

19. Contacting Technical Support

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During installation, record the following information. This information will be needed to contact technical support. When calling the Technical Support Department, **MAKE SURE TO HAVE THE FOLLOWING INFORMATION READILY AVAILABLE, BECAUSE IT IS NECESSARY IN ORDER TO RECEIVE TECHNICAL SUPPORT.**

PURCHASE INFORMATION

Date of Purchase: _____ Invoice #: _____
Product Purchased From: _____
Seller's Tech Support Phone #: _____

PDC PRODUCT INFORMATION

Part #: U-30-_____ PDC Serial #: _____
Name of Software: _____
Software Version: _____

OTHER INFORMATION ABOUT THE DIGITAL CAMERA

Camera image Type (JPEG, TIF, etc.): _____
Brand of Camera: _____
Type of Memory: _____
USB type: _____

OTHER INFORMATION ABOUT THE PC YOU USE TO RUN THE CONTENT CREATION SYSTEM SOFTWARE

Processor Speed: _____
Brand of Computer: _____
RAM Size: _____
Operating System: _____

P/N: 1862-MF-61-7

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damage caused by this unit or its failure to work, or any other incidental or consequential damages

- Damage caused by installation/operating software which may or may not be supplied with the product is not covered by this Limited Warranty. Separate End-User License Agreement provisions and restrictions apply.

Customer's acceptance of Digital Spectrum's RMA number reflects acceptance to the terms and conditions of Digital Spectrum's Warranty and Return Policy, as set by Digital Spectrum. All requests for RMA numbers must include product serial numbers and proof of purchase. Customer agrees to assume shipping charges on return shipments to Digital Spectrum and Digital Spectrum agrees to assume shipping charges back to customer. All returns are for repair or replacement at Digital Spectrum's discretion.. There are no returns for credit or refunds. This warranty excludes defects or damage due to misuse, abuse, or neglect.

The foregoing warranty is in lieu of all other warranties, express or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose. In no event shall Digital Spectrum Solutions, Inc. be liable for special, indirect, incidental, or consequential damages whether in contract, tort, or negligence.

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18. *MemoryFrame* Limited Warranty

Digital Spectrum Solutions, Inc. warrants this product to be free from manufacturing defects for a period of 1 year from the date of invoice to the end user (Customer). In the event that this product should fail during this period, Digital Spectrum Solutions, Inc. reserves the right to either replace or repair the product at its own discretion. If the product becomes defective during the Warranty period, Digital Spectrum will repair or replace any defective component part at no charge to the original owner, subject to the limitations and requirements listed.

THE FOLLOWING IS REQUIRED BY DIGITAL SPECTRUM SOLUTIONS, INC. when requesting warranty service:

Check the resellers return policy first. All purchased products must be returned to original reseller within their return policy time period. If the product is out of reseller's return period, all returns to Digital Spectrum Solutions, Inc. for warranty repair within the warranty period must be authorized by Digital Spectrum with a Return Material Authorization (RMA) number. To obtain an RMA number, contact tech-support or send an email to support@dsicentral.com to obtain an RMA. The product must be packed in the original shipping carton or in suitable packing offering a similar degree of protection. To avoid scratches or other damage to the product during shipping, separate items such as the cables, power cords, etc. Each should be individually wrapped and placed in the same package.

Limitations:

The limited warranty provided by Digital Spectrum Solutions, Inc. does not cover:

- The cost of returning the product to Digital Spectrum (i.e. this is the user's responsibility)
- Any product with serial numbers or identification altered or removed
- Exterior cosmetic damage
- Damage, defect or failure caused by or resulting from: improper installation or operation of the unit from incorrect voltages or power supply; improper service by a non-authorized service facility; abuse, neglect, accidents, misuse, fire, flood, or acts of God; unauthorized modification by end user; installation removal or on site service.
- Damages resulting from loss of use, loss of data, loss of time or inconvenience, cost of temporary replacement unit or spares, property

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1. Introduction

Welcome to the future of personal digital imaging. Digital Spectrum is “*Bringing Your Digital Lifestyle Into View*”. MemoryFrame™ combines the vibrant high-resolution quality of active-matrix TFT (Thin Film Transistor) display technology with the convenience and speed of the popular Universal Serial Bus (USB) interface for a new way to display your photos instantly.

The Digital Spectrum MemoryFrame is designed to download and display pictures from many USB sources such as:

Card Readers	Internet Photo Sharing
Thumb Drives	Ethernet Network
DVD/CD Drives	Camera
Wireless Network	PC

By using the DirectConnect™ feature of the MemoryFrame you can download digital photos directly from your camera, card reader, or thumb drive and play them back in a slideshow-type fashion in your home or office without a PC. The USB interface provides speed and portability, allowing you to download immediately from your own or your friend’s camera or multimedia. It is ideal for both home and office users to proudly display family, vacation, or business related images on the desk, shelf, or wall. For those who use a PC, you can also create, name and save hundreds of different slideshows for easy USB transfer to/from the PC by using the included Digital PixMaster™ Windows application.

MemoryFrame stores 80 photos and allows you to select how long each image is displayed and what style of transition is used between each image! With built-in stereo speakers, the MemoryFrame will play audio that is attached to an image.

MemoryFrame is perfect as a gift for family, friends, or even as a lobby piece in a business. Imagine preloading the MemoryFrame with those “just perfect” photos, and sending it as a personal gift. It would leave an impression long after the gift is opened.

program in the new firmware image. You must wait up to three (3) minutes for the frame to complete the software upgrade.

Important! Do not unplug or cut power to the *MemoryFrame* or PC during the upgrade process! A loss of power could erase both old and new operating systems, leaving the *MemoryFrame* inoperable.

The *MemoryFrame* will display the following sequence of messages to show the progress of the firmware update:

“FLASH BEING ERASED”

“FLASH BEING LOADED”

“READING FLASH”

“VERIFYING FLASH”



If an error occurs in the above process (either erasing, loading, or verification), the *MemoryFrame* will display the following message:

“REDO FLASH- DON’T POWER OFF (error code number)”

Caution! Important! Do not unplug or cut power to the *MemoryFrame* or PC. The above error message indicates that there was an error (either erase, loading, or verification) during the firmware update. The firmware update **MUST BE** retried, and the **PICTURE FRAME MUST NOT BE POWERED OFF BEFORE THAT** during the upgrade process! A loss of power could erase both old and new operating systems, leaving the *MemoryFrame* inoperable.

If no errors occur, then once the new firmware update file has been loaded into the *MemoryFrame*’s storage memory, the *MemoryFrame* will indicate it is done by displaying the following message indicating when you can reset the *MemoryFrame*:

“PLEASE POWER THE DIGI-SIGN OFF/ON”

Only then can you turn the *MemoryFrame* OFF, and then turn it back ON. When the *MemoryFrame* goes into normal operation, the upgrade has been completed. The new Firmware revision will be displayed in the lower right hand corner of the *MemoryFrame*’s power-up initialization screen.

Connect the larger “standard USB” connector to the USB port of the PC. Connect the smaller “mini-USB” connector to the “PC” connector of the *MemoryFrame*. See Figure 3.

Important! For the PC application (Digital PixMaster) to communicate to the *MemoryFrame*, you first need to prepare the *MemoryFrame* for communicating to a PC by putting into Slideshow display mode.

17.4 Digital PixMaster Update Firmware Command

Use the Digital PixMaster (Digital PixMaster)TM software to transfer the software update to the *MemoryFrame*. The Digital PixMaster icon should be located on the Windows Desktop. To start Digital PixMaster double-click on the icon.

Next, from the “*MemoryFrame*” pull-down menu of Digital PixMaster, select “Update Firmware.” Follow the on-screen instructions to point to the updated firmware file (with a “.bin” file extension) that you just downloaded from the Digital Spectrum website to the hard-drive.

After you click on the OPEN box to select the .bin firmware update file, Digital PixMaster will display a progress bar to indicate the transfer of the file to *MemoryFrame*.

On the *MemoryFrame*’s LCD screen, the *MemoryFrame* will display a sequence of messages to show the progress of the firmware update. The first progress message is:

“FIRMWARE BEING DOWNLOADED, PLEASE WAIT”

Important! When the progress bar shown in Digital PixMaster is complete, it only signifies that the file has been transferred, and it is just the beginning of the *MemoryFrame*’s actual process of updating its firmware.

If a transfer error occurs, the *MemoryFrame* will display the following message:

“BAD FLASH DOWNLOAD, PLEASE RETRY”

If so, retry the update by select “Update Firmware” from the “*MemoryFrame*” pull-down menu of Digital PixMaster.

When the *MemoryFrame* receives the updated firmware file, the *MemoryFrame* will erase the current firmware portion of its memory and

MemoryFrame includes a patented “changeable frame” mechanism that lets you install a standard 8x10 frame available nearly everywhere, in a style to suit your décor. Frames can be changed in moments to be displayed on a desk, mantelpiece, or hanging on a wall.

So let *MemoryFrame* free your imagination to explore the many ways you can express yourself, not only with the photos you take, but the way you present them.

1.1 Internal Storage

MemoryFrame stores up to 80 images internally, playing on a 10.4” active matrix TFT display at 800x600 pixel screen resolution. Stored images can also be associated with audio clips (.wav files). *MemoryFrame* includes built-in stereo speakers, with mute and volume control. The *MemoryFrame* also includes Audio Out connector for external speaker connection, adding another dimension of impact.

1.2 Anywhere - Anytime

Network Enabled - *MemoryFrame* is Ethernet and 802.11 wireless enabled via the USB port. Digital Spectrum has certified a variety of Ethernet and wireless adapters for use with the *MemoryFrame*. Many units can be in the network displaying different slideshows. This also allows the *MemoryFrame* to be mounted in a wall when a permanent installation is desired.

Web Enabled - *MemoryFrame* is also Web enabled so that the *MemoryFrame* can be a target in internet based photo sharing sites. After registering the unit and “buddy list”, your guests can send their latest pictures directly to the *MemoryFrame* where it will begin to play the additional photos.

1.3 Broad Mounting Configurations

The front panel of the *MemoryFrame* is designed so that a standard 8”x10” wood frame can be easily mounted and secured. *MemoryFrame* includes built-in wall mount slots for landscape and portrait wall mounting, along with a removable stand for desktop use.. Other mounting accessories are available such as pole stands, VESA brackets, unique decorative frames, etc.

1.4 *MemoryFrame* Feature Set

MemoryFrame includes functions and features that set it apart from other digital picture frames:

Feature	Comment
10.4" TFT Flat Panel Display	Vivid colors
800x600 pixel Resolution	High Resolution Images
Stores up to 80 Images Internally	Large Message Content
Mount Standard 8x10 Frames	Infinite Decorative Variety
Stereo Speakers	Audio with Images – High Impact
Audio Out	External Speaker Support
17 watt Power Consumption	Low Operating Costs
Solid State Design	High Reliability
FCC, EMC, CE, USB Compliant	World Recognized Standards
USB Host and Device Interfaces	Complete Connectivity Solution
Ethernet Connectivity	Via USB
Web Enabled	Via USB
802.11 Wireless Connectivity	Via USB
Thumb Drive Connectivity	Via USB
Memory Card Reader Connectivity	Via USB
Onboard Volume Control	Adjust for Local Needs
Onboard Mute	Disable Audio
Onboard Brightness Control	Adjust Brightness to Lighting Conditions
Onboard Menu System	Manage Images/Slideshow
Built-in Lock Receptacle	Added Physical Security
Wall Mount/Desktop	Portrait or Landscape

European Union (CE) Standards: EN 55022: 1998, EN 55024: 1998, EN 61000-3-2: 2000, and EN 61000-3-3: 1995

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Cet appareil numérique de la classe B Respecte toutes les exigences du Règlement Sur le matériel brouilleur du Canada.

The global EMC test report also meets the technical requirements of many other countries.



17. Upgrading *MemoryFrame* Software/Firmware

17.1 Software Updates May Be Available

From time to time, Digital Spectrum may make improvements to *MemoryFrame*'s internal software (firmware) to add features or enhancements. Check www.dsicentral.com for updates.

17.2 How to Download *MemoryFrame* Software updates

Go to www.dsicentral.com

Follow the links to the *MemoryFrame* software update page.

Updates to the *MemoryFrame* firmware should be downloaded to the PC's hard-drive. Take note of the exact directory location on the hard-drive to which you downloaded the update files.

17.3 How to Update *MemoryFrame* Firmware

When the *MemoryFrame* is connected to a computer running Digital PixMaster with its USB drivers, the *MemoryFrame* accepts and processes communication from the computer. Digital PixMaster can update the *MemoryFrame*'s software image with the new one you downloaded from the Digital Spectrum website.

You must first connect the PC to the *MemoryFrame* with the USB cable that was provided in the box with the unit.

16.1 Federal Communications Commission Statement

Instructions to User: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, contact the manufacturer. The user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

In order to maintain compliance with FCC regulations, the cables that come with the equipment must be used. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of the manufacturer could void the user's authority to operate this equipment.

16.2 Worldwide Electromagnetic Emissions Statement

The *MemoryFrame* Memory Frame has passed all the required regulation tests for European CE compliance. This equipment has been tested and found to comply with the limits for a digital device in a global EMC test. These limits are designed to provide reasonable protection against harmful interference. Below are the applicable standards that were passed:

US (FCC) Standard: CFR 47, Part 15, subpart B

Canada (IC) Standard: ICES-003

Japan (VCCI) Standard: V-3/02.04

Australia/ New Zealand (ACA/RSM) Standard: AS/NZS 3548: 1995

Taiwan (BSMI) Standard: CNS 13438

2. Using *MemoryFrame* in Direct Mode

In Direct Mode, using the onboard Menu system, the USB Host ports can be used to either upload images into the *MemoryFrame* slideshow, or play images and slideshows (.pd2) directly from the USB device. The USB devices that can be used are:

- ✓ USB Memory Card Reader
- ✓ USB CD-ROM/CDRW
- ✓ USB Flash Drive
- ✓ USB Camera

3. Warnings



Do not block the ventilation holes on the back, bottom, or sides of the *MemoryFrame* at any time.



Do not open the plastic case of the *MemoryFrame* at any time. There is risk of electric shock. There are no User serviceable parts inside. Opening the plastic case voids the product warranty.



The screen of the *MemoryFrame* is made of glass and must be treated with care or may break. It is covered with polarizing material that can be scratched. Follow the screen care instructions in Chapter 13 "Tips" to properly care for a *MemoryFrame* display.



Keep the *MemoryFrame* out of direct sunlight. DIRECT SUNLIGHT MAY CAUSE DAMAGE.



MemoryFrame uses an external AC Power Adapter. Digital Spectrum offers a wide variety of Power Adapter configurations for all countries. If the North American power-supply is plugged into locations outside of North America that use 240 VAC 50Hz (such as Europe, Asia, and Oceania), it will damage the unit and void the warranty. The input voltage to the *MemoryFrame* is 12 VDC @2A.

4. Getting Started

The following sections provide step-by-step instructions on setting up a *MemoryFrame* for the first time.

4.1 Unpacking a *MemoryFrame*

The *MemoryFrame* unit is wrapped in a cardboard shock-absorbent holder. Remove the entire cardboard shock-absorbent holder from the box, and unfold the cardboard so that it lies flat. Gently slide the *MemoryFrame* from out of the “shrink-wrap” material.

4.2 Product Serial Number & Registration

Please record the model and serial number from the bar coded label located on the rear of the *MemoryFrame*, as shown in Figure 1, for reference. The serial number is required for Technical Support and Product Registration.

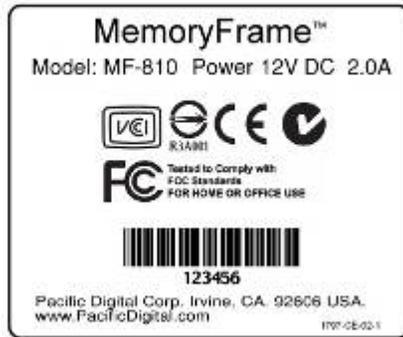


Figure 1 – Product Serial Number Label

In order to receive one year of free technical support, The *MemoryFrame* must be registered. *MemoryFrame* can be registered online at: <http://www.dsicentral.com/register> or fill-out and mail the included mail-in registration card.

4.3 Removing the Protective Cover from the LCD

The *MemoryFrame* ships with a protective plastic cover over the LCD screen to prevent the screen from being scratched or damaged during shipment. It is easy to remove, and reusable.

- When the slideshow begins after the boot, you can reconnect the USB cable.
- Transfer your desired pictures from either camera, USB thumb-drive, card-reader, or PC

16. *MemoryFrame* Specifications

Screen Type/Size:	Bright 10.4” Active Matrix TFT LCD
Camera Interface:	USB 1.1 Host interface – USB Certified
# of images stored:	80 images max. Less with audio clips attached.
Image File Format:	JPEG on Camera and USB storage peripheral. JPEG, TIFF, PNG, GIF, and BMP on PC
Resolution:	800 x 600 (larger images are automatically scaled to fit the screen)
Onboard Memory:	32MB RAM. 20MB Flash memory
PC Interface:	USB 1.1 Target interface
Monitor Output:	VGA D-sub 15 pin
Audio Jack:	Stereo audio jack 3.5mm
Audio Format:	WAV
AC Adapter:	North America: 120 VAC, 60 Hz, 17w Europe: 220-240 VAC, 50 Hz, 17w Output = 12VDC @ 2.0A
Dimensions:	10 x 11.75 x 2 in (254 x 298 x 51 mm) (w/h/d)
Weight/Mass:	62 oz. (1761g)
Environment:	32 – 85 °F, 0-30 °C, 30-80% RH (non-condensing)

- Unit was turned on without the dongle attached. The Beta release firmware only detects the wireless dongle on power-up. Turn off the *MemoryFrame*, plug in the dongle and restart the unit.
- Router was turned off after *MemoryFrame* unit was started. Restart the *MemoryFrame*.
- Too much interference between the *MemoryFrame* and the router, try moving the *MemoryFrame* closer to the router (2 yards is considered very close).

Q: The *MemoryFrame* seems “frozen” at the opening screen. How do I reset the unit?

A: If a system gets into a situation where it hangs on the boot-up initialization screen and never advances beyond that point, the firmware has a hang-recovery button-sequence. This special button sequence will delete all photos/audio/captions in the unit by reformatting the Flash-file-system and replace with a default slideshow of 3 pictures (girl scouts, dog-cat, picture of retail box). Below are the steps to initiate this hang-recovery button-sequence:

1. Power-off unit and disconnect the USB cable
2. Power-on the unit and within 10 seconds proceed to step 3
3. Using two hands, simultaneously hold down the following four (4) buttons: Special,  (Volume),  (Forward),  (Reverse) (must hold down during entire power-up sequence).



4. If the buttons are continuously held down during the power-up (may take up to 3 minutes), then at the end of power-up sequence, a special screen will be presented which asks: **REFORMAT STORAGE? YES NO**
5. Once the special screen described in step 4 is on the screen, release the 4 buttons and then use the  (forward) or  (reverse) button to move the "blue-highlight-cursor" to be over the **YES**. Then press **SELECT**. This will cause the unit to reformatting the Flash-file-system. When it is finished, it will prompt you to move to Step 6.
6. When the *MemoryFrame*'s screen says **Please power the frame off/on**, cycle the power.
7. The unit will now boot normally (may take up to 3 minutes) showing a default slideshow of 3 pictures.

4.4 Connecting *MemoryFrame* to the Power Supply

MemoryFrame operates on an external power adapter that plugs into an ordinary wall outlet. Use only the supplied *MemoryFrame* external Power Supply or equivalent. *MemoryFrame* power input is 12VDC @ 2.0A. Other power adapters will cause damage to *MemoryFrame* and void the warranty. Do not use a power adapter that has an A.C. Output. The Power Receptacle for the *MemoryFrame* is located in the rear right area, in a recess.

4.5 Power-on Initialization

Important Note: During the power-on sequence of the *MemoryFrame*, the initialization screen will take a few moments to appear. The entire power-on sequence may take several minutes and you will be unable to use the push-button menu system until the initialization screen is replaced by the opening image of the slideshow.

Move the *MemoryFrame* Power Switch to the “ON” position. After going through the power-on initialization sequence, the *MemoryFrame* automatically enters the slideshow mode and begins displaying the currently loaded show (a default show is included with the unit from the factory). When the display-time of the current image ends, the *MemoryFrame* automatically transitions to the next image.

Each image in the slideshow has a broad array of assigned controls such as transition effect, display-time, orientation, text captioning, audio clip, background fill, and others.. These controls are accessed through the Digital PixMaster™ software or through the onboard Menu System of the *MemoryFrame*.

5. Control Buttons and Connectors

This section briefly summarizes the main control buttons and connectors. The buttons can have a variety of functions while in the Menu system. See Figure 2. For more detail about control button usage in the Menu system, please refer to the Menu System in Section 11.



Figure 2 – Buttons/Controls

On/Off Switch

Main power control for the *MemoryFrame*. Be sure that the power is Off before plugging/unplugging *MemoryFrame* from the wall outlet. This will help protect the electronics from possible power surge damage. Up=On Down=Off.

Frame Lock

The frame lock can be used to mount a standard or customized 8x10 frame. The Locking lever is spring loaded to improve blind mounting, and is located on the right side of the unit. Two permanent keeper tabs are located on the left side. To mount a frame, start from the left, sliding the frame until the two keepers have captured the groove in the frame. Pull the Frame Lock lever to the right, and let the right side of the frame drop into place. Release the lever to lock.

Q: I have attached a USB card reader to *MemoryFrame* with my camera's memory-card inserted. *MemoryFrame* sees the card-reader but does not see the images.

A: The camera may not be storing images on the memory-cards in standard MS-DOS compatible format, or the camera may be storing images in a non-standard format. *MemoryFrame* only supports standard JPEG (.JPG) files. Consult the camera's documentation to learn if the camera can be configured to store images JPEG (.jpg) format. You may also want to contact Digital Spectrum customer support at to see if there is a software upgrade available to support the camera. Alternatively, you can transfer the images first to the PC. The bundled Digital PixMaster software can download the following image formats to *MemoryFrame*: JPEG, BMP, TIFF, PNG, or GIF.

Q: My *MemoryFrame* has fingerprints on the LCD screen. How do I clean it without scratching the screen?

A: The screen on *MemoryFrame* is made of glass and is extremely delicate. It can be easily scratched. Treat the screen with care and avoid touching it. If the screen does become dirty, use a soft, absorbent cloth (not tissue paper) dampened with water. Do not use glass cleaners to clean it unless they are specifically recommended as LCD cleaning solutions.

Q: Where can I find additional known resolved issues and information to help me solve a problem on my *MemoryFrame*?

A: A list of additional resolved issues and information is posted on the Digital Spectrum WEB site at www.dsicentral.com

Q: The Digital PixMaster fails to "see" a *MemoryFrame* when wireless. USB direct works fine.

A: The connection problem is usually a result of incorrect settings for finding the router. Here are some tips for identifying the cause of a connection problem:

- *MemoryFrame* WEP key setting does not match router.
- *MemoryFrame* SSID setting does not match router
- *MemoryFrame* is not configured to request an IP Address thru DHCP, make sure that the "Enable DHCP" setting is checked thru the File/Preferences menu option
- Too much interference in 2.4GHz bandwidth: try changing the "channel" on the router. The channel can be changed on the Belkin router thru the Setup page at <http://192.168.2.1>

either a PC (running Digital PixMaster software) or a USB memory-card-reader in order to get its images into the *MemoryFrame*. Check the Digital Spectrum website for a list of cameras which are compliant to the Microsoft USB Mass Storage specification. You may also want to contact Digital Spectrum customer support at to see if there is a software upgrade available to support the camera.

Q: With my camera connected, *MemoryFrame* doesn't display any images, even though I know there are images in the camera.

A: The camera may be storing images in a non-standard format. *MemoryFrame* camera connection only supports standard JPEG (.JPG) files. Consult the camera's documentation to learn if the camera can be configured to store images in JPEG (.jpg) format. Alternatively, you can transfer the images first to the PC. The bundled Digital PixMaster software can download the following image formats to *MemoryFrame*: JPEG, TIFF, BMP, PNG, or GIF.

Q: With my camera connected, image display seems to be slow.

A: The image files may be very high-resolution. Large image files take longer to display. Many cameras allow you to choose between different image storage resolutions. To maximize *MemoryFrame* responsiveness, take the images with the camera a lower resolution setting.

Q: I have attached a USB card reader to *MemoryFrame* with my camera's memory-card inserted, but *MemoryFrame* does not recognize the USB card-reader.

A: Even though the card-reader is a USB model, the card-reader may not support the USB Mass Storage specification. The DirectConnect™ feature of *MemoryFrame* allows a user to directly attach a USB card-reader without the need for a PC. For this DirectConnect feature of *MemoryFrame*, it is specified that the card-reader needs to support the USB Mass Storage specification. This spec (co-authored by Microsoft) is built into Windows 98SE, Windows ME, Windows 2000, and Windows XP. If a card-reader supports this specification, then it does NOT need its own custom driver from the card-reader manufacturer for Windows to recognize and be able to utilize as a "drive letter" in Windows Explorer. This specification allows you to drag images from the card-reader onto the hard-drive without requiring a custom Driver. If the card-reader is not recognized by *MemoryFrame*, then the card-reader won't work in DirectConnect mode. Such a non-compliant card-reader must use a PC (running Digital PixMaster software) in order to get its images into the *MemoryFrame*.

Forward (▶)

When a slideshow is playing, press the ▶ button to open to thumbnail view and advance to a desired image. When using the onboard Menu (see Menu button), use this button to highlight the next menu option. After selecting the Volume or Brightness function, this button is used to increase (+) the volume/brightness level.

Select

When using the onboard Menu (see Menu button), this button functions as the "Select" key in order to select an image or menu option.

Reverse (◀)

When a slideshow is playing, press the ◀ button to open to thumbnail view and reverse to the desired image. When using the onboard Menu (see Menu button), use this button to highlight the previous menu option. After selecting the Volume or Brightness function, this button is used to decrease (-) the volume/brightness level.

Menu

This button is used to enter the Onboard Menu system. The Menu system is used to:

1. Delete images from the slideshow.
2. Upload or play images from a camera, memory card reader, thumb drive.
3. Adjust the control effects of images.

Pause (||)

Press the || button to manually pause or continue the slide show. When the show is paused, the || button resumes the slideshow. The screen will momentarily display a text message indicating the state of Pause/Resume.

Brightness

MemoryFrame screen brightness can be adjusted for different ambient lighting conditions. With the slideshow in operation, adjust the brightness to create the optimum display setting. Use this button and the ▶ and ◀ buttons to change the brightness of the image. An onscreen meter is displayed, indicating the current brightness setting (%). Holding the ▶ and ◀ down will activate scrolling for high speed changes. **Note:** the Brightness button responds only when

MemoryFrame is displaying a slideshow, and does not respond while in the Menu system.

Internal Microphone When using *MemoryFrame* without a PC, the internal microphone is used to directly record your voice or music.

Volume *MemoryFrame* onboard stereo speakers can be adjusted for different ambient noise conditions. With the slideshow in operation, use this button and the ► and ◀ buttons to change the volume of the speakers. An onscreen meter is displayed, indicating the current volume setting (%). Holding the ► and ◀ down will activate scrolling for high speed changes. **Note:** the Volume button responds only when *MemoryFrame* is displaying a slideshow, and does not respond while in the Menu system.

Mute *MemoryFrame* onboard speaker output can be easily muted with one touch of this button. Press again to un-mute. The screen will flash a message indicating the state of the mute function.

Special This is a one-touch short-cut button that you can customize to quickly access a function that you use often and to which you want to have fast one-touch access.

Wall Mount Slots There are four wall mount slot locations: two for portrait and two for landscape orientation. The slots will accept a standard #6 wood screw.

Stereo Speakers Built-in stereo speakers play the audio (.wav file) that is associated with each image of a slideshow. This feature adds that extra dimension when best suited. *MemoryFrame* includes onboard volume and mute controls.

Power Connector The Power Connector is the connection point for the power adapter, and is used to provide main power to the *MemoryFrame*. The input is 12 VDC developed through an external AC power adapter.

VGA Connector The VGA Out connector is provided as an auxiliary image output for use with other VGA devices. This includes large format monitors and projectors, for

15. Troubleshooting / FAQ

Q: I have a USB camera connected, but *MemoryFrame* doesn't recognize my camera.

A: The camera will need to be set into the appropriate mode to transmit its images. Many cameras have two modes of operation: proprietary and standard (driver-less) mode, and the camera has menu items and/or buttons that set the USB mode. The standard (driver-less) makes the camera look like a drive-letter to Windows Explorer without the need for the camera manufacturer's custom driver. This standard driverless mode (called "disk-drive" mode by some cameras) is required to interface to *MemoryFrame*. See the camera's user manual for details of how to prepare the camera for driver-less USB transfers.

Even though the camera is a USB model, the camera may not support the *USB Mass Storage* specification. The DirectConnect™ feature of *MemoryFrame* allows a user to directly attach a USB camera without the need for a PC. For the DirectConnect feature of *MemoryFrame* to operate seamlessly with the camera, the camera needs to support the USB Mass Storage specification. This specification (co-authored by Microsoft) is built into Windows®98SE, Windows ME, Windows 2000, and Windows XP. If a camera supports this spec, then it does NOT need its own custom driver from the camera manufacturer for Windows to recognize and be able to use it as a "drive letter" in Windows Explorer. This allows you to drag images from the camera onto the hard-drive.

If the camera is not recognized by *MemoryFrame*, then the camera won't work in DirectConnect mode, and instead, such a non-compliant camera must use either a PC (running Digital PixMaster software) or a USB memory-card-reader in order to get its images into the *MemoryFrame*. Check the Digital Spectrum website for a partial list of cameras which are known to be compliant to the Microsoft USB Mass Storage specification. You may also want to contact Digital Spectrum customer support to see if there is a software upgrade available to support the camera.

Q: I did not need to install a custom driver for Windows® XP to recognize my USB camera, but *MemoryFrame* still doesn't recognize my camera.

A: The camera may not support the USB Mass Storage specification, and Microsoft may have included the custom driver for the camera model in the XP release. The DirectConnect specifies on the box that the camera needs to support the USB Mass Storage specification. If the camera is not recognized by *MemoryFrame*, then the camera won't work in DirectConnect mode, and instead, such a non-compliant camera must use

- Do not disassemble and reassemble the module. This will void the warranty.
- Do not expose the unit to strong vibration or shock. It may damage the unit and void the warranty.

13.1 Securing *MemoryFrame* in Business Environments

To keep *MemoryFrame* secure in high-traffic areas, the unit has a receptacle that accepts a Kensington® compatible locking system. Many different lock brands can be used, and are typically called “notebook computer locks”. See Figure 38.



Figure 38 – Security Lock

14. Using PowerPoint™ Slides with *MemoryFrame*

You can display a combination of text, images and PowerPoint™ slides to make presentations or to use *MemoryFrame* as a point-of-purchase shelf-talker. With the *MemoryFrame* stereo model you can also add voice or music to the show. PowerPoint allows you to save the slides as TIFF or JPEG images (using the save-as function) or to be pasted into other applications as JPEG images. After the slides have been converted to TIFF or JPEGs, simply drag & drop them (or copy & paste) into Digital PixMaster for quick USB download to *MemoryFrame*. Integrating PowerPoint slides into the image slideshows is fun, and in business can make *MemoryFrame* a valuable tool for many applications.

simultaneous external display of the images in a slideshow.

USB Connectors

There are 3 USB connectors as shown in Figure 3. The two marked “Camera” are used to transfer images from a camera, USB memory card reader, USB thumb-drive, USB Ethernet LAN Adapter, or USB 802.11 wireless adapter. The one marked “PC” is used to transfer shows to/from a PC running the bundled Digital PixMaster™ software.

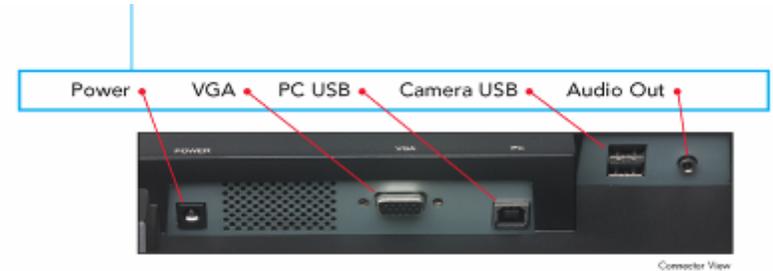


Figure 3 –Connectors

Audio Connector

The Audio Out connector jack is the connection point for externally powered speakers.

LCD Screen

MemoryFrame includes an integrated 10.4” active matrix TFT screen, with a resolution of 800x600 pixels. The *MemoryFrame* LCD screen is made of glass and should be treated with care. See Section 13 for care and cleaning.

Security Lock

MemoryFrame has a Kensington® compatible receptacle that accepts compatible Notebook locking system to add protection and security.

6. Digital PixMaster™ Software

6.1 Overview

The Digital PixMaster™ software runs on the computer as a Windows® application and is used to create (image, transition, display time, orientation, text message, audio clip, etc.) a slideshow style presentation of the images, and deliver the slideshow to the *MemoryFrame* for storage

and playback. Digital PixMaster also allows you to upgrade the embedded operating system in the *MemoryFrame* as new features and enhancements become available (see Upgrading *MemoryFrame* Software in Section 17).

6.2 Minimum PC System Requirements

Digital PixMaster™ has the following minimum system requirements:

PC - Pentium III 300MHz or higher.

Microsoft Windows® XP/2000/2003/98SE/ME

USB port (either USB 1.1 or USB 2.0)

VGA compatible display (when using VGA Out of *MemoryFrame*)

10MB of hard-disk space for software installation.

Slideshows and images can be stored on any media (examples: HDD, ZIP, CD-RW, DVD, Thumb Drive, Card Reader, etc.)

6.3 Installing Digital PixMaster™ Software

Insert the *Digital PixMaster* software CD into the CD-ROM drive. If the PC is configured to auto-run, the opening splash screen will appear. Follow the on screen instructions to install the Digital PixMaster™ application. If the opening splashscreen does not appear, click the mouse on START, then RUN, then browse to the CD drive and double click the “Install” icon. from the CD drive to run. After the installation is completed, the PixMaster™ icon will automatically be located on the Windows Desktop. See Figure 4.



Figure 4 –Digital PixMaster™ Setup/Icon

6.4 Installing *MemoryFrame* USB Drivers

MemoryFrame has custom USB drivers from Digital Spectrum that are included in the Digital PixMaster™ software CD. When using Windows 2000 or XP, these drivers will automatically install during the PixMaster installation. When using Windows 98SE or ME use the following procedure:

Do not mix Portrait and Landscape slides in the same slideshow. If you do, be sure to pre-scale them. The *MemoryFrame* does an excellent job of scaling, but is not as speedy as a professional image editing program. If you are showing a Portrait slideshow, you want all images to be 600 pixels wide, 800 pixels tall. If the images are smaller, the background fill color will show through.

13. *MemoryFrame* Care

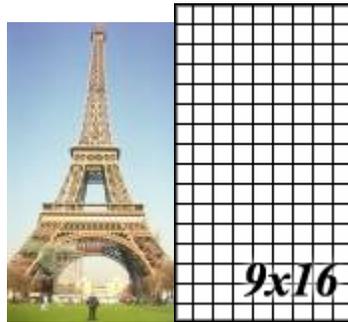
The screen on *MemoryFrame* is made of glass and is extremely delicate. It can be easily scratched. Treat the screen with care and avoid touching it. If the screen does become dirty, turn off the power and use a soft, absorbent cloth (not tissue paper) dampened with water. Do not use Windex or other glass cleaners to clean it unless they are specifically recommended as LCD cleaning solutions. Please wipe off any moisture before turning the power back on. Listed below are some additional precautions for the LCD screen:

- LCD screen display surface never likes dirt, stains, or oil mists. Do not use furniture polish. Do not use window cleaners, acetic acid, chlorine compounds, or other glass cleaners to clean it unless they are specifically recommended as LCD cleaning solutions. Otherwise, they will damage the TFT LCD display screen.
- The LCD screen scratches easily, please handle it carefully.
- Avoid applying pressure to the surface of the LCD screen, as it may cause display non-uniformity or other functional issues.
- Do not twist or bend the module.
- Prevent the use of unsuitable external force to the LCD display module.
- Be sure to operate the module within the specified temperature range (32 – 85 degrees Fahrenheit, 0-30 degrees Celsius) and keep out of direct sunlight.
- Be sure the power switch is in the Off position before connecting or disconnecting *MemoryFrame* to the external AC Adapter.
- Sudden temperature changes may cause condensation. This can cause the LCD screen polarizer to be damaged.
- Static electricity can damage the module. Please do not touch the module without first discharging any static charge you may have.

12.3 Steps to Create 16:9 Content for *MemoryFrame* (Portrait)

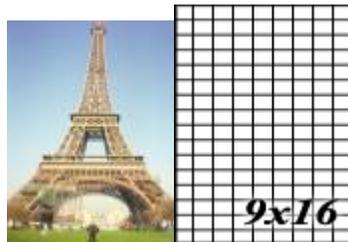
Step 1: Create the 9:16 Source Image

This time divide the height by the width to check the dimensions. The image should be 1.7778 times taller (16 / 9) than it is wide. The Eiffel tower on the right shows the correct initial image.



Step 2: Resize to 600x800

That's 600 pixels wide, 800 pixels tall. The next image shows the image squished to 3:4 aspect, ready for sending to a *MemoryFrame*.



Step 3: Save as High Quality JPEG

Step 4: Add to Slideshow and Send to *MemoryFrame*

Right off the bat, the biggest mistake that people make when preparing portrait slideshows is not setting the slideshow to portrait orientation. This is done through the “View/Switch to Portrait View” menu option in the Digital PixMaster. Do not rotate the images 90 degrees to get a portrait slideshow – using the menu option will do it correctly and show portrait thumbnails at the same time.



1. Insert the *MemoryFrame* CD into the optical drive, and connect the PC to the *MemoryFrame* with a USB cable.
2. Connect the larger “standard USB” connector to the USB port of the PC. Connect the smaller “mini-USB” connector to the “PC” connector of the *MemoryFrame*. Figure 5 shows the location of the connector on the back of the *MemoryFrame* and typical PC.

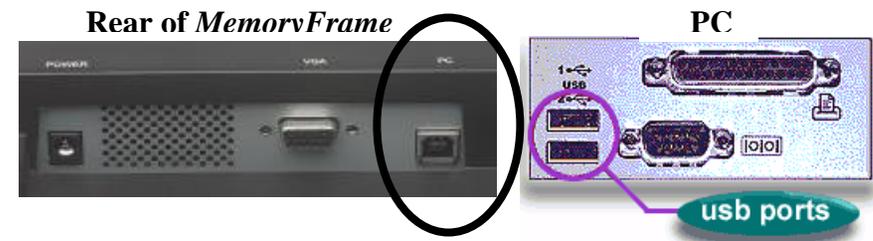


Figure 5 – Connecting a PC to *MemoryFrame*

3. After connecting, the Windows® Hardware Wizard will detect the *MemoryFrame*. When the Hardware Wizard begins, the following screen will be displayed:



4. Click Next to begin installation. Since the *MemoryFrame* USB driver is not digitally signed, Microsoft Windows® XP users may see the following screen during the install process:



5. Press “Continue Anyway” to continue the installation. *MemoryFrame* will not impair or destabilize XP and this is just a warning about digitally signed drivers.
6. Some versions of Windows® automate the following steps so that you may not have to perform or see each of them. The next step is INSTALL HARDWARE DEVICE DRIVERS. Select the install method for the “Digital Picture Frame”. Select “**Search for suitable driver for my device**” and click **Next** to continue installation.
7. In the LOCATE DRIVER FILES screen, select the device where the *MemoryFrame* “Digital Picture Frame” USB driver can be found. Insert the *MemoryFrame* software CD into the CD-ROM, and select the CD-ROM drive checkbox. Then click **Next** to continue the installation.
8. After Windows® finds and installs the driver, the COMPLETING THE NEW HARDWARE WIZARD screen will be displayed. Click **Finish** to complete the installation.
9. Some older versions of Windows® may require a system restart. If so, you will see the following screen. If this screen is displayed, click on **Yes** to restart the system. See Figure 6.



Figure 6 – Windows Settings Change Message

Step 3: Save Image as High Quality JPEG

Use a good image editing program to save the image as a JPEG. If the image is pasted into the *MemoryFrame* Digital PixMaster software and the image is either too large or not JPEG format, the default Windows JPEG compression tools are used to resize and compress the JPEG image. Try to avoid having this happen by storing the image as a JPEG yourself. If you can target the size of the image, shoot for around 140-160K – this provides a great deal of quality without wasting much space. See Figure 36.

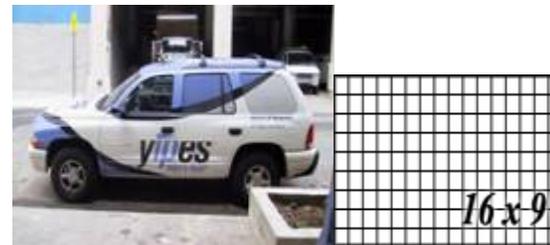


Figure 36 - Properly sized JPEG looks squished

Step 4: Insert the Image into a Slideshow and Send to a *MemoryFrame*

Either drag the 800x600 JPEG image into the Digital PixMaster or insert it using the Edit/Insert menu option. The image will appear squished in the PixMaster. This is fine. When you send to the *MemoryFrame*, if it has an LCD display, it will still look squished. But when you connect the *MemoryFrame* to a 16:9 aspect display, the image will look perfect. See Figure 37.



Figure 37 - Final Result

You may notice some color differences between the original image and the final product... this stems from the NTSC broadcast standard (Never Twice the Same Color). The best thing you can do is calibrate your 16:9 display monitor for color. You may also need to set the 16:9 display for Full aspect. 16:9 displays sometimes default to 4:3 aspect display on images coming in through a VGA input.

Step 1: Create the 16:9 Source Image

Prepare an image at 16:9 aspect ratio that is larger than 800x600. When viewed with an image editor, the image will look normal, just really wide. It should not appear stretched. It should appear as you want it to appear on the 16:9 target display.

It is easy to check that an image is the correct size. If you take 16 and divide it by 9, the result is 1.778 (I rounded up). A 16:9 aspect image should yield 1.7778 when you divide the width by the height. If you run the numbers and you don't get a value that is within 0.01 of 1.778, you need to crop the image so that the numbers come out correct.

If the image dimensions are 16:9 and the image looks distorted at this step, the final image will look distorted. Figure 34 shows a sample image that has been cropped to exactly 16:9 aspect dimension.

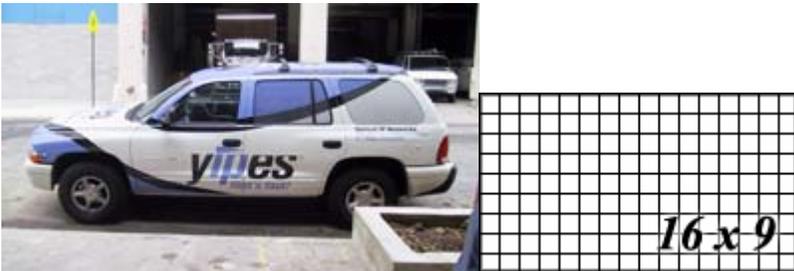


Figure 34 - Original Image, 16:9 Aspect (2160x1215 pixels)

Step 2 : Scale to 800x600

Using an image editing program, resize the image to 800 wide by 600 pixels tall. Your editing tool may have a checkbox to “constrains proportions” or “preserve aspect ratio” as you scale the image... if so this needs to be turned off. When complete, the image will look squished... see Figure 35 for a comparison.

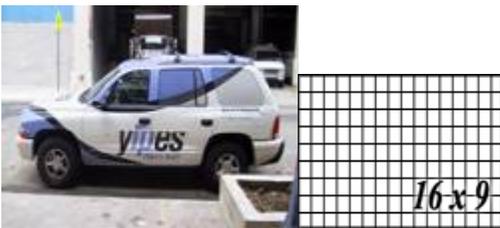


Figure 35 - Image Resized to 800x600

Note: Once the *MemoryFrame* USB driver is installed the “Digital Spectrum *MemoryFrame*” USB device will be listed as an “Imaging Device” in the imaging devices section of the Windows® Device Manager.

6.5 Building Slideshows

Digital PixMaster lets you create a complete slideshow of images for download to the *MemoryFrame*. The PC does not need to be connected to the *MemoryFrame* to create slideshows; only to transfer. To start Digital PixMaster™ double click on the Digital PixMaster icon. By default, Digital PixMaster™ will open an empty slideshow template. See Figure 7.



Figure 7 – Digital PixMaster Template

Click either INSERT or use the browser to locate the images (JPEG, TIFF, BMP, PNG, or GIF) that you want to use as content for the slideshow. Digital PixMaster supports “drag-n-drop” functionality; select an image from the browser window and drag into the Digital PixMaster template. The target position in the Digital PixMaster template is identified by a shadow appearing in the current selected position. Images within Digital PixMaster can be moved around in the same manner. Digital PixMaster also supports “paste from clipboard,” to allow simple selection of one or more images from the Internet, email, hard-drive, or any other storage device. You can also use the Windows “Copy” & “Paste” functions to

insert images into the Digital PixMaster™ template, or select images from any application, directory, CD, DVD, etc. to import via “drag and drop” or “copy/paste” into the template. When images are transferred into the Digital PixMaster template the image is automatically resized accordingly. The original source image is left unaltered.

Repeat this process until all of the desired images are in the template. The figure below shows an example of a Digital PixMaster™ slideshow after images have been imported via “drag and drop” from other applications and directories.

Below each image is the slide number, the time duration the image will be displayed, and whether or not a transition effect has been selected for that image.

6.6 Pull-Down Menus, Controls, Commands

Across the top of the Digital PixMaster application are the pull-down menus: File, Edit, View, Digital Frame, and Help. All of the commands (except those in the Digital Frame pull-down) can be performed on the PC without the need for a *MemoryFrame* to be connected. This allows you to create slideshows anytime. Table 1 below shows the various options under the File, Edit, and View pull-down menus.

<u>File</u>	<u>Edit</u>	<u>View</u>	<u>Digital Frame</u>
<u>N</u> ew Ctrl-N	<u>U</u> ndo Ctrl-Z	<u>P</u> review Slideshow	<u>S</u> end Slideshow
<u>O</u> pen... Ctrl-O	<u>R</u> edo Ctrl-Y	<u>S</u> tatus Bar	<u>R</u> etrieve Slideshow
<u>C</u> lose Ctrl-F4	<u>C</u> ut Ctrl-X	<u>T</u> oolbar	<u>U</u> ppdate Firmware
<u>S</u> ave Ctrl-S	<u>C</u> opy Ctrl-C	<u>S</u> lide <u>P</u> roperties	<u>P</u> roperties
<u>S</u> ave <u>A</u> s...	<u>P</u> aste Ctrl-V	<u>S</u> witch <u>V</u> iew	
<u>P</u> references...	<u>D</u> elete Del		
<u>R</u> ecent <u>F</u> iles	<u>S</u> elect <u>A</u> ll Ctrl-A		
<u>E</u> xit Alt-F4	<u>I</u> nsert Ctrl-I		
	<u>I</u> nsert Empty Slide Ctrl-E		

Table 1 – Application Commands: File, Edit, View, Digital Frame

6.7 Naming and Saving Slideshows

Create, name, and save different slideshows using naming conventions of your choice. To save a slideshow, click on File then select “Save” or “Save As” to save the slideshow. The file extension for *MemoryFrame* slideshows created with Digital PixMaster is “.pd2” extension. Digital PixMaster can have only one slideshow open at one time. If you choose to open a new blank slideshow while another is already open, the program will close the first one (asking you if you want to save first) before opening the new blank one.

- Image Decompression takes about 5 seconds
- Scaling an image can take another 10 seconds
- Rotating images takes the same time as scaling images. Even if 600x800 to begin with, preparing a portrait image adds another 10 seconds
- Background tasks that occur immediately after power-on place a drain on performance until they complete

To help homogenize the performance of the *MemoryFrame*, images are cached for display. If an imager is available in the cache, it can be displayed immediately. The key to a fast slideshow is understanding how to keep the cache full.

With a best case of 5 seconds per image to decompress, it becomes clear than it is nearly impossible to achieve the 1 second minimal duration that is allowed. However, strategically placing "pause" slides will allow the cache to become populated.

Here are some tips on how to optimize performance:

- Do not have more than 2-3 consecutive slides with "minimum" durations
- Avoid long stretches of slides with durations of 5 or fewer seconds
- Throw in "pause" slides with content that the viewer will need time to study -- this will allow the cache engine to catch up
- If using odd-sized images, particularly those between 4:3 or 3:4 and square, pre-scale them before inserting them into Digital PixMaster.
- Make sure that images are no larger than 800 pixels wide and 600 pixels tall or, if using Portrait Mode, 600 pixels wide and 800 pixels tall
- Use transition effects between slides -- transition effects add activity to the slideshow and provide extra time for image preparation

12.2 Steps to Create 16:9 Content for *MemoryFrame* (Landscape)

The *MemoryFrame* is designed to show 4:3 aspect on the internal display. The VGA Out interface of the *MemoryFrame* allows simultaneous display to large format monitors. These may be a large 16:9 aspect display such as a plasma monitor or HDTV monitor. By following the steps below, images can be composed so that they appear correctly on a 16:9 display.

11.5.13 Network Information

This menu is used to view the network information for a USB Network device such as Ethernet or 802.11 wireless networks. The settings that are presented are shown in Figure 26.

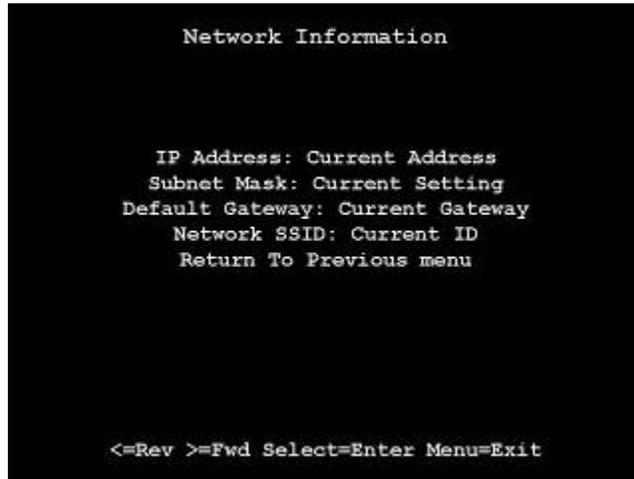


Figure 26 – Network Settings

12 Tips and Techniques

This chapter discusses ways to enhance the use of *MemoryFrame*[™]. Areas covered include: image optimization, care of the LCD screen, securing *MemoryFrame* in busy environments, and changing the decorative frame.

12.1 Optimizing Images for Display on *MemoryFrame*

For a leisurely slideshow that displays images once a minute, performance is not an issue. For messaging environments, image display periods must be able to be small. It helps to understand a little about the *MemoryFrame* architecture rules in order to design slideshows that display slides with the best performance and quickly. There are several factors that affect the slide performance:

6.8 Removing an Image from a Slideshow

There are three ways to remove an image from a slideshow. The first method is to Right-Click on the image that you wish to remove, and select Delete or Cut. The other method is to first select the image to be removed by using Left-Click. Then, click EDIT, and select either Delete or Cut to remove the Image from the slideshow. Alternatively, you can press the delete key on the keyboard. Cut will make the image available in the Windows Clipboard for subsequent Paste.

6.9 Inserting an Image into a Slideshow

In addition to the Drag-&-Drop and Paste functions discussed earlier, you can also insert an image from a directory or storage device with the “Insert” option available in the Edit menu. This option will ask you to specify the location or Browse to find.

6.10 Rotating an Image in a Slideshow

The Rotate 90° option allows an image to be set to the desired orientation. When Rotate 90° is selected, Digital PixMaster will rotate the currently selected image 90° clockwise. Select the image you wish to rotate and then click the “Rotate” function as many times as necessary until you reach the desired orientation.

6.11 Hiding an Image in a Slideshow

You may not want to delete an image from a slideshow, but still not want to display it in that slideshow. Un-checking Show Slide allows you to hide that particular slide. This setting can also be reversed to unhide the slide in the show.

6.12 Copying Images from one Slideshow to another

Since Digital PixMaster can have only one slideshow open at one time, you must open/start another session of Digital PixMaster (by double clicking on its icon again or invoking from the Windows Program list), in order to copy images from one slideshow to another show. With two instances of Digital PixMaster running, you can copy/paste or drag-n-drop images from one show to another.

6.13 Image Properties: Transition Effects and Timings

Digital PixMaster features a wide variety of transitions between images. The software allows you to assign transitions, fill colors, and set the display duration time for each individual image (or apply to all slides).

You can also apply a setting to all slides by clicking Edit, Select All (Ctrl-A). Figure 8 below shows the Image Properties screen.

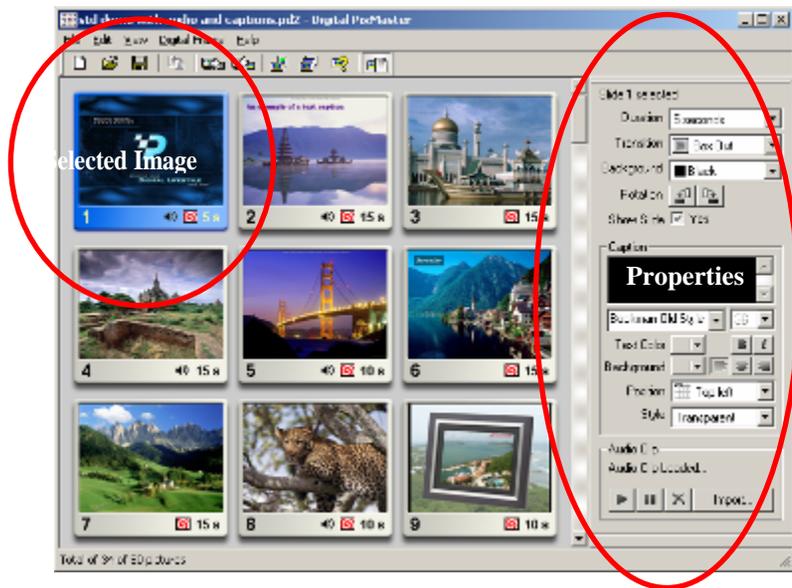


Figure 8 – Image Properties

6.14 Background Fill Color:

Digital PixMaster will fill any unused portion of the screen with a background of your choosing from the list of colors. This reduces the “black bar” effect seen when images do not have the same 4:3 proportion as the *MemoryFrame* screen. See Figure 9.

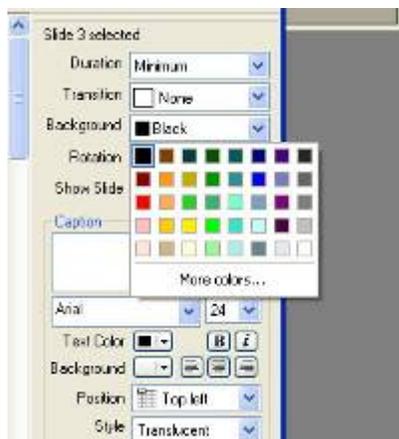


Figure 9 – Background Color Palette

11.5.11 Transition Default: [Random] and Many Others

This function is used to preset the default for Transition Style when uploading or playing images from the USB devices. There are a multitude of styles from which to choose, including random.

11.5.12 SPECIAL Button [Current Setting]

The SPECIAL button is used to activate a variety of one-touch features. These features are very useful when in environments where one-touch functionality are desired. This may range from filling memory with images from USB to playing and external slideshow. The features are selected through this function. The variety of one-touch functions are shown in Figure 25. These one-touch functions are also available in other areas of the Menu system. See Figure 32. Onscreen, the current setting of the SPECIAL Button is displayed.



Figure 25 – SPECIAL Button Selection

11.5.7 Delete All Slides From Memory

Selecting this function will cause all stored images in the *MemoryFrame* to be permanently deleted. One may wish to do this if the goal is to subsequently fill the entire *MemoryFrame* from a camera, thumb drive or card-reader.

11.5.8 Preferences

Selecting Preferences will display a sub-menu giving you the ability to configure the following functions:

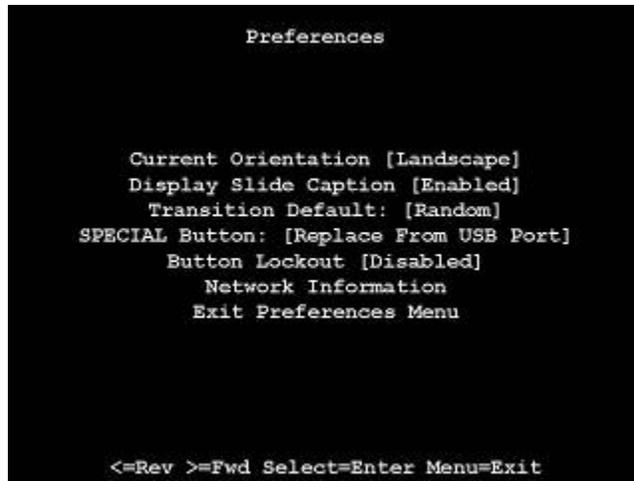


Figure 24 – Preferences Menu

11.5.9 Orientation: [Portrait or Landscape]

The stand on the back of the *MemoryFrame* is designed to support the *MemoryFrame* in either the portrait (vertical) or the landscape (horizontal) orientation. The default position is Landscape (horizontal). After you stand the *MemoryFrame* into the desired position, you will need to select the appropriate choice in the menu option to match the orientation by pushing the Select button after highlighting this menu option. Upon selection, the *MemoryFrame* frame automatically rotates all menus and stored slideshow images from horizontal to vertical or vice-versa.

11.5.10 Display Slide Captions: [Enabled or Disabled]

This gives you the ability to enable or disable the display of the text overlay (this text can only be created with the Digital PixMaster application).

6.15 Transitions

A variety of slide transitions are available. These transitions are described below. See Figure 10.



Figure 10 - Transitions

None: The image simply appears replacing the previous.

Wipe Down: The image wipes down from the top of the screen.

Wipe Right: The image wipes from the left of the screen towards the right side.

Wipe Up: The image wipes up from the bottom of the screen.

Wipe Left: The image wipes from the right of the screen towards the left side.

Box Out: The image appears from center in a small box and expands towards the edges of the screen.

Tile Fill Right: The old image is tiled over as the new image wipes in from the left.

Tile Fill Left: The old image is tiled over as the new image wipes in from the right.

Tile Box Out: The old image is tiled over as the next image appears from center and expands towards edges to replace the previous.

Diagonal Up: The image overwrites with diagonal stripes to replace the previous.

Diagonal Down: The image overwrites with diagonal stripes to replace the previous.

Random: The image overwrites with a different transition each time through the slideshow.

6.16 Display Time

This function is used to select the period of time that the image is displayed. The range is from seconds to hours via the pull down menu. See Figure 11.



Figure 11 – Display Time

Note: If you want to apply similar settings to more than one or all images, highlight the images desired or Select ALL from the edit menu.

6.17 Text Caption

For each image you can type in a text caption that will imprint over the image. A multitude of controls are provided so that the caption can be displayed for the desired look. This allows you to annotate each image to provide intrigue, additional attention, or explanation. Text Captions include the following settings and controls:

- ✓ Text Font Type
- ✓ Text Font Size
- ✓ Text Color
- ✓ Text Justification
- ✓ Background Color
- ✓ Position in Display
- ✓ Caption Style (Transparent, Translucent)

After inserting the desired text, use the onscreen controls to adjust as desired. See the Figure above.



11.5.3 Fill Memory with Images

Use this function to automatically upload images from a USB device and append them to the existing slideshow. The *MemoryFrame* will automatically scan for JPEG images on the USB storage device, upload and store them in internal memory until memory is full, and display them as part of the existing slideshow. Once the upload is complete, the slideshow will begin to play, and the USB device can be removed. If no device is attached when selecting this function, you will get a message that says “Device Empty/Not Connected.”

11.5.4 Replace Memory with Images

Use this function to automatically upload images from a USB device, and replace the existing slideshow. The *MemoryFrame* will automatically scan for JPEG images on the USB storage device, upload, and store them in internal memory until memory is full, and display them as a new slideshow. Once the upload is complete, the slideshow will begin to play, and the USB device can be removed. If no device is attached when selecting this function, you will get a message that says “Device Empty/Not Connected.”

11.5.5 Import Individual Images

Use this function to view and upload images from a USB memory device. The *MemoryFrame* will scan the USB device for JPEG images, presenting them on the display in thumbnail format. Use the Forward (▶) and Reverse (◀) buttons to scroll through the images. The middle image is the current thumbnail. Once a desired image is in the middle location, use the Select button to upload the image to internal memory.

Note: On any menu that has thumbnail images, the menus may take a few moments to appear, and you cannot move the highlight until the image has completely appeared.

11.5.6 Play Images from USB Port

Using either the “Preferences” menu option or the “Play External Slideshow” special button setting, images will be played in a slideshow format using JPEG files on the USB Mass Storage Device. Up to 400 images will be played from the external source.



Figure 23 – Revert Back to Internal Slideshow

11.5.1 Replace Slideshow

The *MemoryFrame* will search the USB device for a Digital PixMaster compatible slideshow (.pd2 extension). If a slideshow is found, it is uploaded and stored to the onboard permanent memory, replacing the existing slideshow. The screen will present a progress bar while the uploading and storing process is underway. When complete, the new slideshow will begin to play. Once the new slideshow begins playing, it is safe to remove the USB device. **DO NOT REMOVE THE USB DEVICE WHILE THE *MemoryFrame* IS UPLOADING FROM THE DEVICE.**

11.5.2 Play Slideshow

The *MemoryFrame* will search the USB device for a Digital PixMaster compatible slideshow (.pd2 extension). If a slideshow is found, the *MemoryFrame* will play the slideshow directly from the USB device. To revert to the internal slideshow, depress the Menu button. Select the “Resume Memory Slideshow” function. The *MemoryFrame* will then ignore the USB device and play the slideshow stored in internal memory. The slideshow already stored in the *MemoryFrame* will not be disturbed when a “Play Images from USB Port” is performed. Note: **DO NOT REMOVE THE USB DEVICE WHILE THE *MemoryFrame* IS PLAYING FROM THE DEVICE.** Use the Menu Button.

6.18 Attach Audio Clip

For each image you can associate a WAV audio file that will play when the slide is displayed (WAV is the common term used for uncompressed audio, because the file extension is “.wav”). The addition of audio adds an extra dimension to slideshows by allowing annotation for each image with either voice or music, enabling narrative shows or storybooks. Use the ► button to preview (listen to) the audio clip. Be aware that when an audio clip is attached to an image, the display time will be the longer of either the display time setting or the duration of the audio clip. Also note that the more audio clips that are attached to a slideshow, the fewer the number of total images can be in the slideshow. See Figure 13.

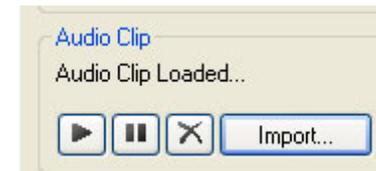
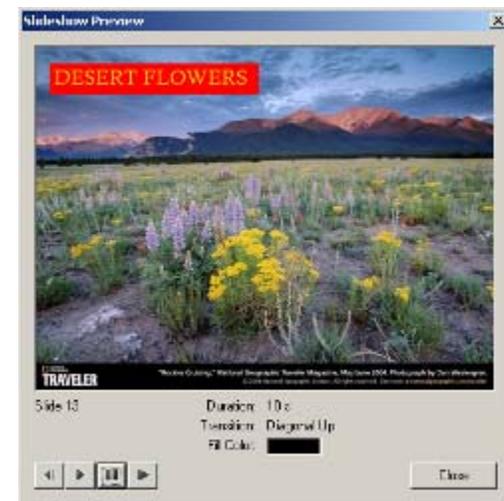


Figure 13 – Attach Audio Clip

6.19 Preview Slideshow

You can preview how the slideshow will appear before sending. Selecting “Preview Slideshow” from the View menu will present the slideshow in a window using the selected transition and timing selections as shown below. This function is also available by clicking on “preview-slideshow” icon (🖼️) in the toolbar.

◀| = Previous Slide |▶ = Next slide || = Pause ▶ = Play



6.20 Portrait/Landscape Modes

MemoryFrame supports both portrait (vertical) or landscape (horizontal) orientations. You can select whether the slideshow should be configured in either Portrait or Landscape modes. When the slideshow is sent to the *MemoryFrame* it will automatically be set for the orientation you selected. This function is available by clicking on “Portrait/Landscape” icon () in the toolbar.

6.21 Preferences

The Preferences menu allows you to control the warning flags for the following settings:

- A. Audio Clip Size – If an audio clip larger than 1.2MB is trying to be attached to a slide, this warning will appear. This is a warning only. Be aware that audio clips take up image storage space, and will reduce the number of images that can be in a slideshow.
- B. Out of Date Firmware – Warns when the unit firmware is out of date. This is a warning only. Updates are available at <http://www.dsicentral.com/yupdate>.
- C. Unknown Unit – Alerts when an unknown unit is found.

Refer to Figure 14 below:

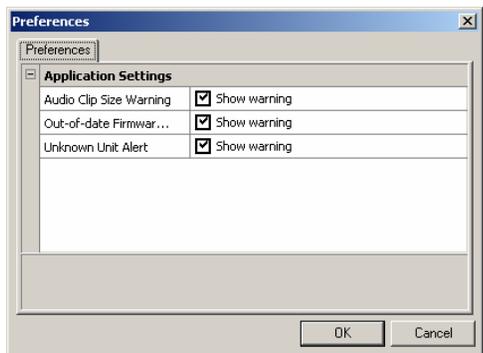


Figure 14 – Preferences Settings

11.5 Import/Play from USB Port

This menu is used to select the many peripheral functions that can be performed directly with the USB Ports and external USB mass storage devices such as Memory Card Readers and Thumb Drives. Use the Forward (▶) or Reverse (◀) button until the desired function is highlighted, then press the Select button. See Figure 22. DO NOT REMOVE THE USB DEVICE WHILE THE *MemoryFrame* IS UPLOADING OR PLAYING FROM THE DEVICE.



Figure 22 – Import/Play from USB Menu

For all of these functions, except Replace Slideshow and Play Slideshow, the default control settings applied to the images are:

- Transition: Random
- Display Time: 15 Seconds
- Border Fill: Black
- Text Caption: None

When the *MemoryFrame* is playing a slideshow from the USB port, use the Menu button to revert back to playing the internal slideshow, ignoring the USB device. Once the internal slideshow is playing, it is safe to remove the USB device. See Figure23.

11.4.6 Show This Slide Yes/No

The *MemoryFrame* allows images that are stored in memory to be hidden (not shown) when the normal slideshow is presented. This allows the user to alter the slideshow without deleting the image from memory.

11.4.7 Record Audio

The *MemoryFrame* has a built-in microphone as well as stereo speakers. This menu option allows you to record a voice narration or music to play with each image. You can record a different audio clip for each image. If recording voice, locate your mouth approximately 4 inches from the microphone before pressing Select. After selecting, a sub Menu is displayed to select the record time. Scroll to the desired time, press the Select button, and begin recording. The screen will display “Recording” until the record time has expired. See Figure 21.



Figure 21 – Record Audio

11.4.8 Select Another Slide

Once you have completed changing the parameters of a slide, you may use this function to select another slide for parameter changing.

11.4.9 Exit Configuration Menu

When you want to exit the Configure Slides sub-menu, select “Exit Configuration Menu.” This will bring you back to the Main Menu from where you may resume the slideshow. Hitting the Menu button at anytime will return you to the slideshow mode.

7. Configure MemoryFrame for Wireless Networks

7.1 Preparing the MemoryFrame

The following steps are required to prepare the *MemoryFrame* for wireless network connectivity:

1. Connect the *MemoryFrame* to the PC via the USB cable
2. Connect the USB wireless adapter to the *MemoryFrame*.
3. Make sure the wireless router is On and running.
4. Open Digital PixMaster

Use the Configuration Wizard to complete the installation as follows: In Digital PixMaster click on Digital Frame, then Properties Highlight the *MemoryFrame* that is to be included in the network. Click the Configure button to activate the Configuration Wizard as shown in Figure 15

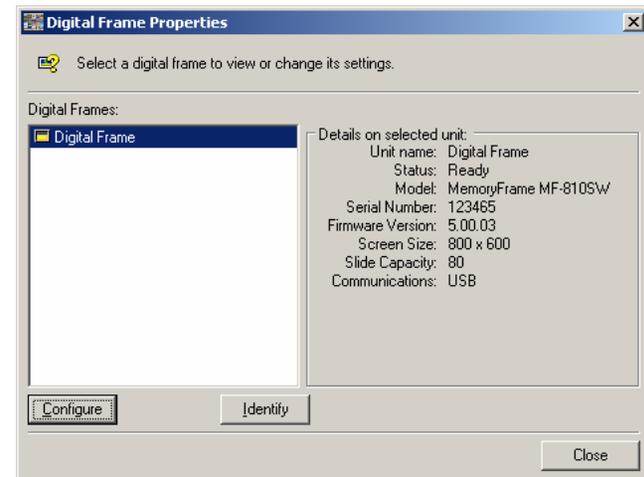


Figure 15 – Activate Configuration Wizard

The Configuration Welcome screen appears as shown in Figure 16. Information displayed includes the current Unit Name and Serial Number. Click “Next” to the Set Unit Name screen.

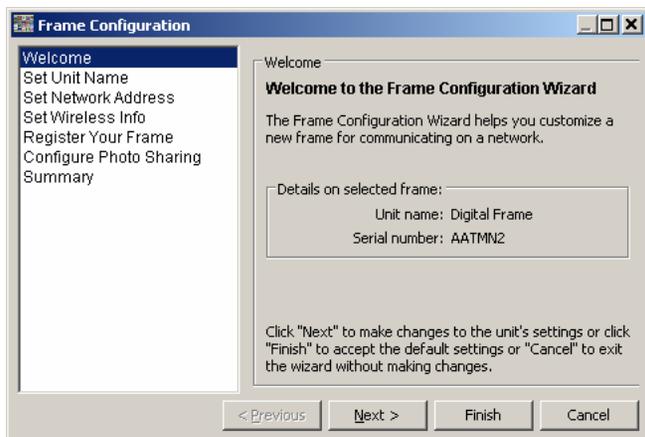


Figure 16 – Configuration Wizard Welcome Screen

The Set Unit Name Screen is used to give the *MemoryFrame* a friendly name. This is because you may own a number of frames and want to easily identify each one, such as Living Room, Den, Fireplace, etc. Simply type in the name as you see fit, as long as the number of characters is 32 or less. You may use special characters such as ~!>?", etc. Click “Next” to advance to Set Network Address, “Cancel” to abort, or “Finish” to store and exit. See Figure 17.

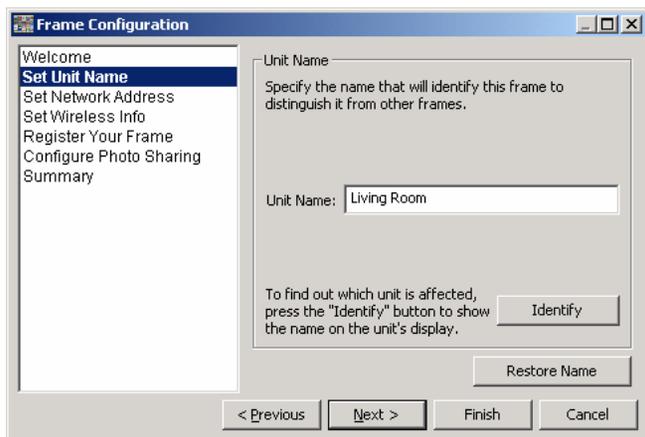


Figure 17 – Set Unit Name

apply this *Time* to either “Only This Image” or “All Images”. See Figure 20.



Figure 20 – Slide Duration

11.4.3 Set Background (Fill) Color

The *MemoryFrame* will fill any unused portion of the screen with a background of your choice from the list of colors. This reduces the “black bar” effect seen when images do not have the same 4:3 proportion as the *MemoryFrame* screen/ Once selected you are given the choice to apply this *Color* to either “Only This Image” or “All Images”.

11.4.4 Delete Slide

The Delete Slide option allows you to delete a particular image from the *MemoryFrame*’s memory. Highlight the thumbnail of the image to be deleted then push the Select button.

11.4.5 Rotate 90°

The images may have been taken with the camera in either horizontal or vertical position. The Rotate 90° option allows you to set the proper orientation to display any particular image. When you select Rotate 90°, the *MemoryFrame* will rotate the currently selected image 90° to the right. First select the thumbnail image you wish to rotate and then push the Pause/Select button as necessary to rotate the image to the desired orientation. This will save the change into memory and then return to thumbnail navigation mode.

window into the *MemoryFrame*'s internal memory. The middle image is the current image to select. As you navigate through the images, the program will render the next thumbnail, and so on until the last image is displayed. The Forward (▶) and Reverse (◀) navigation buttons will not let you advance past the last image or before the first image. Once a thumbnail is selected, the Forward (▶) and Reverse (◀) navigation buttons operate on the menu items and not on the thumbnails. Each of these Configure Slideshow menu choices are described below.

11.4.1 Set Transition Effect

The *MemoryFrame* features eleven (11) choices for transition effects between images. These are the same as those selectable with the PC application software, Digital PixMaster™. When you choose a transition effect, this menu selection will save the changes into memory and then return you to thumbnail navigation mode. The transitions in the *MemoryFrame* may differ from those listed below, depending on the version of software shipped with the *MemoryFrame*. Once selected, you are given the choice to apply this *Effect* to either “Only This Image” or alternatively, to “All Images”. See Figure 19.



Figure 19 – Transition Effect

11.4.2 Set Slide Duration

You can select the amount of time the selected image will display: from 5 seconds to many hours. Upon selection of a time *MemoryFrame* will automatically record the change and return to thumbnail navigation mode. Once selected you are given the choice to

The Set Network Address is used to set the parameters when in a network environment. You may use DHCP methods, in which the IP addresses as assigned dynamically, or static addresses when in a corporate environment. Click “Next” to advance to Set Wireless Info, “Cancel” to abort, or “Finish” to store and exit. See Figure 18 and 19.

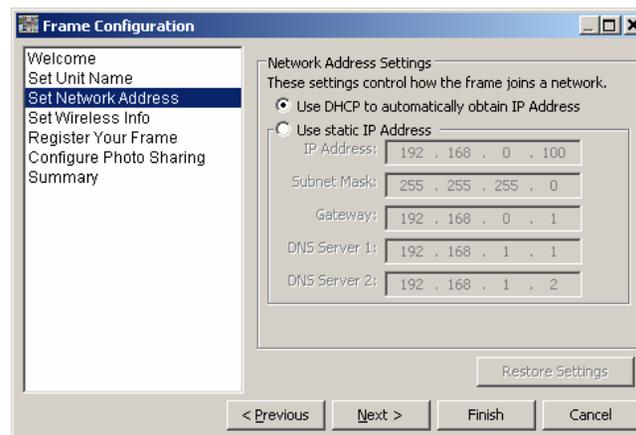


Figure 18 – Network Address DHCP Method

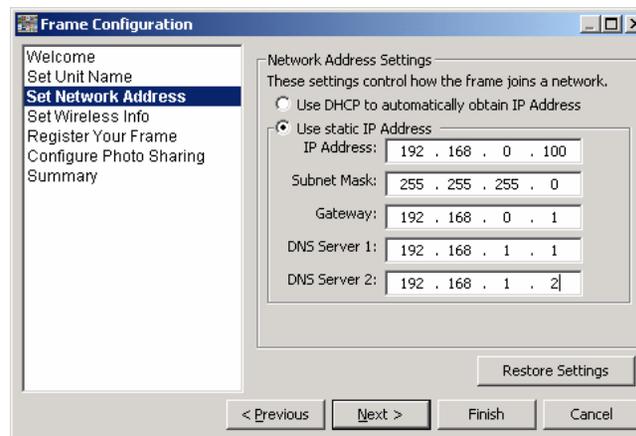


Figure 19 – Network Address – Static Method

The Set Wireless Info is used to allow the *MemoryFrame* into a wireless network, such as in your home. First insert the SSID of the access point or router (this is the name you gave the router for the network). If your network does not use encryption, set the protocol to “None”. If you use WEP encryption, select WEP, and then the Configure button. This brings you to another screen for setting the WEP Keys you have

established for your network. When the WEP Keys are set, click “OK”, and then click “Next” to advance to Register Your Frame, “Cancel” to abort, or “Finish” to store and exit. See Figure 20 and 21.

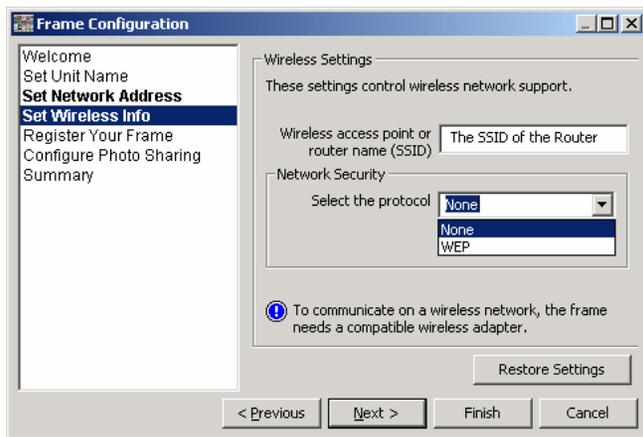


Figure 20 – Set Wireless Info

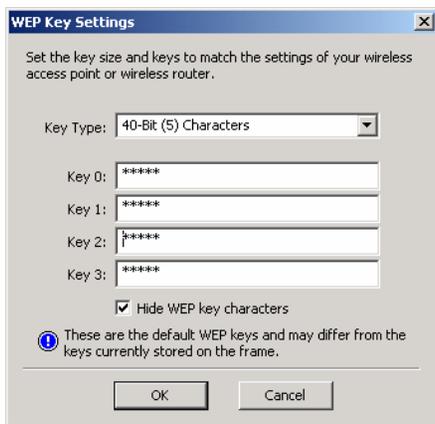


Figure 21 – Set WEP Keys

Some items in the main menu execute the listed task, while other items in the main menu launch a sub-menu for the described function. Each of the options in the main menu is described below. Once in the Menu system, selecting the Menu button will return you to the previous menu.

11.3 Resume Slideshow

When you wish to exit the Menu system, you can either push the Menu button again or alternatively use the appropriate button [Forward (▶) or Reverse (◀)] to highlight the Resume Slideshow menu selection and then press the Select button. This will resume the slideshow from the last image that was displayed before entering the Menu system.

11.4 Configure Slides

This menu lets you set or change the attributes of each image in a slideshow without a PC. To enter a Configure Slides sub-menu, use the Forward (▶) or Reverse (◀) button until the desired function is highlighted, then press the Select button. See Figure 18.

Important! On any menu that has thumbnail images, the thumbnails will take a few moments to appear, and you will be unable to select an image or move the highlight until ALL of the thumbnails have appeared in their entirety.



Figure 18- Configure Slides Menu

In this menu, you are first presented with a thumbnail view of five (5) of many images stored in the *MemoryFrame*. You can navigate through the images using the Forward (▶) and Reverse (◀) buttons. Since the *MemoryFrame* can hold up to 80 images, this display of three (5) thumbnails serves as a

Select While in the Menu system, the **Select** button functions as the “select” key to select a thumbnail or to select and execute a text menu option.

Reverse (◀) While in the Menu system, pressing the Reverse (◀) button will move the item selector either up to the prior menu text line or to the left to the prior thumbnail, depending upon the current menu context. Pressing the Reverse button while a slideshow is playing will bring up thumbnail views so you can scroll through the stored images.

The basis of operation is that the *MemoryFrame* will highlight the currently selected item in one of two ways. If the item is a thumbnail, the selected thumbnail will assume the center location of 5 potential thumbnails across the top portion of the screen. If the item is text, the selected text option will be highlighted in a different color than the rest of the menu. This highlight is called the selector. Once the appropriate item has been highlighted, you can press Select to perform the selected function.

11.2 Main Menu

When you press the Menu button during a slideshow, the *MemoryFrame*™ will stop displaying the slideshow and enter the menu system into the “Main” Menu. Figure 17 is a sample of the Main Menu screen.



Figure 17 - Main Menu

8. Configure MemoryFrame for Photo Sharing

Because the *MemoryFrame* is web enabled, images can be sent directly to the *MemoryFrame* from selected photo sharing sites. This is a new and exciting way of having family and friends send their latest photos directly to your *MemoryFrame*. Open the Configuration Wizard through Digital PixMaster by clicking Digital Frame, Properties, and highlighting the desired frame for sharing. Click the Configure button and go directly to Register Your Frame. Follow the instructions as noted below.

The Register Your Frame screen is used to register the frame for use with photo sharing. Type in your email address, password, and secret answer. Click “Next” to advance to Configure Photo Sharing, “Cancel” to abort, or “Finish” to store and exit. See Figure 22.

The image shows a dialog box titled "Authentication". It has a close button (X) in the top right corner. The dialog contains several input fields and buttons. The "Email Address" field has a "Submit" button to its right. The "Password" field has a "Cancel" button to its right. Below the "Password" field is a "Password (Retype)" field. The "Secret Question" field is a dropdown menu with "What's your favorite pet name" selected. Below the dropdown is a "Secret Answer" field with "What's your favorite pet name" entered. There are no buttons for the "Secret Answer" field.

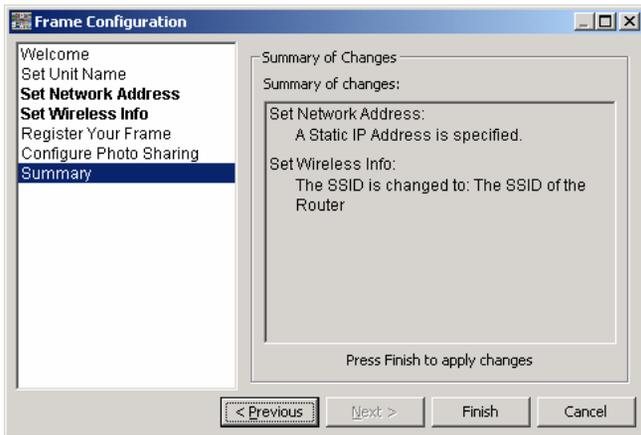
Figure 22 – Register the Frame

The Configure Photo Sharing screen is used to select the desired photo sharing provider(s) and register your account information. This is used to associate a *MemoryFrame* with a photo service and authorized senders. Select the photo sharing provider from the pull down menu (updated as provider partners are added), and your email address. If you have not set up an account with the photo sharing provider, click on “Register”, which will take you to their site for photo sharing registration. Once done, you, or who you authorize, can send images directly to the *MemoryFrame* via the internet. Click “Next” to advance to Summary, “Cancel” to abort, or “Finish” to store and exit. See Figure 23.



Figure 23 – Configure Photo Sharing

The Summary screen notifies you of changes that have been made during the Configuration process for your review. Click “Finish” to store and exit, or “Cancel” to abort. See Figure 24.



11. *MemoryFrame* Onboard Menu System

When the user presses the Menu button, the *MemoryFrame* enters the Management menu. This menu system, which is controlled by pushing the buttons on the top of the *MemoryFrame*, allows you to use the *MemoryFrame* without a PC to upload images and configure slideshows by simply using the buttons on the top of the *MemoryFrame* unit. In this mode, the user may upload new images, alter the current slide show, record voice or music, or change *MemoryFrame* options as described in the following sections.

11.1 Menu Navigation

When entering the menu system, the *MemoryFrame* changes the usage of three of the buttons: Forward (▶), Select, and Reverse (◀). See Figure 16.



Figure 16 – Menu Buttons

While in the Menu system, the following buttons are used to navigate through the *MemoryFrame* management menus and to execute the various management functions as follows:

Forward (▶) While in the Menu system, pressing the Forward (▶) button will move the item selector either down to next menu text line, or to the right to next thumbnail, depending upon the current menu context. Pressing the Forward button while a slideshow is playing will bring up thumbnail views so you can scroll through the stored images.

Important! For Memory Card Readers, make sure that the memory-card is already inserted into the card reader before connecting the USB cable to the *MemoryFrame*.

Connect the *MemoryFrame* directly to the USB peripheral using the USB cable that was provided with the peripheral. Connect the USB connector of the USB peripheral to the “Camera” connector of the *MemoryFrame*. See Figure 15.



FIGURE 15 – CONNECTING A USB PERIPHERAL

10.2 Upload or Play Images Directly from a USB Device

The *MemoryFrame* is capable of playing JPEG images located in USB peripherals, allowing the images to be uploaded directly into the *MemoryFrame* to either append the internal slideshow with images until the internal memory of the *MemoryFrame* is full or replacing the existing slideshow with external images until full. You may also play the images from the USB device without disturbing the internal slideshow. You may also play a slideshow (.pd2) from the USB device without disturbing the internal slideshow, or replace an internal slideshow from a slideshow on the USB device. Use the onboard Menu button and “Import/Play” function on the *MemoryFrame*.

You may upload or play images stored in a USB digital camera in the same manner as any USB storage device, making sure:

The images are JPEG format

The camera is in the standard (driver-less) mode when taking pictures

9. Transferring Slideshows to/from *MemoryFrame*

Table 2 below shows the various options under the Digital Frame and Help pull-down menus in Digital PixMaster. The four (4) commands in the Digital Frame pull-down menu involve communication with the *MemoryFrame* and can only be used when a *MemoryFrame* is connected directly to the PC or part of a network. The *MemoryFrame* must be displaying a slideshow (i.e. not in Menu Mode).

Digital Frame	Help
Send Slideshow	Contents
Retrieve Slideshow	Release Notes
Update Firmware	About Digital PixMaster...
Properties	

Table 2 – Additional Commands

Note: Exit any on-board-button menus to return to displaying the current slideshow. This will place the *MemoryFrame* in the mode that is required to communicate with the PC.

When the *MemoryFrame* is connected to a computer running Digital PixMaster™, the *MemoryFrame* accepts and processes communication between the computer and the *MemoryFrame*. Digital PixMaster™ can retrieve the current slideshow in a *MemoryFrame* to the PC (retrieve) for saving or editing, or it can replace the slideshow in the *MemoryFrame* with a new one from the computer (send). To transfer slideshows from the PC to the *MemoryFrame* or from *MemoryFrame* back to the PC, the *MemoryFrame* must be connected to the PC via the different USB connection methods (USB direct and wireless or wired Ethernet).

Important! For Digital PixMaster to communicate to the *MemoryFrame*, you first need to prepare the *MemoryFrame* for communicating to a PC, as described in the section below.

9.1 Preparing *MemoryFrame* to Communicate to a PC

The *MemoryFrame* cannot be managed or communicate with a PC while it is in the Menu system mode. In all cases, the *MemoryFrame* must be in Display mode for Digital PixMaster™ to communicate. Exit any on-board button menus and return to displaying the current slideshow. This will place the *MemoryFrame* in the mode that is required to communicate with the PC.

9.2 Getting the Current Slideshow from the *MemoryFrame*

From the pull-down menu of Digital PixMaster, select Retrieve-Slideshow to get the current slideshow from the *MemoryFrame*. This function is also available by clicking on “retrieve-slideshow” icon () in the toolbar. When the *MemoryFrame* receives the Retrieve-Slideshow command it transfers the current slideshow images (and associated delay times, fill-colors, delays, WAV files etc.) from its memory to the PC. Once complete, you can save or edit this show.

9.3 Sending slideshows to the *MemoryFrame*

Important! Because *MemoryFrame* will overwrite an existing slideshow if a new one is sent to it, you may want to first Retrieve and then Save the existing show before sending a new one.

First open the show you want to send on the PC. From the pull-down menu of Digital PixMaster™, select Send-Slideshow. This function is also available by clicking on “send-slideshow” icon () in the toolbar. This will send the slideshow to the *MemoryFrame*. During this time the *MemoryFrame* will erase its current slideshow, and then read in the new show saving it into internal memory. After clicking Send, Digital PixMaster™ will display a progress bar to indicate the transfer of the new images to *MemoryFrame*.

Important! When the progress bar is complete, it only signifies that the file has been transferred, but not yet stored in memory. This is just the beginning of the *MemoryFrame*'s actual process of updating its Slideshow, so do not turn off the power until the new slideshow is playing.

Important! Do not unplug or cut power to the *MemoryFrame* or PC during the send slideshow process!

Once the new slideshow has been loaded into memory, the *MemoryFrame* will indicate it is finished by displaying the first image of the new slideshow.

9.4 Properties

This allows you to see what version firmware the *MemoryFrame* is currently running. The *MemoryFrame* must be attached to the computer, or on the network, for this function to be available. If the *MemoryFrame* is not attached, this function will be “grayed out” (not available for selection). This includes the functions “Configure” and “Identify”. The Configure function brings up the Configuration Wizard, used to give a friendly name to a *MemoryFrame*, set Network Address, set Wireless

info, register the *MemoryFrame* for on-line use, and associate the *MemoryFrame* for photo sharing. These are described in detail in Sections 7 and 8 **Configuring the MemoryFrame for Wireless.**

9.5 Help - About Digital PixMaster (Digital PixMaster)

This allows you to see what version of Digital PixMaster software the computer is currently running. This is helpful should you need to communicate with Tech Support. Click on Help then select “About Digital PixMaster (Digital PixMaster)™.”

9.6 Exiting Digital PixMaster

Choosing Exit from the File menu will exit the Digital PixMaster™ program. If there is an unsaved slideshow file currently open, the program will ask if you want to save it before exiting the program. Clicking on the close window box (x) in the upper right corner will also exit the Digital PixMaster™ program.

10. Connecting a USB Storage Peripheral

Using the onboard Menu system, the USB Host ports can be used to either upload images into the *MemoryFrame* slideshow, or play the images directly from the USB device. The USB devices that can be used are:

- ✓ USB Memory Card Reader
- ✓ USB Flash Drive
- ✓ USB CD-ROM/CDRW
- ✓ USB Camera

Use either the Menu » Import/Play From USB Port function or the Special » Play Slideshow function, a slideshow will be played from the JPEG files or Digital PixMaster files on a USB Device such as a USB Flash Drive, USB Memory Card Reader or USB CD-ROM drive. Up to 400 images are played from the external source with a display period of approximately 15 seconds each and a black fill color. The transition can be set using the Preferences menu to any of the supported transitions.

10.1 *MemoryFrame* Communicates with USB Peripherals

The *MemoryFrame* cannot be managed or communicate with a USB storage peripheral while it is displaying a slide show. The current slideshow must be stopped by depressing the Menu button.