

LizardTech MrSID Reader

FORMAT NOTES:

- This format is not supported by FME Base Edition.
- This format is supported only on the 32-bit Windows platform.

Overview

The MrSID Reader allows FME to read data in LizardTech's MrSID format¹.

MRSID Quick Facts

| | |
|-------------------------------|---------------------------------------|
| Format Type Identifier | MRSID |
| Reader/Writer | Reader |
| Licensing Level | Professional |
| Dependencies | None |
| Dataset Type | File |
| Feature Type | MRSID or <source_dataset_filename> |
| Typical File Extensions | .sid |
| Automated Translation Support | Yes |
| User-Defined Attributes | Yes |
| Coordinate System Support | Through TAB files |
| Generic Color Support | No |
| Spatial Index | No |
| Schema Required | No |
| Transaction Support | No |
| Encoding Support | No |
| Geometry Type | mrsid_type |

| Geometry Support | | | |
|------------------|------------|----------|------------|
| Geometry | Supported? | Geometry | Supported? |
| aggregate | no | point | no |
| circles | no | polygon | no |
| circular arc | no | raster | yes |
| donut polygon | no | solid | no |
| elliptical arc | no | surface | no |
| ellipses | no | text | no |
| line | no | z values | no |
| none | no | | |

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| | |
|-------------------------------|---|
| Band Interpretations | Red8, Red16, Green8, Green16, Blue8, Blue16, Alpha8, Alpha16, Gray8, Gray16 |
| Palette Key Interpretations | UInt8, UInt16 |
| Palette Value Interpretations | RGBA32 |
| Nodata Value | Any. Nodata values must be the same across all color components. |
| Cell Origin (x, y) | 0.5, 0.5 |
| Rotation Support | No |
| GCP Support | Through TAB files |
| World File Support | No |
| TAB File Support | Yes |

Reader Overview

The FME considers a single MrSID file to be a dataset. The MrSID file contains pixel data. Each pixel in the file is a point in a single FME raster feature.

Reader Directives

The directives that are processed by the MrSID reader are listed below. The suffixes shown are prefixed by the current <ReaderKeyword>_ in a mapping file. By default, the <ReaderKeyword> for the MrSID reader is MRSID.

DATASET

Required/Optional: *Required*

The value for this keyword is the name of a single MrSID file. The normal extension for the file is .sid.

An example of the DATASET keyword in use is:

```
MRSID_DATASET "C:\DATA\MRSID\seattle.sid"
```

GROUP_BY_DATASET

Required/Optional: *Required*

The value for this directive is either Yes or No. When the value is set to No, the only feature type this reader will use is the reader type name, which in this case is MRSID. When the value is set to Yes, the feature type of each dataset is the filename (without the path or the extension) of the dataset. The default value for this directive is No.

An example of the GROUP_BY_DATASET keyword in use is:

```
GROUP_BY_DATASET "Yes"
```

FME Raster Features

FME raster features represent raster data and use several concepts that are unlike those used in the handling of vector data. See *About FME Rasters* on page 13.

Feature Representation

In addition to the generic FME feature attributes that FME Workbench adds to all features (see *About Feature Attributes* on page 7), this format adds the format-specific attributes described in this section.

MrSID features specify a matrix of x, y, and z coordinates. For each raster, there will only be a single feature returned.

| Attribute Name | Contents |
|--|--|
| <code>mrsid_type</code> | This will always be <code>mrsid_raster</code> . |
| <code>mrsid_image__dynamic_range_window</code> | This represents a custom contrast setting. This is a reader attribute. |
| <code>mrsid_image__dynamic_range_level</code> | This represents the custom brightness setting. This is a reader attribute. |
| <code>mrsid_image__input_file_size</code> | This represents the size of the input image or mosaic in bytes. This is a reader attribute. |
| <code>mrsid_image__input_format</code> | This represents the name of the input image type. This is a reader attribute. |
| <code>mrsid_image__input_lut</code> | This represents a color lookup table stored as an array of 256*3 values, one value for each band (R,G,B) for each of the 256 entries in the table. This is a reader attribute. |
| <code>mrsid_image__input_name</code> | This represents the filename of the input image. This is a reader attribute. |
| <code>mrsid_image__compression_block_size</code> | This represents the block size used in MRSID encoding. This is a reader attribute. |
| <code>mrsid_image__compression_gamma</code> | This represents the g-weight value used in MRSID encoding. This is a reader attribute. |
| <code>mrsid_image__compression_version</code> | This represents the version of encoder used. This is a reader attribute. |
| <code>mrsid_image__compression_weight</code> | This represents the weight value used in MRSID encoding. This is a reader attribute. |
| <code>mrsid_image__creation_date</code> | This represents the date and time of image encoding. This is a reader attribute. |
| <code>mrsid_image__compression_nlev</code> | This represents the number of zoom (resolution) levels in the image. This is a reader attribute. |

| Attribute Name | Contents |
|--|--|
| mrsid_image__statistics_max | This represents the maximum sample values for each band in the input image. The number and data type of the values correspond to the number of bands and sample type of the image. This is a reader attribute. |
| mrsid_image__statistics_min | This represents the minimum sample values for each band in the input image. The number and data type of the values correspond to the number of bands and sample type of the image. This is a reader attribute. |
| mrsid_image__statistics_mean | This represents the average value of all samples for each band. This is a reader attribute. |
| mrsid_image__statistics_standard_deviation | This represents the standard deviation of all samples for each band. This is a reader attribute. |
| mrsid_image__target_compression_ratio | This represents the compression ratio used for encoding. This is a reader attribute. |
| mrsid_image__z_origin | This represents the z-coordinate of the origin. Cell values in the raster are relative to this origin. This is a reader attribute. |
| mrsid_image__z_resolution | This represents the georeferencing pixel resolution in the z-direction. This is a reader attribute. |
| mrsid_image__no_dither | The presence of this attribute indicates the image is not dithered. This is a reader attribute. |