1. DATA I/O

(a) CAM data products.

reading SPD ..... (pp 75-78)
spdtoscd, 'cispNNNNNNNN.fits', spd_sscd [, dir=directory, /nowrite]
erdtoscd, 'cierNNNNNNNN.fits', erd_sscd [, dir=directory, /nowrite]

(b) FITS files.

Writing reduced raster or beam-switched image to a FITS file.
(pg 193)
raster2fits, pds, name='output_filename.fits'

Writing individual frames ..... (pg 194)
imagette2fits, pds, name='output_filename.fits'

Writing entire CIA data structure to a FITS file ..... (pg 194)
struct2fits, pds, name='output_filename.fits'

Reading from a FITS file (created with struct2fits) ..... (pg 194)
fits2struct, 'output_filename.fits', hdr, pds

2. DATA ANALYSIS/CONVERSION

Creating Primary Data Structures (PDS) ..... (pg 93)
pds = get_sscdraster(spd_sscd)
pds = get_sscdcvf(spd_sscd)
pds = get_sscdbs(spd_sscd)
pds = get_sscdstruct spd_sscd)

3. DATA REDUCTION

Slicing and/or cleaning SPD SSCDs ..... (pg 75)
claned_sscd = sscd_clean(spd_sscd)
x_slicer

Dark Subtraction ..... (pg 219)
corr_dark, [spd_sscd or pds], method='option'
see pp 220–221 for a description of dark subtraction options

Deglitching ..... (pg 221)
deglitch, [spd_sscd or pds], method='option'
see pp 221–223 for a description of deglitching options

Detector transient correction ..... (pg 223)
stabilize, [spd_sscd or pds], method='option'
see pp 223–225 for a description of stabilization options

Averaging/Combining frames ..... (pg 225)
reduce, [spd_sscd or pds]

Flat field correction ..... (pg 226)
corr_flat, [spd_sscd or pds], method='option'
see pp 226-228 for a description of flat field options

Creating Mosaic from Raster or beam-switched data ..... (pg 230)
raster_scan, [spd_sscd or pds] [,/option]
see pp 230-232 for options

Flux calibration/conversion ..... (pp 240–241)
conv_flux, [spd_sscd or pds]
result = adu_to_mjansky(data, 'FILTER')

4. DATA VISUALIZATION

Display/Examine 2D arrays ..... (pp 119,130,138)
tviso, array
ximage, [pds or mage]

Display/Examine data cubes ..... (pp 122,126,138,130,138)
x3d, [pds or data cube]
ximage, [pds or image]
xv_temp, data_cube
show_frame, data_cube

Contour overlay ..... (pg 140)
isocont, image_1, image_to_contour

CVF data visualization ..... (pp 114,116)
cvf_display, cvf_pds
xcvf, cvf_pds

To view AAR products ..... (pp 67-69, 122)
sad_display, [SAD or SSAD or TDTOSN]

5. CIA HELP (pg 4)

ciainfo
cia_help

6. MISCELLANEOUS

Printing/Getting details on a particular SSCD ..... (pg 79)
sscd_info, sscd [,options]

A basic reduction in CIA

Please see new Ch 3 for what you need to get started.
Please see Ch 3-5 for a more detailed quick start guide.

1. spdtoscd, 'cispNNNNNNNN.fits', sscd, /nowrite
2. cln_sscd = sscd_clean(sscd)
3. help, cln_sscd
4. pds_0 = get_sscdraster(cln_sscd[0]) – raster data
   pds_0 = get_sscdbs(cln_sscd[0]) – beamswitch data
   pds_0 = get_sscdcvf(cln_sscd[0]) – cvf data
   pds_0 = get_sscdstruct(cln_sscd[0]) – generic PDS
5. save, pds_0, file='pds_0_raw.xdr', /xdr
6. corr_dark, pds_0
7. deglitch, pds_0
8. stabilize, pds_0, method='INV'
9. reduce, pds_0
10. corr_flat, pds_0, method='auto' – if rastered data
    corr_flat, pds_0 – otherwise
11. raster_scan, pds_0 (for rastered data).
12. conv_flux, pds_0
13. save, pds_0, file='pds_0.xdr', /xdr
14. Repeat Steps 4-13 for as many SSCDs as are listed in Step 3.