

ARC Standard Raster Product (ASRP) Reader

FORMAT NOTES:

- This format requires the Advanced Raster Pack license. Contact Safe Software for information.

The ARC Standard Raster Product (ASRP) Reader allows the Feature Manipulation Engine (FME) to access data in the ASRP format.

Overview

ASRP is a military format that conforms to the ISO 8211 standard, and its data is derived directly from ADRG.

ASRP data is divided into geographic data sets as Distribution Rectangles (DRs). ASRP directories contain a general information file (.GEN extension) and one or more ASRP zone distribution rectangle (ZDR) image files (.IMG extension). The GEN file provides image parameters and support data for the ZDR image files associated with a DR. For each dataset, image data within a ZDR image file is returned as a single feature, since this feature will contain the entire image data of one ZDR image file.

All ASRP data is assumed to be in LL84. Data in polar zones will be automatically converted to LL84, which may result in some distortion of the image.

ASRP Quick Facts

Format Type Identifier	ASRP
Reader/Writer	Reader
Licensing Level	Advanced Raster Pack
Dependencies	None
Dataset Type	File
Feature Type	ASRP or <general_information_filename>
Typical File Extensions	.gen and .img
Automated Translation Support	Yes
User-Defined Attributes	Through TAB files
Coordinate System Support	Yes
Generic Color Support	No
Spatial Index	No
Schema Required	No
Transaction Support	No
Geometry Type Attribute	asrp_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		

Band Interpretations	not applicable
Palette Key Interpretations	UInt8
Palette Value Interpretations	RGB24
Interleave Type	BSQ (band sequential)
Nodata Value	0,0,0
Cell Origin	0.5
Multi-Band	No
Multi-Palette	No
World File Support	No
TAB File Support	Yes

Reader Overview

FME considers a single ASRP general information file to be a dataset. The ASRP general information file contains the ZDR image file names. The image files are raster files containing pixel data, and each pixel in the file is a point in a single FME raster feature.

Reader Directives

The suffixes shown are prefixed by the current <ReaderKeyword> in a mapping file. By default, the <ReaderKeyword> for the ASRP reader is ASRP.

DATASET

Required/Optional: *Required*

The value for this directive is the name of a single ASRP general information file. The normal extension for the general information files is `.gen`.

An example of the DATASET directive in use is:

```
ASRP_DATASET "C:\DATA\ASRP\AGCA0101.GEN"
```

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 ASRP. 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.

ASRP features specify a matrix of x, y coordinates and 3-byte RGB pixels.

Attribute Name	Contents
asrp_type	This will always be <code>asrp_raster</code> .

asrp_noz	The number of zone image files.
asrp_rty	The record id number.
asrp_prt	The product type.
asrp_nam	The ZDR image name.
asrp_zna	The ARC zone number.
asrp_swo	The westernmost longitude of the extent within the zone (including the overlapped region) of the unpadded cartographic image in arc degrees.
asrp_swa	The southernmost latitude of the extent within the zone (including the overlapped region) of the unpadded cartographic image in arc degrees.
asrp_neo	The easternmost longitude of the extent within the zone (including the overlapped region) of the unpadded cartographic image in arc degrees.
asrp_nea	The northernmost latitude of the extent within the zone (including the overlapped region) of the unpadded cartographic image in arc degrees.
asrp_arv	The ARC value Asz (adjusted for scale and zone), which is the number of pixels per 360 degrees longitude.
asrp_brv	The ARC value Bs (adjusted for scale), which is the number of pixels per 360 degrees latitude.
asrp_lso	The longitude of the upper left corner of the ZDR image in WGS 84 coordinates.
asrp_pso	The latitude of the upper left corner of the ZDR image in WGS 84 coordinates.
asrp_txt	Free text (e.g., digitizing system description).
asrp_nul	The row number of the upper right corner of the ZDR image (in pixels).
asrp_nus	The column number of the upper right corner of the ZDR image (in pixels).
asrp_nll	The row number of the lower left corner of the ZDR image (in pixels).
asrp_nls	The column number of the lower left corner of the ZDR image (in pixels).
asrp_nfl	The image height (in tiles).
asrp_nfc	The image width (in tiles).
asrp_pnc	The number of pixels per tile row.
asrp_pnl	The number of rows per tile.
asrp_pcb	The number of bits per pixel count.
asrp_pvb	The number of bits per pixel value.

asrp_bad	The GEO DATA FILE name.
asrp_ws1	The ON-color-code value (0 - 255)
asrp_ws2	The OFF-color-code value (0 - 255)
asrp_tif	The tile index map flag (true indicates there are tiles with no data; false indicates that all tiles contain RGB graphic data).
