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Getting Started

Magic Lantern Step-by-Step

Command Reference

Hardware Requirements

- Any **computer** capable of running MS-Windows 3.1.
- **RAM**: The amount you have will determine at what resolution you will be able to display images, and how many image windows you will be able to have open at once. We recommend a minimum of eight megabytes; more is better.
- **CD-ROM player and driver** supporting Photo CD. If not multisession-capable, you will be able to access only images stored in the first session.
- **Monitor and video card**: The higher resolution and more colors your system can support, the more options you will   have for viewing images. We recommend a minimum of   Super VGA at 256 colors.

Software Requirements

Windows 3.1

Installation

1. From the **File** menu in Windows' Program Manager, select *Run*.
2. Type `a:install` in the Command Line (where `a:` is the letter of your floppy drive; otherwise, change it).
3. Answer the questions as prompted. All files will be stored in a directory whose default name is C:\LANTERN.

Deinstallation

If for any reason you need to deinstall *Magic Lantern* all you need to do is delete the directory where you installed it (the default is C:\LANTERN), and all its files. No files have been written anywhere else, nor have modifications been made to WIN.INI, so this simple operation will remove all traces of   Magic Lantern.

First check the Magic Lantern directory and any others you are deleting to ensure that you are not going to lose information you want to keep!

Some Words on Memory Availability and Configuration

Your PC has three types of memory: conventional, extended, and virtual.

Conventional memory is the first megabyte of all the RAM that you have installed. Of this first megabyte, 640 kilobytes are used as an area in which programs are started up. You will never have the entire 640K free, since some number of device drivers and TSRs will be present. It is important, however, that you fine-tune your system in order to have as close to 640K free as possible, or some programs might not even start.

Windows uses *extended memory* to move large amounts of data. Windows also uses *virtual memory,* which is a swap file that is usually installed when you install Windows.

The resolution and speed at which you can load images depend on the combined amount of extended and virtual memory. The higher the amount of memory, the better off you'll be.   If you have less than eight megabytes of memory total, you cannot expect *Magic Lantern* to perform at its best, nor to load high-resolution images.

Getting Started

To start *Magic Lantern* from Windows, double-click on its icon in the *Magic Lantern* Program Group. The *Magic Lantern* window will initially be empty.

If this is the first time you're running *Magic Lantern*, do the following:

1. From the **PhotoCD** menu, select *Memory,* or click on the **Memory** button in the Toolbar (if the Toolbar is not visible, select *Toolbar* from the **Window** menu). The *Memory* dialog box has the following options:

   - **Application.** The number at the right of the slider bar in the dialog box indicates the total available of RAM and virtual memory. Move the slider until the number in the *Megabytes* box indicates the amount of memory you wish to dedicate exclusively to *Magic Lantern*; the remaining memory will be used for Windows and any other programs you wish to run at the same time.

   - **Poster.** The number at the right of the slider bar in the dialog box indicates the maximum size of the image that you can load up, to the limit of 16 megabytes imposed by Windows. Move the slider within the bar until the number in the *Megabytes* box indicates the size of the Poster image that you desire. Remem-ber that the amount of time it will take to load the image is proportional to the size (in memory terms) of the image.

   - **Banding.** If *Banding* is checked, the images will be loaded in chunks rather than continuously. This technique is slower, but allows you to work with a slower PC (386) with not too much memory (up to eight megabytes), or with computers that, in spite of being fast and having a lot of memory, do not have an optimized configuration. If, however, you have more than eight Megabytes of memory, we recommended that you uncheck *Banding* so that your pictures will load faster.

2. Click on **OK** to accept the values and close the dialog box.

3. Select *Drive* from the **PhotoCD** menu. In the dialog box select the drive letter corresponding to your CD-ROM drive, and click on **OK**.

   Magic Lantern will also read the image of a Photo CD disc from hard disk, provided the entire file structure of the Photo-CD has been copied onto it.

If this is not the first time you're running Magic Lantern, and you have not changed the configuration of your PC, you can proceed directly to the next step.

3. From the **PhotoCD** menu, select *Load PhotoCD.* All the images on the CD will be loaded into the *Thumbnails* window

The number of thumbnails visible will depend on the size of the *Thumbnails* window. They will automatically rearrange when you resize the window. If *Exact Size* is checked in the **Window** menu, the window will always "snap to" the nearest size which will fit whole rows and columns of slides − that is, no slides will be shown cut off by the window frame. If you prefer to size the window without regard to fitting the slides in exactly, uncheck *Exact Size* in the **Window** menu.

Once a CD is loaded, the menu bar changs: more menus become available. One of the "slides" in the *Thumbnails* window is selected (outlined in red). You can click on any slide to select it, or use the *Go to...* command from the **Thumbnails** menu to select by number the slide you wish to view.

Loading an Image

Any loading operation can be cancelled at any moment either by pressing the ESC key or clicking on the Cancel button.

Before loading an image, select the desired options from *Load as...* and *Load Colors...* sections of the **Thumbnails** menu:

To understand the *Load as...* options, you should know that every image on a Photo CD is stored in five versions, which differ only in their *resolution*, and therefore in the size at which they can be displayed on a computer monitor – *the actual physical size of the image on screen will vary depending on the resolution of your monitor and video card*. From smallest to largest, the options are:

- Load as Wallet: resolution 192 x 128 pixels
- Load as Snapshot: resolution 384 x 256 pixels
- Load as Standard: resolution 768 x 512 pixels
- Load as Large: resolution 1536 x 1024 pixels
- Load as Poster: resolution 3072 x 2048 pixels
  (available only after cropping)

If you try to load a photo at a resolution which is not available for it, you will receive an error message. (Portfolio™ discs, for example, do not contain the Large and Poster resolutions of their images.)

Which color options are available will depend on the video card installed in your computer. You can always choose to load an image with *fewer* colors than you actually have available.

- Load in 16 Colors
- Load in 256 Colors
- Load in Grayscale
- Load in TrueColor

To select an image to load, you can:

- Click on it in the *Thumbnails* window and then choose *Load Current* from the **Thumbnails** menu, or
- Choose *Load*... from the **Thumbnails** menu. In the subsequent dialog box, the number of the currently highlighted thumbnail will appear as default. Enter the number of the photo you wish to load directly in the *Photo*: box, or select the number from the scroll box below. Click on **OK** to load the photo, or
- Double-click directly on the slide in the *Thumbnails* window.

THE AMOUNT OF TIME REQUIRED TO LOAD AN IMAGE WILL DEPEND ON THE TRANSFER RATE OF YOUR CD-ROM DRIVE, THE SIZE OF THE IMAGE BEING LOADED, AND THE SPEED OF YOUR PC's CPU. FOR FURTHER INFORMATION REGARDING MEMORY CONFIGURATION, REFER TO "SOME WORDS ABOUT MEMORY..."

Working with a Loaded Image

After you load an image, and whenever you make active the window containing an image, you will notice that the menu bar changes: there are three new menus.

Related Topics:

Photo Menu
Transformation Menu
Rotation Menu
Window Menu

Photo Menu

Copy

Copies the current image to the Windows clipboard.

Export

Allows you to export the photo in any of these formats:

- Windows bitmap (.BMP)
- Encapsulated PostScript (.EPS)
- Paintbrush (.PCX)
- RIFF (.RIF)
- TIFF (.TIF)

Rights

Shows what copyrights are listed (if any) for the current photo.

Full Screen

Shows the image at its current size, displayed against a black background. Press CTRL + F to return to normal viewing. As a shortcut, press the right mouse button

Transformation Menu

Size and Color Options

These allow you to change the photo's size or color set. This is similar to using the *Load* settings, but saves you having to reload the image from the *Thumbnails* window.

Size in pixels of the image: If the resolution of your screen is less than the resolution of the image, not all of the image will fit on the screen. In this case the image will be centered and the borders trimmed off.

Any color options not supported by your video card will be grayed out.

Rotation Menu

As Stored

Rotated 90° Counterclockwise

Rotated 180°

Rotated 90° Clockwise

Mirrored Left to Right

Mirrored & Rotated 90° C.Clockwise

Mirrored & Rotated 180°

Mirrored & Rotated 90° Clockwise

Window Menu

Close Photo/Close All Photos

When the active window contains a photo, the command is *Close Photo*. If the *Thumbnail* window is active, the command is *Close All Photos,* which will close all photo windows currently open, but not the *Thumbnails* window.

When an image is on the screen, you can resize the window that contains it. You may not make the window larger than the image at its current display size.

You can iconize any image by clicking on the minimize (down-pointing) arrow in the upper right corner of the *Photo* window; a central portion of the image will be shown in the icon as reference.

Cropping & Poster Sizing an Image

Crop allows you to select a portion of the photo to be displayed and/or exported. *You cannot rotate or mirror a cropped image* − if it needs to be done, do it before cropping.

To crop an image you must first load it, in any resolution you like, so that you can access the **Transformation** menu. Then do the following:

1. From the **Transformation** menu choose *Crop.* The *Crop* dialog box will appear.

2. Move the cursor into the wallet-size image shown. The pointer will become a crosshair, and at upper left corner of the image you will see displayed the X,Y coordinates of the current position of the pointer on the image.

3. You are now going to draw a rectangle around the area you want to *save after cropping*. Press and hold down the mouse button. This will fix the upper corner of the cropped image. Drag the mouse to the lower right corner of the portion of the image you want to crop. Release the mouse button. A "rubber band" box shows the defined area. If you don't like the size or position of the box, you can simply repeat the operation.

The *Crop Area* box will give the absolute X, Y coordinates of the starting point and the relative dX, dY coordinates of the selected image portion.

Related Topics:

Poster Size

Poster Size

A whole image, in the maximum Photo CD resolution (16Base), is approximately 16 megabytes when uncompressed. Most systems cannot handle such a large file and, given the CD drive transfer rate of 150 kilobytes per second, it would take over a minute and a half just to load it.

So, to keep poster images to a manageable size, we have imposed a limit on the portion of the image that can be transformed into Poster. The default limit is 5 megabytes. You'll know when you've gone too far because the *Transformable to Poster* check box will uncheck itself. Just make your crop box smaller until the check reappears, and you've got an image that can (if you like) be transformed to Poster size.

Once you have defined the image portion you want to transform into Poster size, do the following, select *Poster* from the **Transformation** menu. (If the Poster selection is gray, it means you have cropped an area larger than the maximum acceptable poster size − you weren't watching that check box.) The selected portion of the image will then be loaded at poster resolution.

Creating a Slide Show

You can create a self-running or prompted slide show of any or all of the images on one disc.

1. When the *Thumbnails* window is open and active, the **Slide Show** menu appears. Its options are to *Set Up* and *Run* a slide show.

2. Select *Set Up*. The *Slide Show Setup* dialog box appears.

When this window is active you can still access all the commands on the menu bar to page through the thumbnails.

- Click on the thumbnail of the image you want to insert into the slide show and press **Insert.** Its number will be added to the list immediately before the item currently highlighted in the scroll box. You can add an image at any point in the list.

- You can also type the number into the Slide text box, then click on the **Insert** button. Again, the number will be inserted immediately before the item currently highlighted in the scroll box.

- To insert all photos on the disc into the show, click on **Insert All**.

- To delete a slide from the show, highlight it in the scrolling list and click on **Delete**.

- To show the slides in random order, click on **Shuffle** (they will be shown according to the randomized order appearing in the scroll box).

- To clear the scroll box, click on **Clear**.

The **Total Slides** as well as the **Total Time** counters are constantly upgraded to reflect your changes.

You may of course mix and match these commands as you like.

To set up how you want your show to appear:

- Choose **Snapshot**, **Standard**, or **Large** from the *Size* area.

- From the *Slide Flip* area, set the **Time Out** — the amount of time (in seconds) that each slide should be displayed. Note: If this time is shorter than the time actually required to load the image from disc (which can easily happen when loading Large images), a new slide will begin loading as soon as the old one is on screen. The total time of the slide show listed below always reflects the number of slides in the show multiplied by the **Time out**, which will not be accurate if each photo actually takes longer to load than the **Time out** time given.

- If the **Keyboard or Click** box is checked, the next slide will begin loading the moment a key on the keyboard is pressed or the mouse button is clicked, regardless of whether the **Time out** time is up. If this option is checked and **Time out** is unchecked, control is completely manual - the program will always wait for a key or click before loading the next slide.

  You may begin running your sideshow immediately by clicking on the **Run** button, or you may exit this dialog box (and even the program) and the current sideshow will be saved. You can then run it at any time by choosing *Run* from the **Slide Show** menu. This slide show will be saved, even if you exit the program, until it is cleared or replaced by another one.

Photo CD Menu

[Load Photo CD](#)
[Drive](#)
[Unload](#)
[Memory](#)
[CD Info](#)
[Exit](#)

Load Photo CD

Load a new Photo CD into memory.

Shortcuts:

- Hotkey: CTRL + C
- Keys: ALT + C, C

Drive

Identify the drive (volume letter) from which to load your Photo CD. *Magic Lantern* can also read the image of a Photo CD disc from hard disk, provided the entire file structure of the Photo-CD has been copied.

Shortcut

- Keys: ALT + C, D

The *Drive* command changes to *Unload* when a Photo CD is loaded.

Unload

Clear the current Photo CD from memory.

Shortcut

- Keys: ALT + C, U

Memory

Set the amount of memory (from a total of RAM plus virtual) that you wish to devote to *Magic Lantern*. The remaining memory must be sufficient to run Windows and any other applications which you need to run concurrently with *Magic Lantern*.

Shortcut

- Keys: ALT + C, M

Dialog Box Options

- **Application.** The number at the right of the slider bar in the dialog box indicates the total available of RAM and virtual memory. Move the slider until the number in the *Megabytes* box indicates the amount of memory you wish to dedicate exclusively to Magic Lantern; the remaining memory will be used for Windows and any other programs you wish to run at the same time.

- **Poster.** The number at the right of the slider bar in the dialog box indicates the maximum size of the image that you can load up, to the maximum of 16 Megabytes imposed by Windows. Move the slider within the bar until the number in the *Megabytes* box indicates the size of the Poster image that you desire. Remember that the amount of time it will take to load the image is proportional to the size (in memory) of the image.

- **Banding.** If *Banding* is checked, the images will be loaded in chunks rather than continuously. This technique is slower, but allows you to work with a slower PC (386) with not too much memory (up to eight megabytes), or with computers that, in spite of being fast and having a lot of memory, do not have an optimized configuration. If, however, you have more than eight Megabytes of memory, we recommended that you uncheck *Banding* so that your pictures will load faster.

CD Info

Gives the following information about the currently loaded Photo CD:

Volume Serial Number, Version Number, Creation Date, Last Modification Date, Total Images, Total Sessions.

Shortcut

- ALT + C , I

Exit

Exit the program.

Shortcut

- ALT + C, X

Thumbnails Menu

[Go to](#)
[Load Current](#)
[Load](#)
[Load as Wallet](#)
[Load as Snapshot](#)
[Load as Standard](#)
[Load as Large](#)
[Load as Poster](#)
[Load in 16 Colors](#)
[Load in 256 Colors](#)
[Load in Grayscale](#)
[Load in TrueColor](#)

Go to

Allows you to select a thumbnail image to view in the *Thumbnails* window.

Shortcut
- Hotkey: CTRL + G
- Keys: ALT + T, C

Load Current

Load the image currently selected (highlighted) in the *Thumbnails* window.

Shortcut

- Hotkey: CTRL + L
- Keys: ALT + T, C

Load

Select an image to load either by highlighting it in the scroll box or typing the number directly into the text box.

Shortcut

- Hotkey: CTRL + L
- Keys: ALT + T, O

Load as Wallet

Sets the option to load the next image to be selected in wallet size. This command merely sets the size to load; you must subsequently choose *Load* or *Load as* to actually load the image.

Shortcut

- Keys: ALT + T, W

Load as Snapshot

Sets the option to load the next image to be selected in snapshot size. This command merely sets the size to load; you must subsequently choose *Load* or *Load as* to actually load the image.

Shortcut

- Keys: ALT T + P

Load as Standard

Sets the option to load the next image to be selected in standard size. This command merely sets the size to load; you must subsequently choose *Load* or *Load as* to actually load the image.

Shortcut

- Keys: ALT T + S

Load as Large

Sets the option to load the next image to be selected in large size. This command merely sets the size to load; you must subsequently choose *Load* or *Load as* to actually load the image.

Shortcut

- Keys: ALT T + L

Load as Poster

Sets the option to load the next image to be selected in poster size. This command merely sets the size to load; you must subsequently choose *Load* or *Load as* to actually load the image. This option is only available after you have cropped the image to an acceptable size (see the *Crop* command).

Shortcut

• Keys: ALT T + R

Note: If you attempt to load a photo in a resolution which is not available for it, you will receive an error message.

Load in 16 Colors

Sets the option to load the next image to be selected in 16 colors. This command merely sets the color palette; you must subsequently choose *Load* or *Load as* to actually load the image. *The color options available will depend on the video card installed in your computer.*

Shortcut

- Keys: ALT T+ I

Load in 256 Colors

Sets the option to load the next image to be selected in 256 colors. This command merely sets the color palette; you must subsequently choose *Load* or *Load as* to actually load the image. *The color options available will depend on the video card installed in your computer.*

Shortcut

- Keys: ALT T+ 2

Load in Grayscale

Sets the option to load the next image to be selected in grayscale. This command merely sets the color palette; you must subsequently choose *Load* or *Load as* to actually load the image. *The color options available will depend on the video card installed in your computer.*

Shortcut

- Keys: ALT T+ Y

Load in TrueColor

Sets the option to load the next image to be selected in 16 million colors. This command merely sets the color palette; you must subsequently choose *Load* or *Load as* to actually load the image. *The color options available will depend on the video card installed in your computer.*

Shortcut

- Keys: ALT + T, T

Slide Show Menu

[Setup...](#)
[Run](#)

Setup...

Brings up the *Slide Show Setup* window. This window can be active at the same time as the main program window.

Shortcut

- Keys: ALT + S, S

Main Commands

- **Insert.** Inserts the image whose number appears in the small "slide" window immediately above the highlighted item in the scroll box.

- **Insert All.** Inserts all images in the disc immediately above the highlighted item in the scroll box.

- **Delete.** Deletes from the list   the image highlighted in the scroll box.

- **Shuffle.** Randomizes the order of the images listed in the scroll box.

- **Clear.** Clears all the images from the list.

- **Run.** The slide show begins immediately.

- **OK.** Closes the window and saves the show until you are ready to run it (by choosing *Run* directly from the **Slideshow** menu.

- **Cancel.** Cancels the operation.

Slide Flip

- **Total Time.** Displays the total time required to make one complete run of the images listed.

- **Time Out.** The amount of time (in seconds) that each slide should be displayed.

- **Keyboard or Click**. If checked, the next slide will begin loading when prompted by a key pressed on the keyboard or a click of the mouse button.

These last two options can be used together or separately. If both are checked, the next image will be loaded either when a key or mouse button is pressed, or when the time limit elapses, whichever comes first. If **Time Out** alone is checked, the show will run in completely automa-tic mode, loading a new slide when the time limit elapses. If **Keyboard or Click** alone is checked, the sideshow is completely manual and always waits for till a key or mouse button is pressed to load a new slide.

- **Total Slides.** Indicates the total number of slides presently in the show.

- **Size: Snapshot, Standard, Large.** Choose the size at which all slides in the show are to be displayed.

- **Run.** Runs the existing slide show. The slide show is saved (even if the program is exited) until another is set up to take its place.

Shortcut

- Hotkey; CTRL + R
- Keys: ALT + S, R

Run

Runs the most recently created slide show.

Window Menu

[Tile Horizontal](#)
[Tile Vertical](#)
[Cascade](#)
[Arrange Icons](#)
[Close (All) Photos](#)
[Toolbar](#)
[1, 2, 3,...](#)
[Slide Frame](#)
[Exact Size](#)

Tile Horizontal

Size and position all open windows so that they are visible within the main program window, oriented horizontally.

Shortcut

- Keys: ALT + W, H

Tile Vertical

Size and position all open windows so that they are visible within the main program window, oriented vertically.

Shortcut

- Keys: ALT + W, V

Cascade

The standard Windows *Cascade* command, to position all open windows overlapping diagonally within the main program window. The title bar of each window remains visible, making it easy to select any window.

Shortcut

- Keys: ALT + W, C

Arrange Icons

Arranges icons (directory windows that have been reduced to icons) so that they line up neatly and do not overlap.

Shortcut

- Keys: ALT + W, I

Close (All) Photos

If a photo is open and in the active window, this command reads **Close Photo**, and allows you to close that window. If the ***Thumbnail*** window is active, the command reads **Close All Photos**, which will close all photos with the exception of the thumbnails.

Shortcut

- Keys ALT + W, P

Toolbar

Hides/displays the Toolbar.

Shortcut

- Keys: ALT + W, T

1, 2, 3,...

Displays a list of the currently open *Photo* windows.

When you choose an open window, you make that image window active. You can have as many   image windows open at one time as available memory allows. A check mark appears in front of the document name of the active window.

Up to nine will be listed; if you have more you get a *More Windows* option which displays the a dialog box which allows you to select among the available windows.

Shortcut

- Keys ALT + W,   1.2.3...

Slide Frame

Toggles the view of the thumbnail images in the *Thumbnails* window. When checked, the images are shown in grey "slide frames;" when unchecked, they are shown as slide film without frames.

Shortcut

- Keys: ALT + W, S

Exact Size

This option controls the behavior of the *Thumbnails* window. If check (set on), it forces the window to "snap to" the nearest exact number of rows and columns of thumbnail images as you resize the window, so that slides are never left half in view. If not checked, you may resize the window as you like.

Shortcut

- Keys: ALT + W, E

Photo Menu

Copy
Export
Rights
[Full Screen](Full%20Screen)

Copy

Copies the active image to the Windows clipboard.

Shortcut

- Hotkey: CTRL + INS
- Keys ALT + P, C

Export

Exports the file in one of the following formats:

Windows Bitmap (.BMP)

TIFF (.TIF)

RIFF (.RIF)

Paintbrush (.PCX)

Shortcut

- Keys ALT + P, X

Rights

Shows what copyrights are listed (if any) for the current photo.

Shortcut

- Keys ALT + P, R

Full Screen

Displays the image at its currently selected size against a black background. Strike any key or the right mouse button to return to normal viewing.

Shortcut

- Hotkey: CTRL + F
- Keys ALT + P, T

Transformation Menu

The Transformation Menu has three groups of options. The first allows you to change the resolution of the image displayed, choosing among:

Related Topics:

      Wallet (192x128 pixels)
      Snapshot (384x256 pixels)
      Standard (768x512 pixels)
      Large (1536x1024 pixels)
      Poster (3072 x 2048 pixels)
      16 Colors
      256 Colors
      Grayscale
      TrueColor

Wallet (192x128 pixels)

Shortcut

- Keys ALT + T, W

Snapshot (384x256 pixels)

Shortcut

- Keys ALT + T, P

Standard (768x512 pixels)

Shortcut

- Keys ALT + T, S

Large (1536x1024 pixels)

Shortcut

- Keys ALT + T, L

Poster (3072 x 2048 pixels)

(available only after cropping)

Shortcut

- Keys ALT + T, R

Size in pixels of the image. If the resolution of your screen is less that the resolution of the image, not all of the image will fit on the screen. In this case the image will be centered and the borders trimmed off.

Note: If you attempt to load a photo in a resolution which is not available for it, you will receive an error message.

This second set of options allows you to change the number of colors in which to display the image, choosing among:

16 Colors

Shortcut

- Keys ALT + T, 1

256 Colors

Shortcut

- Keys ALT + T, 2

Grayscale

Shortcut

- Keys ALT + T, Y

TrueColor

Shortcut

- Keys ALT + T, T

Options not supported by your display card will be grayed out.

Rotation Menu

To rotate, mirror, or a combination of both. Rotation and mirroring are performed with respect to the image As Stored. You can choose among:

Related Topics:

As Stored
Rotated 90° Counterclockwise
Rotated 180°
Rotated 90° Clockwise
Mirrored Left to Right
Mirrored & Rotated 90° C.Clockwise
Mirrored & Rotated 180°
Mirrored & Rotated 90° Clockwise

As Stored

Shortcut

- Keys ALT + R, A

Rotated 90° Counterclockwise

Shortcut

- Keys ALT + R, 9

Rotated 180°

Shortcut

- Keys ALT + R, 1

Rotated 90° Clockwise

Shortcut

- Keys ALT + R, 0

Mirrored Left to Right

Shortcut

- Keys ALT + R, M

Mirrored & Rotated 90° C.Clockwise

Shortcut

- Keys ALT + R, 9

Mirrored & Rotated 180°

Shortcut

- Keys ALT + R, 1

Mirrored & Rotated 90° Clockwise

Shortcut

- Keys ALT + R, 0