MrSID™ Viewer for MicroStation Beta 2.0

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Introduction

The MrSID Viewer for MicroStation displays images stored in MrSID format while working in a MicroStation graphics session.

The intent of this viewer is to demonstrate the power of MrSID as an imaging environment. LizardTech would like your support in urging Bentley Systems to incorporate MrSID as a natively supported image format. Please contact Bentley and suggest that they “get you MrSID.”

This is beta software and is for demonstration purposes only. There is no warranty or other guarantee of fitness of this software for any purpose. It is provided solely “as is. ”

Installation

Double-click on the **MrSID_MS.exe**. Follow the screen prompts to complete the installation.

Operation

Image Viewing

The MrSID Viewer for MicroStation displays geo-referenced images stored in MrSID format while working in a MicroStation graphics session. For display in MicroStation, MrSID images *must* have an associated world file (extension.sdw).

When a .sdw file is located and can be mapped to the coordinate system that exists in the active design file, the viewer displays imagery at an optimum resolution for the current view extents. For display, the user may select “background painting” or “raster reference” for the refresh method. As the user changes the view extents, the image is refreshed by the viewer, changing the resolution of the decompressed image as required.

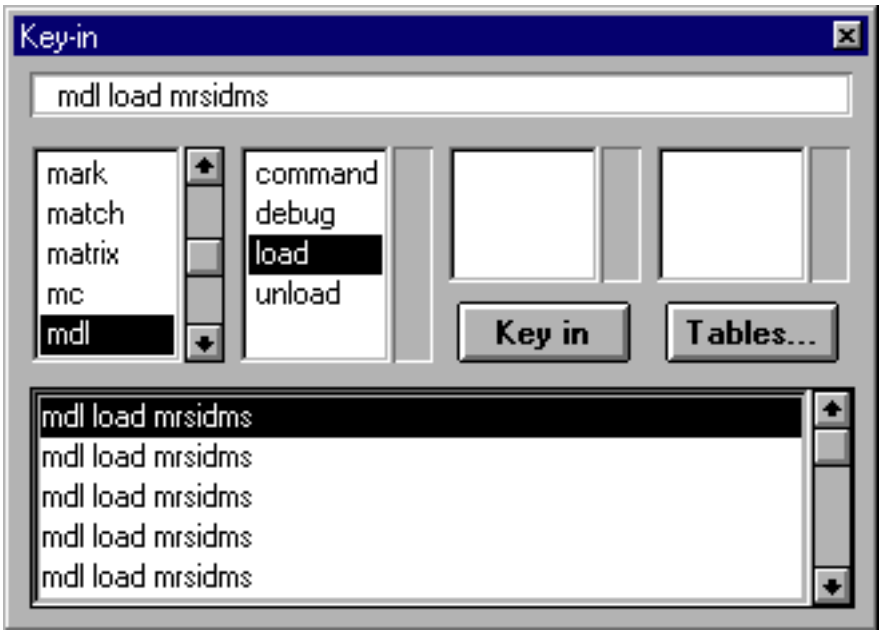
Working Units

While MrSID only decompresses a small portion of an image during the viewing process, the image is always geographically accurate. Therefore, the working size of the design file must be as large or larger, geographically, than the geographic size of the MrSID image. When opening a MrSID image, configure the working unit settings to provide an adequate working area for the full pixel width and height of the MrSID image being viewed. If the working units setting is insufficient, the error shown on page 5 is returned.

Working with MrSID files

Key-in and Select a MrSID File

To run the viewer, key in **mdl load mrsidms** while in MicroStation, or select **mrsidms** from the MicroStation interactive mdl dialog box.



The Key-in dialog box. Select mdl load mrsidms and click Key In.

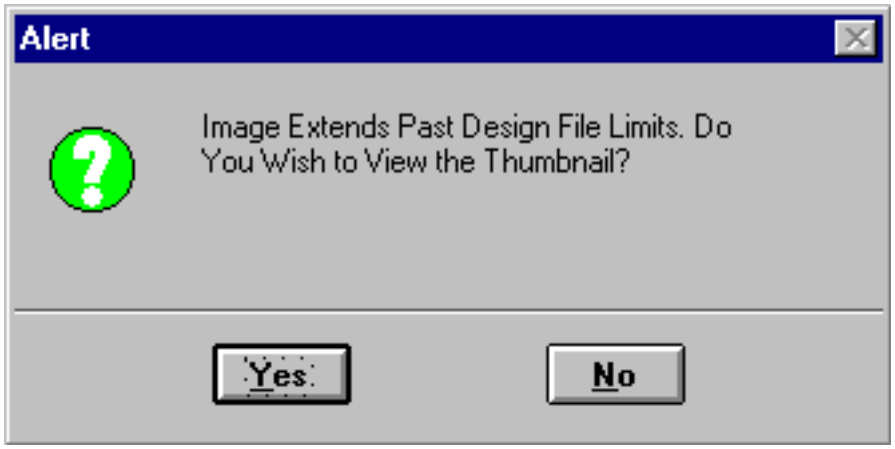
The *Select MrSID File* dialog box appears.

The Select MrSID File dialog box. Select an image and click **OK**.

Select the MrSID (.sid) file you want to work with in MicroStation and click *OK*.

Working Units Error

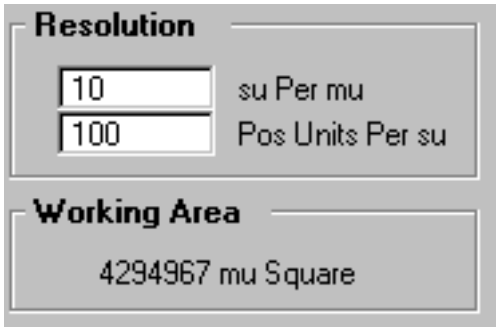
If the working units do not outline a design file large enough hold the width and height of the entire image, the following error is returned:



The alert produced by a Working Units error.

Selecting *Yes* brings up the *Select Pixel Resolution* option. This option is currently disabled; the only option for viewing an oversized image is to adjust the working units.

To enlarge the working size of the design file, select the Settings menu option and click *Design File*.... From the list of options, select *Working Units*.

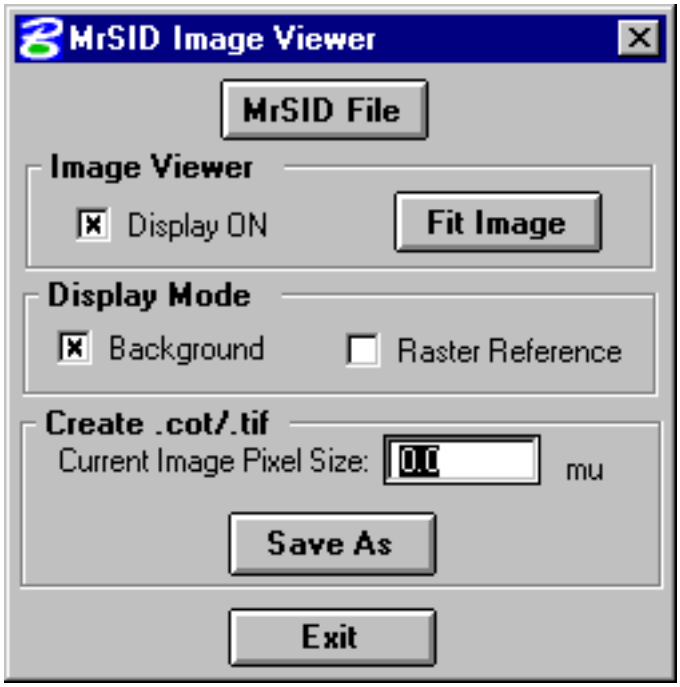


Change the working area in the Working Units dialog box.

The Working Area section displays the functional size of the design file. To increase this size, decrease the value in the *Pos Units Per su* field. As this field is decreased by factors of ten, the *Working Area* is increased by a factor of ten. Increase the Working Area until the design file is substantial enough to display the entire width and height of the image.

The MrSID Image Viewer Dialog Box

The MrSID Image Viewer Dialog Box Selecting a MrSID image to view opens the MrSID Image Viewer dialog box.



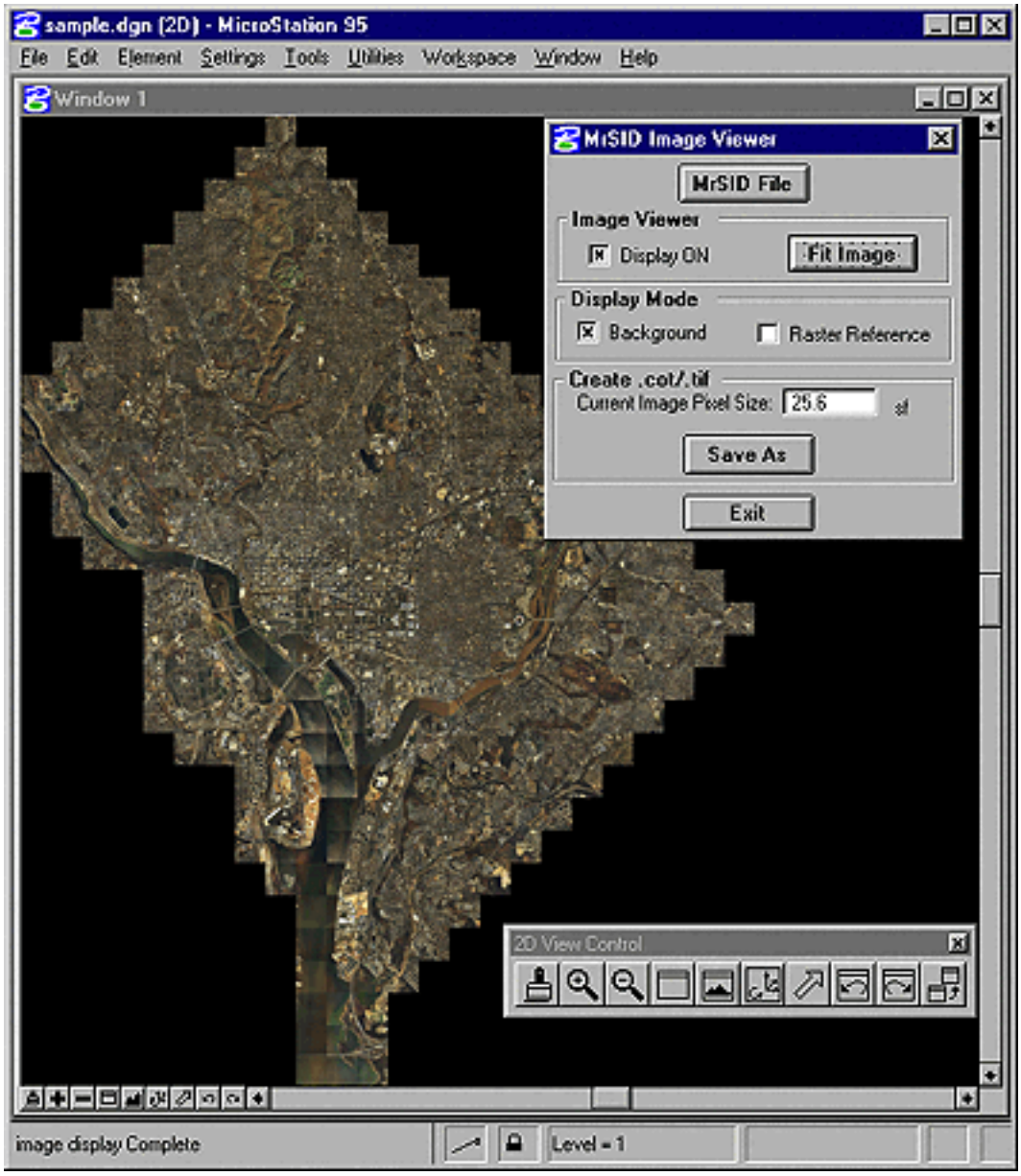
The MrSID Image Viewer dialog box.

To view the selected image, click once on the Fit Image button.

Sample MrSID Views

The image shown below is a 480 Mb MrSID file. The mosaic was created from 19.7 Gb of 1/2 meter-per-pixel TIFF images of the Washington DC area.

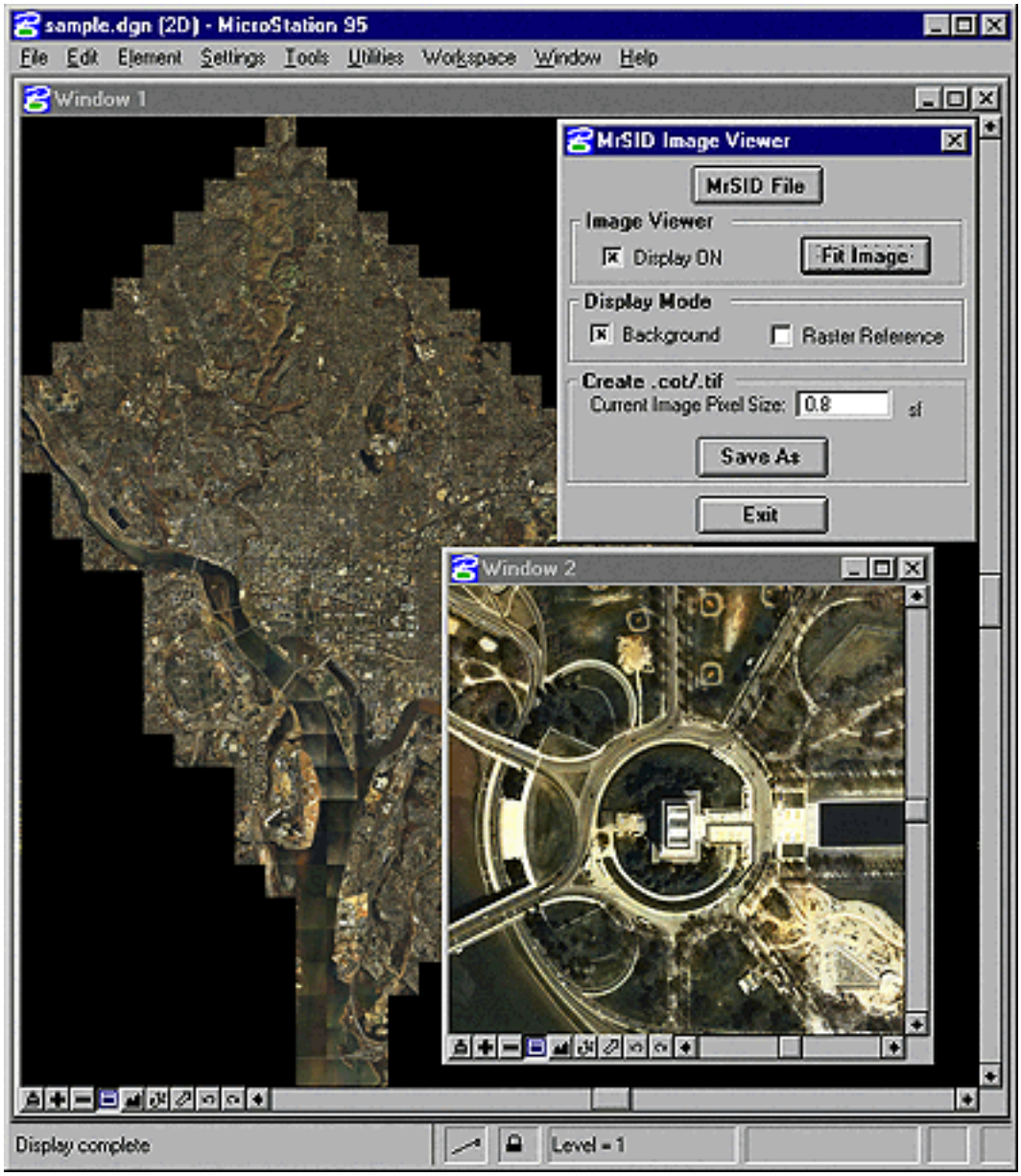
Twenty gigabytes of image data viewed using the MrSID Microstation Viewer.



Additional Windows

Adding windows and viewing details in the image is quick and effortless.

Multiple views of the same image in Microstation.



MrSID Image Viewer controls

MrSID File

Opens a dialog box for selecting the MrSID image you want to display.

Image Viewer

The **Display ON** selection literally controls the decompression and display process for MrSID imagery. The **Fit Image** button brings you back to the thumbnail view of the image when first opened.

Display Mode

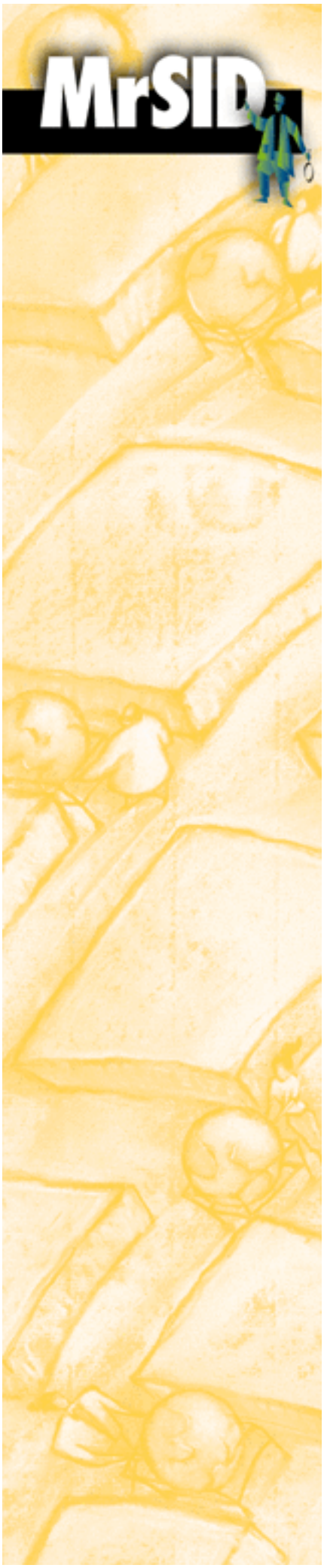
Background; in this mode, the mdl intercepts changes in the window and repaints the necessary imagery (from memory) to the window prior to MicroStation displaying other data. The MicroStation engine is not really “aware” of the imagery. The imagery is not available for printing and is not persistent once the mdl application is exited. This method takes full advantage of MrSID’s selective decompression feature and does not have to manage raster reference files.

Raster Reference

This is a MicroStation method for attaching external image files. In this mode, the mdl creates an Intergraph COT image file on the fly, then directs MicroStation to attach (open) that external file. This attachment or view of the imagery can be persistent or permanent (and plotted). When you exit the mdl in this mode, you are prompted whether to retain the image as a raster reference file. If you say yes, the image will remain after the mdl is exited. If you use the MicroStation **Raster Reference File** dialog, you will see the COT file listed as an attached file.

Create .cot/.tif

For printing, the user should use the Save As button to create an external .cot or .tif file. You can then attach the.cot/.tif file as a raster reference file using the MicroStation **Raster Reference File** dialog and work with it for printing as you would any image file. The resolution of the currently displayed image is shown in the Pixel box. The user can increase the resolution of the saved image in order to increase the number of pixels (i.e., the resolution) of the saved file. This is necessary for printing to a device at greater than screen resolution. This is one area, in particular, that until LizardTech, Inc. has direct support for this effort from Bentley will be an issue with end users. It is simply not practical to decompress back out to your original image size (in our example 16 Gb of imagery!) to support printing. MrSID has the ability to pass back any resolution needed and you will have to play with the Image Pixel size in order to get acceptable print quality.



Native Support

The goal for LizardTech, Inc. is to have native support for the MrSID image format for MrSID in MicroStation. Please make sure you provide feedback to Bentley about MrSID!

Release Notes

The MicroStation Viewer does not support mapped image viewing when the view has been rotated.

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Contacting LizardTech

LizardTech, Inc.
1008 Western Ave • 2nd Floor • Seattle, WA 98122
Phone 206.652.5211 • Fax 206.652.0880
http://www.lizardtech.com

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