IOJpeg

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Abstract

Output method using the jpeg format

1 Use

Thorn IOJpeg provides 2D images from grid functions in jpeg format, these images are currently intended to be used for two purposes:

- Monitoring from Web Server Jpeg images can be directly visualised in the *viewport* provided by thorn CactusConnect/HTTPDExtra. For the images to be advertised to the Web Server the parameter iojpeg::mode = ''remove'' must be used.

- Constructing Movies A series of jpeg movies can easily be used to construct a time series movie (e.g. using the Unix utilities convert or xanim). In this case the parameter iojpeg::mode = ''standard'' must be used.

Note that the parameter iojpeg::mode determines whether a jpeg image is ccreated and kept for individual timesteps, or whether only the image from the current data is kept. Only in the second case is the jpeg file advertised (otherwise there are potentially thousands of files advertised to e.g. the HTTPD thorn). Also note that using the standard mode and creating jpegs every iteration can quite quickly lead to *inode* problems on a machine.

The steerable parameter IOJpeg::refinement_factor determines whether the resulting JPEG images (of same size as the underlying grid) should be refined by a certain factor. If refinement is enabled (IOJpeg::refinement_factor > 1) an interpolation will be done to enlarge the images to the requested size. For this case, a thorn providing local interpolation operators must be activated (eg. thorn CactusBase/LocalInterp).

We are planning to develop this thorn more to provide more features (eg a range of 2D images from a 3D dataset, add possibility to save images for a movie and advertise current image).