedized and redundant internal cooling with triple-planar air flow.
- Microsoft Windows XP Pro™ based system for security, stability and networkability

## ORDERING INFORMATION

| Part # | Options |
|--------|---------|
| MX3-Plus | Keyboard, Monitor, Mouse, any commercially available software packages |

## APPLICATIONS

- ➢ Photo-Classified Channel
- ➢ Any television system with need to schedule and playback slides
- ➢ Kiosk
- ➢ Dormitory, Barracks, Rec Centers, Clubs, TV & Movie Shelters, Tent City, Command Post, Headquarters private or public information server
- ➢ Facility Wide Information Systems

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***CAUTION***

Unit operates on +12 VDC.  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.

****************************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.  Appropriately trained and authorized personnel only should attempt any internal modifications, repairs, or service.

# CONNECTIONS
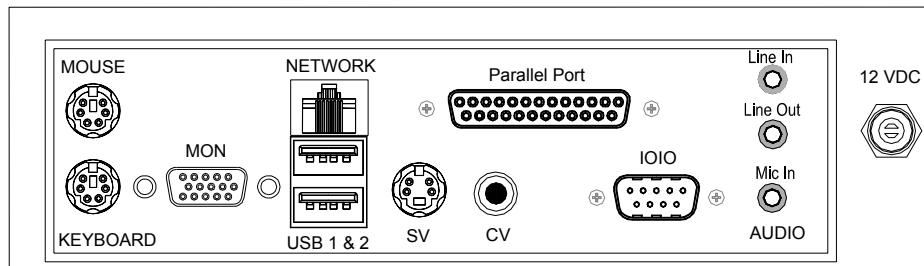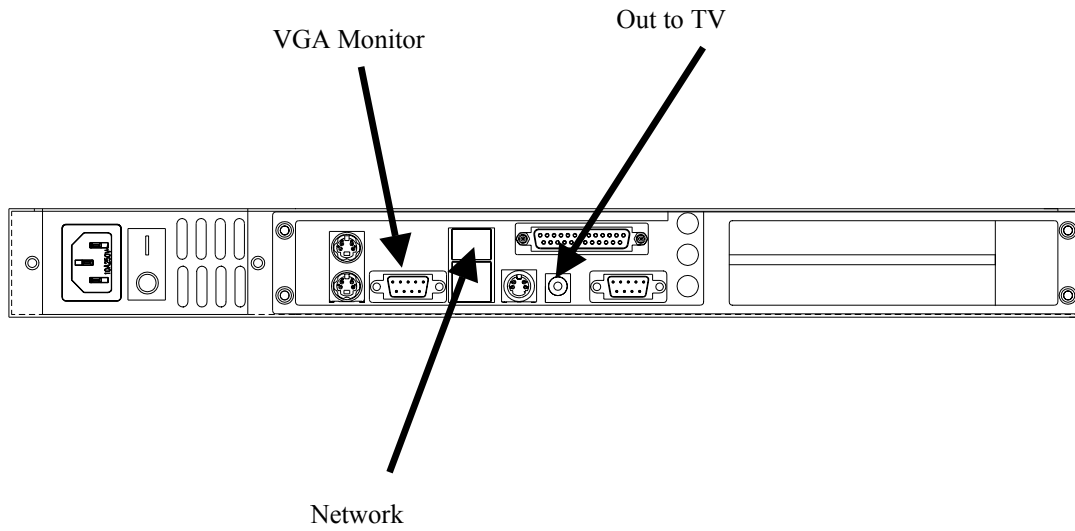
MX3-Plus Mini-Chassis Rear Panel Overview



Figure 1

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MX3-Plus 1RU Rear Panel Overview

VGA Monitor

Out to TV

Network

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Standard PC Connections (* = required connection for MX3-Plus normal operation; ** = required for setup or troubleshooting but not for day to day operation—all other connections not marked with '*' or '**' are optional.  Note that while Composite Video, Y/C Video and RGBHV video are not "required" for day to day operation, they are the only connectors available for video output, and to view your creation, at least one of them must be connected to your video distribution system.  Audio line out will also be typically used to broadcast sound with your presentations—see the typical wiring diagrams in the quick start section for more details)

**MOUSE:  Standard PS/2 style mouse

**KEYBOARD:  Standard PS/2 style keyboard

USB 1 & 2:  Universal Serial Buss (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.  Not normally used in an MPEG player application.

AUDIO MIC IN:  Can serve as microphone input or secondary audio source input.  Not normally used in an MPEG player application.

CV:  RCA connector outputting standard NTSC base-band composite video.  This is the main video output to be used in cable and broadcast video applications.

SV:  4-pin Mini-Din connector outputting standard NTSC base-band Y/C video.

**MON:  This is the normal VGA-style connector.  It is an industry standard High-Density 15pin connector, used to interface with any computer monitor.  Video output of this connector is not meant for a television, as it is progressive scan component type video (as opposed to composite video on the RCA jack).  This normal video output is referred to as RGBHV (Red Green Blue Horizontal Vertical (sync pulses)).

NETWORK:  This is a 10/100 Base-T LAN connector.  Connect your MX3-PLUS to your network via this port, to allow for remote control of the device.  Factory default setting for the

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device is DHCP—automatically acquire and IP address.  If you are not familiar with setting IP addresses in network capable devices, contact a trained IT professional for assistance.

*12 VDC:  Standard +12 VDC input.  Utilize only power supply provided with your unit.

Connect this only when you are ready to run the unit, as it is set to "auto-power" (safety against power outages).  As soon as you plug in the AC, the device will power-up, boot-up, and begin to run stored Slides.

## MX3-PLUS THEORY of OPERATION

The MX3-PLUS player itself is a fire-and-forget device.  Once you have made the appropriate connections (be sure to connect a video connector to something) and powered up the unit, it will begin to play any loaded slide-show unless the playlist was terminated at the player prior to power shut-down.  In that case, the unit will boot up to the graphical user interface (GUI) screen.

Should MX3-PLUS be shut down through normal Windows™ means, you'll need to power the unit with the front panel momentary power switch.

Out of the box, MX3-PLUS has sample slides and playlists installed and scheduled.   These should begin to run after the unit completes its boot cycle.

---

***NOTE***
MX3-PLUS may take up to 60 seconds to completely boot up, load slides, and begin playing its schedule.  Please be patient during this process.

---

There are two methods of operation with the MX3-Plus:  The first method is to control the device, including creating slides/pages, importing graphics, adding audio, creating schedules and managing inventories directly on the player itself.  This is normally referred to as "on-line" operation because any viewers of your content will also view your creation and scheduling on their TV's.  The device can also be controlled remotely through a network (Ethernet, Internet, LAN, WAN, any of those terms apply) or serially via the copy of controller software included with your unit.  The software you use to control the MX3-Plus remotely is the same software running on the MX3-Plus itself—the learning curve is short!

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To control the MX3-Plus remotely, follow the directions below and install the MX3-Plus software on a computer of your choice, with the following minimum requirements:

--Pentium III, AMD or Celeron CPU greater than 200 MHz
--64 MB Ram
--100 MB HDD Space
--Network connection capable of reaching the MX3-PLUS (see IT if necessary)

## Control Software Installation

Insert the CD that came with your MX3-Plus, or your demo CD into the computer of your choice (this is your "creation" station, where you will be able to create and schedule your display). You should see an auto-run window with a button to setup the application—click install and you should see a setup similar to the screen below (note the version number will change from release to release).
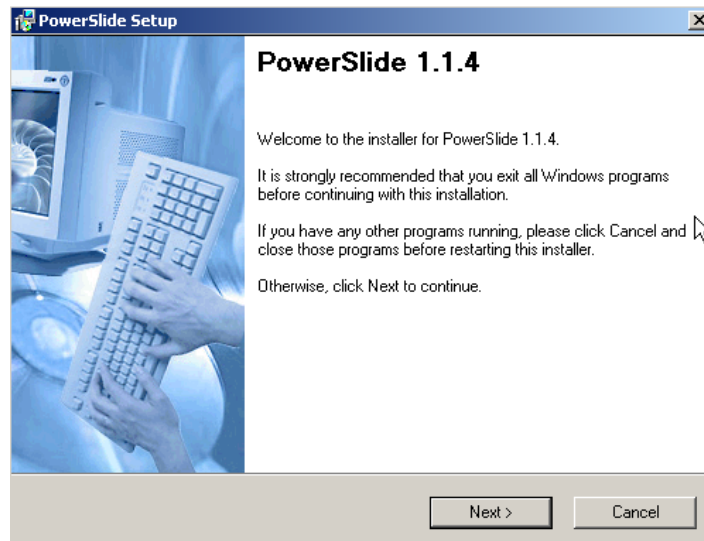


Figure 2

Click NEXT and follow the prompts to complete the installation.  You will see a progress bar as shown in Figure 3.

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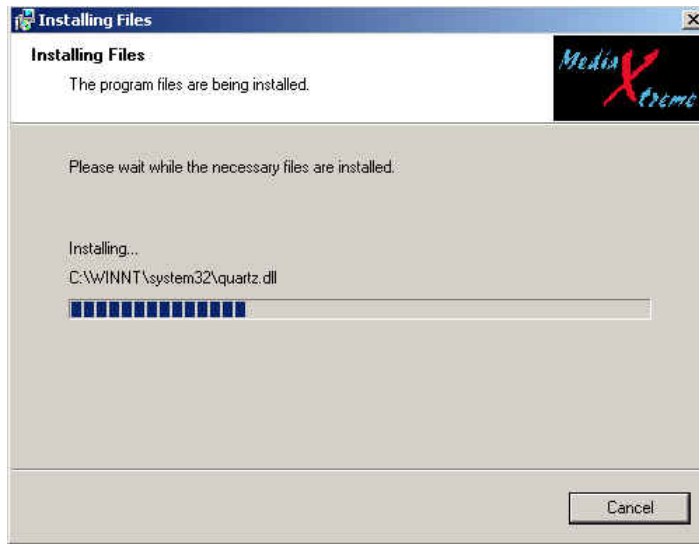
Figure 3

The progress bar will show you the status of the installation.  You may cancel installation at any time, and reinstall later if necessary.

After installation is complete, you'll find the PowerSlide Scheduler ICON on your desktop (figure 4).



Figure 4

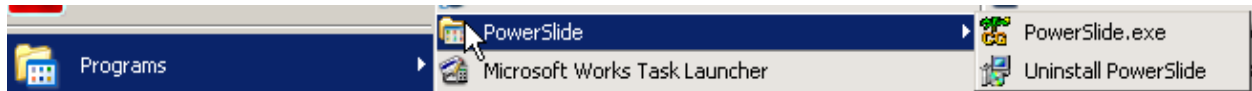Or, you can access the program from your Windows© Start Button.



Figure 5

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Once the software is installed, you are almost ready to begin making Pages (Slides), Playlists and Schedules.  To open and run the software, click on the icon on your desktop, or access through the START button.

The first time you run the software, and each time after until you register the software with Keywest Technology, you will see a reminder screen (figure 6).
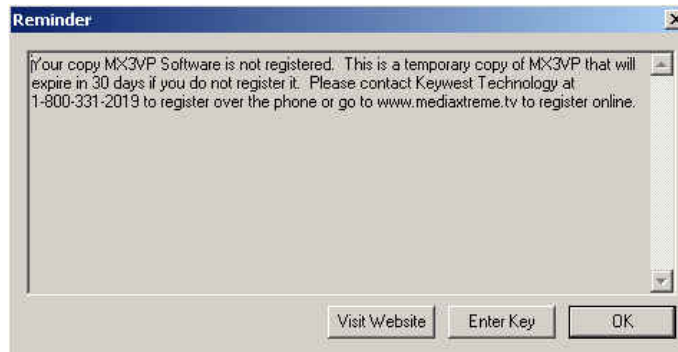


Figure 6

If you are not ready to register your software and hardware click OK.  You have 30 days from the point of software installation to register.  If not registered after 30 days, the software will cease to function—you will have to contact your dealer or Keywest Technology to change registration status.

If you click OK, and run unregistered, you will get one more reminder (figure 7).
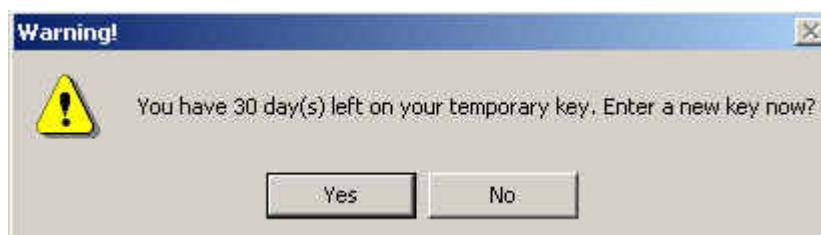


Figure 7

You can click NO and proceed, or you can click YES and enter the security key provided when you register your MX3-PLUS.

Once you register, you'll only have to do it again if something changes in your creation PC running the MX3-PLUS Scheduler software.
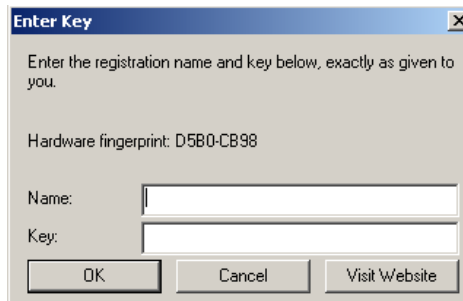
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> **NOTE**
> You will not be eligible for telephone technical support until your software and/or hardware is registered—Email support is always available at tech@keywesttechnology.com

To register, go to www.keywesttechnology.com or www.mediaxtreme.tv .



Select PRODUCT REGISTRATION, choose MX3 from the drop-down menu and follow all on screen prompts.  You will receive your permanent security key through email no-later-than the next business day after you have completed registration.  If you can't register on line, call 800-331-2019 and inform the specialist that you need to register via telephone.

Enter that Key into the Security Key window (which appears if you click YES, or ENTER)

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Once you've settled or bypassed the security key issues, you are almost ready to start making waves.  We will need to setup the MX3-Plus player itself so that it can be controlled.

## SETUP IP

**DO NOT** connect any network enabled device directly to a cable modem or DSL modem unless you are in search of worms, trojans, and viruses—the internet is crawling with damaging, infectious programs.   Always ensure your devices are connected to a safe and secure firewall router and are on a safe and CLEAN network.  If you do not have an IT department, contact Keywest Technology for further assistance in safe connections.

The best connection to make by far is network.   There are several settings and precautions to take.  First, ensure you have a keyboard, vga monitor, mouse, and valid network cable attached to the player—restart the player if any of those peripherals seem to not function.

Once the unit reboots and you see pages playing, you'll need to stop them—press ESC and END keys on the keyboard simultaneously.  You should see the pages stop, and the desktop display.  If the machine continues to play despite pushing ESC and END, try CTL-ALT-DEL and end the PowerSlide task.

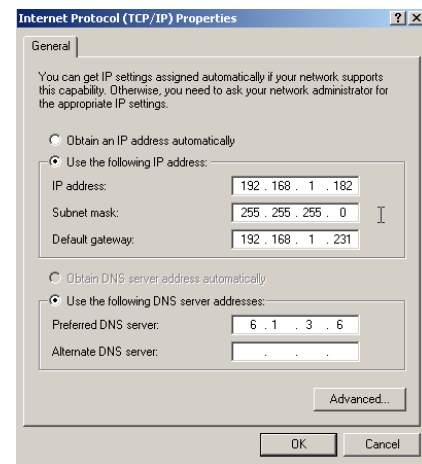Once you see the desktop, right-click the MY NETWORK PLACES icon and select PROPERTIES
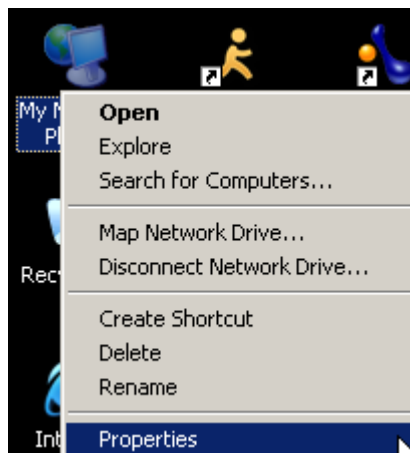


Next, right-click on the Network adapter, and select properties again:

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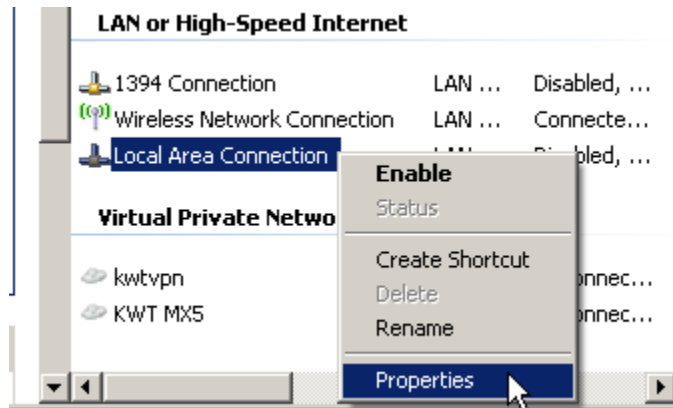
On the network properties page, scroll down to TCP/IP, highlight that, and then left-click on the PROPERTIES button:
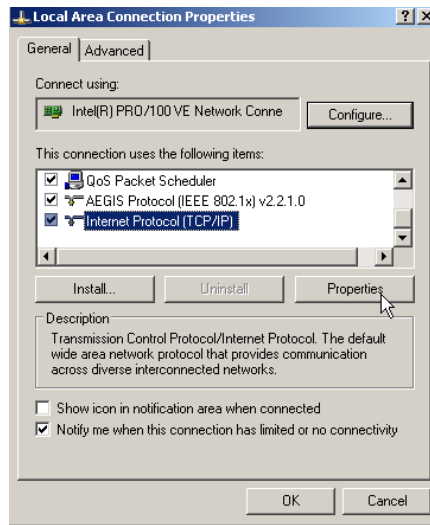


There's a decision to make at the next step (if it hasn't already been made) and that is to either run the player with a dynamic or static IP.  The best selection for the operator is a static IP address…this is an address that doesn't change unless someone changes it manually.  Your IP department will have to assign the Static IP address to you.  The second method is Dynamic—this method means the IP address will change each time your system's router resets or possibly every time the MX3-Plus is power cycled.  The danger in this method is that you may not know from day to day the address of the unit you are trying to control.  For the sake of this manual, let's address static IP's first:

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A static IP forces you to enter the IP Address and the Subnet Mask (numbers provided to you by those in charge of your network).  Gateways and DNS servers are not completely necessary, but would have to be added to facilitate remote troubleshooting from Keywest Technology as well as efficient FTP data transfers from remote sites.
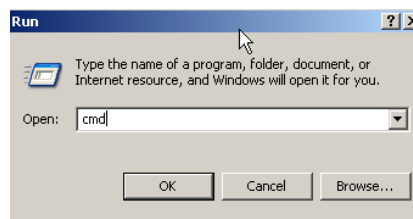
## DYNAMIC IPs

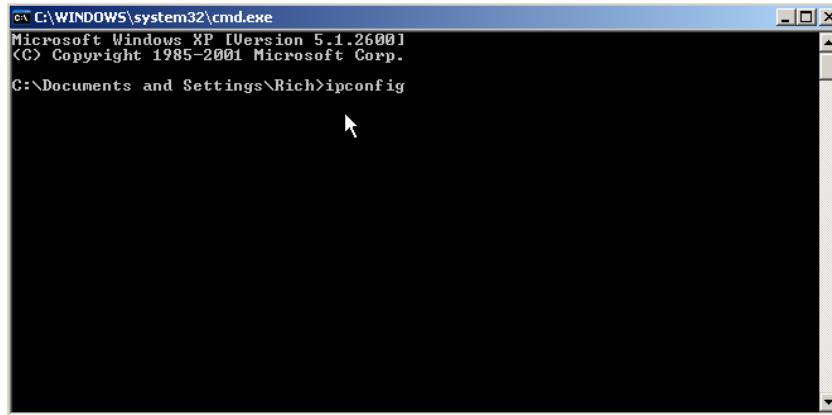The dynamic IP takes whatever address is assigned by a controlling router…setup the Internet Protocol (TCP/IP) Properties as shown below:
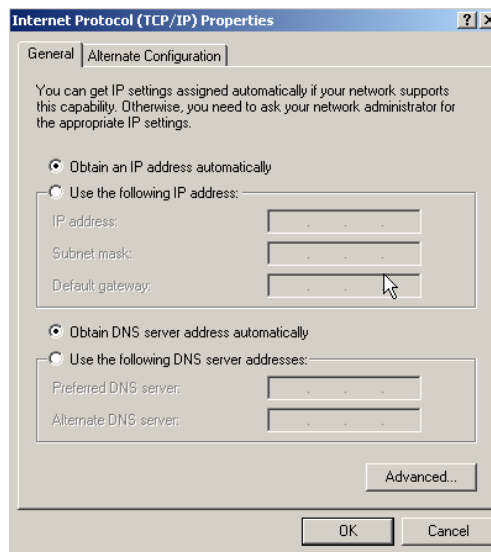


In this case, IPs, subnets, gateways, and dns servers are all selected by the router…you could operate like this but you may have to check into the unit periodically to verify the IP address…or, if you are on an intranet, you could simply address the unit by its network name.  If you go DYNAMIC then, two networking functions you'll need to know:

## DETERMINE YOUR IP ADDRESS

Click on the START button, select RUN, and type cmd in the run window



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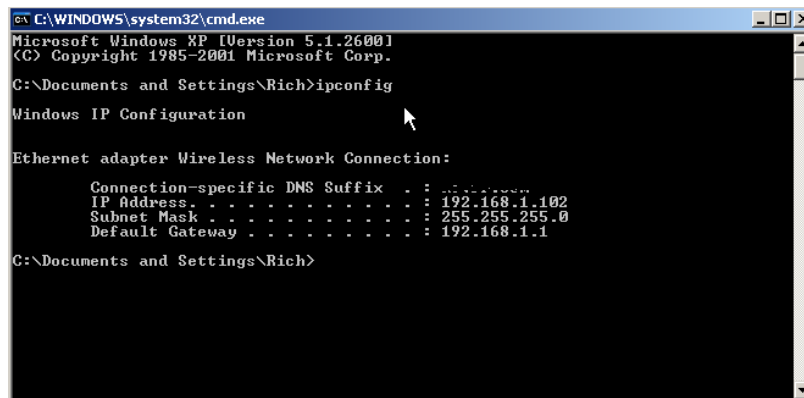
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Next, a COMMAND PROMPT window will appear (affectionately known as a DOS window)…in the command window, type IPCONFIG on the current command line as shown below, then press the ENTER button:



The command window should respond with some important data



The IP address of your MX3-Plus will be displayed along with the subnet mask and the gateway. Write down this IP address, as we will need it to connect to the player remotely.

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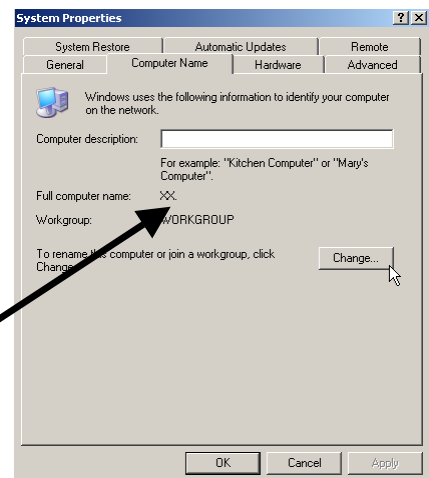KWT TM 2-1-MX3PLUSOM
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## VIRUS PROTECTION

*A word about virus protection here…safe computing…the MX3-Plus runs on a Windows XP Pro embedded platform.  This means the device needs to be adequately protected by a firewall—a software firewall can potentially interfere with the graphics and transitions, but hardware firewalls have proven to be extremely efficient if properly setup.  Hardware routers can be setup to allow only authorized users access to the player.  DO NOT connect any network enabled device directly to a cable modem or DSL modem unless you are in search of worms, trojans, and viruses—the internet is crawling with damaging, infectious programs. Always ensure your devices are connected to a safe and secure router and are on a safe and CLEAN network.  If you do not have an IT department, contact Keywest Technology for further assistance in safe connections.*

PLAYER NETWORK NAME

In Dynamic mode, you can address your player by its name rather than an IP address.  This will allow you to function on a Dynamic (or DHCP) system without worry of changing addresses. To find or change the name of the player, right-click on MY COMPUTER on the desktop.
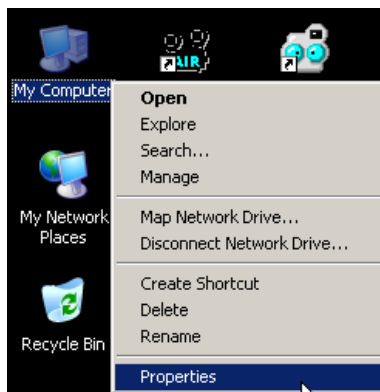


Next select the COMPUTER NAME tab…there you can either view the name of the machine or change it with the CHANGE button.  If you choose to change the IP address, you will be prompted to restart the player—changes will not take effect until you do restart.



Player Name XX

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After you have set all the player functions, it will be necessary to start it playing pages again. Find the PowerSlide© icon on the desktop, or find PowerSlide© through the START button and PROGRAMS item.  Double-left-click on either to start the application.  If PowerSlide© does not automatically start playing pages (determined by how it was last shut down), you will need to click the PLAY BUTTON as highlighted below to restart playback:
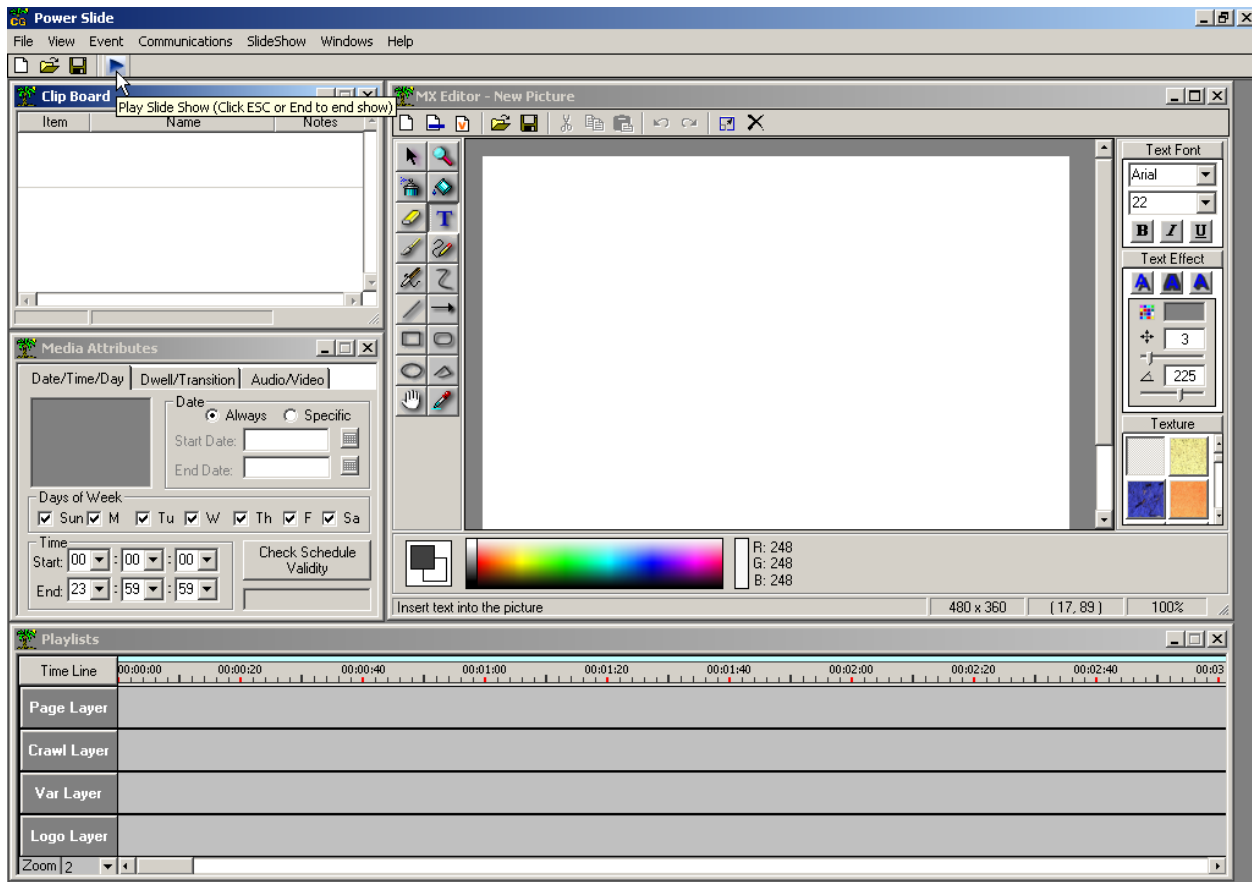


After the IP address is set and the unit is back in playback mode, you can remove the keyboard, monitor, and mouse if you desire.  Unless you are going to control the unit in "on-line" mode, that is directly on the player itself, you will not need those user interface devices.
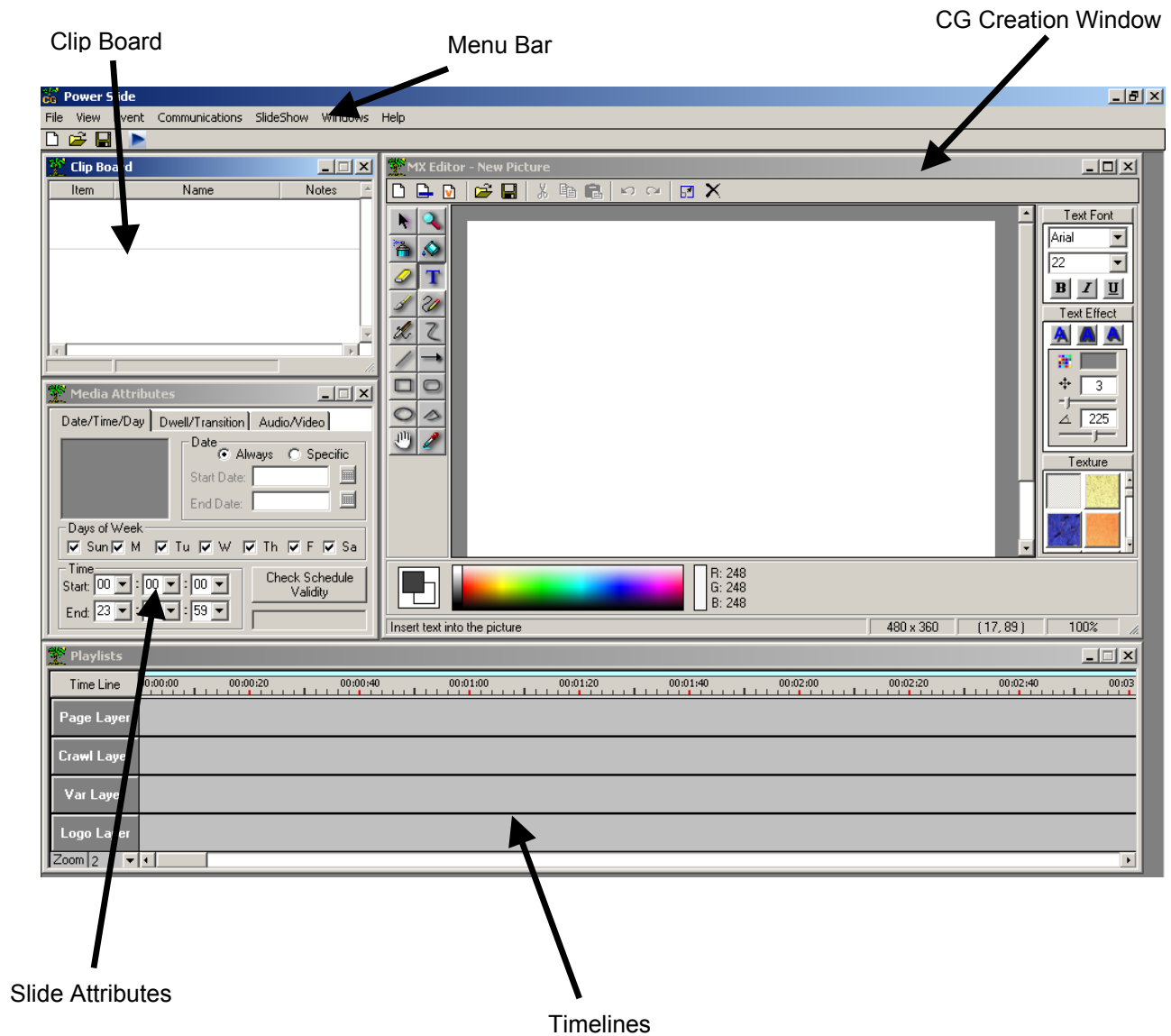
This manual will now cover the creation & scheduling software…all functions apply to remote software as well as the player itself—remember, the software is the same, it's only a matter of where you create the schedules that determines if you are doing local control or remote control.

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# CREATION and SCHEDULING

## Slides, Playlists, and Schedules

Earlier in the manual, we installed the MX3-Plus Scheduler software on the computer of your choice (given some minimum requirements).  That software is the same software that runs the player, giving you the ability to remotely control or locally control the function of the CG. Flexibility defined.

First things first, we'll need to get acquainted with areas of the GUI:



Clip Board

Menu Bar

CG Creation Window

Slide Attributes

Timelines

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The five "arrowed" sections are just about all there is to it!  We will now cover each section so you can get to being creative!

## CLIP BOARD (Import Slides)

The clip board will come up empty when you start the application.

The clip board is the location slides/pages, movies, crawl pages, and variables are stored for your use in time lines.

You can import your slides to the clip board where they will appear as a thumbnail with a brief text description.  This is what we'll use to drag and drop Playlist order.
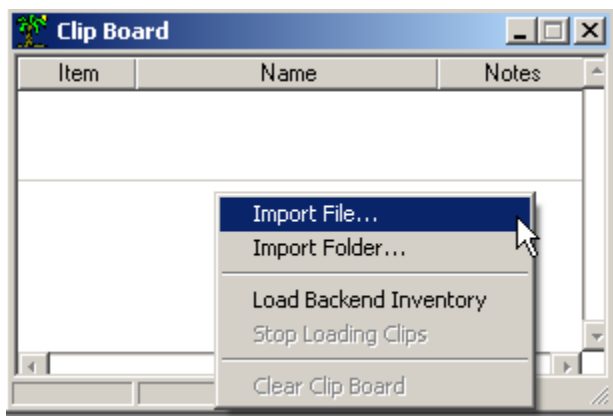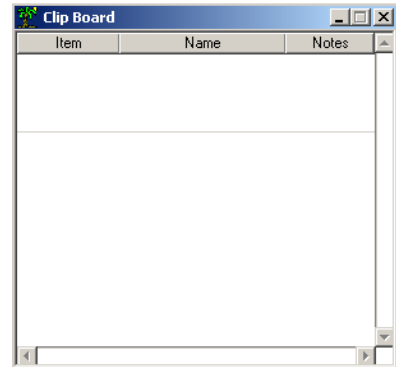
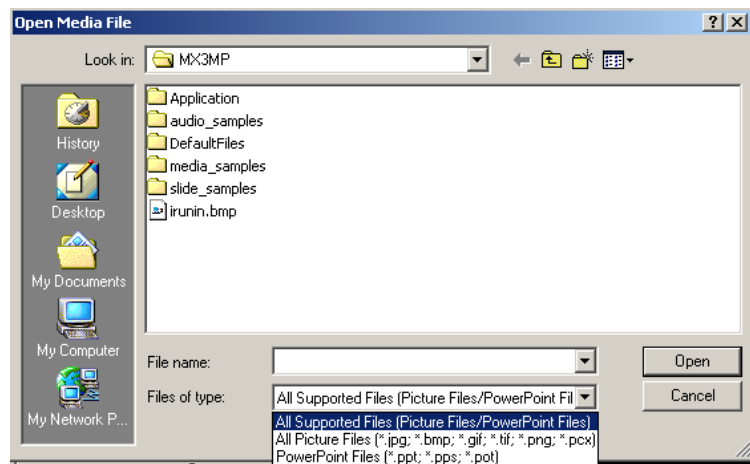To have something to work with, you're going to need to import some slides or images.

Right Click anywhere within the Clip board and a new menu window should appear.  You will have three options to begin with:  Import File, Import Folder, and Load Backend Inventory
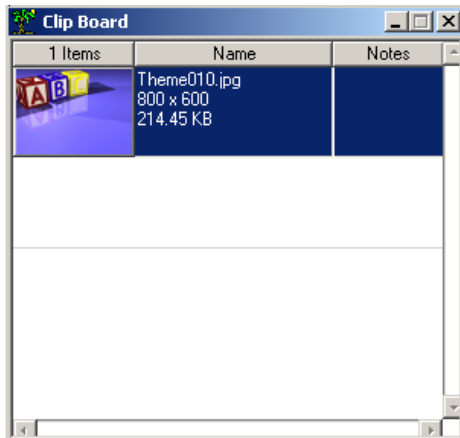
Let's use Import File--Click on it....

The Open Media File file manager window will appear.

On the drop down box, you can see the different formats of slides the MX3-Plus supports.

Browse to the location of your slide or image and double-click it, or click OPEN on the file manager window.

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After importing the file/slide an "icon" (a thumbnail image), and a text box that displays name, extension, run time, and actual creation size will be displayed in the clip board.

The listed slide is now available for use in a time line. Soon, you'll be dragging and dropping your way across the video world!

The next option though, when right-clicking in the clip board window, is Import Folder.  Import Folder will import all the video slides contained in the selected folder.
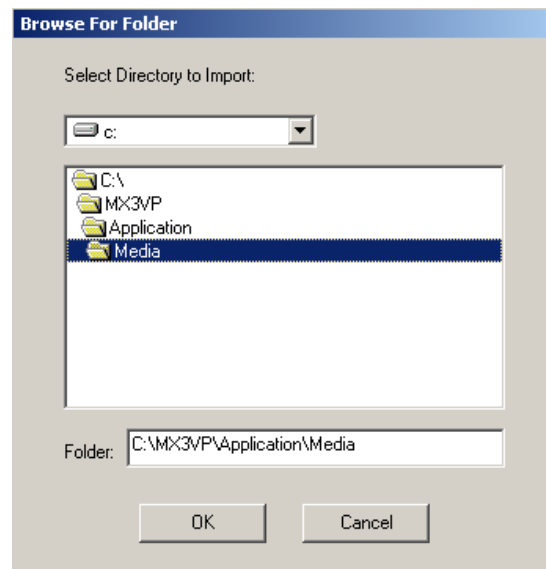


Be careful importing folders…if you instruct the software to download terabytes of MPEG2 video from a server that is exactly what it will attempt to do.

Files can be imported from any connected drive (network drives, local drives, external drives, etc…) allowing for easy file sharing.

The third clip board importation option is LOAD BACKEND INVENTORY.  When you click this option, the GUI will load up the last retrieved inventory list from a player.  Each time you connect to a player to send pages and schedules, the software will retrieve a list of available media loaded onto the player.  You can also retrieve these lists manually through the communications window which we'll cover shortly.

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When you select Load Backend Inventory, all media from that inventory list will be loaded into the clip board.  This is a very efficient means to manage content that is already on the player.  If a piece of content media exists on the player, but doesn't exist on your local computer, instead of an actual thumbnail in the clipboard you will see a file type place holder.  Thumbnails can only be created for media that accessed by the local machine (your PC).

## TIMELINES & PLAYLISTS

The TIMELINE is where you build your Playlists.  A Playlist is nothing more than a playout order of slides, pages, or even video files.  The Timeline is "filled" by dragging and dropping media from the clip board (which we just loaded).

The MX3-Plus is a multi-layer device, and therefore features multiple timelines.
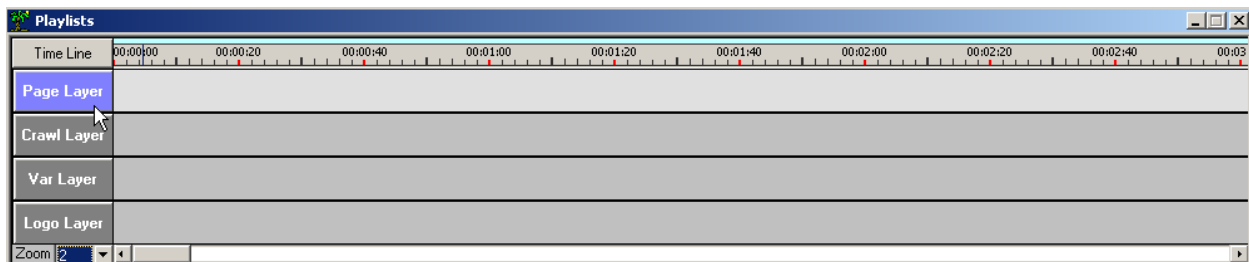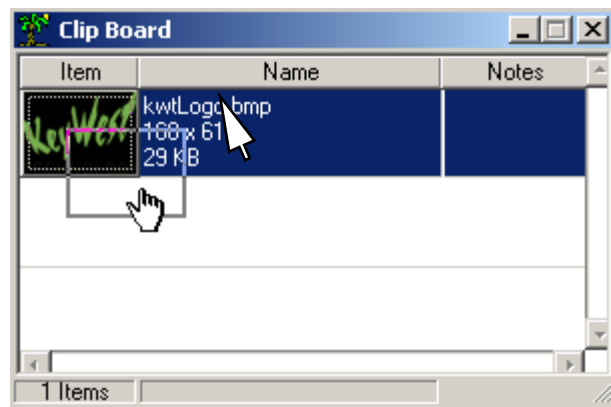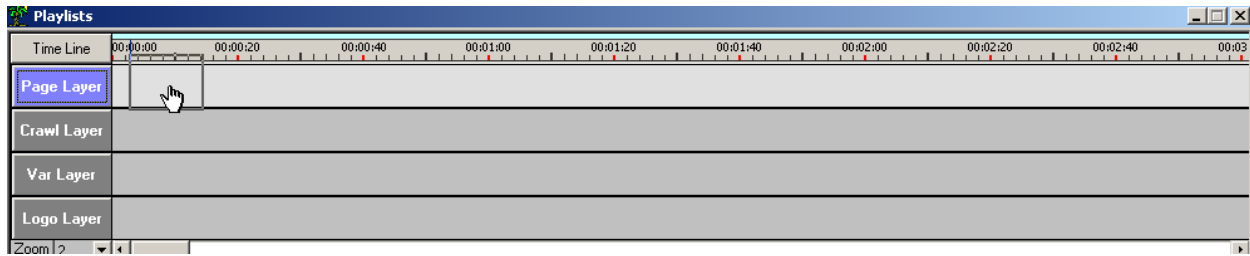


Each timeline is specific to the type of content that is allowed in that layer.  Each layer has its own unique set of attributes and functions.  We will cover each, but first let's look at the Page Layer.

The Page Layer is the most basic layer of a CG.  This is where you can drag your content or media that is created in the CG window, or in Photoshop©, or in PowerPoint©, or Flash©, Premier©, Vegas Video©…well, you get the idea…this is the basic building block and the base layer of a CG.

Drag and drop media to your pages layer by using your mouse and left clicking on the image thumbnail in the Clip board. (Note:  You must click on the THUMBNAIL, not the text box, and you must hold your left mouse button down while you drag).



"Drag" the slide by its thumbnail from the Clip board down to the Timeline, and "Drop" it on any open space on the Page Layer Timeline by releasing your left mouse button.

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When you drag a slide to the Timeline, it will "rest" on any open space you drop it on by releasing the left mouse button
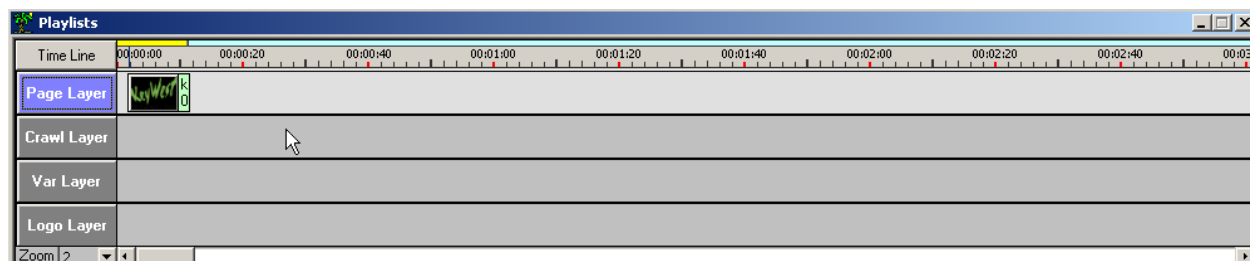


Don't worry about the open space before the media (if any). That will be compacted by the GUI when the save or play buttons are used…you can drop sloppy!

The page layer supports the following formats:

bmp (standard Bitmap), jpg (standard JPEG), gif (standard GIF), tif (standard TIFF), png (portable network graphics), pcx (compressed image format from ZSoft), avi (uncompressed video file), mpeg (compressed video file, usually video CD), mpg (DVD quality compressed video usually MPEG2), m1v (MPEG1 format), m2v (MPEG2 format), vob (authored DVD chapters/sections), ppt (PowerPoint©), pps (PowerPoint©), pot (PowerPoint©), swf (Flash© Movie), evt (Event file created by MX3-Plus), and cgs (pages created by MX3-Plus)

A Timeline is a PLAYLIST. When you complete a timeline, and save it, it becomes a PLAYLIST that you can include in a schedule, or can simply play by clicking the blue play arrow.

It is important to remember that Slides alone can't be scheduled to play. They must be part of a PLAYLIST to be activated by a schedule.

This simple timeline we've created so far is really enough to get on air…yes, it's overly simple and doesn't have a message, but it is indeed a timeline playlist that could be saved, sent, and played.

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Of course though, there's much more sophistication we can utilize.  You can drag up to 9-hours worth of media per timeline—or nothing at all.

Now, before we go further with additional timeline features, we need to cover the Attributes window.

As you may notice, when we dragged the media onto the timeline, the text portion of the information flag became not much more than a sliver of useless information.  This occurs because the size of the information flag and thumbnail itself is relative to the time the slide is set to dwell.  By default, anything dragged to the timeline defaults to a dwell time of 10-seconds.

We can change that, as well as set a few other attributes.  For tutorial sake, we will go ahead and drag a second media file to the Page Layer.
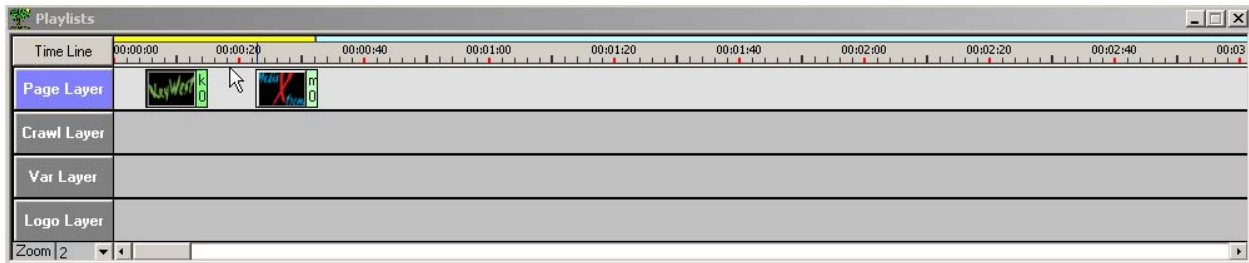


To select either page for Media Attributes settings, simply click on the thumbnail or information flag.  You will then see your slide appear in the Attributes window.

There are three tabs we can work with to tweak up the clip—Date/Time Validity, Dwell/Transition, and Audio/Video.  We'll use all three to make a truly professional display.
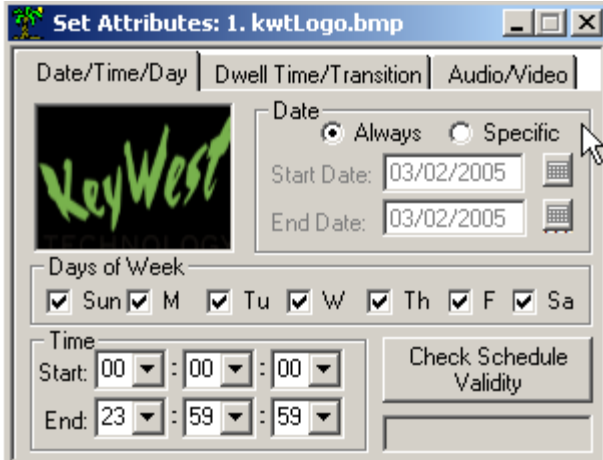


The media attributes window is the location to make schedule specific settings for your slides.

Date/Time Validity

A schedule can consist of many Playlists.  Each Playlist will have its own attribute (as in, a Playlist may be scheduled to play a certain day of the week only, or a certain time only).  Within the Playlists, are slides.  The slides can also have date, day, and time specific settings

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Imagine you have made two Playlists--one for the weekend, and one for weekdays.   Perhaps you have a slide that you want to only run during the week, and only from 7:00 PM to Midnight. You would include that slide in your weekdays Playlist, and then use this Attribute Window to set the slide Valid only from 7:00 PM to Midnight.  When your schedule plays, if the time is outside the 7 – Midnight setting, the slide will hibernate, even though it is in the currently active Playlist.  At 7:00 PM, it will join the play rotation, until Midnight, when it will return to hibernation again for the next 19 hours.

To make a slide active and valid on all dates (this doesn't affect TIME or DAYS), simply click the ALWAYS radio button.

If you want to make it date specific, click the SPECIFIC radio button.

Once you've made the slide "SPECIFIC" you will now have to set the date(s) on which the slide is valid. You can make it valid for one day or up to the year 2050.
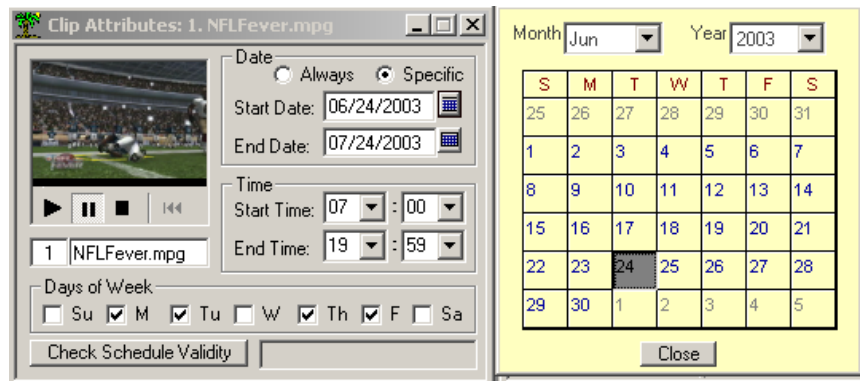
Setting the Date to ALWAYS or SPECIFIC doesn't affect the Day and Time validity.  You still need to ensure the days you want the slide to play are checked and you do need to make sure the valid times are selected.

To make the slide valid 24 hours a day, select a start time of 00:00:00 and end time of 23:59:00.

The MX3-PLUS does use the 24-hour clock to keep AM and PM confusion out of the mix.
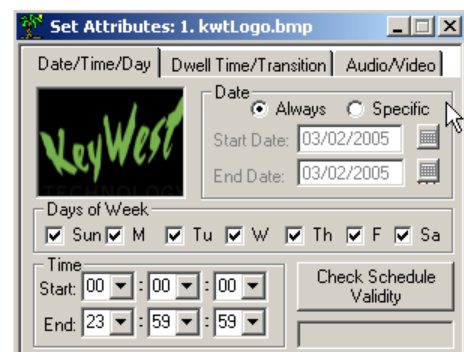
You can use the CHECK SCHEDULE VALIDITY "button" to ensure the attribute selections are indeed valid.  An invalid condition, for example, would be something like choosing a slide to

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play on July 4, 2006, but having only Monday and Friday checked.  Since July 4, 2006 is a Tuesday, the SCHEDULE VALIDITY will return "INVALID" when you click the button.

# DWELL/TRANSISTION

In the attributes window, one of the TABS at the top is for DWELL.  Dwell refers to the amount of time, in seconds, that a slide stays on the screen during playback.

You can set the slide to "dwell" from 1 to 32767 seconds (about 9 hours) by typing in the text box, or by clicking on and "sliding" the slider bar.
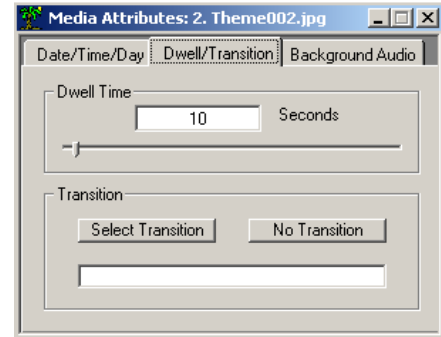
The Dwell window also has provisions for setting the slide transition.  The transition is the "style" the slide uses to enter the screen during playback.  Click SELECT TRANSITION to select the style.

You will see a new window, the TRANSITION window.

To select a transition, click in the "radio" button to the left of the desired transition effect.
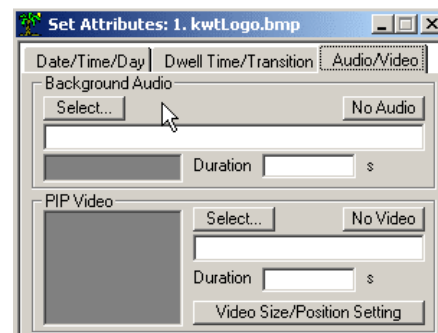
To preview the transition, click on the button containing the transition name (VERTICAL CLOSE for example
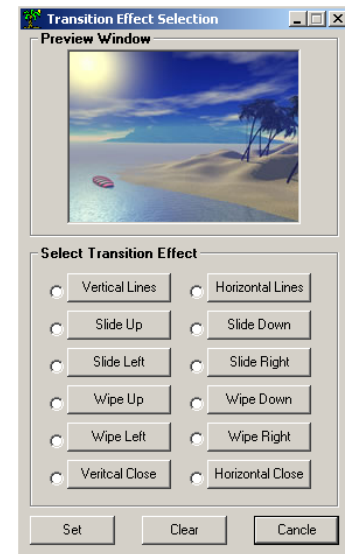
# AUDIO/VIDEO

The Attributes window also contains a tab for adding audio or video to a slide or set of slides.

Click on the Audio/Video Tab.

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Audio is an effective tool to add to a slide.  This can be a voice over describing a house that you are trying to sell…the picture on the slide alone is nice, but an audio description to accompany it is what makes the sell.  Or perhaps adding a musical score to your presentation is enough to keep the viewers entertained enough to watch the entire presentation.

To add audio to a slide, click the SELECT button in the audio section.  This will open a browser window…just as with visual media, audio media can be brought into the system from any connected drive.
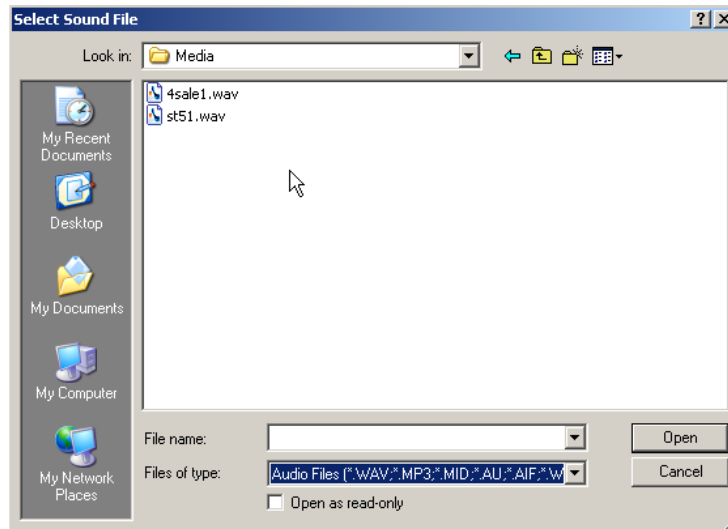


Supported formats include WAVE (.wav), MP3 (.mp3), MIDI (.mid), Quicktime (.au and .aif), Windows Media (.wma).

Once you select a file it is added to the page.  You see a path indication in the attributes window as well as a duration box and a preview control panel so you can verify the clip is what you want.



It is possible to extend one audio clip over multiple images by simply adding the same audio clip to all the images, but ensuring the dwell time of the images doesn't exceed the duration of the clip.
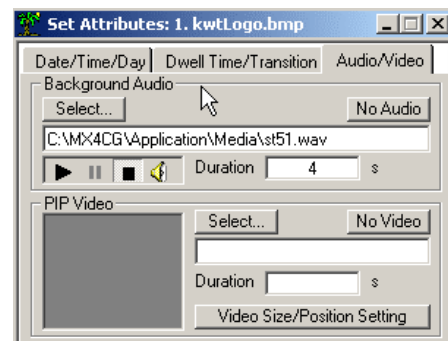
For example, say you have a 3-minute song you wish to play over 10 slides—simply add the song to each slide and ensure no single slide has a duration that exceeds 180 seconds.  The software will automatically understand that you wish for it to play the slides back to back without restarting the audio for each slide.

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Just as audio can be added to a slide, so can video in the form of a Picture-in-Picture window. These videos can be MPEG, AVI, VOB, etc…the same formats that can be included in playlists as stand alone "movies".

To add a video PiP to a slide, click the SELECT button in the Video section of the attributes window and browse to the desired video file, then click VIDEO POSITIONING AND SIZE.
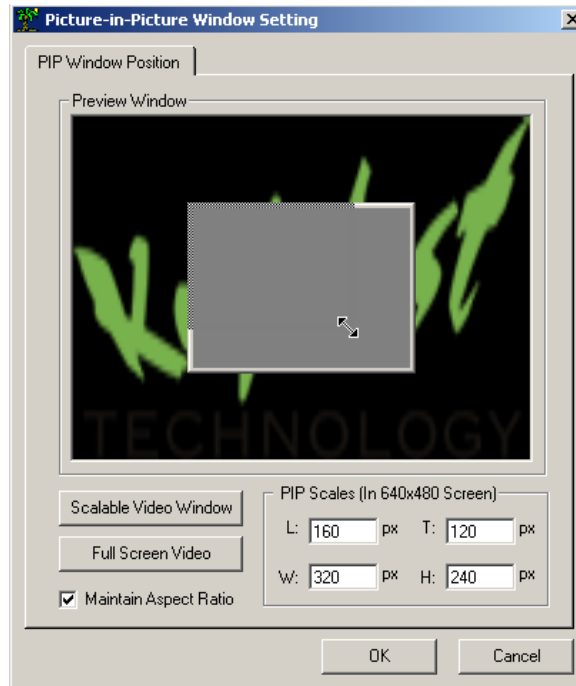


Drag the grey box in size and position to set the window size and position, and then click OK. When this slide plays back, now the video window will be filled with your selected video file.

You can create video windows that are standard 4:3 and maintain that by ensuring MAINTAIN ASPECT RATIO is checked…if that box is not checked, you will be able to create any size rectangular window—the window will be filled with the video you select regardless of odd sizes and dimensions (so you can achieve really short, fat people or really tall, skinny ones!)

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# CRAWLS, LOGOS, VARIABLES

So far, we have only addressed the Pages Layer timeline, but you have surely noticed that there are three other timelines…these are used to add crawls, logos and variables to your presentation.
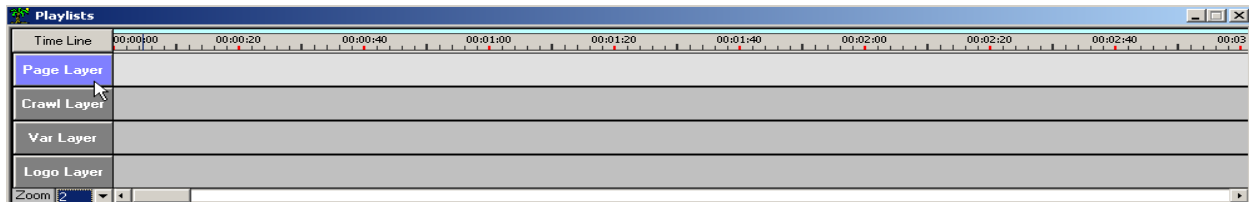


# CRAWL LAYER

Besides simply playing pages, audio, and video, the MX3-Plus is capable of overlaying a crawl on the display.

Crawls must be created in the CG Editor window.  To get started, click on the New Crawl Button
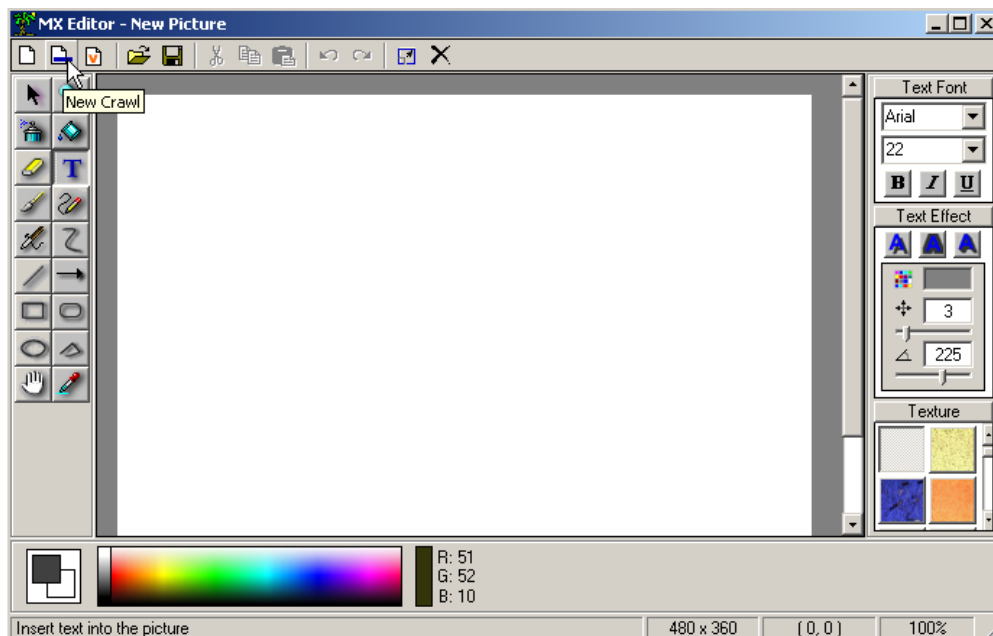


This will open up a new crawl page in which you may create your crawl.  On the right edge of the editor window are attributes you can set:

1. Font—this will allow you to chose any True Type font loaded on your PC already (same fonts you use with any Windows program)
2. Size—sets the size in points; number of sizes available depends on the font chosen

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3. Bold, Italic, Underline—same functions as word processors
4. Text Effect—add shadows, outlines, or both to text and choose the color of the shadow, or outline
5. Fill—choose a solid fill to generate colors or a texture to create a custom look

With the color picker at the bottom of the screen, you can choose the color of the text (as opposed to color of outline/shadow)
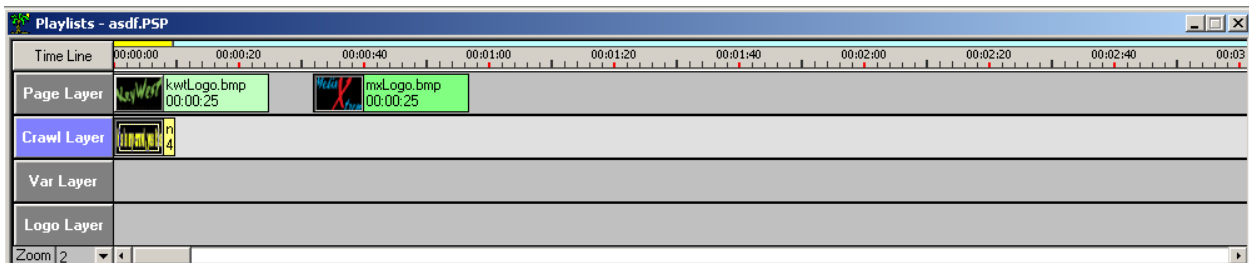


The work left to do amounts to typing text.  Once you have your crawl message typed out, click the SAVE CRAWL icon
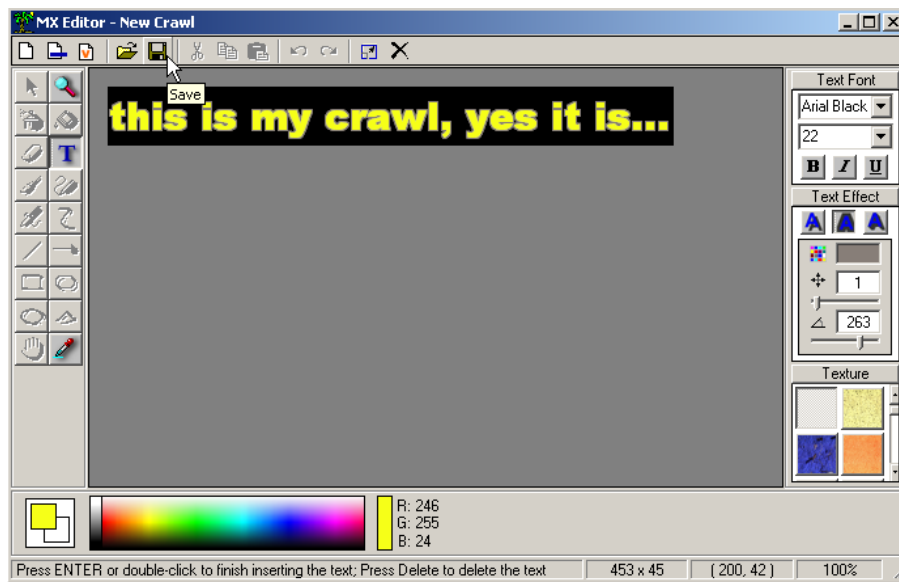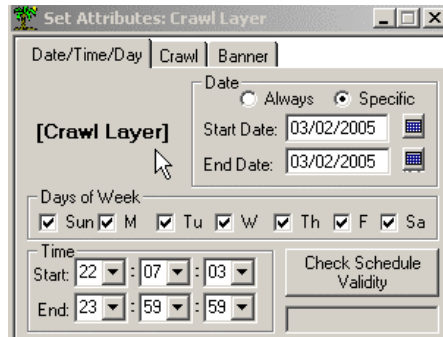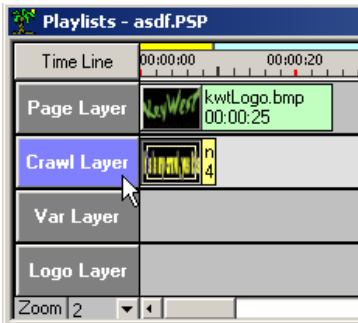


You will now find that your crawl is available as a thumbnail in the clip board.  You may now drag it to the CRAWL timeline (and only the crawl timeline).

For practice, create a crawl and drag it to the CRAWL TIMELINE

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Now, click the CRAWL LAYER label to activate the crawl ATTRIBUTES window.



Crawl attributes differ somewhat from page attributes—there are simply different functions to perform as a crawl.

Date/Time/Day Tab allows you to program the crawl, just as with a page, to be valid only on certain dates and/or times, regardless of the entire schedule's settings.

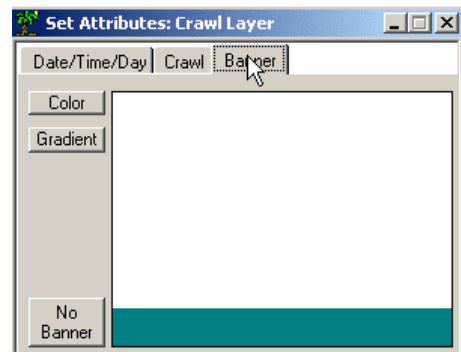The next tab is the CRAWL tab…this tab allows you to set crawl speed and direction/

Choose the Crawl Speed from 1 (slowest) to 5 (fastest)…set to your own preferences.

Choose the Crawl Direction (Right to Left or Left to Right)—standard direction is Right to Left in the United States
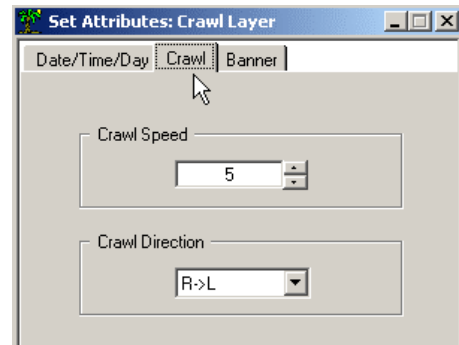


Crawls can also include background banners to ensure the crawl text stands out against the background slides regardless of content.  Click the BANNER tab.

Here, you can set a color banner that will display behind the crawl (banner size is dependent upon font size in the crawl), a collection of colors (gradient) or no banner at all.

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The banner position determines the crawl position.  Simply click the banner and drag it up or down to set the crawl (and banner) position
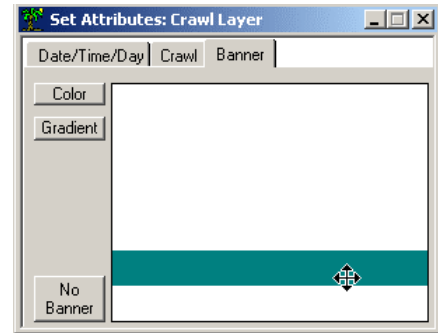
Click Color set the banner color as a solid color.
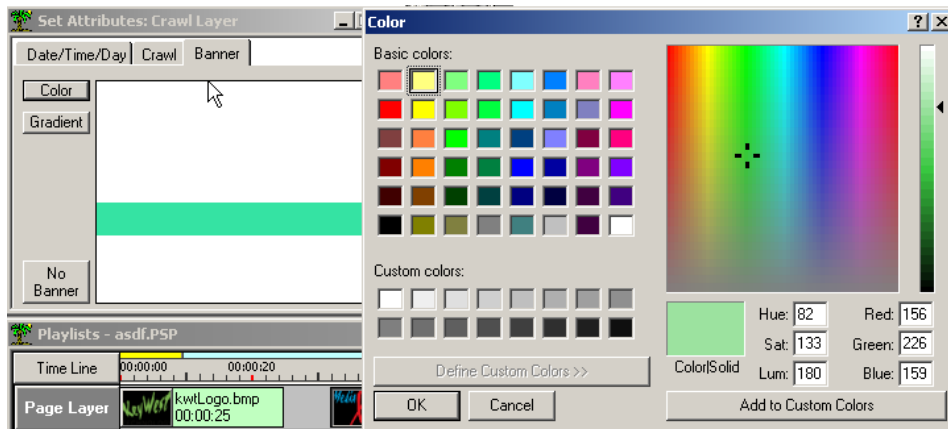
Click Gradient to set the banner as a gradient.

Note that you can change the number of color bars in the gradient and the direction of the bars with the provided drop down boxes.

You can change the color of each gradient bar by clicking on any of the gradient pallet entries and using the color picker.

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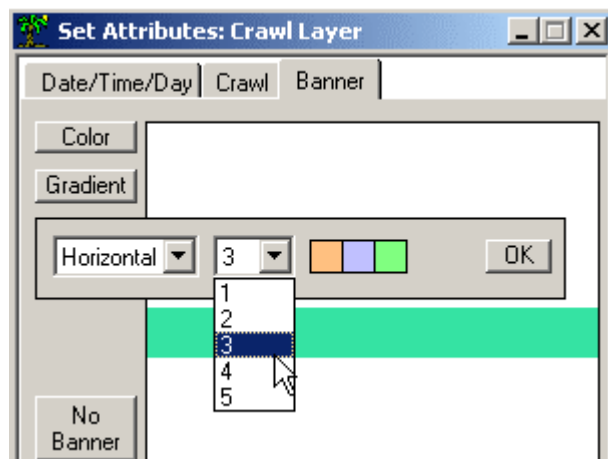
# VARIABLE LAYER

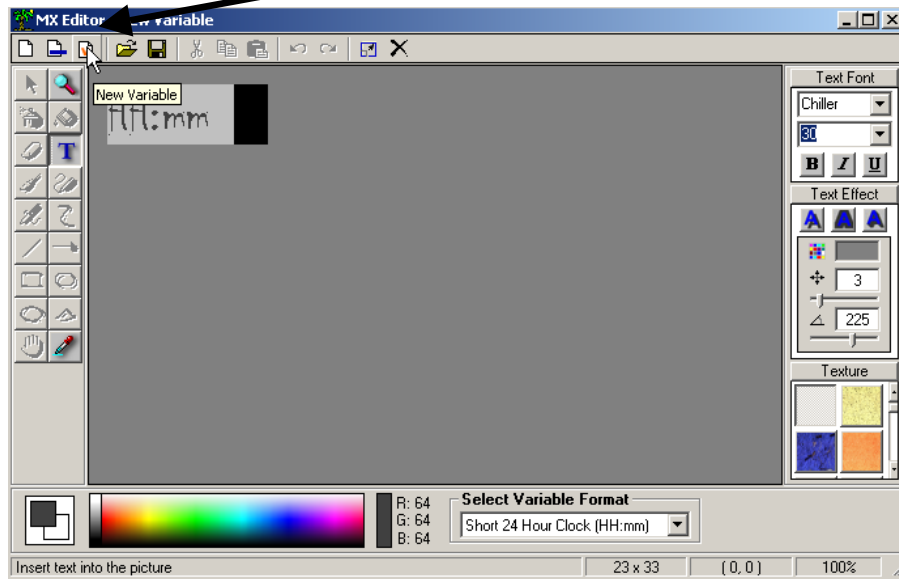The third layer available for use is the Variable layer.  This is a very unique layer that allows you to create dynamic elements for your MX3-Plus system.  Dynamic elements include various configurations of Time, Date, and Day of the Week.  Click the red V in the editor window to create a variable.





Use the drop down SELECT VARIABLE FORMAT function to choose the variable you desire.
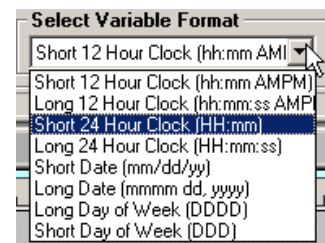
Next, use the same FONT style controls discussed in the creation of crawls to set the FONT, SIZE, COLOR, SHADOWS, and TEXTURES.

Note that it is unimportant where in the CG you create the variable…we will set that a bit later.

When complete formatting your Variable, click the disk symbol and save it…as in the case of a crawl, it will become a thumbnail in your clipboard, ready for use.



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Drag your new variable into the VARIABLE TIMELINE and drop it there.
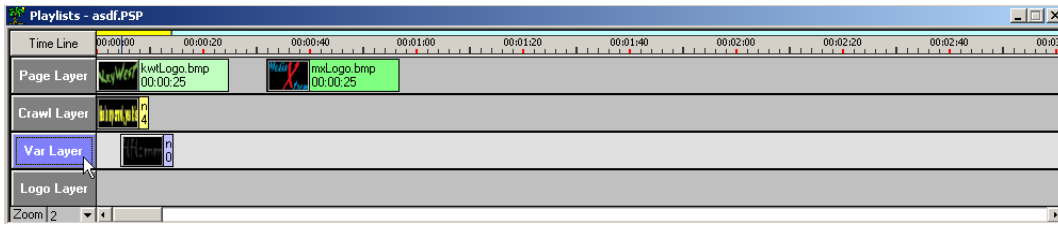


Next click on the Variable's thumbnail on the timeline to activate the attributes window.



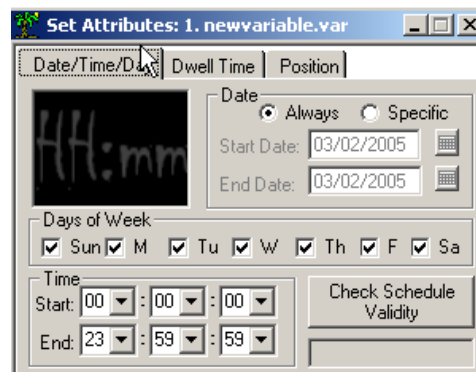Notice that the Attributes windows are following a pattern.  The first tab allows you to set the day, date, and time validity so variables are as easily programmed as a page.

The second tab for a variable allows you to set the dwell, or duration, that the variable will play before moving on to the next item in the timeline.



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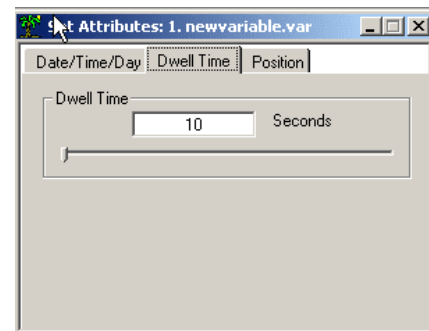
The third tab in the Variable Layer is the most important—this is where you set the potion of the Variable
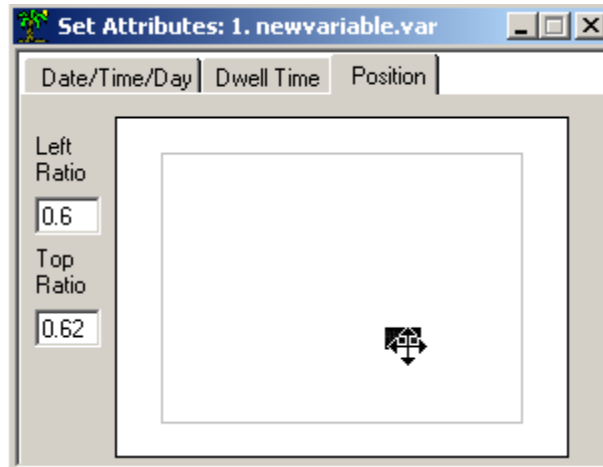


Utilize this tab to drag the variable around the screen…where you drop it is the relative position it will play (as indicated by the Left and Top ration—which gives a percentage of screen position so that actual resolution is unimportant, but relativity becomes the key).

# LOGO LAYER

The final layer to cover is the LOGO LAYER.  This Layer allows you to place an image anywhere and at any size on the screen as a "bug"…a logo on your screen that can stay as your branding during all playback (including full screen videos).
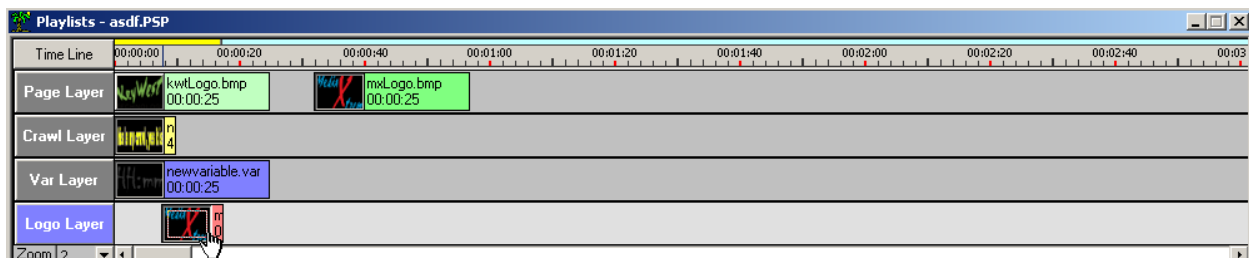
Drag any suitable graphic file into the LOGO LAYER (bmp, jpg, tif, gif, pcx, png).  NOTE:  The MX3-Plus software does not allow you to resize the LOGO…whatever size the image is imported is the size it will playback.  Set the logo size in a graphics program such at Photoshop or Ulead, etc…



Click the logo's thumbnail image on the timeline to activate the logo attributes window.

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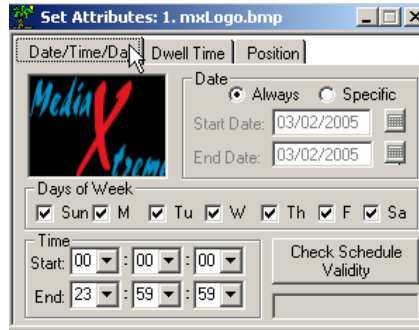
As in the previous layers, the Date/Time/Day tab is used to set time based validity for the Logo.

The next tab, DWELL is used to set the duration of the Logo (it is important to remember that if a timeline has only one entry, it will continue to loop that entry until the schedule/playlist is replaced by something else).

The last tab, POSITION allows you to drag the Logo around anywhere on the screen.

Where you drop the logo is where it will play relatively on the final output.

Also, logo's have the ability to key…any true black (0 Red, 0 Green, 0 Blue) portion of any logo will be keyed out, revealing what is behind—this allows you to create professionally inserted bugs from just about any graphic you may already own!

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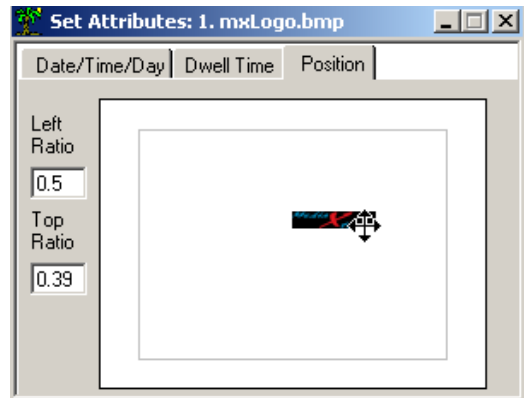
# PLAYING THE SHOW

At this point, you could declare yourself complete…we've added at least one thing to each layer and if we were creating on the MX3-Plus player itself, it would be feasible to click PLAY and let it run.
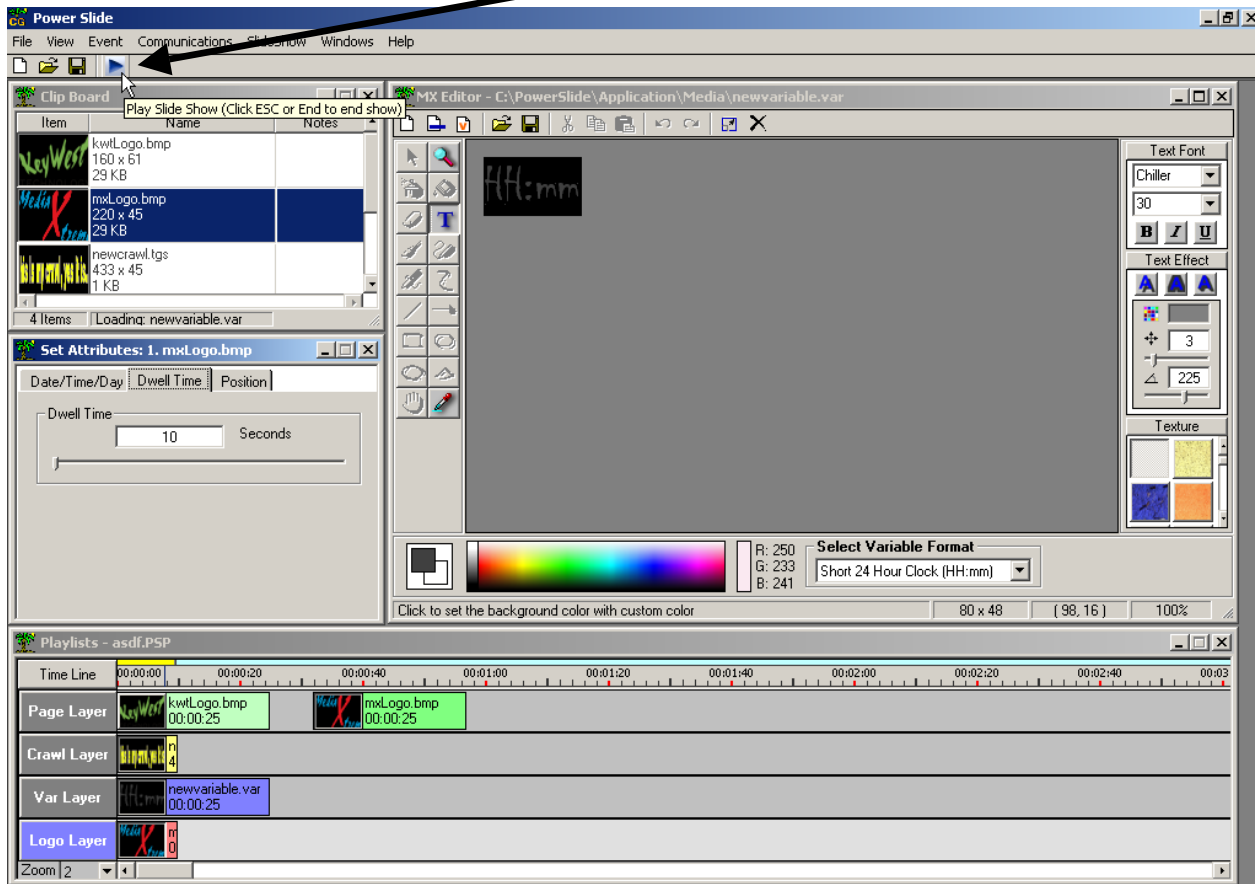


Or, if you are creating on a separate PC, you can click this blue arrow to run a Preview of your show.  Either way, the first time you click the blue arrow, you will have to save the playlist and name it (the software will prompt you to do so).

## CREATING A SCHEDULE

If you are not running the MX3-Plus in a stand-alone configuration, you will no doubt wish to send your playlists and schedules to the remote device.

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On the MENU BAR, click the COMMUNICATION item.

The Scheduler Window will open.
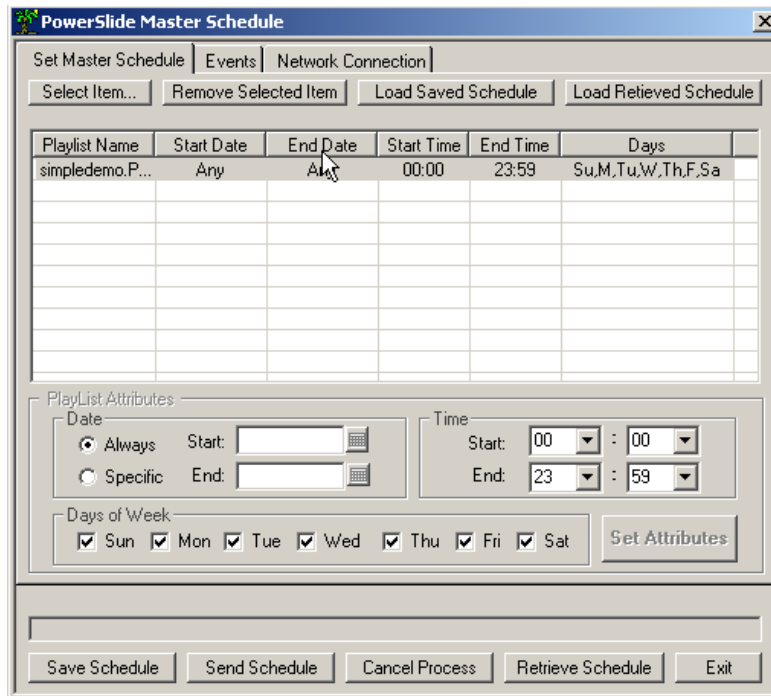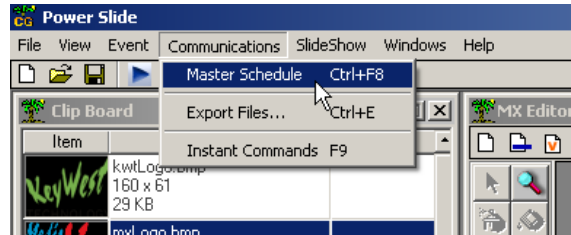


This scheduler has three tabs.  Set Master Schedule, Events, and Network Connection.  The first step to creating a show based on playlists is to use the first tab.

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The first time you do this, you will find the schedule window blank. Click SELECT ITEM to add one of your playlists.
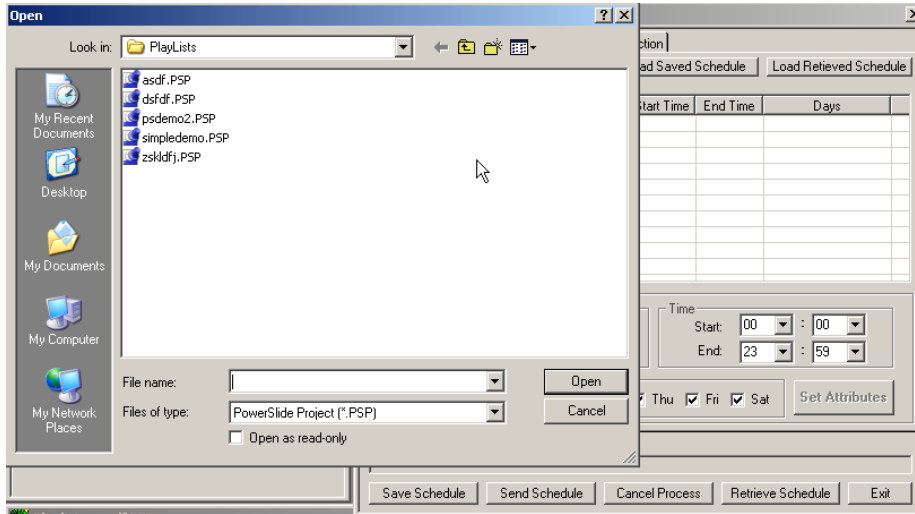


Select the playlist you wish to add from the OPEN dialog window—double-click the playlist name or click OPEN after you've selected it.

Next, you will have to set the attributes for the playlist—the days/dates/and times it's valid…for this manual, a simple playlist that is valid for 10 days and will play from midnight to noon has been entered and set by clicking SET ATTRIBUTES

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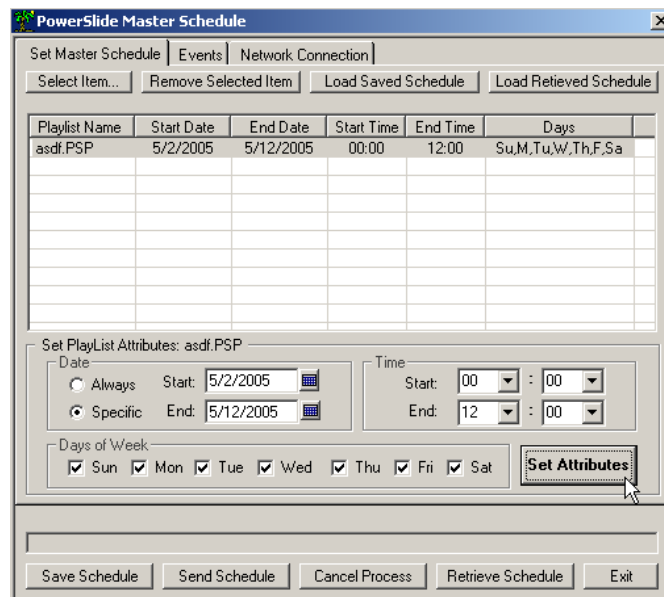
Now, just so we can see the possibilities, let's add a second playlist to the schedule
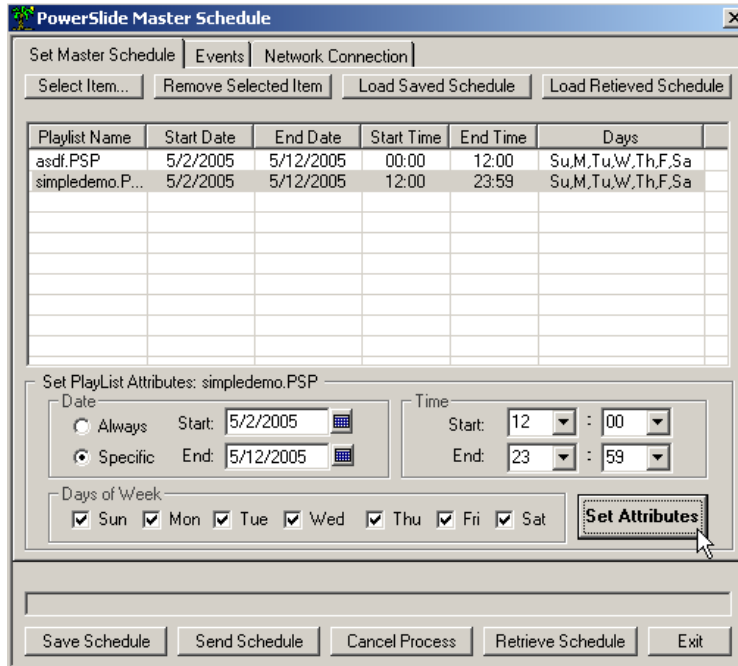


This time we set the attributes as the same 11 day window, but this time set the time to as noon to midnight.

As you've probably already deduced, this schedule, once sent to an MX3-Player, will play "asdf" playlist from midnight to noon, then will switch to the "simpledemo" playlist until midnight rolls back around.  Maybe you have different audiences at different times of the day—this scheduling function allows you to target those audiences as you see fit.  You can run with one playlist or a hundred—you could program an entire day as though you were a network executive filling timeslots.



The next step after setting the playlists in the schedule is to transmit them (yes, we are skipping the EVENTS tab for the moment.)

Click the NETWORK CONNECTION tab.

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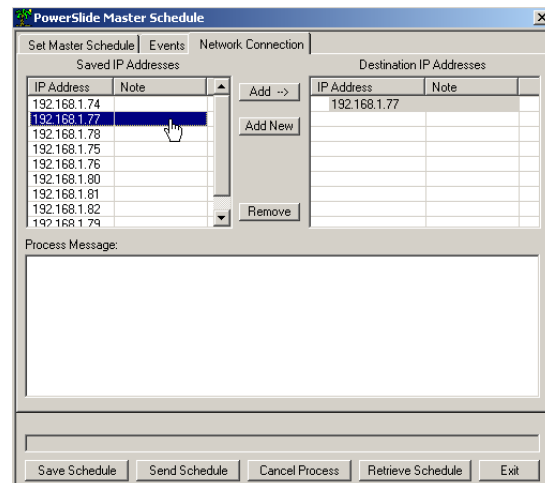
This tab will allow you to transmit your schedule to a remote player—all you need to know is the player's IP address or network name. If you've set things up so, you could even transmit your schedules and content to a player in Juneau while you're relaxing in New Zealand.

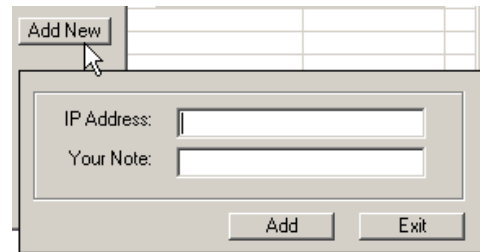You can also transmit the schedule to hundreds of players at once…simply add in multiple IP addresses by clicking ADD NEW. Enter the IP address you're adding and a note if you'd like (the note is only for your convenience to help you remember what display is what!)

Once you've added all your displays, it's time to save the schedule (if you like) and send it. Click the SEND SCHEDULE button to begin transmission.
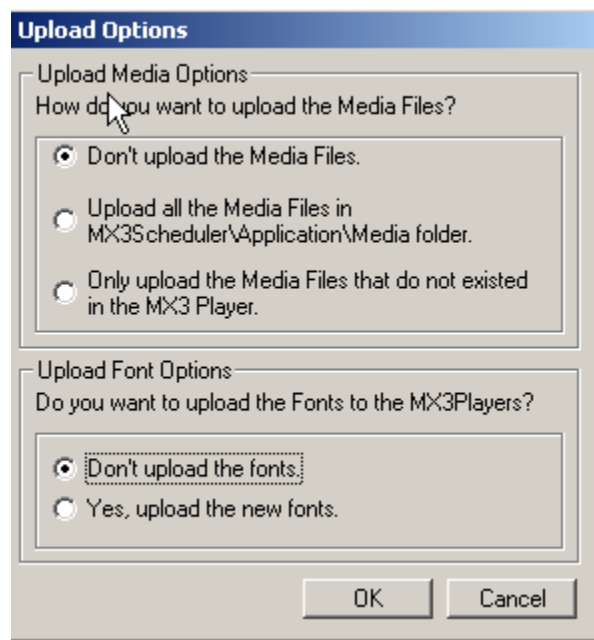
There are several important options to sending a schedule to a remote player. The first is "Don't upload the Media Files." Use this option if you have already transmitted the content to the player and are simply rearranging the playlists and schedules.

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The next is "Upload all the Media Files in MX3Scheduler\Application\Media folder.  Use this option if you wish to send all of your content to the player regardless if it is in a playlist or schedule.

The final option is referred to as Smart Uploads—this option will send only media files that are not already present on the player…thus potentially saving huge amounts of time while still ensuring all the media  is present—use this option as a standard.

The final two selections of sending regard FONTS…unless you are running on a memory short machine, always select "upload new fonts".

Finally, after you click OK to send, you will get feedback in the sending script window that will inform you of the processes.  If sending is a success, ultimately you will receive a green check mark next to each successful IP address, and a red X next to those that failed for some reason.
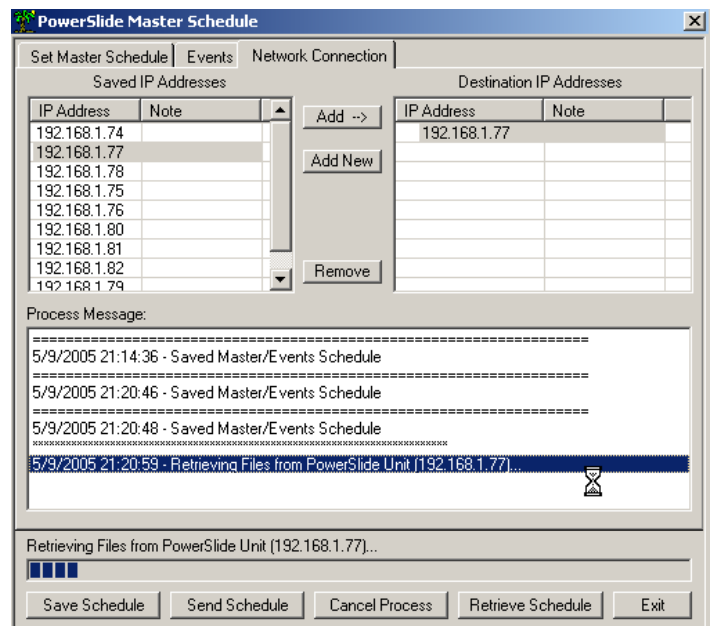


Once your schedule arrives at the player, you see the green checkmarks, you should see your newly sent playlists running just as you programmed them to run!

That concludes the basic functions of the MX3-Plus…there are a few additional functions to be covered at this time.

## EVENTS

The Events tab we skipped earlier while talking about schedules is a very unique function that allows you to control RS-232 controllable devices directly from the MX3-Plus.  The first thing you must do to use an event is to create one

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Click the EVENT menu item and select EVENT SCHEDULE



This will open the EVENT CREATOR window.

Here you can create custom RS-232 output. Enter your command string in the SEND OUT STRING text box and click ADD TO STRING

Add delays between commands by typing seconds in SECONDS OF DELAY and clicking ADD TO STRING.

Set your comm port number and parameters directly in the software.

Choose an icon for your event so you can drop it right into a playlist—or use it in a schedule independently
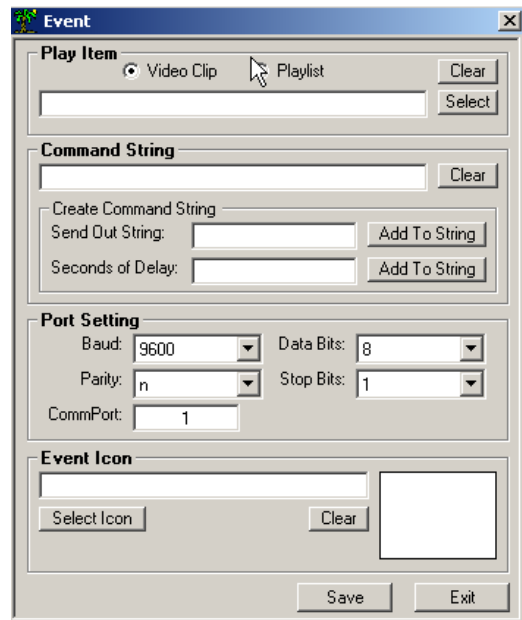


A completed Event might look like the image on the right.

Here a string has been created that sends out a command "play", then waits 12 seconds and sends "play" out again. It sends this out Comm Port 1, at 9600 baud, with 8 data bits, 1 stop bit, negative polarity, and no hardware flow control.

The even has a flag image icon in case we want to drop it into a timeline.

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Custom serial events like this are typically used to turn displays on and off, or control lighting effects, or even set input devices on external switchers.  The possibilities are virtually limitless.

## Character Generator

The MX3-Plus stands apart in many ways…one of those is the inclusion of a simple CG module. Click the NEW PAGE icon in the CG module to begin creating from scratch.
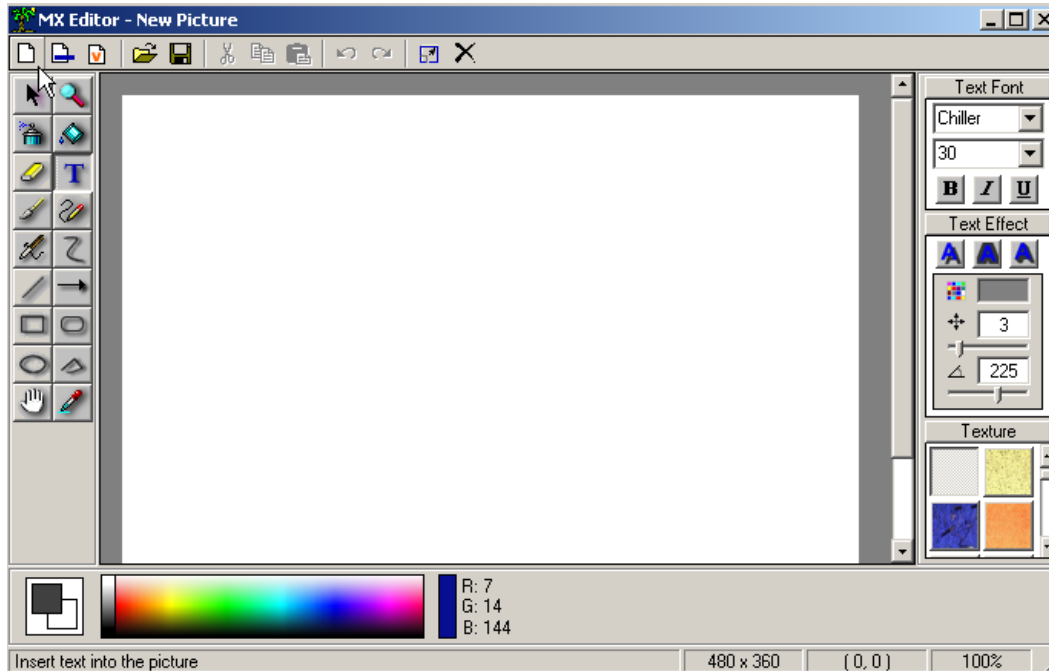


Using the same functions we used with the crawls and variables, you can create content from scratch….add text, draw lines, make boxes, add color background fills, etc….

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Or, you can start with an image



To which you can add text or drawing elements, or simply leave it be.

After you have created your slide/page, save it by clicking the disk/save image

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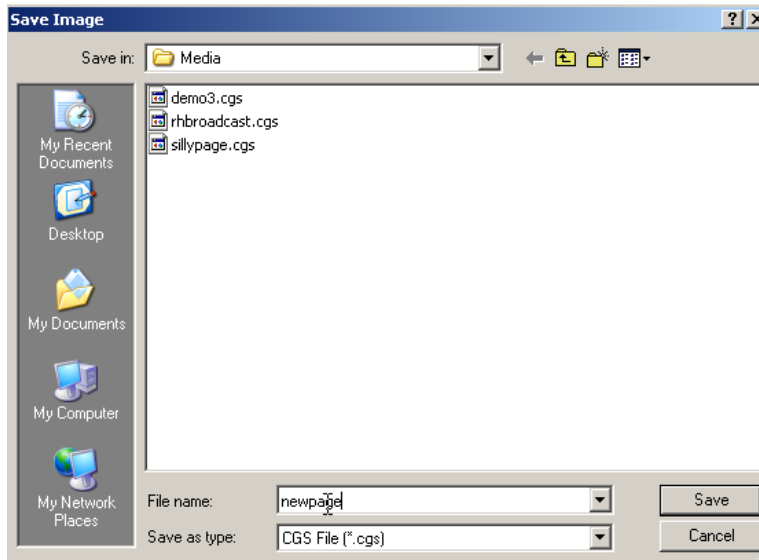
Note the file format of MX3-Plus created pages is .cgs…these are proprietary formats used only in this application.

## CD/DVD Option

The CD/DVD Drive option for the MX product line provides an alternate method to load content, playlists, and schedules on the player machines.

The user can create a playlist, schedule, and gather content on their remote scheduler PC, burn those files to a CD or DVD and manually transport to the players—a good alternative if no network connection is available.

To create a scheduler CD or DVD, the user will need some sort of CD or DVD authoring (burning) software.  For our examples here, screenshots of Nero Burning ROM© are used, but by no means is that the only software CD/DVD authoring software capable of creating usable scheduler CD/DVDs.

The CD/DVD used to transport data to the player can contain content (media), or playlists, or schedules, or any combination of those three types.  If the intent is to transport a schedule that will immediately play after extraction, all three file types will need to be in the root of the CD/DVD.

Step 1:

Create a Playlist and Schedule as described previously in this manual; ensure the Playlist and Schedule are saved.

Step 2:

Close your MX Scheduler software

Step 3:

Open the CD/DVD Authoring software and create a new project…ensure the new project finalizes the CD/DVD (no further recording possible).

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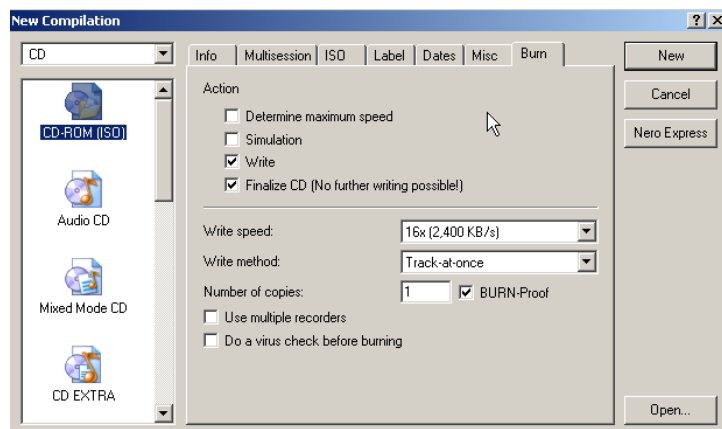
Step 4:

Select the files to be burned to disc and transported to the MX Player--this will be media/content such as bmp, jpg, tga, tiff, gif, pcx, png, mpg, mpeg, vob, avi, swf, ppt, etc…), a playlist (this file will have a ".mvp" extension), and a master schedule (master.sch)—these files are usually located at the following paths:

Playlists:  C:\MX3-PLUSScheduler\Application\PlayLists
Schedules:  C:\MX3-PLUSScheduler\Application\SaveSetting
Media:  C:\MX3-PLUSScheduler\Application\Media

Move your Media, Playlist, and Schedule files into the CD/DVD compilation and burn the disk.
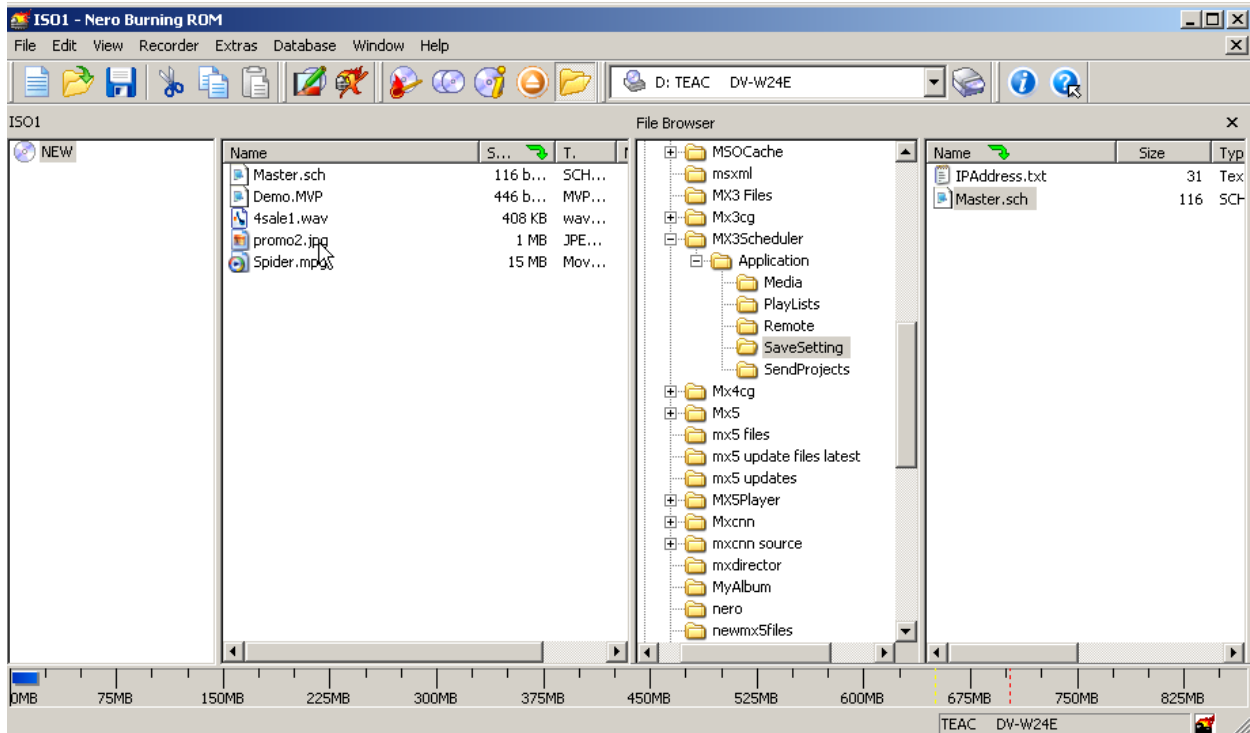


Remember to place the files in the root of the new CD/DVD—no folders and no sub-folders.

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Step 5:

Take the burned CD/DVD to the player; ensure the player is running and the MX software is playing pages/media on a current schedule.   ****If the MX Player software is not running, auto-extract will not occur****.

Insert the CD/DVD—the MX will extract and distribute files automatically.  The Player will eject the CD/DVD when extraction is complete, and will begin playing the new schedule (if dates and times are currently valid).

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Comments:

**PURCHASE DATE:        MO.            YR.**

| MODEL # | SERIAL # | PARTS | LABOR |
|---|---|---|---|
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