

Format Transformations

Input Format	Output Format	Comment	Prioritizations							
			ATM	EN	GEO	IMG	PPI	RINGS	RS	SBN
PDS3 Image	BMP, GIF, JPEG, JPEG2000, PNG, PNM, RAW, TIFF, WBMP	These output formats are included in the Java Advanced Imaging library which is included in the MIPL Transcoder library.								
PDS3 Label	PDS4 Label	This conversion is supported by the Generate Tool and pds.docgen tools as well as Node-specific implementations.								
PDS4 Binary Table* (Table_Binary)	FITS	See Binary Data Type Conversion below for details.								
	PDS4 Character Table									
PDS4 Character Table** (Table_Character)	CSV	PDS Table Character to selected standard implementation(s) of CSV.								
	FITS	Note that FITS does not allow UTF-8, so if we do it might not be possible to translate an arbitrary PDS4 character table into FITS.								
	PDS4 Delimited Table	See PDS4 Delimited Separated Value (DSV) standard.								
	VOTable									
PDS4 Delimited Table** (Table_Delimited)	CSV	PDS DSV to selected standard implementation(s) of CSV.								
	FITS	Note that FITS does not allow UTF-8, so if we do it might not be possible to translate an arbitrary PDS4 character table into FITS.								
	PDS4 Character Table									
	VOTable									
PDS4 2D Image* (Array_2D_Image)	BMP, GIF, JPEG, JPEG2000, PNG, PNM, RAW, TIFF, WBMP	These output formats are included in the Java Advanced Imaging library which is utilized by the PDS4 Tools library.								
	FITS	See Binary Data Type Conversion below for details.								
	PDF									
	PDS3 Image	Including a minimal PDS3 label.								
	VICAR	Since the VICAR standard accommodates various binary encoding forms, we would definitely need to support byte order inverting, and possibly conversion from IEEE real to VAX real if we think there will be demand. See Binary Data Type Conversion below for details								
PDS4 3D Image* (Array_3D_Image)	ENVI Image Cube	The better option may be to generate a format that ENVI supports, allowing ENVI users to perform local transformations.								
	ISIS-3	Perhaps the ISIS folks will supply a plug-n-play module for the PDS System to apply?								
	Multi-Dimensional Array	For example, a plain 3D raster array (no header or other additional objects).								
PDS4 3D Hyper-Spectral Cube* (Array_3D_Spectrum)	ENVI Image Cube	The better option may be to generate a format that ENVI supports, allowing ENVI users to perform local transformations.								
	ISIS-3	Perhaps the ISIS folks will supply a plug-n-play module for the PDS System to apply?								
	Multi-Dimensional Array	For example, a plain 3D raster array (no header or other additional objects).								
PDS4 Label	Object Description Language (ODL)	This can be supported by XSLT-based transformations in the Transform Tool.								
	Parameter Value Language (PVL)	This is supported by XSLT-based transformations in the Transform Tool.								
PDS4 Map* (Array_2D_Map)	GeoTIFF									
PDS4 Movie* (Array_3D_Movie)	Animated GIF									
	Flash									
	MPEG									

*Binary Data Type Conversion PDS4 data structures with binary data types. Convert LSB to MSB or conversely. (See the PDS4 Information Model for a complete list of all binary data types and byte orderings.)

**Character Data Type Conversion PDS4 data structures with Character data types. Note that FITS does not allow UTF-8. (See the PDS4 Information model for a complete list of all character data types and character encodings.)