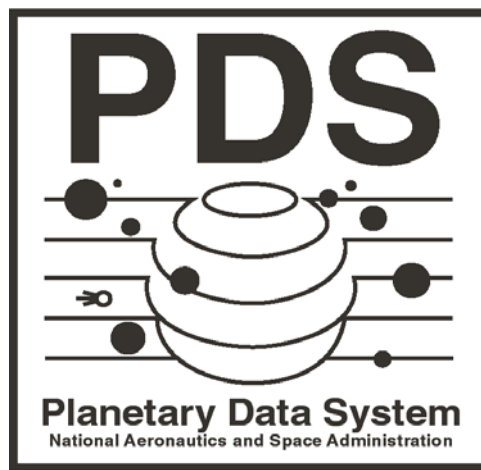


# Planetary Data System

## PDS-NSSDC Interface Test Report Test Phase I

November 8, 2005



Jet Propulsion Laboratory  
Pasadena, California

## Test Summary

This document details the test report for Phase I of the PDS-NSSDC Interface Test Plan (Version 1.1, January 3, 2006). This test was conducted between the dates of October 24, 2005 to November 8, 2005. Below is a summary for each of the steps defined in the test plan. The details of the test can be found in the Test Detail section.

### **Create AIP**

The two AIPs corresponding to the two selected volumes were created successfully utilizing the MPGA software. Creation of the AIPs took approximately 100 minutes for each AIP. Each volume is approximately 600 megabytes in size.

### **Transfer AIP**

The two AIPs were successfully transferred to NSSDC via FTP. The first AIP (mgst\_1230) took approximately 35 minutes (280 Kilobytes/second) to transfer. The second AIP (mgst\_1232) took approximately 26 minutes (370 Kilobytes/second) to transfer. The NSSDC staff was notified via e-mail regarding the successful transfer:

From: Sean Hardman [mailto:Sean.Hardman@jpl.nasa.gov]  
Sent: Wednesday, October 26, 2005 17:08  
To: Patrick McCaslin  
Subject: Fwd: AIP Files transferred

Pat,

The AIP files are out there and ready to go. Let me know when you want to send them back or have us grab them off of your FTP server.

Sean

### **Retrieve and Store AIP**

This step is performed by NSSDC staff at the NSSDC. The following e-mail was received from Pat McCaslin regarding the process and some issues that came up at the NSSDC:

Date: Mon, 07 Nov 2005 16:30:38 -0500  
From: Patrick McCaslin <mccaslin@mail630.gsfc.nasa.gov>  
Subject: AIPs ready for retrieval  
To: Sean.Hardman@jpl.nasa.gov  
X-JPL-spam-score: 0.00%  
Original-recipient: rfc822;shardman@mail.jpl.nasa.gov

Sean,

The two AIPs are available for you to retrieve. They were written to DLTs in our jukebox and then retrieved from tape and written into the disk directory where you originally delivered them. I wish I could say that the process was

automatic and smooth. There were some hitches. I ended up manually performing the activities that would happen in a normal ingest process. The end result is that the AIPs were written to media and then retrieved exactly the way they would have had the automated system worked. However, these AIPs are not being tracked in our archival storage inventory.

In your directory there should be a command file 'PDS-PACKAGE-GENERATOR.v2.splitter.cmd' that can be run to retrieve data from the AIPs. The associated parameter file 'PDS-PACKAGE-GENERATOR.v2.splitter.lst' is set up to open an AIP using the original name: 'TPDS0000000001\_AIPfile.sfd.testfile'.

Here were the significant problems encountered on this end:

1. All AIPs generated with Mark's demonstration package have the same name. That can be worked around by renaming files and editing the output log file. What should have occurred to me and didn't was the fact that all AIPs generated with the demonstration package have the same Archival Storage ID (ASID) which is stored in the attributes object of the AIP. The NSSDC ingest system checks ASIDS of incoming AIPs to ensure that there are no duplicate ASIDS. Only one of the test AIPs could have been stored and then tracked in the archival inventory system.
2. The process of ingesting a PDS AIP disclosed a bug in the NSSDC ingest system. The attributes of PDS AIPs present a processing case that the NSSDC has never handled. As it stands now, no PDS AIP could be ingested normally and then tracked in the inventory. We've identified the necessary fix but it will probably take a few weeks to do it.

Pat

## ***Request and Transfer AIP***

Following the notification via e-mail from the previous step, the two AIPs were successfully transferred from NSSDC via FTP. Both AIPs were contained in a single TAR file, which took approximately 158 minutes (130 kilobytes/second) to transfer.

## ***Retrieve and Verify AIP***

The two AIPs were successfully extracted into their original volume structures, respectively. Checksum reports were generated against the extracted volume structures and compared against the original checksum reports. The reports were identical marking the successful completion of the test.

## Test Detail

This is a log file for the MPGA software v2 test. Comments and explanation of steps performed to test the software are denoted in bold.

### SUMMARY:

- Tests were run successfully on the mgst 1230 and mgst 1232 volume data sets.
- The mex data test failed just as it did in the test of the previous MPGA version.

### MGST 1230 DATA SET VOLUME TEST

**Get the checksums of every file in the PDS volume we are about to run on the MPGA software and save the results onto a file.**

```
[mdc@starburst OUTPUT]$ mkdir mgst_1230
[mdc@starburst OUTPUT]$ cd mgst_1230/
[mdc@starburst mgst_1230]$ pwd
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1230
[mdc@starburst mgst_1230]$ cd
[mdc@starburst mdc]$
[mdc@starburst mdc]$ cd /data/usa_nasa_pds_mgst_1230/
[mdc@starburst usa_nasa_pds_mgst_1230]$ md5sum * >
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1230/checksum_level1_orig.out
md5sum: CATALOG: Is a directory
md5sum: DATA: Is a directory
md5sum: DOCUMENT: Is a directory
md5sum: INDEX: Is a directory
md5sum: SOFTWARE: Is a directory
[mdc@starburst usa_nasa_pds_mgst_1230]$ md5sum ** >
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1230/checksum_level2_orig.out
md5sum: DATA/MARS: Is a directory
md5sum: SOFTWARE/BIN: Is a directory
md5sum: SOFTWARE/DOC: Is a directory
md5sum: SOFTWARE/SRC: Is a directory
[mdc@starburst usa_nasa_pds_mgst_1230]$ md5sum **/* >
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1230/checksum_level3_orig.out
[mdc@starburst usa_nasa_pds_mgst_1230]$ md5sum **/** >
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1230/checksum_level4_orig.out
md5sum: **/**/*: No such file or directory
[mdc@starburst usa_nasa_pds_mgst_1230]$
```

**Capture the run-time execution for this program. The command we will eventually run is `./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive`, which calls `PDS-PACKAGE-GENERATOR.batch`. So, in order to capture the run-time execution, you will need to modify the**

**PDS-PACKAGE-GENERATOR.batch** file and place a "time" command in front of the program call.

*(NOTE: At first, I tried typing in "time ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive" and it gave me the time stats immediately after it notified me of running in the background.)*

```
[mdc@starburst bin]$ pwd
/home/mdc/mpga_v2/bin
[mdc@starburst bin]$ emacs COMMANDS/PDS-PACKAGE-GENERATOR.batch &
[4] 17690
```

**The .batch file now looks like the following:**

```
[mdc@starburst bin]$ more COMMANDS/PDS-PACKAGE-GENERATOR.batch
time ./MPGA-launch \
  -workdir=./MPGA_WORKING_DIR/ \
  -setup=PDS-PACKAGE-GENERATOR.v2.setup \
  -input=./INPUT_LISTS/pds_MPGA_DEMO-2.lst \
  -mlst_tspec=./TEMPLATE_SPEC/PDS-PACKAGE-GENERATOR.v2.mlst.tspec \
  -agen_tspec=./TEMPLATE_SPEC/PDS-PACKAGE-GENERATOR.v2.agen.tspec \
  -output=out-PDS-PACKAGE-GENERATOR.diag -log=out-PDS-PACKAGE-GENERATOR.log &
[4] Done          emacs COMMANDS/PDS-PACKAGE-GENERATOR.batch
[mdc@starburst bin]$
[mdc@starburst bin]$
```

**Call the command to start the MPGA software.**

```
[mdc@starburst bin]$
[mdc@starburst bin]$ ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
```

Welcome to the simple MPGA interactive calling program.

The current Directory to Package is:

```
lrwxrwxrwx  1 mdc  users      27 Oct 25 10:34 STAGE_DIR -> ../data/nieros_4001.partial
```

Please enter a new directory, or hit return to keep the current one:

```
/data/usa_nasa_pds_mgst_1230
```

```
data="/data/usa_nasa_pds_mgst_1230
" (one-less=30) (last-char=a)
```

Going to call the program and package the directory: "/data/usa\_nasa\_pds\_mgst\_1230"

Calling: "/bin/rm STAGE\_DIR ; /bin/ln -s /data/usa\_nasa\_pds\_mgst\_1230 STAGE\_DIR"

Calling: "./COMMANDS/PDS-PACKAGE-GENERATOR.batch"

Program called in Background - Check .log, .diag, and SUCCESS or FAILURE message to screen

[mdc@starburst bin]\$

**Check the list of user processes running to make sure that the MPGA software is running.**

```
[mdc@starburst bin]$ ps -x
  PID TTY STAT TIME COMMAND
15940  ?   S    0:00 sshd: mdc@pts/7
15944 pts/7 S    0:00 -bash
16058 pts/7 T    0:00 -bash
16059 pts/7 T    0:00 ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
16061 pts/7 T    0:00 -bash
16062 pts/7 T    0:00 ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
16064 pts/7 T    0:00 -bash
16065 pts/7 T    0:00 ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
16415  ?   S    0:00 sshd: mdc@pts/2
16416 pts/2 S    0:00 /usr/X11R6/bin/xterm -ls -display 137.78.80.197:0
16418 pts/6 S    0:00 -bash
17704 pts/7 S    0:00 sh -c ./COMMANDS/PDS-PACKAGE-GENERATOR.batch
17705 pts/7 S    0:00 ./MPGA-launch -workdir=./MPGA_WORKING_DIR/ -setup=PDS-
PACKAGE-GENERATOR.v2.setup -input=./INPUT_LISTS/pds_MPGA_DEMO-2.lst -
mlst_tspec=./TEMPLATE_SPEC/PDS-PACKAGE-GENE
17709 pts/7 Z    0:00 [MPGA-aip_genera <defunct>]
17710 ?   S    0:52 ./MPGA-aip_generator
17711 ?   Z    0:00 [MPGA-filesget <defunct>]
17712 ?   S    1:53 ./MPGA-filesget
18201 pts/7 R    0:00 ps -x
[mdc@starburst bin]$
```

**An additional method of checking is by looking at the output AIP file size. By typing in "ls -lrt | grep AIP" at the command prompt and repeating this command several times, you should see the file size of the AIP file growing.**

```
[mdc@starburst bin]$ ls -lrt | grep AIP
-rw-r--r-- 1 mdc users 116502528 Oct 25 10:57 TPDS0000000001_AIPfile.sfd.testfile
[mdc@starburst bin]$ ls -lrt | grep AIP
-rw-r--r-- 1 mdc users 116641792 Oct 25 10:57 TPDS0000000001_AIPfile.sfd.testfile
[mdc@starburst bin]$ ls -lrt | grep AIP
-rw-r--r-- 1 mdc users 116703232 Oct 25 10:57 TPDS0000000001_AIPfile.sfd.testfile
[mdc@starburst bin]$ ls -lrt | grep AIP
-rw-r--r-- 1 mdc users 116760576 Oct 25 10:57 TPDS0000000001_AIPfile.sfd.testfile
```

---

## PROGRAM OUTPUT OF AIP GENERATION UTILITY

(Time after running “./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive”)

```
[mdc@starburst bin]$ SUCCESS
```

```
real 101m48.878s
user 0m0.000s
sys 0m0.020s
```

**3 output files were created in the /bin directory:**

**TPDS0000000001\_AIPfile.sfd.testfile**  
**out-PDS-PACKAGE-GENERATOR.log**  
**out-PDS-PACKAGE-GENERATOR.diag**

**File size of TPDS0000000001\_AIPfile.sfd.testfile is 614770722 bytes.**

**File size of out-PDS-PACKAGE-GENERATOR.log is 102 bytes.**

**File size of out-PDS-PACKAGE-GENERATOR.diag is 791 bytes.**

```
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.log
TPDS0000000001 0    AIPGEN-P_OK PASS: packaged "TPDS0000000001_AIPfile.sfd.testfile"
614770722    59c1eaaf
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.diag
*    DMLST NOTE: Started module "local:./MPGA-makelist"
*    DMLST NOTE: Processed 148 Files in 1 AIP(s) in 6 sec
* VERBOSE: init registry, SRVR: dbase file="./MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"
* VERBOSE: init registry, client: dbase file="./MPGA_WORKING_DIR/fsget_dbaseobj_XXXXXX"
*    AIPGEN NOTE: maplist attribute "PROCESS_DESIGNATOR" link not mapped to input ISD
attributes
*    AIPGEN NOTE: key link struct to input ISD externally-supplied crc attribute not found and
therefore will not be validated against the staging source files
TPDS0000000001 0    AIPGEN-P_OK PASS: packaged "TPDS0000000001_AIPfile.sfd.testfile"
614770722    59c1eaaf
0    AIPGEN-P_TREP PASS: FINAL REPORT - PROCESSED 1 FILES FOR 6.145175e+08 TOTAL
BYTES IN 6101 SECs INTO 6.147707e+08 PACKAGE BYTES AT 100.724 KBYTES/SEC
[mdc@starburst bin]$
```

```
[mdc@starburst bin]$  
[mdc@starburst bin]$  
[mdc@starburst bin]$
```

### **Save and rename the output log files in another directory**

```
[mdc@starburst bin]$ mv out-PDS-PACKAGE-GENERATOR.diag OUTPUT/mgst_1230/out-PDS-  
PACKAGE-GENERATOR_mgst_1230.diag  
[mdc@starburst bin]$ mv out-PDS-PACKAGE-GENERATOR.log OUTPUT/mgst_1230/out-PDS-  
PACKAGE-GENERATOR_mgst_1230.log  
[mdc@starburst bin]$ cp TPDS0000000001_AIPfile.sfd.testfile OUTPUT/mgst_1230/  
[mdc@starburst bin]$ cd OUTPUT/mgst_1230/  
[mdc@starburst mgst_1230]$ pwd  
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1230  
[mdc@starburst mgst_1230]$
```

### **AIP file needs to be left in the /bin directory when using the splitter command to unpack the AIP file. So copy it to another directory instead of moving it over.**

```
[mdc@starburst bin]$ cp TPDS0000000001_AIPfile.sfd.testfile OUTPUT/mgst_1230/  
[mdc@starburst bin]$ cd OUTPUT/mgst_1230/
```

---

### **TESTING THE MPGA SPLITTER COMMAND TO UNPACK THE AIP**

```
[mdc@starburst mgst_1230]$ pwd  
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1230  
[mdc@starburst mgst_1230]$  
[mdc@starburst mgst_1230]$ cd ..  
[mdc@starburst OUTPUT]$ cd ..  
[mdc@starburst bin]$ pwd  
/home/mdc/mpga_v2/bin
```

### **Once again, edit the splitter command file and place a “time” in front of the program call to record the program run-time**

```
[mdc@starburst bin]$ emacs COMMANDS/PDS-PACKAGE-GENERATOR.v2.splitter.cmd &  
[mdc@starburst bin]$ more COMMANDS/PDS-PACKAGE-GENERATOR.v2.splitter.cmd  
time ./MPGA-launch \  
-setup=PDS-PACKAGE-GENERATOR.v2.splitter.setup \  
-input_listfile=./INPUT_LISTS/PDS-PACKAGE-GENERATOR.v2.splitter.lst \  
-log=out-PDS-PACKAGE-GENERATOR.splitter.log \  
-output=out-PDS-PACKAGE-GENERATOR.splitter.diag \  
-multitask &
```



**Run the splitter command to unpack the AIP file. There was no dialog indicating that program was running, so I simply used a tail -f command on the .diag file**

```
[mdc@starburst bin]$ ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.splitter.cmd
[mdc@starburst bin]$ tail -f out-PDS-PACKAGE-GENERATOR.splitter.diag
* VERBOSE: init registry, SRVR: dbase file="./MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"
* Splitter Started and Initialized:
```

Accessing AIPs...

```
TPDS0000000001.dat.dir/
TPDS0000000001.dat.dir/AAREADME.HTM
TPDS0000000001.dat.dir/AAREADME.LBL
TPDS0000000001.dat.dir/AAREADME.TXT
TPDS0000000001.dat.dir/ERRATA.TXT
TPDS0000000001.dat.dir/VOLDESC.CAT
TPDS0000000001.dat.dir/CATALOG/
TPDS0000000001.dat.dir/CATALOG/CATINFO.TXT
TPDS0000000001.dat.dir/CATALOG/DATASET.CAT
TPDS0000000001.dat.dir/CATALOG/DEITGT.CAT
TPDS0000000001.dat.dir/CATALOG/INST.CAT
TPDS0000000001.dat.dir/CATALOG/INSTHOST.CAT
TPDS0000000001.dat.dir/CATALOG/MARTGT.CAT
TPDS0000000001.dat.dir/CATALOG/MISSION.CAT
TPDS0000000001.dat.dir/CATALOG/PERSON.CAT
TPDS0000000001.dat.dir/CATALOG/PHOTGT.CAT
TPDS0000000001.dat.dir/CATALOG/REF.CAT
TPDS0000000001.dat.dir/DATA/
TPDS0000000001.dat.dir/DATA/MARS/
TPDS0000000001.dat.dir/DATA/MARS/ATM23001.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23002.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23003.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23004.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23005.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23006.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM.FMT
TPDS0000000001.dat.dir/DATA/MARS/BOL23001.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL23002.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL23003.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL23004.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL23005.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL23006.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL.FMT
TPDS0000000001.dat.dir/DATA/MARS/CMP.FMT
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LBL
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LST
TPDS0000000001.dat.dir/DATA/MARS/GEO23001.TAB
TPDS0000000001.dat.dir/DATA/MARS/GEO23002.TAB
TPDS0000000001.dat.dir/DATA/MARS/GEO23003.TAB
TPDS0000000001.dat.dir/DATA/MARS/GEO23004.TAB
TPDS0000000001.dat.dir/DATA/MARS/GEO23005.TAB
```

TPDS0000000001.dat.dir/DATA/MARS/GEO23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO.FMT  
TPDS0000000001.dat.dir/DATA/MARS/IFG.FMT  
TPDS0000000001.dat.dir/DATA/MARS/LMB.FMT  
TPDS0000000001.dat.dir/DATA/MARS/OBS23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/POS23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/RAD23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23001.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23002.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23003.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23004.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23005.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23006.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD.FMT  
TPDS0000000001.dat.dir/DATA/MARS/TLM23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/VAR.LBL  
TPDS0000000001.dat.dir/DOCUMENT/  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/DOCINFO.TXT  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.PDF

TPDS0000000001.dat.dir/INDEX/  
TPDS0000000001.dat.dir/INDEX/CLASS.TXT  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.LBL  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.TAB  
TPDS0000000001.dat.dir/INDEX/DETMASK.TXT  
TPDS0000000001.dat.dir/INDEX/INDEX.LBL  
TPDS0000000001.dat.dir/INDEX/INDEX.TAB  
TPDS0000000001.dat.dir/INDEX/INDXINFO.TXT  
TPDS0000000001.dat.dir/INDEX/QUALITY.TXT  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TAB  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TXT  
TPDS0000000001.dat.dir/SOFTWARE/  
TPDS0000000001.dat.dir/SOFTWARE/SOFTINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/  
TPDS0000000001.dat.dir/SOFTWARE/BIN/BININFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/HPPA.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/LINUX.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/O2.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/RS6K.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/SOLSPARC.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/WINTEL.EXE  
TPDS0000000001.dat.dir/SOFTWARE/DOC/  
TPDS0000000001.dat.dir/SOFTWARE/DOC/DOCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/DOC/USERDOC.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/  
TPDS0000000001.dat.dir/SOFTWARE/SRC/BUFFS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/CONVERT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DATASET.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DIR.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DOS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_T20.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FIELDS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GENDEF.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GEN\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/LOGGING.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE.WIN  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/PROTO.H

TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SEARCH.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SELECT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SRCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLBOX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VANILLA.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VERSION.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXUSE.C  
TPDS0000000001 0 SPL PASS: "/TPDS0000000001\_AIPfile.sfd.testfile" into  
"/OUTPUT/TPDS0000000001.dat.tar" and "/OUTPUT/TPDS0000000001.att"  
\* SPL NOTE: module "local:./MPGA-splitter" completely processed 1 out of 1 AIPs in 292 (secs)

---

## PROGRAM OUTPUT OF SPLITTER UTILITY

SUCCESS

real 4m52.095s  
user 0m0.000s  
sys 0m0.030s

**Created 2 files in the /home/mdc/mpga\_v2/bin/OUTPUT directory: an attributes file and a data file**

**Output file names and file sizes are listed below:**

TPDS0000000001.att 241605 bytes  
TPDS0000000001.dat.tar 614645760 bytes

**A .diag and a .log file were also created in the /bin directory:**

**out-PDS-PACKAGE-GENERATOR.splitter.diag  
out-PDS-PACKAGE-GENERATOR.splitter.log**

[mdc@starburst bin]\$ more out-PDS-PACKAGE-GENERATOR.splitter.log  
TPDS0000000001 0 SPL PASS: "/TPDS0000000001\_AIPfile.sfd.testfile" into  
"/OUTPUT/TPDS0000000001.dat.tar" and "/OUTPUT/TPDS0000000001.att"

## Move the attributes and data file into another directory to save it

```
[mdc@starburst OUTPUT]$ cd OUTPUT
[mdc@starburst OUTPUT]$ pwd
/home/mdc/mpga_v2/bin/OUTPUT
[mdc@starburst OUTPUT]$ cd mgst_1230/
[mdc@starburst mgst_1230]$ mv ../TPDS0000000001.* .
[mdc@starburst mgst_1230]$ ls
checksum_level1_orig.out checksum_level3_orig.out out-PDS-PACKAGE-GENERATOR.diag
TPDS0000000001_AIPfile.sfd.testfile TPDS0000000001.dat.tar
checksum_level2_orig.out checksum_level4_orig.out out-PDS-PACKAGE-GENERATOR.log
TPDS0000000001.att
[mdc@starburst mgst_1230]$
```

## In order to retrieve the data volume, we must untar the data file. This unpacked the AIP into a directory called TPDS0000000001.dat.dir

```
[mdc@starburst mgst_1230]$ time tar -xvf TPDS0000000001.dat.tar
TPDS0000000001.dat.dir/
TPDS0000000001.dat.dir/AAREADME.HTM
TPDS0000000001.dat.dir/AAREADME.LBL
TPDS0000000001.dat.dir/AAREADME.TXT
TPDS0000000001.dat.dir/ERRATA.TXT
TPDS0000000001.dat.dir/VOLDESC.CAT
TPDS0000000001.dat.dir/CATALOG/
TPDS0000000001.dat.dir/CATALOG/CATINFO.TXT
TPDS0000000001.dat.dir/CATALOG/DATASET.CAT
TPDS0000000001.dat.dir/CATALOG/DEITGT.CAT
TPDS0000000001.dat.dir/CATALOG/INST.CAT
TPDS0000000001.dat.dir/CATALOG/INSTHOST.CAT
TPDS0000000001.dat.dir/CATALOG/MARTGT.CAT
TPDS0000000001.dat.dir/CATALOG/MISSION.CAT
TPDS0000000001.dat.dir/CATALOG/PERSON.CAT
TPDS0000000001.dat.dir/CATALOG/PHOTGT.CAT
TPDS0000000001.dat.dir/CATALOG/REF.CAT
TPDS0000000001.dat.dir/DATA/
TPDS0000000001.dat.dir/DATA/MARS/
TPDS0000000001.dat.dir/DATA/MARS/ATM23001.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23002.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23003.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23004.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23005.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23006.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM.FMT
TPDS0000000001.dat.dir/DATA/MARS/BOL23001.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL23002.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL23003.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL23004.TAB
TPDS0000000001.dat.dir/DATA/MARS/BOL23005.TAB
```

TPDS0000000001.dat.dir/DATA/MARS/BOL23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL.FMT  
TPDS0000000001.dat.dir/DATA/MARS/CMP.FMT  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LBL  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LST  
TPDS0000000001.dat.dir/DATA/MARS/GEO23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO.FMT  
TPDS0000000001.dat.dir/DATA/MARS/IFG.FMT  
TPDS0000000001.dat.dir/DATA/MARS/LMB.FMT  
TPDS0000000001.dat.dir/DATA/MARS/OBS23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/POS23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/RAD23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23001.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23002.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23003.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23004.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23005.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23006.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD.FMT  
TPDS0000000001.dat.dir/DATA/MARS/TLM23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/VAR.LBL  
TPDS0000000001.dat.dir/DOCUMENT/

TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/DOCINFO.TXT  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.PDF  
TPDS0000000001.dat.dir/INDEX/  
TPDS0000000001.dat.dir/INDEX/CLASS.TXT  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.LBL  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.TAB  
TPDS0000000001.dat.dir/INDEX/DETMASK.TXT  
TPDS0000000001.dat.dir/INDEX/INDEX.LBL  
TPDS0000000001.dat.dir/INDEX/INDEX.TAB  
TPDS0000000001.dat.dir/INDEX/INDXINFO.TXT  
TPDS0000000001.dat.dir/INDEX/QUALITY.TXT  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TAB  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TXT  
TPDS0000000001.dat.dir/SOFTWARE/  
TPDS0000000001.dat.dir/SOFTWARE/SOFTINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/  
TPDS0000000001.dat.dir/SOFTWARE/BIN/BININFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/HPPA.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/LINUX.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/O2.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/RS6K.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/SOLSPARC.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/WINTEL.EXE  
TPDS0000000001.dat.dir/SOFTWARE/DOC/  
TPDS0000000001.dat.dir/SOFTWARE/DOC/DOCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/DOC/USERDOC.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/  
TPDS0000000001.dat.dir/SOFTWARE/SRC/BUFFS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/CONVERT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DATASET.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DIR.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DOS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_T20.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FIELDS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GENDEF.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GEN\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.H

TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/LOGGING.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE.WIN  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/PROTO.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SEARCH.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SELECT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SRCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLBOX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VANILLA.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VERSION.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXUSE.C

real 0m12.588s  
user 0m0.040s  
sys 0m4.390s

### **Change into this newly created directory and get the checksum values for all files**

```
[mde@starburst mgst_1230]$ cd TPDS0000000001.dat.dir/  
[mde@starburst TPDS0000000001.dat.dir]$ md5sum * > ../checksum_level1_mpga.out  
md5sum: CATALOG: Is a directory  
md5sum: DATA: Is a directory  
md5sum: DOCUMENT: Is a directory  
md5sum: INDEX: Is a directory  
md5sum: SOFTWARE: Is a directory  
[mde@starburst TPDS0000000001.dat.dir]$ md5sum */* > ../checksum_level2_mpga.out  
md5sum: DATA/MARS: Is a directory  
md5sum: SOFTWARE/BIN: Is a directory  
md5sum: SOFTWARE/DOC: Is a directory  
md5sum: SOFTWARE/SRC: Is a directory  
[mde@starburst TPDS0000000001.dat.dir]$ md5sum */** > ../checksum_level3_mpga.out  
[mde@starburst TPDS0000000001.dat.dir]$ md5sum */**/* > ../checksum_level4_mpga.out  
md5sum: */**/*: No such file or directory  
[mde@starburst TPDS0000000001.dat.dir]$
```



```
[mdc@starburst TPDS0000000001.dat.dir]$  
[mdc@starburst TPDS0000000001.dat.dir]$  
[mdc@starburst TPDS0000000001.dat.dir]$ cd ..
```

**Run a diff command to compare the checksums of the values we obtained from the original volume set versus the volume set we have just unpacked from the AIP**

```
[mdc@starburst mgst_1230]$ diff checksum_level1_orig.out checksum_level1_mpga.out  
[mdc@starburst mgst_1230]$ diff checksum_level2_orig.out checksum_level2_mpga.out  
[mdc@starburst mgst_1230]$ diff checksum_level3_orig.out checksum_level3_mpga.out  
[mdc@starburst mgst_1230]$ diff checksum_level4_orig.out checksum_level4_mpga.out  
[mdc@starburst mgst_1230]$  
[mdc@starburst mgst_1230]$
```

---

**END OF MGST 1230 VOLUME TEST**

**All resulting output files from this test are saved in /home/mdc/mpga\_v2/bin/OUTPUT/mgst\_1230 on starburst.**

## **MGST 1232 DATA SET VOLUME TEST**

**Used the same steps as mentioned in the mgst 1230 data set volume test**

```
[mdc@starburst OUTPUT]$ pwd
/home/mdc/mpga_v2/bin/OUTPUT
[mdc@starburst OUTPUT]$ mkdir mgst_1232
[mdc@starburst mgst_1232]$ cd /data/usa_nasa_pds_mgst_1232/
[mdc@starburst usa_nasa_pds_mgst_1232]$ ls
AAREADME.HTM AAREADME.LBL AAREADME.TXT CATALOG DATA DOCUMENT
ERRATA.TXT INDEX SOFTWARE VOLDESC.CAT
[mdc@starburst usa_nasa_pds_mgst_1232]$ md5sum * >
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1232/checksum_level1_orig.out
md5sum: CATALOG: Is a directory
md5sum: DATA: Is a directory
md5sum: DOCUMENT: Is a directory
md5sum: INDEX: Is a directory
md5sum: SOFTWARE: Is a directory
[mdc@starburst usa_nasa_pds_mgst_1232]$ md5sum */* >
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1232/checksum_level2_orig.out
md5sum: DATA/MARS: Is a directory
md5sum: SOFTWARE/BIN: Is a directory
md5sum: SOFTWARE/DOC: Is a directory
md5sum: SOFTWARE/SRC: Is a directory
[mdc@starburst usa_nasa_pds_mgst_1232]$ md5sum */** >
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1232/checksum_level3_orig.out
[mdc@starburst usa_nasa_pds_mgst_1232]$ md5sum */**/* >
/home/mdc/mpga_v2/bin/OUTPUT/mgst_1232/checksum_level4_orig.out
md5sum: */**/*/*: No such file or directory
```

### **Call the AIP generator utility command**

```
[mdc@starburst usa_nasa_pds_mgst_1232]$ cd /home/mdc/mpga_v2/bin/
[mdc@starburst bin]$ ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
```

Welcome to the simple MPGA interactive calling program.

The current Directory to Package is:

```
lrwxrwxrwx 1 mdc users 28 Oct 25 10:36 STAGE_DIR -> /data/usa_nasa_pds_mgst_1230
```

Please enter a new directory, or hit return to keep the current one:

```
/data/usa_nasa_pds_mgst_1232
```

```
data="/data/usa_nasa_pds_mgst_1232
```

" (one-less=32) (last-char=a)

Going to call the program and package the directory: "/data/usa\_nasa\_pds\_mgst\_1232"

Calling: "/bin/rm STAGE\_DIR ; /bin/ln -s /data/usa\_nasa\_pds\_mgst\_1232 STAGE\_DIR"

Calling: "./COMMANDS/PDS-PACKAGE-GENERATOR.batch"

Program called in Background - Check .log, .diag, and SUCCESS or FAILURE message to screen

```
[mdc@starburst bin]$  
[mdc@starburst bin]$ ps -x  
  PID TTY    STAT TIME COMMAND  
15940 ?      S    0:00 sshd: mdc@pts/7  
15944 pts/7  S    0:02 -bash  
16058 pts/7  T    0:00 -bash  
16059 pts/7  T    0:00 ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive  
16061 pts/7  T    0:00 -bash  
16062 pts/7  T    0:00 ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive  
16064 pts/7  T    0:00 -bash  
16065 pts/7  T    0:00 ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive  
16415 ?      S    0:00 sshd: mdc@pts/2  
16416 pts/2  S    0:00 /usr/X11R6/bin/xterm -ls -display 137.78.80.197:0  
16418 pts/6  S    0:00 -bash  
19655 pts/7  S    0:00 sh -c ./COMMANDS/PDS-PACKAGE-GENERATOR.batch  
19656 pts/7  S    0:00 ./MPGA-launch -workdir=./MPGA_WORKING_DIR/ -setup=PDS-PACKAGE-  
GENERATOR.v2.setup -input=./INPUT_LISTS/pds_MPGA_DEMO-2.lst -  
mlst_tspec=./TEMPLATE_SPEC/P  
19660 pts/7  Z    0:00 [MPGA-aip_genera <defunct>]  
19661 ?      S    0:00 ./MPGA-aip_generator  
19662 ?      Z    0:00 [MPGA-filesget <defunct>]  
19663 ?      R    0:27 ./MPGA-filesget  
19665 pts/7  R    0:00 ps -x  
[mdc@starburst bin]$  
[mdc@starburst bin]$  
[mdc@starburst bin]$  
[mdc@starburst bin]$  
[mdc@starburst bin]$ ls -lrt | grep AIP  
-rw-r--r--  1 mdc  users  1773568 Oct 25 14:06 TPDS0000000001_AIPfile.sfd.testfile  
[mdc@starburst bin]$ ls -lrt | grep AIP  
-rw-r--r--  1 mdc  users  1916928 Oct 25 14:06 TPDS0000000001_AIPfile.sfd.testfile  
[mdc@starburst bin]$ ls -lrt | grep AIP  
-rw-r--r--  1 mdc  users  2015232 Oct 25 14:06 TPDS0000000001_AIPfile.sfd.testfile
```

---

## PROGRAM OUTPUT OF AIP GENERATION UTILITY

```
[mdc@starburst bin]$ SUCCESS
```

```
real 102m46.159s
user 0m0.010s
sys 0m0.010s
```

An output .diag, .log, and AIP file were created from this command in /home/mdc/mpga\_v2/bin.

The file names and file sizes are listed below:

<b>out-PDS-PACKAGE-GENERATOR.diag</b>	<b>791 bytes</b>
<b>out-PDS-PACKAGE-GENERATOR.log</b>	<b>102 bytes</b>
<b>TPDS0000000001_AIPfile.sfd.testfile</b>	<b>620470088 bytes</b>

```
[mdc@starburst bin]$
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.diag
* DMLST NOTE: Started module "local:/MPGA-makelist"
* DMLST NOTE: Processed 148 Files in 1 AIP(s) in 6 sec
* VERBOSE: init registry, SRVR: dbase file="/MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"
* VERBOSE: init registry, client: dbase file="/MPGA_WORKING_DIR/fsget_dbaseobj_XXXXXX"
* AIPGEN NOTE: maplist attribute "PROCESS_DESIGNATOR" link not mapped to input ISD
attributes
* AIPGEN NOTE: key link struct to input ISD externally-supplied crc attribute not found and
therefore will not be validated against the staging source files
TPDS0000000001 0 AIPGEN-P_OK PASS: packaged "TPDS0000000001_AIPfile.sfd.testfile"
620470088 95df9a08
0 AIPGEN-P_TREP PASS: FINAL REPORT - PROCESSED 1 FILES FOR 6.202169e+08 TOTAL
BYTES IN 6158 SECs INTO 6.204701e+08 PACKAGE BYTES AT 100.717 KBYTES/SEC
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.log
TPDS0000000001 0 AIPGEN-P_OK PASS: packaged "TPDS0000000001_AIPfile.sfd.testfile"
620470088 95df9a08
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ mv out-PDS-PACKAGE-GENERATOR.diag OUTPUT/mgst_1232/out-PDS-
PACKAGE-GENERATOR_mgst_1232.diag
[mdc@starburst bin]$ mv out-PDS-PACKAGE-GENERATOR.log OUTPUT/mgst_1232/out-PDS-
PACKAGE-GENERATOR_mgst_1232.log
[mdc@starburst bin]$
[mdc@starburst bin]$
```

---

## SPLITTER UTILITY TEST TO EXTRACT THE AIP

```
[mdc@starburst bin]$  
[mdc@starburst bin]$ pwd  
/home/mdc/mpga_v2/bin  
[mdc@starburst bin]$ ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.splitter.cmd  
[mdc@starburst bin]$  
[mdc@starburst bin]$  
[mdc@starburst bin]$  
[mdc@starburst bin]$  
[mdc@starburst bin]$ tail -f out-PDS-PACKAGE-GENERATOR.splitter.diag  
* VERBOSE: init registry, SRVR: dbase file="./MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"  
* Splitter Started and Initialized:
```

Accessing AIPs...

```
TPDS0000000001.dat.dir/  
TPDS0000000001.dat.dir/AAREADME.HTM  
TPDS0000000001.dat.dir/AAREADME.LBL  
TPDS0000000001.dat.dir/AAREADME.TXT  
TPDS0000000001.dat.dir/ERRATA.TXT  
TPDS0000000001.dat.dir/VOLDESC.CAT  
TPDS0000000001.dat.dir/CATALOG/  
TPDS0000000001.dat.dir/CATALOG/CATINFO.TXT  
TPDS0000000001.dat.dir/CATALOG/DATASET.CAT  
TPDS0000000001.dat.dir/CATALOG/DEITGT.CAT  
TPDS0000000001.dat.dir/CATALOG/INST.CAT  
TPDS0000000001.dat.dir/CATALOG/INSTHOST.CAT  
TPDS0000000001.dat.dir/CATALOG/MARTGT.CAT  
TPDS0000000001.dat.dir/CATALOG/MISSION.CAT  
TPDS0000000001.dat.dir/CATALOG/PERSON.CAT  
TPDS0000000001.dat.dir/CATALOG/PHOTGT.CAT  
TPDS0000000001.dat.dir/CATALOG/REF.CAT  
TPDS0000000001.dat.dir/DATA/  
TPDS0000000001.dat.dir/DATA/MARS/  
TPDS0000000001.dat.dir/DATA/MARS/ATM23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/BOL23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL.FMT
```

TPDS0000000001.dat.dir/DATA/MARS/CMP.FMT  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LBL  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LST  
TPDS0000000001.dat.dir/DATA/MARS/GEO23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO.FMT  
TPDS0000000001.dat.dir/DATA/MARS/IFG.FMT  
TPDS0000000001.dat.dir/DATA/MARS/LMB.FMT  
TPDS0000000001.dat.dir/DATA/MARS/OBS23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/POS23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/RAD23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23201.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23202.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23203.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23204.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23205.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23206.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD.FMT  
TPDS0000000001.dat.dir/DATA/MARS/TLM23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/VAR.LBL  
TPDS0000000001.dat.dir/DOCUMENT/  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.LBL

TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/DOCINFO.TXT  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.PDF  
TPDS0000000001.dat.dir/INDEX/  
TPDS0000000001.dat.dir/INDEX/CLASS.TXT  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.LBL  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.TAB  
TPDS0000000001.dat.dir/INDEX/DETMASK.TXT  
TPDS0000000001.dat.dir/INDEX/INDEX.LBL  
TPDS0000000001.dat.dir/INDEX/INDEX.TAB  
TPDS0000000001.dat.dir/INDEX/INDXINFO.TXT  
TPDS0000000001.dat.dir/INDEX/QUALITY.TXT  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TAB  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TXT  
TPDS0000000001.dat.dir/SOFTWARE/  
TPDS0000000001.dat.dir/SOFTWARE/SOFTINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/  
TPDS0000000001.dat.dir/SOFTWARE/BIN/BININFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/HPPA.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/LINUX.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/O2.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/RS6K.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/SOLSPARC.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/WINTEL.EXE  
TPDS0000000001.dat.dir/SOFTWARE/DOC/  
TPDS0000000001.dat.dir/SOFTWARE/DOC/DOCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/DOC/USERDOC.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/  
TPDS0000000001.dat.dir/SOFTWARE/SRC/BUFFS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/CONVERT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DATASET.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DIR.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DOS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_T20.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FIELDS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GENDEF.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GEN\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.H

TPDS0000000001.dat.dir/SOFTWARE/SRC/LOGGING.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE.WIN  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/PROTO.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SEARCH.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SELECT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SRCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLBOX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VANILLA.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VERSION.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXUSE.C

TPDS0000000001 0 SPL PASS: "./TPDS0000000001\_AIPfile.sfd.testfile" into  
"./OUTPUT/TPDS0000000001.dat.tar" and "./OUTPUT/TPDS0000000001.att"

\* SPL NOTE: module "local:./MPGA-splitter" completely processed 1 out of 1 AIPs in 276 (secs)

---

## **PROGRAM OUTPUT OF SPLITTER COMMAND**

SUCCESS

real 4m35.957s  
user 0m0.010s  
sys 0m0.030s

**A .diag and a .log file were created in the /bin directory.**

**out-PDS-PACKAGE-GENERATOR.splitter.log 141 bytes**  
**out-PDS-PACKAGE-GENERATOR.splitter.diag 7418 bytes**



**A data and an attribute file were created in the /home/mdc/mpga\_v2/bin/OUTPUT directory**

**The file names and file sizes of shown below:**

**TPDS0000000001.att        241605 bytes**  
**TPDS0000000001.dat.tar   620339200 bytes**

```
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.splitter.log
TPDS0000000001 0    SPL PASS: "./TPDS0000000001_AIPfile.sfd.testfile" into
"./OUTPUT/TPDS0000000001.dat.tar" and "./OUTPUT/TPDS0000000001.att"
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ mv out-PDS-PACKAGE-GENERATOR.splitter.diag OUTPUT/mgst_1232/out-
PDS-PACKAGE-GENERATOR_mgst_1232.splitter.diag
[mdc@starburst bin]$ mv out-PDS-PACKAGE-GENERATOR.splitter.log OUTPUT/mgst_1232/out-
PDS-PACKAGE-GENERATOR_mgst_1232.splitter.log
```

```
[mdc@starburst bin]$
[mdc@starburst bin]$ cd OUTPUT/
[mdc@starburst OUTPUT]$ cd mgst_1232/
[mdc@starburst mgst_1232]$ mv ../TPDS0000000001.dat.tar .
[mdc@starburst mgst_1232]$ mv ../TPDS0000000001.att .
[mdc@starburst mgst_1232]$
```

**Extract the data file to get back our volume set**

```
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$ time tar -xvf TPDS0000000001.dat.tar
TPDS0000000001.dat.dir/
TPDS0000000001.dat.dir/AAREADME.HTM
TPDS0000000001.dat.dir/AAREADME.LBL
TPDS0000000001.dat.dir/AAREADME.TXT
TPDS0000000001.dat.dir/ERRATA.TXT
TPDS0000000001.dat.dir/VOLDESC.CAT
TPDS0000000001.dat.dir/CATALOG/
TPDS0000000001.dat.dir/CATALOG/CATINFO.TXT
TPDS0000000001.dat.dir/CATALOG/DATASET.CAT
TPDS0000000001.dat.dir/CATALOG/DEITGT.CAT
TPDS0000000001.dat.dir/CATALOG/INST.CAT
TPDS0000000001.dat.dir/CATALOG/INSTHOST.CAT
TPDS0000000001.dat.dir/CATALOG/MARTGT.CAT
TPDS0000000001.dat.dir/CATALOG/MISSION.CAT
TPDS0000000001.dat.dir/CATALOG/PERSON.CAT
TPDS0000000001.dat.dir/CATALOG/PHOTGT.CAT
TPDS0000000001.dat.dir/CATALOG/REF.CAT
TPDS0000000001.dat.dir/DATA/
```

TPDS0000000001.dat.dir/DATA/MARS/  
TPDS0000000001.dat.dir/DATA/MARS/ATM23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/BOL23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL.FMT  
TPDS0000000001.dat.dir/DATA/MARS/CMP.FMT  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LBL  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LST  
TPDS0000000001.dat.dir/DATA/MARS/GEO23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO.FMT  
TPDS0000000001.dat.dir/DATA/MARS/IFG.FMT  
TPDS0000000001.dat.dir/DATA/MARS/LMB.FMT  
TPDS0000000001.dat.dir/DATA/MARS/OBS23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/POS23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/RAD23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23201.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23202.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23203.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23204.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23205.TAB

TPDS0000000001.dat.dir/DATA/MARS/RAD23205.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23206.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD.FMT  
TPDS0000000001.dat.dir/DATA/MARS/TLM23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/VAR.LBL  
TPDS0000000001.dat.dir/DOCUMENT/  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/DOCINFO.TXT  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.PDF  
TPDS0000000001.dat.dir/INDEX/  
TPDS0000000001.dat.dir/INDEX/CLASS.TXT  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.LBL  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.TAB  
TPDS0000000001.dat.dir/INDEX/DETMASK.TXT  
TPDS0000000001.dat.dir/INDEX/INDEX.LBL  
TPDS0000000001.dat.dir/INDEX/INDEX.TAB  
TPDS0000000001.dat.dir/INDEX/INDXINFO.TXT  
TPDS0000000001.dat.dir/INDEX/QUALITY.TXT  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TAB  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TXT  
TPDS0000000001.dat.dir/SOFTWARE/  
TPDS0000000001.dat.dir/SOFTWARE/SOFTINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/  
TPDS0000000001.dat.dir/SOFTWARE/BIN/BININFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/HPPA.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/LINUX.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/O2.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/RS6K.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/SOLSPARC.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/WINTEL.EXE  
TPDS0000000001.dat.dir/SOFTWARE/DOC/  
TPDS0000000001.dat.dir/SOFTWARE/DOC/DOCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/DOC/USERDOC.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/  
TPDS0000000001.dat.dir/SOFTWARE/SRC/BUFFS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/CONVERT.C

TPDS0000000001.dat.dir/SOFTWARE/SRC/DATASET.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DIR.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DOS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_T20.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FIELDS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GENDEF.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GEN\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/LOGGING.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE.WIN  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/PROTO.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SEARCH.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SELECT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SRCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLBOX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VANILLA.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VERSION.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXUSE.C

real 0m31.607s  
user 0m0.030s  
sys 0m5.920s

```
[mdc@starburst mgst_1232]$ cd TPDS0000000001.dat.dir/  
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum * > ../checksum_level1_mpga.out  
md5sum: CATALOG: Is a directory  
md5sum: DATA: Is a directory  
md5sum: DOCUMENT: Is a directory
```

```
md5sum: INDEX: Is a directory
md5sum: SOFTWARE: Is a directory
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum */* > ../checksum_level2_mpga.out
md5sum: DATA/MARS: Is a directory
md5sum: SOFTWARE/BIN: Is a directory
md5sum: SOFTWARE/DOC: Is a directory
md5sum: SOFTWARE/SRC: Is a directory
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum */** > ../checksum_level3_mpga.out
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum */**/* > ../checksum_level4_mpga.out
md5sum: */**/*: No such file or directory
[mdc@starburst TPDS0000000001.dat.dir]$
[mdc@starburst TPDS0000000001.dat.dir]$
[mdc@starburst TPDS0000000001.dat.dir]$
[mdc@starburst TPDS0000000001.dat.dir]$ cd ..
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$
```

**Compare the checksum values between our original volume set and the volume set unpacked from the AIP**

```
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$ diff checksum_level1_orig.out checksum_level1_mpga.out
[mdc@starburst mgst_1232]$ diff checksum_level2_orig.out checksum_level2_mpga.out
[mdc@starburst mgst_1232]$ diff checksum_level3_orig.out checksum_level3_mpga.out
[mdc@starburst mgst_1232]$ diff checksum_level4_orig.out checksum_level4_mpga.out
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$
```

**END OF MGST 1232 VOLUME DATA SET TEST**

**All resulting output files are saved on /home/mdc/mpga\_v2/bin/OUTPUT/mgst\_1232 in starburst**

---

## MEX VOLUME DATA SET TEST

```
[mdc@starburst bin]$ cd OUTPUT/
[mdc@starburst OUTPUT]$ mkdir mex
[mdc@starburst OUTPUT]$ cd mex
[mdc@starburst mex]$ pwd
/home/mdc/mpga_v2/bin/OUTPUT/mex
[mdc@starburst mex]$ cd /data/mex/
[mdc@starburst mex]$ md5sum * > /home/mdc/mpga_v2/bin/OUTPUT/mex/checksum_level1_orig.out
md5sum: mex: Is a directory
[mdc@starburst mex]$ md5sum */* >
/home/mdc/mpga_v2/bin/OUTPUT/mex/checksum_level2_orig.out
md5sum: mex/hrsc: Is a directory
[mdc@starburst mex]$ md5sum */** >
/home/mdc/mpga_v2/bin/OUTPUT/mex/checksum_level3_orig.out
md5sum: mex/hrsc/mexhrsc_0001: Is a directory
[mdc@starburst mex]$ md5sum */**/* >
/home/mdc/mpga_v2/bin/OUTPUT/mex/checksum_level4_orig.out
md5sum: mex/hrsc/mexhrsc_0001/data: Is a directory
[mdc@starburst mex]$ md5sum */**/*/* >
/home/mdc/mpga_v2/bin/OUTPUT/mex/checksum_level5_orig.out
md5sum: mex/hrsc/mexhrsc_0001/data/0010: Is a directory
md5sum: mex/hrsc/mexhrsc_0001/data/0016: Is a directory
md5sum: mex/hrsc/mexhrsc_0001/data/0018: Is a directory
[mdc@starburst mex]$ md5sum */**/*/*/* >
/home/mdc/mpga_v2/bin/OUTPUT/mex/checksum_level6_orig.out
[mdc@starburst mex]$ md5sum */**/*/*/*/* >
/home/mdc/mpga_v2/bin/OUTPUT/mex/checksum_level7_orig.out
md5sum: */**/*/*/*/*/*: No such file or directory
[mdc@starburst mex]$ cd /home/mdc/mpga_v2/bin
[mdc@starburst bin]$ pwd
/home/mdc/mpga_v2/bin
[mdc@starburst bin]$
[mdc@starburst bin]$ ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
```

Welcome to the simple MPGA interactive calling program.

The current Directory to Package is:

```
lrwxrwxrwx 1 mdc users 28 Oct 25 14:04 STAGE_DIR -> /data/usa_nasa_pds_mgst_1232
```

Please enter a new directory, or hit return to keep the current one:

```
/data/mex
```

```
data="/data/mex
" (one-less=78) (last-char=a)
```

Going to call the program and package the directory: "/data/mex"

Calling: "/bin/rm STAGE\_DIR ; /bin/ln -s /data/mex STAGE\_DIR"

Calling: "./COMMANDS/PDS-PACKAGE-GENERATOR.batch"

Program called in Background - Check .log, .diag, and SUCCESS or FAILURE message to screen

```
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ ps -x
  PID TTY          STAT TIME COMMAND
15940 ?        S    0:00 sshd: mdc@pts/6,pts/7
15944 pts/7    S    0:02 -bash
16058 pts/7    T    0:00 -bash
16059 pts/7    T    0:00 ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
16061 pts/7    T    0:00 -bash
16062 pts/7    T    0:00 ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
16064 pts/7    T    0:00 -bash
16065 pts/7    T    0:00 ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
20537 ?        S    0:00 sshd: mdc@pts/2
20538 pts/2    S    0:00 /usr/X11R6/bin/xterm -ls -display 137.78.80.197:0
20540 pts/5    S    0:00 -bash
21042 pts/7    D    0:34 md5sum mex/hrsc/mexhrsc_0001/data/0010/h0010_0000_bl2.img
mex/hrsc/mexhrsc_0001/data/0010/h0010_0000_gr2.img mex/hrsc/mexhrsc_0001/data/0010/h0010_0000
21048 pts/6    S    0:00 -bash
21113 pts/6    S    0:00 sh -c ./COMMANDS/PDS-PACKAGE-GENERATOR.batch
21114 pts/6    S    0:00 ./MPGA-launch -workdir=./MPGA_WORKING_DIR/ -setup=PDS-PACKAGE-
GENERATOR.v2.setup -input=./INPUT_LISTS/pds_MPGA_DEMO-2.lst -
mlst_tspec=./TEMPLATE_SPEC/P
21118 pts/6    Z    0:00 [MPGA-aip_genera <defunct>]
21119 ?        S    0:00 ./MPGA-aip_generator
21120 pts/6    R    0:00 ps -x
```

---

## PROGRAM OUTPUT FOR AIP GENERATION

There was a "SUCCESS" printed on the screen, but when you look at the log file, processing failed

```
[mdc@starburst bin]$ SUCCESS
```

```
real 16m34.857s
user 0m0.000s
sys 0m0.000s
```

```

[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.diag
*   DMLST NOTE: Started module "local:/MPGA-makelist"
*   DMLST NOTE: Processed 254 Files in 1 AIP(s) in 10 sec
* VERBOSE: init registry, SRVR: dbase file="/MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"
* VERBOSE: init registry, client: dbase file="/MPGA_WORKING_DIR/fsget_dbaseobj_XXXXXX"
*   AIPGEN NOTE: maplist attribute "PROCESS_DESIGNATOR" link not mapped to input ISD
attributes
*   AIPGEN NOTE: key link struct to input ISD externally-supplied crc attribute not found and
therefore will not be validated against the staging source file
s
TPDS0000000001 -110  AIPGEN ERR: AIPsize=(3365351244 > 2-GigaBytes) over maximum filesize
for package file "TPDS0000000001_AIPfile.sfd.testfile", processing f
ailed
-133  AIPGEN ERR: "2" listfile entries produced no packages
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.log
TPDS0000000001 -110  AIPGEN ERR: AIPsize=(3365351244 > 2-GigaBytes) over maximum filesize
for package file "TPDS0000000001_AIPfile.sfd.testfile", processing f
ailed
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$

```

### 3 Output files created in /bin directory: .diag, .log, and an empty AIP file

File names and file sizes are listed below:

TPDS0000000001_AIPfile.sfd.testfile	0 bytes
out-PDS-PACKAGE-GENERATOR.log	164 bytes
out-PDS-PACKAGE-GENERATOR.diag	762 bytes

.log and .diag file moved to /home/mpga\_v2/bin/OUTPUT/mex directory

**END OF MEX DATA SET TEST**

### FTP AIP FILES TO NSSDC

**Send AIPs for the mgst 1230 and mgst 1232 data sets over to the NSSDC via FTP**

```
ftp> send TPDS0000000001_AIPfile_mgst_1230.sfd.testfile
```



```
local: TPDS0000000001_AIPfile_mgst_1230.sfd.testfile remote:
TPDS0000000001_AIPfile_mgst_1230.sfd.testfile
227 Entering Passive Mode (128,183,114,83,213,190).
150 Opening BINARY mode data connection for TPDS0000000001_AIPfile_mgst_1230.sfd.testfile
226 Transfer complete.
614770722 bytes sent in 2.1e+03 seconds (2.8e+02 Kbytes/s)
ftp> lcd ..
Local directory now /home/mdc/mpga_v2/bin/OUTPUT
ftp> lcd mgst_1232
Local directory now /home/mdc/mpga_v2/bin/OUTPUT/mgst_1232
ftp> send TPDS0000000001_AIPfile_mgst_1232.sfd.testfile
local: TPDS0000000001_AIPfile_mgst_1232.sfd.testfile remote:
TPDS0000000001_AIPfile_mgst_1232.sfd.testfile
227 Entering Passive Mode (128,183,114,83,214,20).
150 Opening BINARY mode data connection for TPDS0000000001_AIPfile_mgst_1232.sfd.testfile
226 Transfer complete.
620470088 bytes sent in 1.6e+03 seconds (3.7e+02 Kbytes/s)
```

---

## **ROBUST SOFTWARE CHECKING**

### **Put an invalid directory to the AIP GENERATION utility**

```
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.interactive
```

Welcome to the simple MPGA interactive calling program.

The current Directory to Package is:

```
lrwxrwxrwx 1 mdc users 9 Oct 26 09:23 STAGE_DIR -> /home/mdc
```

Please enter a new directory, or hit return to keep the current one:

```
data="
" (last-char=a)
```

packaging the previous directory

Calling: "./COMMANDS/PDS-PACKAGE-GENERATOR.batch"

Program called in Background - Check .log, .diag, and SUCCESS or FAILURE message to screen

```
[mdc@starburst bin]$ /bin/ls: write error: Broken pipe
FAILURE
```

```
real 0m30.989s
user 0m0.010s
sys 0m0.010s
```

```
[mdc@starburst bin]$
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.diag
* DMLST NOTE: Started module "local:/MPGA-makelist"
-12 DMLST ERR: could not access status of source file "(null)" for module "local:/MPGA-makelist"
* VERBOSE: init registry, SRVR: dbase file="/MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"
* VERBOSE: init registry, client: dbase file="/MPGA_WORKING_DIR/fsget_dbaseobj_XXXXXX"
* AIPGEN NOTE: maplist attribute "PROCESS_DESIGNATOR" link not mapped to input ISD
attributes
* AIPGEN NOTE: key link struct to input ISD externally-supplied crc attribute not found and
therefore will not be validated against the staging source files
-6 TLIB ERR: Handle Has no more Stream Data while getting Hdr
-317 TLIB ERR: could not get hdr while determining rtn status, NO DATA
TPDS0000000001 -94 AIPGEN ERR: AIP="TPDS0000000001_AIPfile.sfd.testfile" - could not get
expected source file from the ISD
-46 AIPGEN ERR: ISD may have more data and/or more AIPs, but processing prematurely halted for
module "local:/MPGA-aip_generator"
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.log
[mdc@starburst bin]$
[mdc@starburst bin]$
```

### **Run the Splitter utility when there is no AIP present in the /bin directory**

```
[mdc@starburst bin]$ ./COMMANDS/PDS-PACKAGE-GENERATOR.v2.splitter.cmd
[mdc@starburst bin]$ FAILURE
```

```
real 0m0.347s
user 0m0.000s
sys 0m0.000s
```

```
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.diag
* DMLST NOTE: Started module "local:/MPGA-makelist"
-12 DMLST ERR: could not access status of source file "(null)" for module "local:/MPGA-makelist"
* VERBOSE: init registry, SRVR: dbase file="/MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"
* VERBOSE: init registry, client: dbase file="/MPGA_WORKING_DIR/fsget_dbaseobj_XXXXXX"
* AIPGEN NOTE: maplist attribute "PROCESS_DESIGNATOR" link not mapped to input ISD
attributes
```

```
* AIPGEN NOTE: key link struct to input ISD externally-supplied crc attribute not found and
therefore will not be validated against the staging source files
-6 TLIB ERR: Handle Has no more Stream Data while getting Hdr
-317 TLIB ERR: could not get hdr while determining rtn status, NO DATA
TPDS0000000001 -94 AIPGEN ERR: AIP="TPDS0000000001_AIPfile.sfd.testfile" - could not get
expected source file from the ISD
-46 AIPGEN ERR: ISD may have more data and/or more AIPs, but processing prematurely halted for
module "local:./MPGA-aip_generator"
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.splitter.log
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.splitter.diag
* VERBOSE: init registry, SRVR: dbase file="./MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"
* Splitter Started and Initialized:

    Accessing AIPs...
-120 SPL_MLIB ERR: in MLIB_open_stream() - could not open local file for reading for module
"local:./MPGA-splitter"
TPDS0000000001 -59 SPL ERR: AIP "/TPDS0000000001_AIPfile.sfd.testfile" could not be opened
at runtime for module "local:./MPGA-splitter"
[mdc@starburst bin]$
```

# DATA RETRIEVAL TEST

This log shows the procedure for testing and retrieving the data sets from the AIP files.

## SUMMARY:

- Data sets of mgst 1230 and mgst 1232 were successfully extracted from both AIP files retrieved from the NSSDC.

## Log onto nssdcftp.gsfc.nasa.gov from the starburst machine

```
ftp> ls
227 Entering Passive Mode (128,183,114,83,253,33).
150 Opening ASCII mode data connection for file list
-rw-rw-r-- 1 diops ops 1235251200 Nov 7 15:36 PDS_delivery.tar
-rwxrwxr-x 1 diops ops 614770722 Oct 26 19:17
TPDS0000000001_AIPfile_mgst_1230.sfd.testfile
-rwxrwxr-x 1 diops ops 620470088 Oct 26 20:48
TPDS0000000001_AIPfile_mgst_1232.sfd.testfile
226 Transfer complete.
ftp> get PDS_delivery.tar
local: PDS_delivery.tar remote: PDS_delivery.tar
227 Entering Passive Mode (128,183,114,83,253,36).
150 Opening BINARY mode data connection for PDS_delivery.tar (1235251200 bytes)
226 Transfer complete.
1235251200 bytes received in 9.5e+03 seconds (1.3e+02 Kbytes/s)
ftp>
```

## Extract the tar file in the bin directory

```
[mdc@starburst bin]$ pwd
/home/mdc/mpga_v2/bin
[mdc@starburst bin]$ tar -xvf PDS_delivery.tar
TPDS0000000001_AIPfile_mgst_1230.sfd.testfile
TPDS0000000001_AIPfile_mgst_1232.sfd.testfile
out-PDS-PACKAGE-GENERATOR_mgst_1230.log
out-PDS-PACKAGE-GENERATOR_mgst_1232.log
[mdc@starburst bin]$
[mdc@starburst bin]$
```

## We have both AIP files in the bin directory. Perform test to see how the splitter command will react

```
[mdc@starburst bin]$
[mdc@starburst bin]$ COMMANDS/PDS-PACKAGE-GENERATOR.v2.splitter.cmd
[mdc@starburst bin]$ FAILURE
```

```
real 0m0.343s
user 0m0.000s
sys 0m0.010s
```

```
[mdc@starburst bin]$
```

**We expect to see a FAILURE response in this case since the command looks for an AIP file specifically named “TPDS0000000001\_AIPfile.sfd.testfile.” So we need to rename the AIP file to that first.**

### **MGST 1230 DATA RETRIEVAL TEST**

```
[mdc@starburst bin]$ mv TPDS0000000001_AIPfile_mgst_1230.sfd.testfile  
TPDS0000000001_AIPfile.sfd.testfile
```

```
[mdc@starburst bin]$
```

```
[mdc@starburst bin]$
```

```
[mdc@starburst bin]$ COMMANDS/PDS-PACKAGE-GENERATOR.v2.splitter.cmd
```

```
[mdc@starburst bin]$ tail -f out-PDS-PACKAGE-GENERATOR.splitter.diag
```

```
* VERBOSE: init registry, SRVR: dbase file="./MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"
```

```
* Splitter Started and Initialized:
```

Accessing AIPs...

```
TPDS0000000001.dat.dir/
```

```
TPDS0000000001.dat.dir/AAREADME.HTM
```

```
TPDS0000000001.dat.dir/AAREADME.LBL
```

```
TPDS0000000001.dat.dir/AAREADME.TXT
```

```
TPDS0000000001.dat.dir/ERRATA.TXT
```

```
TPDS0000000001.dat.dir/VOLDESC.CAT
```

```
TPDS0000000001.dat.dir/CATALOG/
```

```
TPDS0000000001.dat.dir/CATALOG/CATINFO.TXT
```

```
TPDS0000000001.dat.dir/CATALOG/DATASET.CAT
```

```
TPDS0000000001.dat.dir/CATALOG/DEITGT.CAT
```

```
TPDS0000000001.dat.dir/CATALOG/INST.CAT
```

```
TPDS0000000001.dat.dir/CATALOG/INSTHOST.CAT
```

```
TPDS0000000001.dat.dir/CATALOG/MARTGT.CAT
```

```
TPDS0000000001.dat.dir/CATALOG/MISSION.CAT
```

```
TPDS0000000001.dat.dir/CATALOG/PERSON.CAT
```

```
TPDS0000000001.dat.dir/CATALOG/PHOTGT.CAT
```

```
TPDS0000000001.dat.dir/CATALOG/REF.CAT
```

```
TPDS0000000001.dat.dir/DATA/
```

```
TPDS0000000001.dat.dir/DATA/MARS/
```

```
TPDS0000000001.dat.dir/DATA/MARS/ATM23001.TAB
```

```
TPDS0000000001.dat.dir/DATA/MARS/ATM23002.TAB
```

```
TPDS0000000001.dat.dir/DATA/MARS/ATM23003.TAB
```

```
TPDS0000000001.dat.dir/DATA/MARS/ATM23004.TAB
```

```
TPDS0000000001.dat.dir/DATA/MARS/ATM23005.TAB
```

```
TPDS0000000001.dat.dir/DATA/MARS/ATM23006.TAB
```

```
TPDS0000000001.dat.dir/DATA/MARS/ATM.FMT
```

```
TPDS0000000001.dat.dir/DATA/MARS/BOL23001.TAB
```

```
TPDS0000000001.dat.dir/DATA/MARS/BOL23002.TAB
```

```
TPDS0000000001.dat.dir/DATA/MARS/BOL23003.TAB
```

```
TPDS0000000001.dat.dir/DATA/MARS/BOL23004.TAB
```

TPDS0000000001.dat.dir/DATA/MARS/BOL23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL.FMT  
TPDS0000000001.dat.dir/DATA/MARS/CMP.FMT  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LBL  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LST  
TPDS0000000001.dat.dir/DATA/MARS/GEO23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO.FMT  
TPDS0000000001.dat.dir/DATA/MARS/IFG.FMT  
TPDS0000000001.dat.dir/DATA/MARS/LMB.FMT  
TPDS0000000001.dat.dir/DATA/MARS/OBS23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/POS23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/RAD23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23001.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23002.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23003.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23004.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23005.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23006.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD.FMT  
TPDS0000000001.dat.dir/DATA/MARS/TLM23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/VAR.LBL

TPDS0000000001.dat.dir/DOCUMENT/  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/DOCINFO.TXT  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.PDF  
TPDS0000000001.dat.dir/INDEX/  
TPDS0000000001.dat.dir/INDEX/CLASS.TXT  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.LBL  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.TAB  
TPDS0000000001.dat.dir/INDEX/DETMASK.TXT  
TPDS0000000001.dat.dir/INDEX/INDEX.LBL  
TPDS0000000001.dat.dir/INDEX/INDEX.TAB  
TPDS0000000001.dat.dir/INDEX/INDXINFO.TXT  
TPDS0000000001.dat.dir/INDEX/QUALITY.TXT  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TAB  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TXT  
TPDS0000000001.dat.dir/SOFTWARE/  
TPDS0000000001.dat.dir/SOFTWARE/SOFTINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/  
TPDS0000000001.dat.dir/SOFTWARE/BIN/BININFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/HPPA.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/LINUX.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/O2.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/RS6K.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/SOLSPARC.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/WINTEL.EXE  
TPDS0000000001.dat.dir/SOFTWARE/DOC/  
TPDS0000000001.dat.dir/SOFTWARE/DOC/DOCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/DOC/USERDOC.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/  
TPDS0000000001.dat.dir/SOFTWARE/SRC/BUFFS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/CONVERT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DATASET.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DIR.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DOS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_T20.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FIELDS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GENDEF.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GEN\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.C

TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/LOGGING.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE.WIN  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/PROTO.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SEARCH.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SELECT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SRCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLBOX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VANILLA.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VERSION.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXUSE.C  
SUCCESS

real 4m43.453s  
user 0m0.010s  
sys 0m0.010s

TPDS0000000001 0 SPL PASS: "./TPDS0000000001\_AIPfile.sfd.testfile" into  
"./OUTPUT/TPDS0000000001.dat.tar" and "./OUTPUT/TPDS0000000001.att"

\* SPL NOTE: module "local:./MPGA-splitter" completely processed 1 out of 1 AIPs in 283 (secs)

[mdc@starburst bin]\$

[mdc@starburst bin]\$

[mdc@starburst bin]\$

[mdc@starburst bin]\$ more out-PDS-PACKAGE-GENERATOR.splitter.log

TPDS0000000001 0 SPL PASS: "./TPDS0000000001\_AIPfile.sfd.testfile" into  
"./OUTPUT/TPDS0000000001.dat.tar" and "./OUTPUT/TPDS0000000001.att"

[mdc@starburst bin]\$

---



## PROGRAM OUTPUT OF SPLITTER UTILITY

SUCCESS

```
real 4m43.453s
user 0m0.010s
sys 0m0.010s
```

**Program printed out a "SUCCESS" on the command-line at the end of program execution.**

**A .diag and a .log file were created in the bin directory:**

```
out-PDS-PACKAGE-GENERATOR.splitter.diag 7418 bytes
out-PDS-PACKAGE-GENERATOR.splitter.log 141 bytes
```

**2 output files were created in the bin/OUTPUT directory, a data and an attributes file:**

```
TPDS0000000001.att 241605 bytes
TPDS0000000001.dat.tar 614645760 bytes
```

**Extract the data file to retrieve the AIP contents**

```
[mdc@starburst OUTPUT]$ pwd
/home/mdc/mpga_v2/bin/OUTPUT
[mdc@starburst OUTPUT]$
[mdc@starburst OUTPUT]$
[mdc@starburst OUTPUT]$ time tar -xvf TPDS0000000001.dat.tar
TPDS0000000001.dat.dir/
TPDS0000000001.dat.dir/AAREADME.HTM
TPDS0000000001.dat.dir/AAREADME.LBL
TPDS0000000001.dat.dir/AAREADME.TXT
TPDS0000000001.dat.dir/ERRATA.TXT
TPDS0000000001.dat.dir/VOLDESC.CAT
TPDS0000000001.dat.dir/CATALOG/
TPDS0000000001.dat.dir/CATALOG/CATINFO.TXT
TPDS0000000001.dat.dir/CATALOG/DATASET.CAT
TPDS0000000001.dat.dir/CATALOG/DEITGT.CAT
TPDS0000000001.dat.dir/CATALOG/INST.CAT
TPDS0000000001.dat.dir/CATALOG/INSTHOST.CAT
TPDS0000000001.dat.dir/CATALOG/MARTGT.CAT
TPDS0000000001.dat.dir/CATALOG/MISSION.CAT
TPDS0000000001.dat.dir/CATALOG/PERSON.CAT
TPDS0000000001.dat.dir/CATALOG/PHOTGT.CAT
TPDS0000000001.dat.dir/CATALOG/REF.CAT
TPDS0000000001.dat.dir/DATA/
TPDS0000000001.dat.dir/DATA/MARS/
TPDS0000000001.dat.dir/DATA/MARS/ATM23001.TAB
TPDS0000000001.dat.dir/DATA/MARS/ATM23002.TAB
```

TPDS0000000001.dat.dir/DATA/MARS/ATM23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/BOL23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL.FMT  
TPDS0000000001.dat.dir/DATA/MARS/CMP.FMT  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LBL  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LST  
TPDS0000000001.dat.dir/DATA/MARS/GEO23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO.FMT  
TPDS0000000001.dat.dir/DATA/MARS/IFG.FMT  
TPDS0000000001.dat.dir/DATA/MARS/LMB.FMT  
TPDS0000000001.dat.dir/DATA/MARS/OBS23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/POS23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/RAD23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23001.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23002.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23003.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23004.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23005.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23006.VAR

TPDS0000000001.dat.dir/DATA/MARS/RAD.FMT  
TPDS0000000001.dat.dir/DATA/MARS/TLM23001.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23002.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23003.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23004.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23005.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23006.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/VAR.LBL  
TPDS0000000001.dat.dir/DOCUMENT/  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/DOCINFO.TXT  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.PDF  
TPDS0000000001.dat.dir/INDEX/  
TPDS0000000001.dat.dir/INDEX/CLASS.TXT  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.LBL  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.TAB  
TPDS0000000001.dat.dir/INDEX/DETMASK.TXT  
TPDS0000000001.dat.dir/INDEX/INDEX.LBL  
TPDS0000000001.dat.dir/INDEX/INDEX.TAB  
TPDS0000000001.dat.dir/INDEX/INDXINFO.TXT  
TPDS0000000001.dat.dir/INDEX/QUALITY.TXT  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TAB  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TXT  
TPDS0000000001.dat.dir/SOFTWARE/  
TPDS0000000001.dat.dir/SOFTWARE/SOFTINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/  
TPDS0000000001.dat.dir/SOFTWARE/BIN/BININFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/HPPA.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/LINUX.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/O2.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/RS6K.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/SOLSPARC.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/WINTEL.EXE  
TPDS0000000001.dat.dir/SOFTWARE/DOC/  
TPDS0000000001.dat.dir/SOFTWARE/DOC/DOCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/DOC/USERDOC.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/  
TPDS0000000001.dat.dir/SOFTWARE/SRC/BUFFS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/CONVERT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DATASET.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DIR.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DOS.H

```
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF_IRTM.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF_IRTM.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF_T20.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/FIELDS.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/GENDEF.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/GEN_IRTM.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO_LABLIB3.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO_LABLIB3.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/LOGGING.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE.WIN
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/PROTO.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH_CT.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH_CT.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/SEARCH.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/SELECT.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/SRCINFO.TXT
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLBOX.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/VANILLA.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/VERSION.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXUSE.C
```

```
real 0m31.163s
user 0m0.050s
sys 0m6.150s
[mdc@starburst OUTPUT]$
```

**The data set lies in a directory called TPDS0000000001.dat.dir**

**Gather all the checksum values in this directory structure**

```
[mdc@starburst OUTPUT]$ mkdir retrieved_data
[mdc@starburst OUTPUT]$ cd retrieved_data/
[mdc@starburst retrieved_data]$ mkdir mgst_1230
```

```

[mdc@starburst retrieved_data]$ pwd
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data
[mdc@starburst retrieved_data]$
[mdc@starburst retrieved_data]$ cd ..
[mdc@starburst OUTPUT]$ cd TPDS0000000001.dat.dir/
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum * >
../retrieved_data/mgst_1230/checksum_level1_retrieve.out
md5sum: CATALOG: Is a directory
md5sum: DATA: Is a directory
md5sum: DOCUMENT: Is a directory
md5sum: INDEX: Is a directory
md5sum: SOFTWARE: Is a directory
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum */* >
../retrieved_data/mgst_1230/checksum_level2_retrieve.out
md5sum: DATA/MARS: Is a directory
md5sum: SOFTWARE/BIN: Is a directory
md5sum: SOFTWARE/DOC: Is a directory
md5sum: SOFTWARE/SRC: Is a directory
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum */** >
../retrieved_data/mgst_1230/checksum_level3_retrieve.out
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum */**/* >
../retrieved_data/mgst_1230/checksum_level4_retrieve.out
md5sum: */**/*: No such file or directory
[mdc@starburst TPDS0000000001.dat.dir]$
[mdc@starburst TPDS0000000001.dat.dir]$ cd ../retrieved_data/mgst_1230/
[mdc@starburst mgst_1230]$

```

### **Gather checksum values of the original data set**

```

[mdc@starburst mgst_1230]$
[mdc@starburst mgst_1230]$ cd /data/usa_nasa_pds_mgst_1230/
[mdc@starburst usa_nasa_pds_mgst_1230]$ md5sum * >
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1230/checksum_level1_orig.out
md5sum: CATALOG: Is a directory
md5sum: DATA: Is a directory
md5sum: DOCUMENT: Is a directory
md5sum: INDEX: Is a directory
md5sum: SOFTWARE: Is a directory
[mdc@starburst usa_nasa_pds_mgst_1230]$ md5sum */* >
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1230/checksum_level2_orig.out
md5sum: DATA/MARS: Is a directory
md5sum: SOFTWARE/BIN: Is a directory
md5sum: SOFTWARE/DOC: Is a directory
md5sum: SOFTWARE/SRC: Is a directory
[mdc@starburst usa_nasa_pds_mgst_1230]$ md5sum */** >
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1230/checksum_level3_orig.out
[mdc@starburst usa_nasa_pds_mgst_1230]$ md5sum */**/* >
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1230/checksum_level4_orig.out
md5sum: */**/*: No such file or directory
[mdc@starburst usa_nasa_pds_mgst_1230]$

```

## **Compare the original checksum values versus the values of the data we have retrieved from the AIP**

```
[mdc@starburst usa_nasa_pds_mgst_1230]$ cd
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1230/
[mdc@starburst mgst_1230]$
[mdc@starburst mgst_1230]$ ls
checksum_level1_orig.out  checksum_level2_orig.out  checksum_level3_orig.out
checksum_level4_orig.out
checksum_level1_retrieve.out  checksum_level2_retrieve.out  checksum_level3_retrieve.out
checksum_level4_retrieve.out
```

```
[mdc@starburst mgst_1230]$
[mdc@starburst mgst_1230]$
[mdc@starburst mgst_1230]$ diff checksum_level1_orig.out checksum_level1_retrieve.out
[mdc@starburst mgst_1230]$ diff checksum_level2_orig.out checksum_level2_retrieve.out
[mdc@starburst mgst_1230]$ diff checksum_level3_orig.out checksum_level3_retrieve.out
[mdc@starburst mgst_1230]$ diff checksum_level4_orig.out checksum_level4_retrieve.out
[mdc@starburst mgst_1230]$
[mdc@starburst mgst_1230]$
[mdc@starburst mgst_1230]$
[mdc@starburst mgst_1230]$
```

**All input and output files used in this test are stored in  
/home/mdc/mpga\_v2/bin/OUTPUT/retrieve\_data/mgst\_1230**

---

## **MGST 1232 DATA RETRIEVAL TEST**

```
[mdc@starburst bin]$ pwd
/home/mdc/mpga_v2/bin
[mdc@starburst bin]$
[mdc@starburst bin]$
[mdc@starburst bin]$ mv TPDS0000000001_AIPfile_mgst_1232.sfd.testfile
TPDS0000000001_AIPfile.sfd.testfile
[mdc@starburst bin]$ COMMANDS/PDS-PACKAGE-GENERATOR.v2.splitter.cmd
[mdc@starburst bin]$ tail -f out-PDS-PACKAGE-GENERATOR.splitter.diag
* VERBOSE: init registry, SRVR: dbase file="/MPGA_WORKING_DIR/srv_dbaseobj_XXXXXX"
* Splitter Started and Initialized:
```

Accessing AIPs...

```
TPDS0000000001.dat.dir/
TPDS0000000001.dat.dir/AAREADME.HTM
TPDS0000000001.dat.dir/AAREADME.LBL
```

TPDS0000000001.dat.dir/AAREADME.TXT  
TPDS0000000001.dat.dir/ERRATA.TXT  
TPDS0000000001.dat.dir/VOLDESC.CAT  
TPDS0000000001.dat.dir/CATALOG/  
TPDS0000000001.dat.dir/CATALOG/CATINFO.TXT  
TPDS0000000001.dat.dir/CATALOG/DATASET.CAT  
TPDS0000000001.dat.dir/CATALOG/DEITGT.CAT  
TPDS0000000001.dat.dir/CATALOG/INST.CAT  
TPDS0000000001.dat.dir/CATALOG/INSTHOST.CAT  
TPDS0000000001.dat.dir/CATALOG/MARTGT.CAT  
TPDS0000000001.dat.dir/CATALOG/MISSION.CAT  
TPDS0000000001.dat.dir/CATALOG/PERSON.CAT  
TPDS0000000001.dat.dir/CATALOG/PHOTGT.CAT  
TPDS0000000001.dat.dir/CATALOG/REF.CAT  
TPDS0000000001.dat.dir/DATA/  
TPDS0000000001.dat.dir/DATA/MARS/  
TPDS0000000001.dat.dir/DATA/MARS/ATM23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/BOL23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL.FMT  
TPDS0000000001.dat.dir/DATA/MARS/CMP.FMT  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LBL  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LST  
TPDS0000000001.dat.dir/DATA/MARS/GEO23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO.FMT  
TPDS0000000001.dat.dir/DATA/MARS/IFG.FMT  
TPDS0000000001.dat.dir/DATA/MARS/LMB.FMT  
TPDS0000000001.dat.dir/DATA/MARS/OBS23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/POS23201.TAB

TPDS0000000001.dat.dir/DATA/MARS/POS23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/RAD23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23201.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23202.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23203.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23204.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23205.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23206.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD.FMT  
TPDS0000000001.dat.dir/DATA/MARS/TLM23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/VAR.LBL  
TPDS0000000001.dat.dir/DOCUMENT/  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/DOCINFO.TXT  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.PDF  
TPDS0000000001.dat.dir/INDEX/  
TPDS0000000001.dat.dir/INDEX/CLASS.TXT  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.LBL  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.TAB  
TPDS0000000001.dat.dir/INDEX/DETMASK.TXT  
TPDS0000000001.dat.dir/INDEX/INDEX.LBL  
TPDS0000000001.dat.dir/INDEX/INDEX.TAB  
TPDS0000000001.dat.dir/INDEX/INDXINFO.TXT  
TPDS0000000001.dat.dir/INDEX/QUALITY.TXT  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TAB  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TXT  
TPDS0000000001.dat.dir/SOFTWARE/



TPDS0000000001.dat.dir/SOFTWARE/SOFTINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/  
TPDS0000000001.dat.dir/SOFTWARE/BIN/BININFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/HPPA.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/LINUX.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/O2.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/RS6K.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/SOLSPARC.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/WINTEL.EXE  
TPDS0000000001.dat.dir/SOFTWARE/DOC/  
TPDS0000000001.dat.dir/SOFTWARE/DOC/DOCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/DOC/USERDOC.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/  
TPDS0000000001.dat.dir/SOFTWARE/SRC/BUFFS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/CONVERT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DATASET.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DIR.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DOS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_T20.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FIELDS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GENDEF.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GEN\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/LOGGING.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE.WIN  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/PROTO.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SEARCH.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SELECT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SRCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLBOX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VANILLA.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/VERSION.H

```
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.H
SUCCESS
```

```
real 4m44.655s
user 0m0.010s
sys 0m0.070s
```

```
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXUSE.C
TPDS0000000001 0 SPL PASS: "./TPDS0000000001_AIPfile.sfd.testfile" into
"./OUTPUT/TPDS0000000001.dat.tar" and "./OUTPUT/TPDS0000000001.att"
* SPL NOTE: module "local:./MPGA-splitter" completely processed 1 out of 1 AIPs in 285 (secs)
```

```
[mdc@starburst bin]$
[mdc@starburst bin]$ more out-PDS-PACKAGE-GENERATOR.splitter.log
TPDS0000000001 0 SPL PASS: "./TPDS0000000001_AIPfile.sfd.testfile" into
"./OUTPUT/TPDS0000000001.dat.tar" and "./OUTPUT/TPDS0000000001.att"
[mdc@starburst bin]$
```

---

## PROGRAM OUTPUT OF SPLITTER UTILITY

SUCCESS

```
real 4m44.655s
user 0m0.010s
sys 0m0.070s
```

**Program printed out a "SUCCESS" on the command-line at the end of program execution.**

**2 output log files were created:**

<b>out-PDS-PACKAGE-GENERATOR.splitter.diag</b>	<b>7418 bytes</b>
<b>out-PDS-PACKAGE-GENERATOR.splitter.log</b>	<b>141 bytes</b>

**A data and an attributes file were created in bin/OUTPUT:**

<b>TPDS0000000001.dat.tar</b>	<b>620339200 bytes</b>
<b>TPDS0000000001.att</b>	<b>241605 bytes</b>

**Extract the data file to retrieve the AIP contents**

```
[mdc@starburst OUTPUT]$
[mdc@starburst OUTPUT]$
[mdc@starburst OUTPUT]$ time tar -xvf TPDS0000000001.dat.tar
TPDS0000000001.dat.dir/
```

TPDS0000000001.dat.dir/AAREADME.HTM  
TPDS0000000001.dat.dir/AAREADME.LBL  
TPDS0000000001.dat.dir/AAREADME.TXT  
TPDS0000000001.dat.dir/ERRATA.TXT  
TPDS0000000001.dat.dir/VOLDESC.CAT  
TPDS0000000001.dat.dir/CATALOG/  
TPDS0000000001.dat.dir/CATALOG/CATINFO.TXT  
TPDS0000000001.dat.dir/CATALOG/DATASET.CAT  
TPDS0000000001.dat.dir/CATALOG/DEITGT.CAT  
TPDS0000000001.dat.dir/CATALOG/INST.CAT  
TPDS0000000001.dat.dir/CATALOG/INSTHOST.CAT  
TPDS0000000001.dat.dir/CATALOG/MARTGT.CAT  
TPDS0000000001.dat.dir/CATALOG/MISSION.CAT  
TPDS0000000001.dat.dir/CATALOG/PERSON.CAT  
TPDS0000000001.dat.dir/CATALOG/PHOTGT.CAT  
TPDS0000000001.dat.dir/CATALOG/REF.CAT  
TPDS0000000001.dat.dir/DATA/  
TPDS0000000001.dat.dir/DATA/MARS/  
TPDS0000000001.dat.dir/DATA/MARS/ATM23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/ATM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/BOL23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/BOL.FMT  
TPDS0000000001.dat.dir/DATA/MARS/CMP.FMT  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LBL  
TPDS0000000001.dat.dir/DATA/MARS/DATASET.LST  
TPDS0000000001.dat.dir/DATA/MARS/GEO23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/GEO.FMT  
TPDS0000000001.dat.dir/DATA/MARS/IFG.FMT  
TPDS0000000001.dat.dir/DATA/MARS/LMB.FMT  
TPDS0000000001.dat.dir/DATA/MARS/OBS23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/OBS23206.TAB

TPDS0000000001.dat.dir/DATA/MARS/OBS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/POS23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/POS.FMT  
TPDS0000000001.dat.dir/DATA/MARS/RAD23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23201.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23202.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23203.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23204.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23205.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/RAD23206.VAR  
TPDS0000000001.dat.dir/DATA/MARS/RAD.FMT  
TPDS0000000001.dat.dir/DATA/MARS/TLM23201.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23202.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23203.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23204.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23205.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM23206.TAB  
TPDS0000000001.dat.dir/DATA/MARS/TLM.FMT  
TPDS0000000001.dat.dir/DATA/MARS/VAR.LBL  
TPDS0000000001.dat.dir/DOCUMENT/  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/ARCHSIS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/DOCINFO.TXT  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/PROCESS.PDF  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.ASC  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.LBL  
TPDS0000000001.dat.dir/DOCUMENT/SDPSIS.PDF  
TPDS0000000001.dat.dir/INDEX/  
TPDS0000000001.dat.dir/INDEX/CLASS.TXT  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.LBL  
TPDS0000000001.dat.dir/INDEX/CUMINDEX.TAB  
TPDS0000000001.dat.dir/INDEX/DETMASK.TXT  
TPDS0000000001.dat.dir/INDEX/INDEX.LBL  
TPDS0000000001.dat.dir/INDEX/INDEX.TAB  
TPDS0000000001.dat.dir/INDEX/INDXINFO.TXT  
TPDS0000000001.dat.dir/INDEX/QUALITY.TXT  
TPDS0000000001.dat.dir/INDEX/SPECMASK.TAB

TPDS0000000001.dat.dir/INDEX/SPECMASK.TXT  
TPDS0000000001.dat.dir/SOFTWARE/  
TPDS0000000001.dat.dir/SOFTWARE/SOFTINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/  
TPDS0000000001.dat.dir/SOFTWARE/BIN/BININFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/BIN/HPPA.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/LINUX.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/O2.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/RS6K.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/SOLSPARC.EXE  
TPDS0000000001.dat.dir/SOFTWARE/BIN/WINTEL.EXE  
TPDS0000000001.dat.dir/SOFTWARE/DOC/  
TPDS0000000001.dat.dir/SOFTWARE/DOC/DOCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/DOC/USERDOC.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/  
TPDS0000000001.dat.dir/SOFTWARE/SRC/BUFFS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/CONVERT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DATASET.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DIR.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/DOS.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FAKE.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_IRTM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FF\_T20.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/FIELDS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GENDEF.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/GEN\_IRTM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/HEADER.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/IO\_LABLIB3.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/LOGGING.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MAKEFILE.WIN  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/MEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/OUTPUT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/PROTO.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/ROUGH\_CT.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SEARCH.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SELECT.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SRCINFO.TXT  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/SYSTEM.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLBOX.H  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.C  
TPDS0000000001.dat.dir/SOFTWARE/SRC/TOOLS.H

```
TPDS0000000001.dat.dir/SOFTWARE/SRC/VANILLA.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/VERSION.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXBITS.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.C
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDX.H
TPDS0000000001.dat.dir/SOFTWARE/SRC/VIDXUSE.C
```

```
real 0m32.883s
user 0m0.030s
sys 0m5.760s
[mdc@starburst OUTPUT]$
```

**Data is found in a directory called TPDS0000000001.dat.dir.  
Gather all checksum values found under this directory**

```
[mdc@starburst OUTPUT]$ cd retrieved_data/
[mdc@starburst retrieved_data]$ mkdir mgst_1232
[mdc@starburst retrieved_data]$ cd ../TPDS0000000001.dat.dir/
[mdc@starburst TPDS0000000001.dat.dir]$
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum * >
../retrieved_data/mgst_1232/checksum_level1_retrieve.out
md5sum: CATALOG: Is a directory
md5sum: DATA: Is a directory
md5sum: DOCUMENT: Is a directory
md5sum: INDEX: Is a directory
md5sum: SOFTWARE: Is a directory
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum */* >
../retrieved_data/mgst_1232/checksum_level2_retrieve.out
md5sum: DATA/MARS: Is a directory
md5sum: SOFTWARE/BIN: Is a directory
md5sum: SOFTWARE/DOC: Is a directory
md5sum: SOFTWARE/SRC: Is a directory
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum */** >
../retrieved_data/mgst_1232/checksum_level3_retrieve.out
[mdc@starburst TPDS0000000001.dat.dir]$ md5sum */**/* >
../retrieved_data/mgst_1232/checksum_level4_retrieve.out
md5sum: */**/*: No such file or directory
[mdc@starburst TPDS0000000001.dat.dir]$
[mdc@starburst TPDS0000000001.dat.dir]$
```

**Get checksum values of original data set**

```
[mdc@starburst TPDS0000000001.dat.dir]$ cd /data/usa_nasa_pds_mgst_1232/
[mdc@starburst usa_nasa_pds_mgst_1232]$ md5sum * >
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1232/checksum_level1_orig.out
md5sum: CATALOG: Is a directory
md5sum: DATA: Is a directory
```

```
md5sum: DOCUMENT: Is a directory
md5sum: INDEX: Is a directory
md5sum: SOFTWARE: Is a directory
[mdc@starburst usa_nasa_pds_mgst_1232]$ md5sum */* >
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1232/checksum_level2_orig.out
md5sum: DATA/MARS: Is a directory
md5sum: SOFTWARE/BIN: Is a directory
md5sum: SOFTWARE/DOC: Is a directory
md5sum: SOFTWARE/SRC: Is a directory
[mdc@starburst usa_nasa_pds_mgst_1232]$ md5sum */** >
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1232/checksum_level3_orig.out
[mdc@starburst usa_nasa_pds_mgst_1232]$ md5sum */**/* >
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1232/checksum_level4_orig.out
md5sum: */**/*: No such file or directory
[mdc@starburst usa_nasa_pds_mgst_1232]$
[mdc@starburst usa_nasa_pds_mgst_1232]$
[mdc@starburst usa_nasa_pds_mgst_1232]$
```

### **Compare the checksum output files**

```
[mdc@starburst usa_nasa_pds_mgst_1232]$ cd
/home/mdc/mpga_v2/bin/OUTPUT/retrieved_data/mgst_1232/
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$ diff checksum_level1_orig.out checksum_level1_retrieve.out
[mdc@starburst mgst_1232]$ diff checksum_level2_orig.out checksum_level2_retrieve.out
[mdc@starburst mgst_1232]$ diff checksum_level3_orig.out checksum_level3_retrieve.out
[mdc@starburst mgst_1232]$ diff checksum_level4_orig.out checksum_level4_retrieve.out
[mdc@starburst mgst_1232]$
[mdc@starburst mgst_1232]$
```

**All input and output files used in this test are saved in  
/home/mdc/mpga\_v2/bin/OUTPUT/retrieved\_data/mgst\_1232**

**END OF DATA RETRIEVAL TEST**

---