1   Program 2dImReg

1.1   Purpose

This program performs 2d image registration. Image alignment is performed on a slice-by-slice basis for the input 3d+time dataset, relative to a user specified base image.

1.2   Usage

The command line format for program 2dImReg is as follows:

    2dImReg -input fname [-basefile fname] [-base num] [-nofine]
    [-fine blur dxy dphi] -prefix pname [-dprefix dname] [-dmm]
    [-rprefix rname]   [-debug]

1.3   Options

-input fname   Filename of input 3d+time dataset to process

-basefile fname   Filename of 3d+time dataset for base image (default = current input dataset)

-base num   Time index for base image (0 <= num) (default: num = 3)

-nofine   Deactivate fine fit phase of image registration (default: fine fit is active)

-fine blur dxy dphi   Set fine fit parameters
    where:
      blur   = FWHM of blurring prior to registration (in pixels) (default: blur = 1.0)
      dxy   = Convergence tolerance for translations (in pixels)   (default: dxy = 0.07)
      dphi = Convergence tolerance for rotations (in degrees)   (default: dphi = 0.21)

-prefix pname   Prefix name for output 3d+time dataset

-dprefix dname   Write files 'dname'.dx, 'dname'.dy, 'dname'.psi containing the registration parameters for each slice in chronological order.
    File formats:
      'dname'.dx: time(sec)   dx(pixels)
      'dname'.dy: time(sec)   dy(pixels)
      'dname'.psi: time(sec)   psi(degrees)

-dmm   Change dx and dy output format from pixels to mm

-rprefix rname   Write files 'rname'.oldrms and 'rname'.newrms containing the volume RMS error for the original and the registered datasets, respectively.

    File formats:

'rname'.oldrms:	volume(number)	rms_error
'rname'.newrms:	volume(number)	rms_error

-debug   Lots of additional output to screen