



MicroStation Raster Manager

Presented By:

Pam Roberts

CAD Assist

Introduction

About CAD Assist

CAD Assist is sole proprietorship owned by Pam Roberts. CAD Assist provides quality MicroStation Training and Services. All of our training classes are taught onsite at your facility. Each student will receive a CAD Assist training guide and certificate of completion. CAD Assist training material has been time tested. We know what works because we have trained hundreds of students. We have updated our training material based on student feedback over the last ten years. We are able to provide cost efficient training at your site on a per day rate basis instead of per student. This can include as many as 10 students per day.

We offer the following training courses:

- Upgrading to MicroStation V8
- MicroStation 2D
- MicroStation 3D
- Advanced MicroStation
- Customizing MicroStation

Since we create our own training material any course can be customized for your company.

For more information see our website: www.cadassist.com or call **816-436-1208**.

Instructor

Pam Roberts has an Associates Degree in Drafting and Design. Her 20 years of experience includes positions as CAD Operator, Intergraph and Bentley Certified MicroStation Trainer, MicroStation Support and MicroStation Sales. She began her career at Shell Offshore in New Orleans where she gained experience on the Intergraph VAX systems running IGDS. Upon advancing her career she began working for a MicroStation Reseller providing sales, services, support and training for MicroStation version 1.2. As an entrepreneur, she founded, established and eventually sold a MicroStation Reseller business located in Louisiana. She now is an independent consultant sharing her years of MicroStation experience.

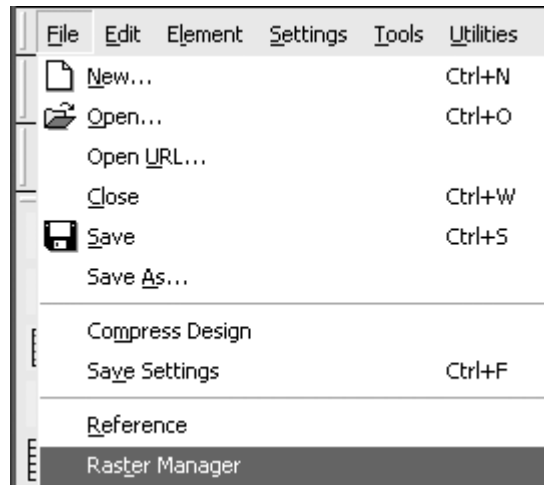
Raster Manager

Where did Raster Reference Files go in MicroStation V8? In MicroStation V7 you had two tools for using raster files with your MicroStation design file – Raster Reference Files and Image Manager. New to MicroStation V8 is the Raster Manager utility. The Raster Manager utility combines the features of Raster Reference and Image Manager. The Raster Manager lets you control all aspects of attaching and manipulating raster image files.

Starting Raster Manager

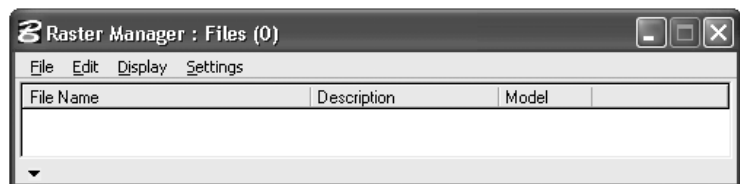
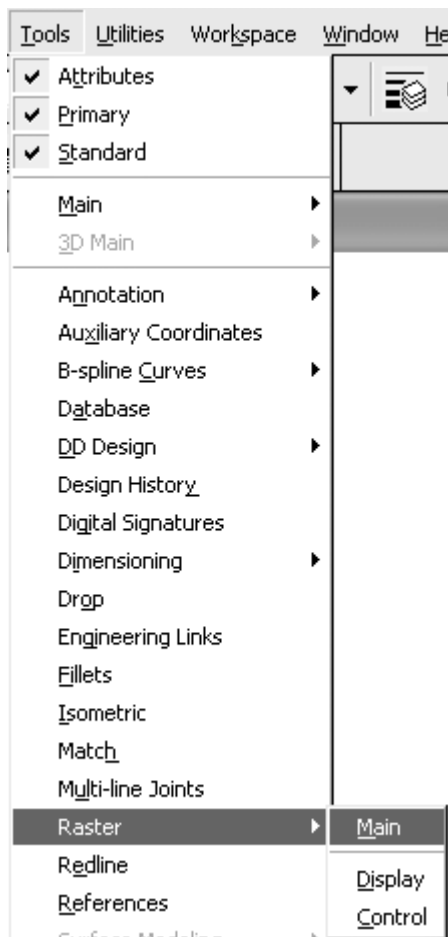
As with all MicroStation commands there are two to three ways to do everything. You can start the Raster Manager utility:

Select the **File pull-down menu -> Raster Manager**



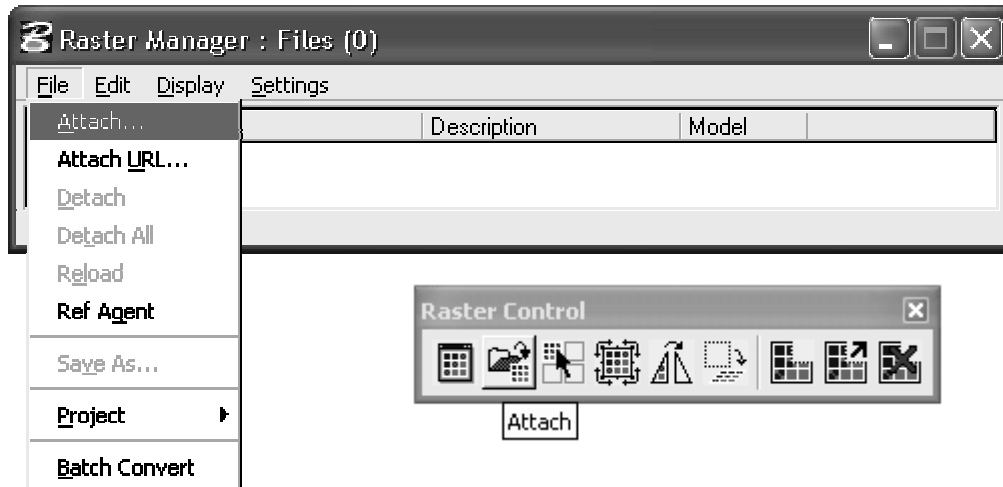
The second way to open the Raster Manager Utility is with the Raster Tool frame.

Select **Tools -> Raster -> Main**

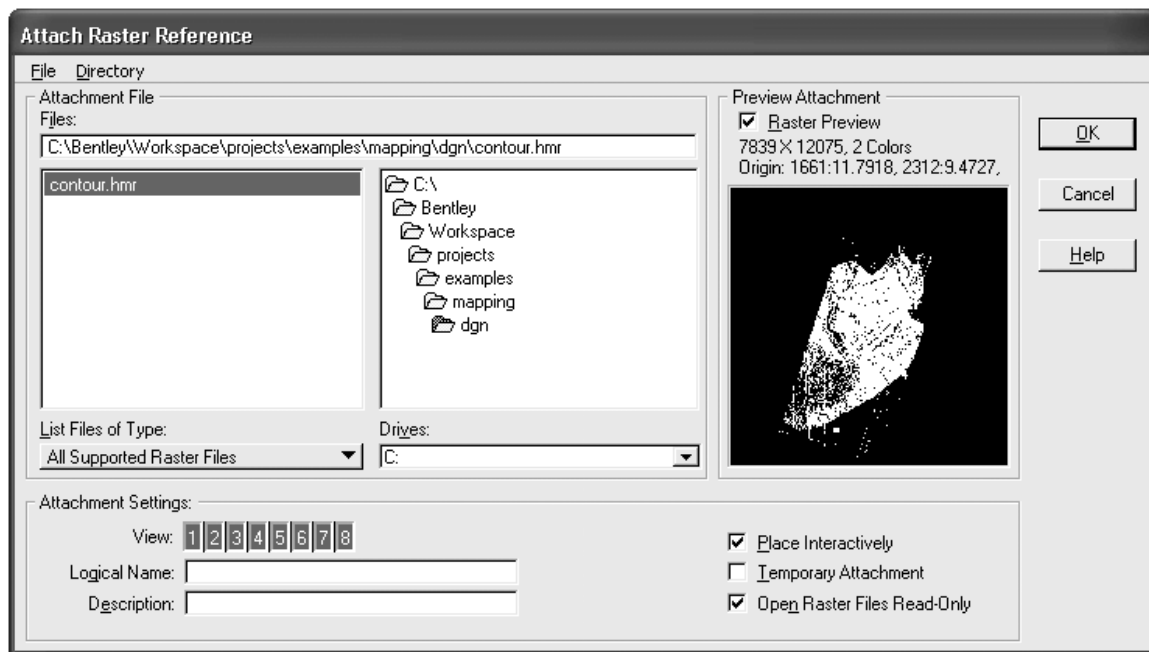


Attaching Raster Files

From the Raster Manager dialog box select the **File pull-down menu -> Attach** command.
From the icon the **Attach** button is the second button on the **Raster Control** toolbox.



The **Attach Raster Reference** dialog box will appear. Click through the directory structural to select the file to be attached.



Turn on the **Raster Preview** to see the image.

List Files of Type:

- ▶ CALS (Type I) [*.cal]
- Gegreferenced TIFF [*.tif]
- HMR [*.hmr]
- Img (24 Bit) [*.a]
- Img [*.p]
- Intergraph 29 [*.c29]
- Intergraph 30 [*.c30]
- Intergraph 31 [*.c31]
- Intergraph CIT [*.cit]
- Intergraph COT [*.cot]
- Intergraph RGB [*.rgb]
- Intergraph RLE [*.rle]
- Intergraph TG4 [*.tg4]
- Intergraph TIFF [*.tif]
- Internet TIEF [*.ITIEFF]
- JPEG (JFIF) [*.jpg]
- MrSID [*.sid]
- PCX [*.pcx]
- PNG [*.png]
- RLC [*.rlc]
- Sun Raster [*.rs]
- TIFF [*.tif]
- Targa [*.tga]
- Windows BMP [*.bmp]
- All Supported Raster Files
- All Files [*.*]

You can set a filter to see only certain types of raster files. If the option is set to **All Supported Raster Files**, you will be able to see all supported available files in that directory.

Place Interactively will prompt you to select two points in the file to place the raster. If off, the raster file will be placed at the XY location stored in the file.

Raster Display

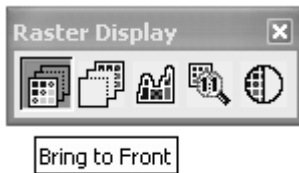
Bring to Front

The Bring to Front commands allows you to move this raster file either to the Front or One Step in front of another raster file. Select the Action from the tool settings box.

Prompts:

Bring to Front > Enter point to accept

Place data point anywhere in the view.



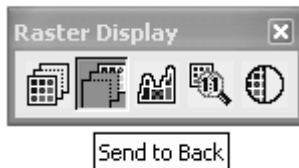
Send to Back

The Send to Front commands allows you to move this raster file either to the Back or One Step in back of another raster file. Select the Action from the tool settings box.

Prompts:

Bring to Back > Enter point to accept

Place data point anywhere in the view.



Fit

The Fit command allows you to fit the raster file or files to the view. If the Mode in the tool setting is set to All Raster, all the raster files attached will be fitted into the view. With mode set to Selected Rasters, only the selected files will be fitted in the view.

Prompts:

Fit to View

Place data point anywhere in the view.



Actual Resolution 1:1

The Actual Resolution commands will zoom in or out on the selected raster file to a resolution of one to one.

Prompts:

Actual Resolution 1:1

Place data point at the exact point to see the 1:1 resolution.



Contract / Brightness

Contrast / Brightness is used to adjust the contrast and brightness of the file.

Prompts:

Contrast/ Brightness > Set contrast and brightness values.

In the tool settings box you can type in the percentage value or slide the bar to adjust the contrast and brightness of the raster file.



Raster Control

Raster Selection

Raster Manager dialog box on the screen you can highlight the name of the selected file. Without the Raster Manager open, you may use the Raster Selection and graphically select the raster file.

Remember: Hold the control key down to select multiple files.

Prompts:

Raster Selection

Click a data point on the raster file.



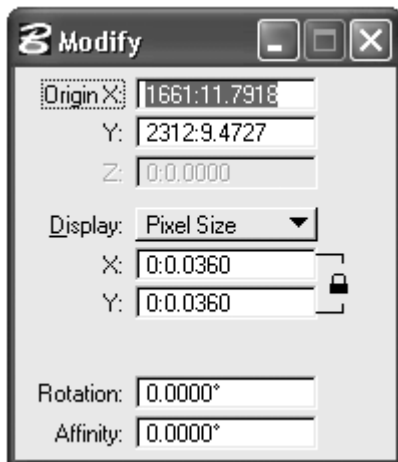
Raster Selection

Modify

The Modify is used to adjust the Origin, Pixel Size/ Scale Factor, Rotation and Affinity of an attached raster image file. Opens when **Edit > Modify** is selected in the Raster Manager dialog box or when the **Modify** tool is selected in the Raster Control toolbox



Modify



Origin sets the X, Y and Z values of the lower left corner of the raster file. The Z value is grayed out in a 2D file.

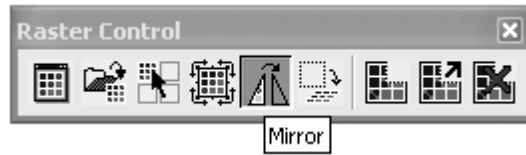
Display can be set in Pixel Size or Scale Factor.

Rotation sets the rotation angle of the raster file.

Affinity set the affinity angle of the raster file.

Mirror

Mirror the selected raster image horizontally, vertically, or diagonally. You can specify the axis about which the image is mirrored. Only one image at a time may be mirrored.

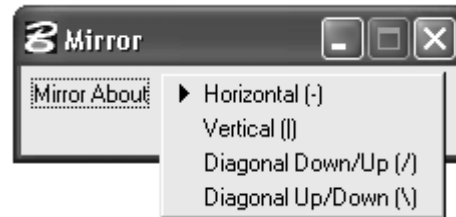


Prompts:

Mirror > Identify raster

Click a data point on the raster file.

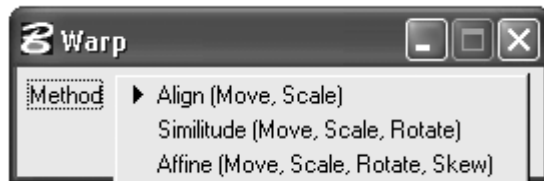
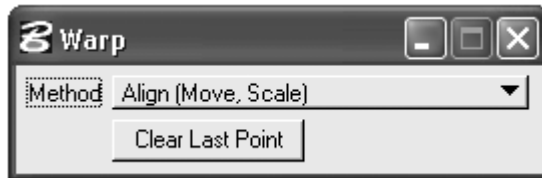
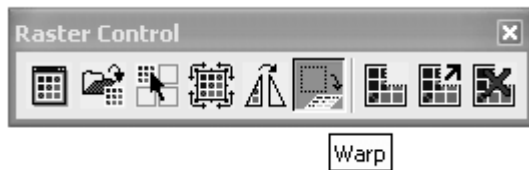
Mirror > Accept to apply specified mirror to the raster file.



Click a data point in the view, unless the Specified Axis Location is ON – then select the point to mirror about.

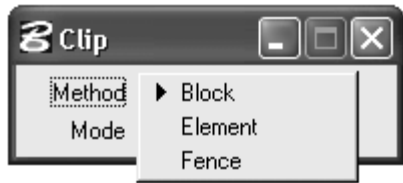
Warp

The Warp is used to adjust the size and shape of a raster image with a combination of move, scale, rotate, and skew options.



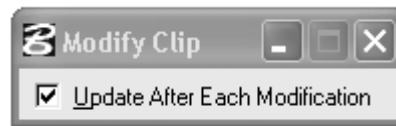
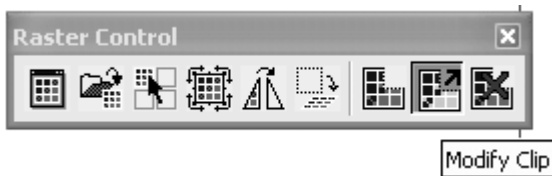
Clip

Clip is used to crop a raster image (Clip Boundary), or to define a masked area (Clip Mask). An image can have one clipping boundary, but may have a number of clipping masks.



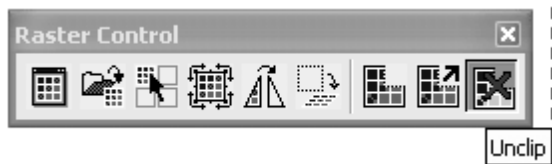
Modify Clip

The Modify Clip allows you to modify the vertex of the clip.

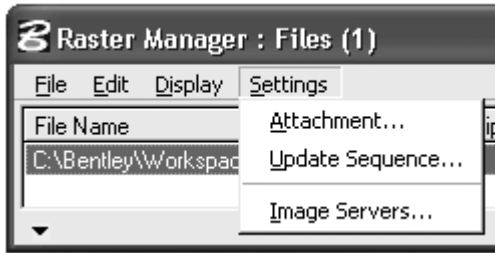


Unclip

Unclip allows you to remove the clipping polygons.

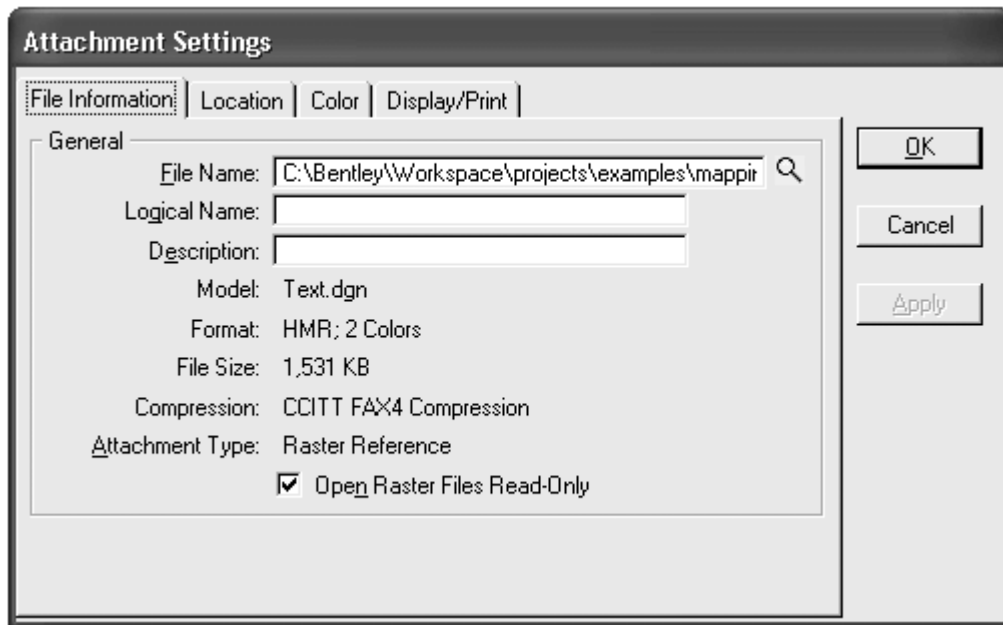


Settings



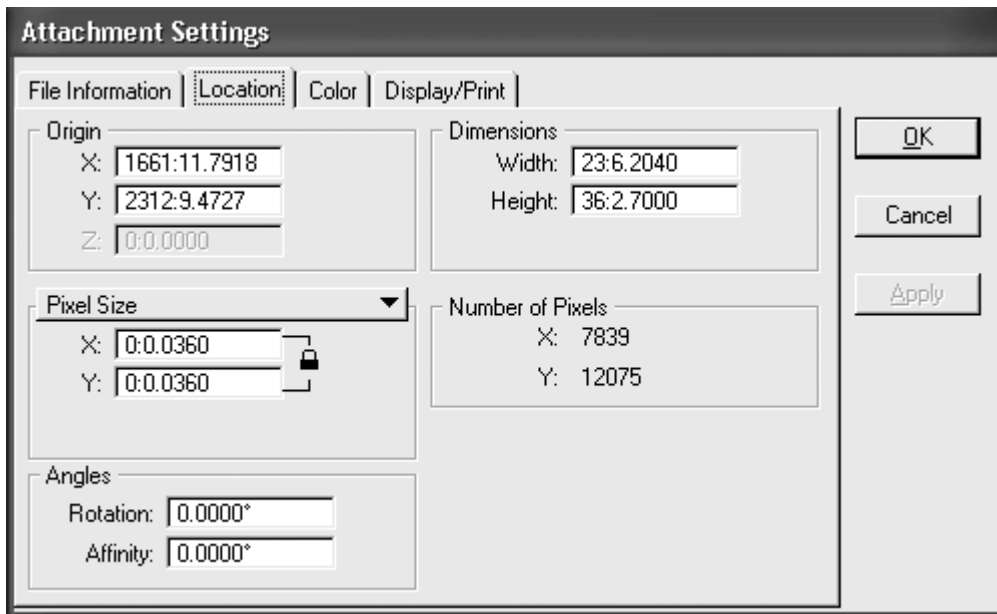
Attachment Settings FILE INFORMATION

You can modify the File Name, Logical Name and Description of the file.



LOCATION

The Location settings are the same settings as on the Modify tool.



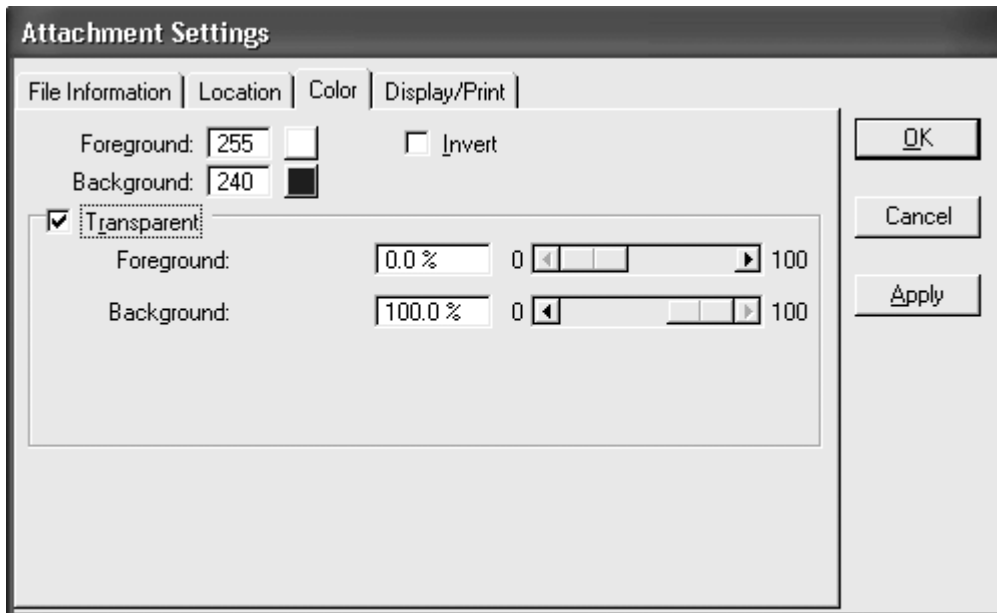
The image shows the 'Attachment Settings' dialog box with the 'Location' tab selected. The dialog has four tabs: 'File Information', 'Location', 'Color', and 'Display/Print'. The 'Location' tab contains the following settings:

- Origin:** X: 1661:11.7918, Y: 2312:9.4727, Z: 0:0.0000
- Dimensions:** Width: 23:6.2040, Height: 36:2.7000
- Pixel Size:** X: 0:0.0360, Y: 0:0.0360 (with a lock icon)
- Number of Pixels:** X: 7839, Y: 12075
- Angles:** Rotation: 0.0000°, Affinity: 0.0000°

On the right side of the dialog, there are three buttons: 'OK', 'Cancel', and 'Apply'.

COLOR

All available settings for the color display of the raster file.



The image shows the 'Attachment Settings' dialog box with the 'Color' tab selected. The dialog has four tabs: 'File Information', 'Location', 'Color', and 'Display/Print'. The 'Color' tab contains the following settings:

- Foreground:** 255 (with a white color swatch)
- Background:** 240 (with a black color swatch)
- Invert
- Transparent
- Foreground Transparency:** 0.0% (with a slider from 0 to 100)
- Background Transparency:** 100.0% (with a slider from 0 to 100)

On the right side of the dialog, there are three buttons: 'OK', 'Cancel', and 'Apply'.

DISPLAY / PRINT

In the **Display** section you can turn on and off the display of the raster file in each view.

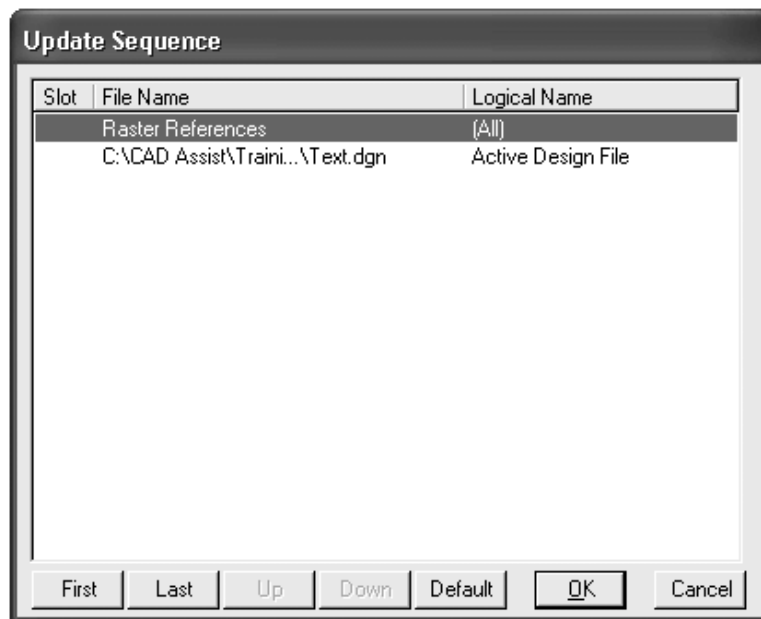
With Print on you will be able to Print the Raster file. **Remember:** Printing the raster data requires a print driver that supports raster plotting.

The General section allows you to turn on and off the ability to clip and rotate the raster file.



Update Sequence

The Update Sequence dialog box is the same box you get from Reference -> Update Sequence. This used to change the order in which the data is displayed. **Remember** with MicroStation **“What you see is what you get when you plot”**.



Raster Manager Preferences

Several preferences control the operation of Raster Manager. These are located in the Raster Manager category of the Preferences dialog box (select Workspace > Preferences > Raster Manager).

The image shows a screenshot of the 'Preferences [examples]' dialog box. The 'Raster Manager' category is selected in the left-hand list. The main area contains the following settings:

- Name for preferences: Default Preferences
- Set Raster Manager preferences:
 - Display Border Around Selected Raster
 - File Georeference Has Priority when Raster Is Loaded
 - Save Location Info in Sister File if Required
 - Open Raster Files Read-Only
 - Update MS_RFDIR Automatically for Raster Attachments
 - List Raster Attachments From Self References
- Geotiff Settings:
 - Use Unit Definition Geokey if Present (override PCS unit)
 - Geotiff Default Unit: 1 Unit = 1.000000000 Meters
- WorldFile Default Unit: 1 Unit = 1.000000000 Meters
- Recent Files List Contains: 4 Files
- Focus Item Description: (empty text box)

Buttons for 'OK', 'Cancel', and 'Defaults' are visible on the right side of the dialog.