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