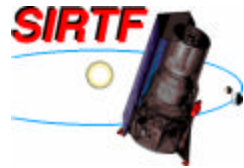


674-SO-43
SSC-DL-4005 Version 1.0



SIRTF Science Center

Downlink Segment

MIPS-24 S11.0 Test Plan

26 July 2004

California Institute of Technology
SIRTF Science Center



National Aeronautics and
Space Administration



Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

THIS PAGE IS INTENTIONALLY LEFT BLANK

Prepared by:

John W. Fowler

Concurred by:

David Shupe

Approved by:

Mehrdad Moshir

Concurred by:

Suzzane Dodd

Revision History

Version	Description	Date
1.0	Initial draft by F. Masci	26 July 2004

1. MIPS-24 Set-up and Test Plan

1.1. Preliminary

All environment variables specified below are defined in the generic “**operator.csh**” environment file located in `${SOS_ROOT}/config/${SOS_REL}/downlink`

1.2. Calibration Data

1. All calibration files will be treated as “fallback” data. All **the latest** fallback calibration data is under: `/ssc/pipe/fmasci/MIPS_pipeline/offline_pl/DEV/mips24/calibration_data/`
2. The fallback SODB loading script and supporting files are contained under:
`/ssc/pipe/fmasci/MIPS_pipeline/offline_pl/DEV/mips24/calibration_data/FallBackDB Loading/`. Instructions are in the header of the `loadfallback.csh*` script.
3. On deploying the calibration files, ensure you copy all files to the directory specified by the `${OUTPUT_LOCATION}` environment variable as specified in the header of the `loadfallback.csh*` script in (2). Also ensure that all calibration flats under `/ssc/pipe/fmasci/MIPS_pipeline/offline_pl/DEV/mips24/calibration_data/mirror_dep_flats/` are copied to the directory specified by `${OUTPUT_LOCATION}`

1.3. Control Data Files (Namelists or CDFs)

1. All **the latest** namelist files are contained under:
`/ssc/pipe/fmasci/MIPS_pipeline/offline_pl/DEV/mips24/namelists/`
2. It is the responsibility of the IST to check these into the operations TFS under the “MIPS1INT” Point of View (POV).

1.4. Input Test Data and Associated Pipeline Threads

1.4.1. MIPS-24 SUR-Mode Science Photometry Mode

- Job Manifest FID (= AORKEY or IERKEY): 6772224
- Threads in this manifest: 1021:1030:1035:1040:1048

- Number of DCEs: 120
- Input MIPL DCE FITS files (located in operations “sos-archive”):
`/sos/archive/raw/campaign/MIPS001000/0006772224/dces/MIPS.1.*`
- Input Boresight Pointing History File (BPHF):
`/sos/archive/raw/timeperiod/2003.09/pointingHistory/BPHF.0749304000.04.pntg`

1.4.2. MIPS-24 SUR-Mode Science Slow-Scan Mode

- Job Manifest FID (= AORKEY or IERKEY): 6503168
- Threads in this manifest: 1020:1030:1035:1040:1048
- Number of DCEs: 596
- Input MIPL DCE FITS files (located in operations “sos-archive”):
`/sos/archive/raw/campaign/MIPS002600/0006503168/dces/MIPS.1.*`
- Input Boresight Pointing History File (BPHF):
`/sos/archive/raw/timeperiod/2003.12/pointingHistory/BPHF.0757209600.04.pntg`

1.4.3. MIPS-24 SUR-Mode Science Medium-Scan Mode

- Job Manifest FID (= AORKEY or IERKEY): 3866624
- Threads in this manifest: 1020:1030:1035:1040:1048
- Number of DCEs: 1000
- Input MIPL DCE FITS files (located in operations “sos-archive”):
`/sos/archive/raw/campaign/MIPS002500/0003866624/dces/MIPS.1.*`
- Input Boresight Pointing History File (BPHF):
`/sos/archive/raw/timeperiod/2003.12/pointingHistory/BPHF.0755438400.05.pntg`

1.4.4. MIPS-24 SUR-Mode Science Fast-Scan Mode

- Job Manifest FID (= AORKEY or IERKEY): 7143168
- Threads in this manifest: 1020:1030:1035:1040:1048
- Number of DCEs: 200
- Input MIPL DCE FITS files (located in operations “sos-archive”):
*/sos/archive/raw/campaign/MIPS001300/0007143168/dces/MIPS.1.**
- Input Boresight Pointing History File (BPHF):
/sos/archive/raw/timeperiod/2003.10/pointingHistory/BPHF.0750556800.06.pntg

1.4.5. MIPS-24 RAW-Mode Science Photometry

- Job Manifest FID (= AORKEY or IERKEY): 7120384
- Threads in this manifest: 1028:5001:1030
- Number of DCEs: 20
- Input MIPL DCE FITS files (located in operations “sos-archive”):
*/sos/archive/raw/campaign/MIPS001100/0007120384/dces/MIPS.1.**
- Input Boresight Pointing History File (BPHF):
/sos/archive/raw/timeperiod/2003.10/pointingHistory/BPHF.0749952000.04.pntg

1.4.6. MIPS-24 RAW-Mode Science Total Power Mode

- Job Manifest FID (= AORKEY or IERKEY): 9353216
- Threads in this manifest: 1029:5001:1030
- Number of DCEs: 12
- Input MIPL DCE FITS files (located in operations “sos-archive”):
*/sos/archive/raw/campaign/MIPS002900/0009353216/dces/MIPS.1.**

- Input Boresight Pointing History File (BPHF):

/sos/archive/raw/timeperiod/2004.03/pointingHistory/BPHF.0764208000.03.pntg

1.4.7. MIPS-24 Flatfield Calibration with Pointing Transfer

- Job Manifest FID (= AORKEY or IERKEY): 7141888

- Threads in this manifest: 1031:1032:1030

- Number of DCEs: 64

- Input MIPL DCE FITS files (located in operations “sos-archive”):

/sos/archive/raw/campaign/MIPS001300/0007141888/dces/MIPS.1.*

- Input Boresight Pointing History File (BPHF):

/sos/archive/raw/timeperiod/2003.10/pointingHistory/BPHF.0750556800.06.pntg

1.4.8. MIPS-24 Non-Linearity Calibration with Pointing Transfer

- Job Manifest FID (= AORKEY or IERKEY): 6763264

- Threads in this manifest: 1010:1011:5001:1030

- Number of DCEs: 60

- Input MIPL DCE FITS files (located in operations “sos-archive”):

/sos/archive/raw/campaign/MIPS000900/0006763264/dces/MIPS.1.*

- Input Boresight Pointing History File (BPHF):

/sos/archive/raw/timeperiod/2003.09/pointingHistory/BPHF.0749174400.04.pntg

1.4.9. MIPS-24 SUR-Mode Dark Calibration with Pointing Transfer

- Job Manifest FID (= AORKEY or IERKEY): 7161600

- Threads in this manifest: 1000:1001:1030

- Number of DCEs: 50
- Input MIPL DCE FITS files (located in operations “sos-archive”):

/sos/archive/raw/campaign/MIPS001400/0007161600/dces/MIPS.1.*
- Input Boresight Pointing History File (BPHF):

/sos/archive/raw/timeperiod/2003.10/pointingHistory/BPHF.0750902400.08.pntg

1.5. Threads which Cannot be Tested

- RAW-Mode dark calibration thread (PipeNum 408; PlscriptID 1006). Data intended for this purpose has not yet been acquired by *Spitzer*, nor will any be expected in the foreseeable future.
- Pointing refinement (Post-BCD) thread (PipeNum 132; PlscriptID 1042). This thread has been terminated in operations and a new version will be included in the S12.0 delivery.

1.6. Output Intermediate File Locations (Local Drone Directories)

- Pre-processed science and intermediate calibration BCDs (e.g., above plscriptIDs: 5001, 1000, 1010, 1020, 1021, 1028, 1029, 1031):

\${SOS_LOCAL}/<campaign>/bcd/<pao>/<reqkey>/<channum>/<expid>/<dcenum>/<plscriptid>/<fos_ver>/<sos_ver>
- Pointing, latent, calibration and post-BCD ensemble threads (e.g., above plscriptIDs: 1001, 1011, 1030, 1032, 1035, 1040, 1048):

\${SOS_LOCAL}/nonbcd/<pmid>/<plscriptid>/<representative_dceid>
- Note, details of processing are contained in a log file named “out.pline” under the “sosexec/..” subdirectory in each of the above directories.

1.7. Output Sandboxed Data Products

1.7.1. Science (and pre-processed/intermediate calibration) BCDs

\${SOS_ARCHIVE}/proc/full/<campaign>/bcd/<pao>/<reqkey>/<channum>/<expid>/<dcenum>/<plscriptid>/<fos_ver>/<sos_ver>/

- Sandbox contents SUR-science threads only (pipeNum 405):

```
bcd_fp.fits  
bcd_mask_fp.fits  
bcd_uncert_fp.fits  
bmask_diff_fp.fits  
bmask_slope_fp.fits  
cdf_list_fileId.txt  
diff_fp.fits  
diff_uncert_fp.fits  
ptg/  
qa/  
raw_tranhead_fp.fits  
rmask.fits  
slope_fp.fits  
slope_uncert_fp.fits  
sosexec/
```

- Sandbox contents for RAW-science threads only (pipeNum 406):

```
bcd_fp.fits  
bcd_mask_fp.fits  
bcd_uncert_fp.fits  
cdf_list_fileId.txt  
dmask_fp.fits  
ptg/  
qa/  
raw_tranhead_fp.fits  
sosexec/
```

1.7.2. Calibration Ensemble Products

- Flats (plscriptId 1016 or 1032 or 1034):

```
${SOS_ARCHIVE}/proc/full/<campaign>/cal/auto/<pao>/<reqkey>/flat/<channum>/  
<ensid>/<sos_ver>/
```

```
cal/  
cdf/  
ensemble_info.txt  
flatfield.fits  
flatfield_cmask.fits  
inputlist_dmask_flatfield  
inputlist_flatfield  
qa/  
sosexec/
```

- Darks (plscriptId 1001):

```
${SOS_ARCHIVE}/proc/full/<campaign>/cal/auto/<pao>/<reqkey>/darksur/<channu  
m>/<ensid>/<sos_ver>/
```

```
cal/  
cdf/  
darkest_surl.fits  
darkest_surl_cmask.fits  
darkest_surl_uncert.fits  
ensemble_info.txt  
inputlist_darkest  
inputlist_dmask_darkest  
inputlist_noise_darkest  
qa/  
sosexec/
```

- Non-linearity (plscriptId 1011)

```
${SOS_ARCHIVE}/proc/full/<campaign>/cal/auto/<pao>/<reqkey>/linr/<channum>/  
<ensid>/<sos_ver>/
```

```
cal/  
cdf/  
ensemble_info.txt  
inputlist_dmask_lincal  
inputlist_lincal  
inputlist_noise_lincal  
lincal.fits  
lincal_cmask.fits  
qa/  
sosexec/
```

1.7.3. Post-BCD Products

- Mosaic and ancillary files (plscriptId 1048):

```
${SOS_ARCHIVE}/proc/full/<campaign>/bqd/auto/<pao>/<reqkey>/coad/<channum>/  
>/<ensid>/<sos_ver>/
```

```
Rmask/  
cal/  
cdf/  
cdf_list_fileId.txt  
ensemble_info.txt  
extract.tbl  
extract_raw.tbl  
mosaic.fits  
mosaic_cov.fits  
mosaic_detect.tbl  
mosaic_unc.fits  
qa/  
sosexec/
```

- Fiducial Image Frame (plscriptId 1040):

```
${SOS_ARCHIVE}/proc/full/<campaign>/bqd/auto/<pao>/<reqkey>/reffrm/<ensid>/  
<sos_ver>/
```

```
FIF.tbl  
cdf_list_fileId.txt  
ensemble_info.txt  
sosexec/
```