NAME

xil_compress – compress an image and write it to a compressed image sequence

SYNOPSIS

#include <xil/xil.h>

void xil_compress (XilImage *src***,**
XilCis *cis***);**

DESCRIPTION

This function compresses an image and writes the compressed data to a compressed image sequence (CIS). If the source image is a SEQUENTIAL device image, the function may compress multiple frames during a single execution.

src is the image (possibly a device image) containing the uncompressed data to be compressed. *cis* is the compressed image sequence to which the compressed data will be written. This object knows which compressor should be used to compress the data.

This function appends the compressed image at the CIS's current *write_frame* location, and then increments *write_frame.* Note that even after the **xil_compress** () operation occurs, the data for that frame is not guaranteed to be gotten by an **xil_cis_get_bits_ptr**(3) function, nor to be detectable by an **xil_cis_has_data**(3) operation, until **xil_cis_flush**(3) is called.

XIL Compressors

The XIL library provides the functions necessary to compress and decompress an image or sequence of images. This compressed data is stored in an object called a compressed image sequence (*XilCis*). A standard XIL compressor provides the following functions:

Compresses data and places it in a compressed image sequence (CIS).
Determines how much data a CIS contains.
Gets a pointer to compressed data in a CIS.
Empties a CIS.

A standard XIL decompressor provides the following functions:

Copies compressed data to a CIS.
Tells the decompressor to use the compressed data pointed to as the compressed data for a CIS.
Decompresses a frame of image data from a CIS and puts it in an image object (*XilImage*).
Locates a frame in a compressed image structure.
Determines the number of frames between the current frame and the end of the sequence, inclusive.

The XIL library supports a number of compression formats, including CCITT G3/G4, JPEG, Cell and CellB, MPEG-1, and H.261 formats.

ROI Behavior

This function does not support source image ROIs.

ERRORS

For a complete list of XIL error messages by number, consult Appendix B of the *XIL Programmer's Guide.*

EXAMPLES

Compress an image into a compressed image sequence:

```
XilImage src;
XilCis cis;
XilImageType type;
XilSystemState State;

type = xil_cis_get_input_type(cis);
src = xil_create_from_type(State, type);
/* generate the src image... */
xil_compress( src, cis );
```

NOTES

The *XilImageType* of the source image must match the input *XilImageType* of the CIS. Use **xil_cis_get_input_type**(3) to determine the required type.

SEE ALSO

xil_decompress(3), **xil_cis_get_bits_ptr**(3), **xil_cis_get_input_type**(3), **xil_cis_create**(3), **xil_cis_number_of_frames**(3), **xil_cis_flush**(3).