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Handling Rasters with PCMS

Raster Prefix

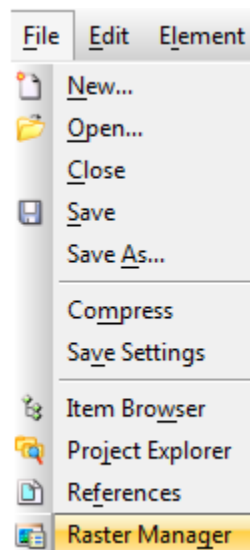
Note: A file prefix is required for **PCMS** use should you choose to keep a raster as part of your final set for printing and (or) to transfer the raster automatically to your PC upon a **PCMS** check-out. (See below).

Example: **MTRD:** (similar as references). This designation is added after the file is attached as shown below.

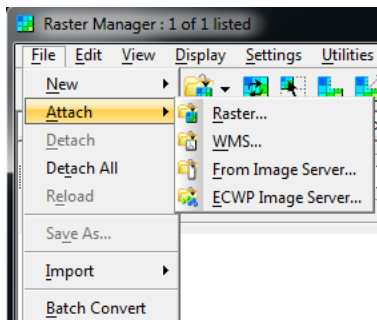
Note: If you only need this file for design and not for your final plans, you could detach the file before final submittals. This will also streamline the plotting process.

Attaching Raster

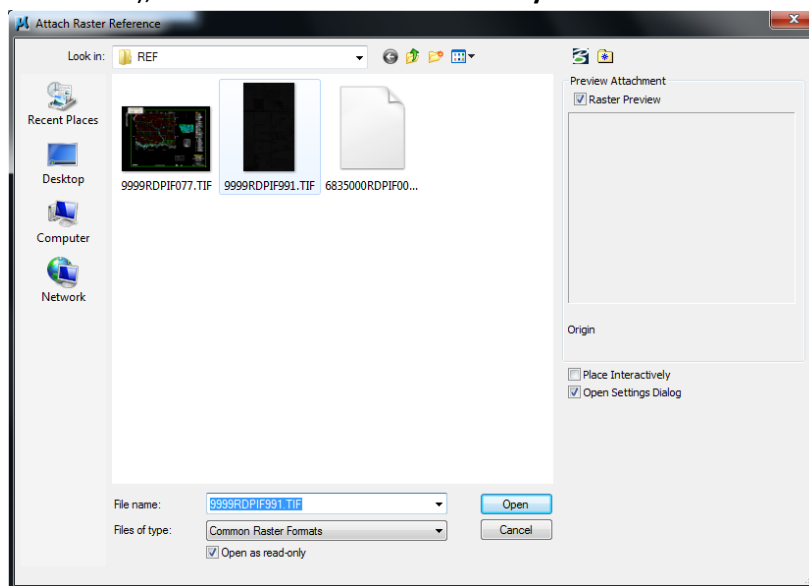
- To add raster images to your MicroStation file, Select **File > Raster Manager**



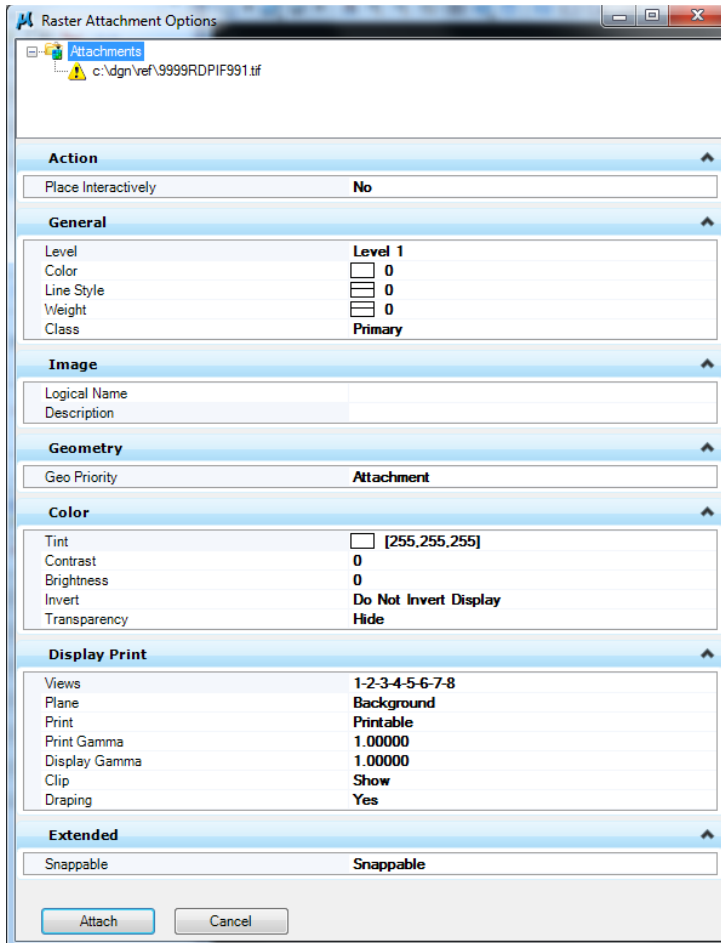
- In Raster Manager, Select **File > Attach > Raster**



- Select the desired file to attach; if your image file is Geo-referenced (to allow the image to attach at its real world coordinates), do not select **Place Interactively**.



- Then select **attach**:



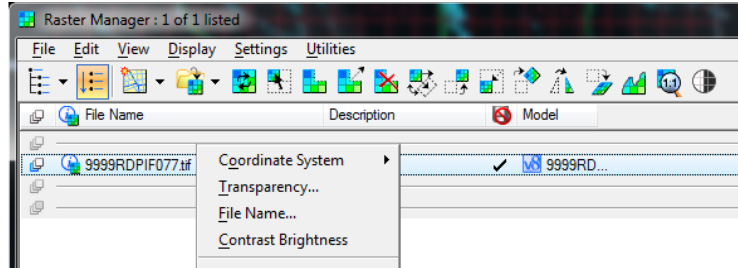
Once this file is attached, you can then utilize such commands as: **Move, Copy, Scale, Rotate, Clip**, etc...

Again: You can upload your rasters to **PCMS** along with the parent file, as you call your file down again from **PCMS**, **PCMS** will transfer the raster(s) along with the parent file.

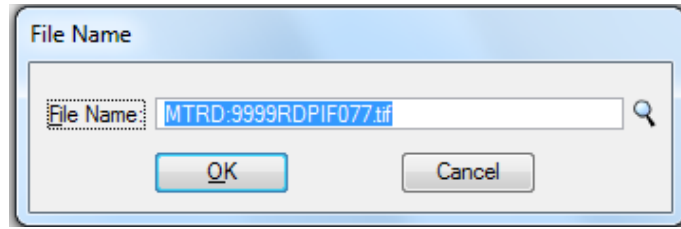
If so: Your raster(s) file naming convention should match **PCMS** standard file naming requirements. (See "**PCMS-Document-Naming-Standards**").

Remember you must use the **Upload new documents(s)** command in **PCMS** to add the raster(s) so they transfer via **Check Out, View**, etc... processes.

To add the proper file prefix: Right click the file *after the attachment is made*, then select **File name**.



Then add the proper prefix as displayed in the example below:



Again, be sure to follow the **PCMS** standard file naming requirements. (See “**PCMS-Document-Naming-Standards**”).

Descartes

You can use editing tools such as ***Descartes** to first resize and adjust these rasters. Cutting out unneeded areas of the raster can speed up plotting and file transfers. **Raster Manager** provides lower-level editing capabilities only.

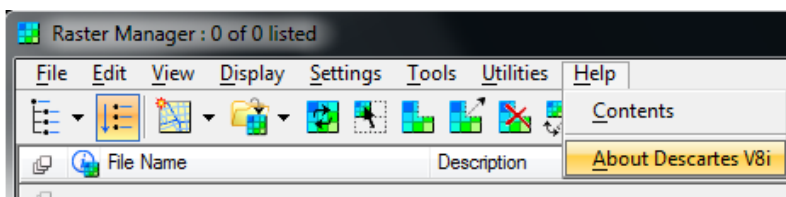
When **Descartes** is loaded it adds many additional tools to **Raster Manager**.

Loading **Descartes**: In **MicroStation**, select the pull-down menu **MDT APPS > Descartes** or for a manual load select **Utilities > MDL applications > Browse** then path to directory:

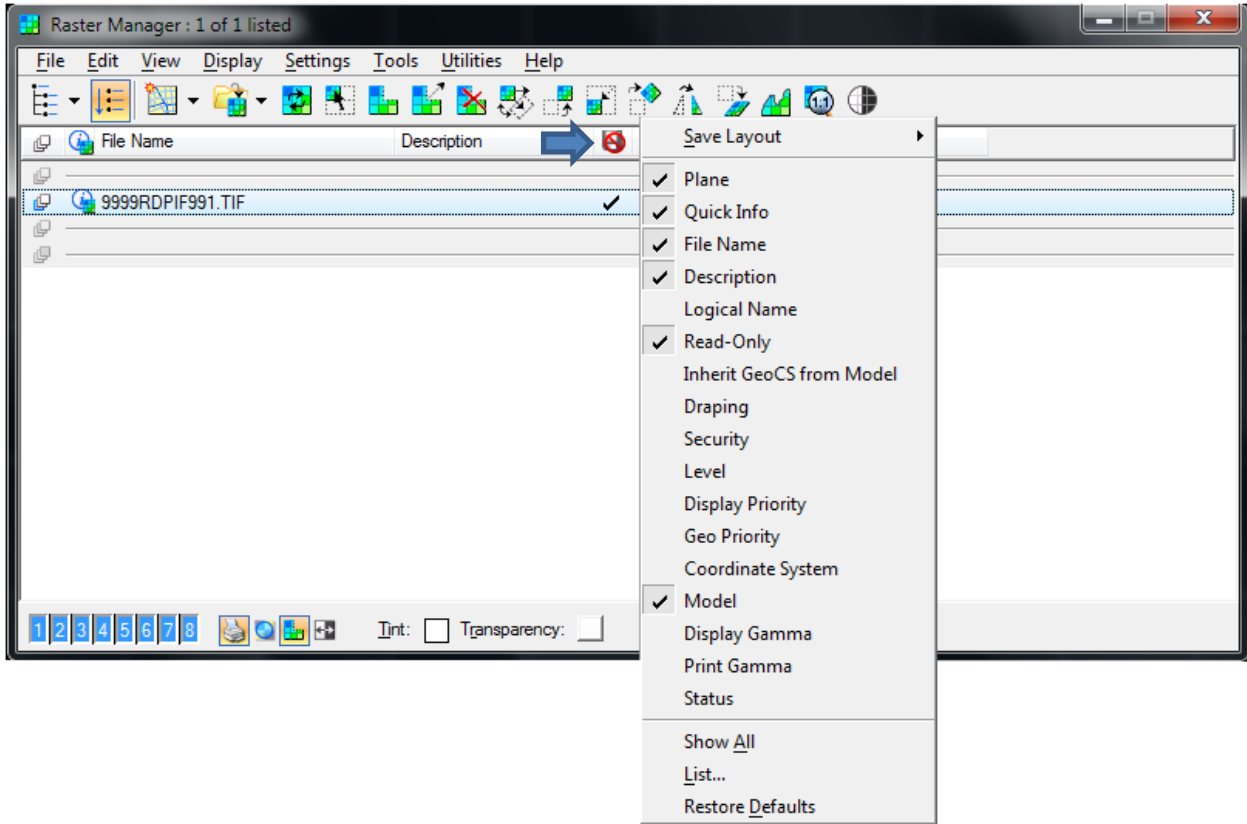
C:\Program Files (x86)\Bentley\MicroStation V8i (SELECTseries)\Descartes\mdlapps\

then select file **dcartes.ma**. (If this was the last MDL file you loaded it will retain this path the next time you require it).

*Note: When **Descartes** is activated it loads additional information (as mentioned above) into **Raster Manager**. You can confirm **Descartes** is loaded through the **Raster Manager Help** pull-down. Select **Help > Contents** and you will find all the information you need to get started using **Descartes**.



Should you choose to manipulate an image file; first remove the “read-only” option.



Cropping a Raster

The Descartes **Crop** tool allows you to remove pixels outside a specified area. Results: A crop operation is visually identical to a clip operation; **the difference is that the crop command modifies the source file while clipping will not.**

WARNING: This will physically alter the image file; you may wish to make a copy of the file before you run this process. If you examine the file outside of MicroStation (in a viewer) you will see the file itself will be cropped.

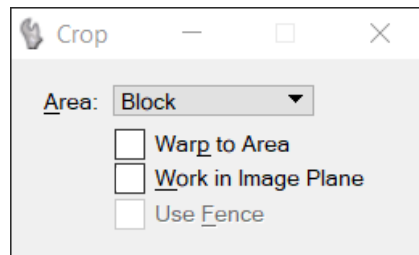
Area: Method to specify the crop area, it can be *Block*, *Oriented Block*, *Element*, and *Shape*.

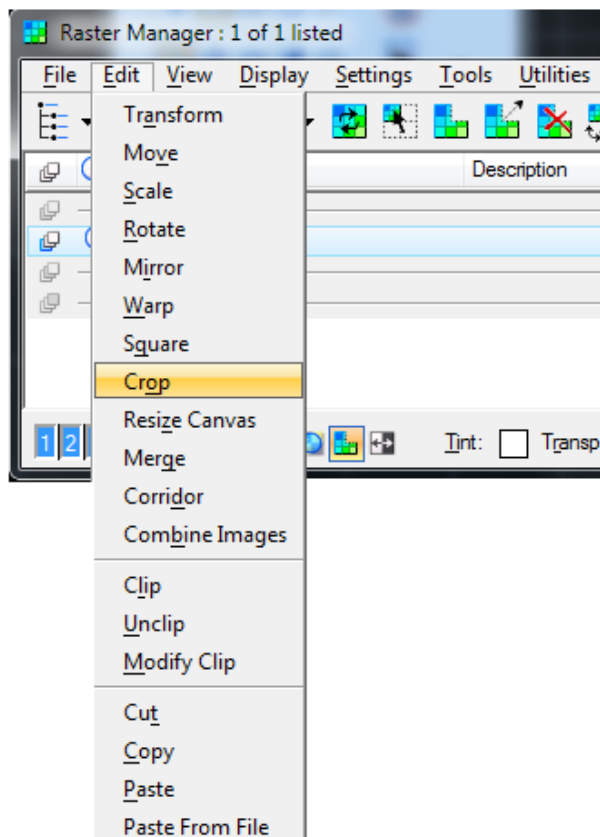
Warp to area: Results: Crop image will be warped to the smallest rectangular area enclosing the crop area.

Work in Image Plane

Use Fence: Use a fence for cropping an image.

In the Descartes menu: Select **Crop**





Again: **See above warning!**

Enter 2 points to select the desired area you wish to retain. You're finished.

Raster File Formats

Raster file formats that **MicroStation** supports:

Common Raster Formats

Common Geo Ref Raster Formats

Adobe PDF [*.pdf]
Anatech LRD [*.lrd]
Apple PICT [*.pct;*.pict]
ArcInfo ASCII Grid [*.asc;*.grd]
ArcInfo Binary Grid [*.adf]
BSB Navigation Chart [*.kap]
Bentley HMR [*.hmr]
C29 [*.c29;*.t29]
C30 [*.c30]
C31 [*.c31]
CIT [*.cit]
COT [*.cot]
CRL [*.crl;*.tpe;*.lsr]
Cals Type 1 CCITT4 [*.cal;*.cals;*.ct1]
CompuServe GIF [*.gif]
Digital Terrain Elevation Data [*.dt0;*.dt1;*.dt2]
ERMapper Compressed Wavelets [*.ecw]
ESRI BIL [*.bil]
Erdas IMG [*.img]
FLI Animation format [*.fli;*.flc]
GEO TIFF [*.tif;*.tiff]
Image RGB [*.a]
Img [*.p]
Ingr. TIFF [*.tif;*.tiff]
Internet TIFF [*.iTIFF]
Internet TIFF64 [*.iTIFF64]
JPEG 2000 [*.jp2;*.j2k;*.jpm;*.j2c;*.jpc;*.jpx;*.jpf]
JPEG [*.jpg;*.jpeg;*.jpe;*.jfif]
Landsat TM FAST-L7A [*.dat;*.fst;*.usgs]
MPF [*.mpf]
MrSID [*.sid]
MultiChannel [*.xch]
National Imagery Transmission Format [*.ntf;*.nsf]
PCX [*.pcx]
Portable Network Graphics [*.png]
RGB Compressed [*.rgb]
RGB [*.rgb]
RLC [*.rlc]
RLE [*.rle]
SPOT CAP [*.fil]
Sun Raster [*.rs;*.ras]
TG4 [*.tg4]
Tag Image File Format [*.tif;*.tiff]
Targa [*.tga]
USGS DEM ASCII [*.dem]
USGS Digital Ortho Quad [*.doq]
USGS NDF File Format [*.h1;*.h2;*.h3;*.usgs]
USGS SDTS DEM [*.catd.ddf]
Web Map Server [*.xwms]
Windows BMP [*.bmp;*.dib]
Wireless BitMap [*.wbmp]