autoPROC reference card	
set up (if not already done for you automatically)	
Set up for csh or tcsh	`source /some/where/autoPROC/installed/setup.csh`
Set up for bash, ksh, zsh, or sh	`. /some/where/autoPROC/installed/setup.sh`
autoPROC: most useful options	
Brief help message	`process -h`

Simple run (in directory containing images)	`process -d outputdir > log`
	- or -
	`process -d outputdir | tee log`

Simple run (remote directory)	`process -d outputdir -I imagedir > log`
Read image header information	`imginfo test_0123.img`
Check beam centre conventions	`beam8.sh <beamX> <beamY> <sizeX> <sizeY>`
Define direct beam transform	`process BeamCentreFrom="header:y,-x" -d outputdir > log`
Let autoPROC determine most likely direct beam transform	`process BeamCentreFrom="getbeam:init" -d outputdir > log` *(might not always work for Pilatus/Eiger images)*
Define direct beam position	`process beam="1556 1512" -d outputdir > log`
Identify image scans	`find_images -d imagedir -l`
Identify HDF5/Eiger scans	`find_images -d imagedir -l -h5`
Manual sweep definition	`process -Id "test,/where/ever/images,test_###.cbf,1,90" -d outputdir > log`
Manual sweep definition for HDF5/Eiger data	`process -Id "test,/where/ever,test_master.h5,1,900" -d outputdir > log`
Define cell dimensions and symmetry	`process cell="a b c al be ga" symm="P2" -d outdir > log`
Include "reference" file for symm, cell and test-set	`process -ref mtzfile -d outputdir > log`
List available "macros"	`process -M list`
Settings that might help difficult diffraction data	`process -M LowResOrTricky -d outputdir > log`
Process in "fast" mode	`process -M fast -d outputdir > log`
Restrict number of "processors"	`process -nthreads <no> -d outputdir > log`
Restrict resolution range	`process -R 50.0 2.0 -d outputdir > log`
List known multi-axis goniostats	`x_kappa -list`
Process multi sweep data collected with different goniostat/2-theta settings	`process KapparotSite="siteID" -d outputdir > log`
Switch off detection/exclusion of ice-ring resolution ranges	`process XdsExcludeIceRingsAutomatically=no -d outputdir > log`
Exclude all known ice-ring resolution ranges from the start	`process XdsExcludeIceRingsAutomatically=all -d outputdir > log`
Use the AIMLESS-only scaling path	`process -M ScalingA3 -d outputdir > log`
Use the XSCALE-only scaling path	`process -M ScalingX -d outputdir > log`
Process Dectris/Eiger data (HDF5 format)	`process -h5 /where/ever/some_master.h5 -d outdir > log`

autoPROC reference card

Looking at results

Open outputdir/summary.html in browser, e.g.	`firefox outputdir/summary.html`

Traditional (isotropic) results	`truncate-unique.mtz`
	`truncate-unique.table1`
	`aimless.sca`
	`autoPROC.xml`
	`report.pdf`

Anisotropic (STARANISO) results	`staraniso_alldata-unique.mtz`
	`staraniso_alldata-unique.table1`
	`staraniso_alldata.sca`
	`autoPROC_staraniso.xml`
	`report_staraniso.pdf`

helper programs and options

Scaling module: help message	`aP_scale -h`
Simple scaling of data set with 360 batches/images	`aP_scale -mtz XDS_ASCII.mtz -P lyso test A -b 1-360 \` `        -id 01 > log`

More detailed scaling of 'early' and 'late' batches	`aP_scale -mtz XDS_ASCII.mtz \`
	`        -P lyso test early -b 1-180 \`
	`        -P lyso test late  -b 181-360 \`
	`        -id 02 > log`

Allowing different high-resolution limit for decaying crystal	`aP_scale -mtz XDS_ASCII.mtz \`
	`        -P lyso test early -b 1-180,30 \`
	`        -P lyso test late  -b 181-360,30 \`
	`        -id 03 > log`

Use XSCALE for scaling	`aP_scale -hkl XDS_ASCII.HKL ...`
Compare indexing of datasets	`check_indexing mtzfile1 mtzfile2 ... mtzfileN`
Compare orientation matrices	`cmpmat 01/XPARM.XDS 02/XPARM.XDS P21`

Combine integrated intensities from several scans manually	`combine_files -f 01/XDS_ASCII.mtz -P lyso test lowres \`
	`              -f 02/XDS_ASCII.HKL -P lyso test highres \`
	`              -o low-high.mtz`

Calculate statistics on unmerged data	`mrfana INTEGRATE.HKL`
	` - or -`
	`mrfana XDS_ASCII.HKL`
	` - or -`
	`mrfana XDS_ASCII.mtz`

further information

autoPROC homepage	`http://www.globalphasing.com/autoproc/`

autoPROC manual	`$autoPROC_home/docs/autoproc/manual/autoPROC0.html`
	` - or -`
	`http://www.globalphasing.com/autoproc/manual/index.html`

autoPROC wiki	`http://www.globalphasing.com/autoproc/wiki/`
beamline information	`http://www.globalphasing.com/autoproc/wiki/index.cgi?BeamlineSettings`