

Wide-field Infrared Survey Explorer (WISE)

Data Ingest Operations Procedures

Version [2.0]

21-January-2010

Prepared by: Ron Beck



**Infrared Processing and Analysis Center
California Institute of Technology**

WSDC D-C001

Approved By:

Ned Wright, WISE Principal Investigator

Donald Royer, WISE Mission Operations Center Manager

Roc Cutri, WISE Science Data Center Manager

[Other Appropriate Names], WISE Science Data Center [Title]

[Other Appropriate Names], WISE Science Data Center [Title]

Revision History

| Date | Version | Author | Description |
|-----------------|----------------|-----------------|----------------------|
| 10/02/09 | 0.1 | Ron Beck | Initial Draft |
| 10/28/09 | 1.0 | Ron Beck | |
| 01/21/10 | 2.0 | Ron Beck | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Table of Contents

- 1 INTRODUCTION
 - 1.1 Document Scope
 - 1.2 Applicable Documents
 - 1.3 Acronyms
- 2 raw_copy Procedure
 - 2.1 raw_copy Command
 - 2.2 Raw Data Locations
 - 2.3 Command Usage
 - 2.4 Example MOS Delivery
 - 2.5 Manifest File Creation
 - 2.6 raw_copy Output Log
- 3 get_wsdcin Procedures
 - 3.1 get_wsdcin Command
 - 3.2 Command Usage
 - 3.3 get_wsdcin Log File
 - 3.4 get_wsdcin Data Locations
 - 3.5 get_wsdcin Manifest Files
 - 3.6 get_wsdcin Log File example
 - 3.7 Output Files Locations
- 4 ingestpipe Procedures
 - 4.1 ingestpipe Command
 - 4.2 run_ingest and run_ingest.auto Commands
 - 4.3 Input Data Location
 - 4.4 Output Data Location
 - 4.5 L0 Data Location
 - 4.6 Scans Data Location
 - 4.7 Quicklook Processing
 - 4.8 Quicklook Summary
 - 4.9 Short Quicklook Summary

1 INTRODUCTION

1.1 Document Scope

This document will explain the procedures for Data Ingest for WSDC operations. Incoming MOS (Mission Operations System) data from Jet Propulsion Laboratory and science telemetry data from White Sands tracking station come into the wsdcin machine at IPAC.

MOS ancillary data such as sequence products (time kernels, ground track, pef files), pointing data, housekeeping etc. will be delivered to the wsdcin:/local/wsdcin/inbox/mos directory. The White Sands HRP (High Rate Processor) telemetry data will be delivered to wsdcin:/local/wsdcin/inbox/hrp. The MOS deliveries will be ongoing daily whereas we expect to receive four telemetry downlinks per day on average 25 gigabytes.

The Data Ingest procedures can be broken up into three broad categories. There is a process running continuously on the wsdcin machine that looks for incoming data, validates it and creates a delivery manifest. There is a process continuously running on wcnode35 that looks for newly created delivery manifests and copies the data into the ingest-expected format on the WSDC operations system. Lastly, the ingestpipe decommutates the science packets into individual frames grouped by scans (approximately one half orbit). Ingestpipe also copies the MOS data to the correct locations and loads the housekeeping data into the HK database.

1.2 Applicable Documents

http://wise.ipac.caltech.edu/wiki/index.php/Raw_copy_command
http://wise.ipac.caltech.edu/wiki/index.php/Get_wsdcin_command
http://wise.ipac.caltech.edu/wiki/index.php/Qlook_summary_command

1.3 Acronyms

HRP - High Rate Processor
IPAC - Infrared Processing and Analysis Center, California Institute of Technology
MOS - Mission Operations System
WSDC - WISE Science Data Center (IPAC)
WSDS - WISE Science Data System
YYYY_JJJ_HH_MM_SS - Year_Julian day of year_hours_minutes_seconds

2 raw_copy Procedure

2.1 raw_copy Command

The raw_copy command runs continuously on machine wsdcin checking the /local/wsdcin/inbox mos and hrp directories for new deliveries. The data are actually written to the /local/wsdcin/inbox/tmp subdirectory until the file has been completely transferred. Once the data is complete, the file is moved to the appropriate mos or hrp subdirectory. The subdirectory takes the form YYYY_JJJ_HH_MM_SS.

2.2 Raw Data Locations

Here is the incoming directory on wsdcin.

```
-bash-3.2$ ls -al /local/wsdcin/inbox
drwxr-xr-x 53 wsdcin wise 4096 Jul 31 14:16 hrp
drwxr-xr-x  2 wsdcin wise 4096 Apr 30 15:00 logs
drwxr-xr-x 32 wsdcin wise 4096 Jul 25 06:37 mos
drwxrwxr-x  4 wsdcin wise 4096 Apr  6 16:13 operations
drwxr-xr-x  2 wsdcin wise 4096 Jul 31 23:41 tmp
drwxr-xr-x  2 wsdcin wise 4096 Jan 16  2009 trash
```

These are the timestamped subdirectories.

```
-bash-3.2$ ls -al /local/wsdcin/inbox/hrp/
drwxrwxrwt  2 wsdcin wise 4096 Jul 31 13:26 2009_212_20_14_03
drwxrwxrwt  2 wsdcin wise 4096 Jul 31 13:39 2009_212_20_27_19
drwxrwxrwt  2 wsdcin wise 4096 Jul 31 23:41 2009_212_20_41_44
```

This is an example of the telemetry packet files, one per band. Note the timestamp on the directory is the same as the files within.

```
-bash-3.2$ ls -al /local/wsdcin/inbox/hrp/2009_212_20_41_44/
-rwxr-xr--  1 wsdcin wise 2136137640 Jul 31 21:00
WIS_HRP_PKT_FE1A_2009_212_20_41_44_001.bin
-rwxr-xr--  1 wsdcin wise 1988368200 Jul 31 20:34
WIS_HRP_PKT_FE1B_2009_212_20_41_44_001.bin
-rwxr-xr--  1 wsdcin wise 2998850400 Jul 31 23:41
WIS_HRP_PKT_FE1C_2009_212_20_41_44_001.bin
-rwxr-xr--  1 wsdcin wise  647577840 Jul 31 16:22
WIS_HRP_PKT_FE1D_2009_212_20_41_44_001.bin
-rw-r--r--  1 wsdcin wise          221 Jul 31 14:16 WIS_HRP_SUM_2009_212_20_41_44.txt
```

A sample MOS directory. The *.bc file is pointing data whereas the *.zip file is housekeeping.

```
-bash-3.2$ ls -al /local/wsdcin/inbox/mos/2009_206_13_37_10/
-rw-r--r--  1 wsdcin wise  225280 Jul 25 06:37 WISE_CK_2009_07_25_13_30_28.bc
-rw-r--r--  1 wsdcin wise    113 Jul 25 06:37 WIS_MOS_SUM_2009_206_13_37_10.txt
-rw-r--r--  1 wsdcin wise 19968292 Jul 25 06:37 WIS_WTCCS_VALUE_2009_07_25_13_36_03.zip
```

Here is a sample delivery with sequence products.

```
-bash-3.2$ ls -al 2009_263_21_15_05
-rw-r--r--  1 wsdcin wise    312 Sep 20 14:15 WIS_MOS_SUM_2009_263_21_15_05.txt
-rw-r--r--  1 wsdcin wise  295936 Sep 20 14:15
WIS_NAV_SPK_WISEONLY_2009_260_20_38_22.bsp
-rw-r--r--  1 wsdcin wise 15593729 Sep 20 14:15 WIS_NAV_WGT_2009_260_20_38_22.txt
-rw-r--r--  1 wsdcin wise  6233088 Sep 20 14:15 WIS_PGEN_WIS_WSEQ_1003_2A-
PL_2009_251_16_34_29.bc
-rw-r--r--  1 wsdcin wise   20966 Sep 20 14:15
WIS_WSEQ_1003_2A_1003_2A_1003_1A_SURVEY_PLAN_2009_238_20_54_11.txt
-rw-r--r--  1 wsdcin wise  429627 Sep 20 14:15 WIS_WSEQ_1003_2A.cmf
-rw-r--r--  1 wsdcin wise 1433384 Sep 20 14:15 WIS_WSEQ_1003_2A.pef
-bash-3.2$
```

In this delivery, we received a pef file, a predicted pointing file (PGEN), a WISE S/C SP kernel (SPK), a survey plan file (SURVEY_PLAN) and some other files we do not use for ingest.

2.3 Command Usage

Here is the raw_copy command usage.

```
-bash-3.2$ /home/beck/bin/raw_copy  
command usage: raw_copy SLEEP
```

where SLEEP is number of seconds to sleep

This command will check /local/wsdcin/inbox directories hrp and mos for new data. Once finding the new directories, it will check the summary file for filenames and sizes. Assuming that checks out ok, a file will be created in /local/wsdcin/inbox/operations/[hrp|mos] with the directory name. This file will contain the filenames, sizes and checksums used for checking the copy to /wise/fops.

The raw_copy process will wake up every SLEEP seconds and check for new deliveries. Once finding a new one, it will check the delivery versus the *SUM* file accompanying the delivery. For example, raw_copy checks the contents of the *SUM* file and makes sure the filenames and sizes match.

2.4 Example MOS Delivery

```
-bash-3.2$ ls -al /local/wsdcin/inbox/mos/2009_206_13_37_10/  
-rw-r--r-- 1 wsdcin wise 225280 Jul 25 06:37 WISE_CK_2009_07_25_13_30_28.bc  
-rw-r--r-- 1 wsdcin wise 113 Jul 25 06:37 WIS_MOS_SUM_2009_206_13_37_10.txt  
-rw-r--r-- 1 wsdcin wise 19968292 Jul 25 06:37 WIS_WTCCS_VALUE_2009_07_25_13_36_03.zip
```

Here are the *SUM* file contents.

```
-bash-3.2$ cat  
/local/wsdcin/inbox/mos/2009_206_13_37_10/WIS_MOS_SUM_2009_206_13_37_10.txt  
#BEGIN_FILE  
WISE_CK_2009_07_25_13_30_28.bc,225280  
WIS_WTCCS_VALUE_2009_07_25_13_36_03.zip,19968292  
#END_FILE
```

In this example you can see that both the filenames and sizes match the *SUM* file and what is actually in the directory. When raw_copy is happy with the delivery, it creates a manifest file in the /local/wsdcin/inbox/operations/mos directory.

2.5 Manifest File Creation

```
-bash-3.2$ ls -al /local/wsdcin/inbox/operations/mos/2009_206_13_37_10  
-rw-r--r-- 1 beck wise 158 Jul 25 06:37  
/local/wsdcin/inbox/operations/mos/2009_206_13_37_10
```

Here are the manifest contents.

```
-bash-3.2$ cat /local/wsdcin/inbox/operations/mos/2009_206_13_37_10  
WISE_CK_2009_07_25_13_30_28.bc 225280 4030132031  
WIS_MOS_SUM_2009_206_13_37_10.txt 113 3974201741  
WIS_WTCCS_VALUE_2009_07_25_13_36_03.zip 19968292 2224941162
```

This file contains the same information as in the *SUM* file adding the *SUM* filename and checksums for all files.

2.6 raw_copy Output Log

The raw_copy command creates a log file in /local/wsdcin/inbox/operations/raw_copy.log. Here is sample output.

```
-bash-3.2$ tail -20 /local/wsdcin/inbox/operations/raw_copy.log
Jul 25 21:33:18: checking dir /local/wsdcin/inbox/hrp/2009_195_20_53_09 ...
file WIS_HRP_PKT_FE1A_2009_195_20_53_09_001.bin looks good ...
file WIS_HRP_PKT_FE1B_2009_195_20_53_09_001.bin looks good ...
file WIS_HRP_PKT_FE1C_2009_195_20_53_09_001.bin looks good ...
file WIS_HRP_PKT_FE1D_2009_195_20_53_09_001.bin looks good ...

Jul 31 11:24:30: checking dir /local/wsdcin/inbox/hrp/2009_212_18_17_34 ...
ERROR file: WIS_HRP_PKT_FE1A_2009_212_18_17_34_001.bin missing ...
ERROR file: WIS_HRP_PKT_FE1B_2009_212_18_17_34_001.bin missing ...
ERROR file: WIS_HRP_PKT_FE1C_2009_212_18_17_34_001.bin missing ...
file WIS_HRP_PKT_FE1D_2009_212_18_17_34_001.bin looks good ...
ERROR: raw_check failed with 3 return ...

Jul 31 11:34:30: checking dir /local/wsdcin/inbox/hrp/2009_212_18_17_34 ...
file WIS_HRP_PKT_FE1A_2009_212_18_17_34_001.bin looks good ...
file WIS_HRP_PKT_FE1B_2009_212_18_17_34_001.bin looks good ...
file WIS_HRP_PKT_FE1C_2009_212_18_17_34_001.bin looks good ...
file WIS_HRP_PKT_FE1D_2009_212_18_17_34_001.bin looks good ...
```

The error occurs when the *SUM* file does not match the directory. In this case the band 4 telemetry packet was complete while the other bands were still transferring over.

3 get_wsdcin Procedures

3.1 get_wsdcin Command

Command get_wsdcin runs continuously on wcnode35 and checks the wsdcin:/local/wsdcin/inbox/operations/ directories mos and hrp for new manifests. Once finding a new manifest will copy it to /wise/fops/operations directories mos and hrp and the files contained within the manifest to the /wise/fops/ingest/delivs directory. The data copied over will be checked for filenames, sizes and checksums to ensure the data copies are correct. Directory names are changed from YYYY_JJJ_HH_MM_SS to ingest-expected YYJJJ/YYJJJTHMMSS names for telemetry (HRP) deliveries and YYJJJ/YYJJJMHMMSS for MOS deliveries. Once a transfer is successful, an email is sent out to the list of people contained in /wise/fops/operations/ingest.email. An email is also sent out should a transfer fail.

3.2 Command Usage

```
beck@caustic;rhe4(ops):~[0]% get_wsdcin
command usage: get_wsdcin SLEEP
```

where SLEEP is number of seconds to sleep

This command will check wsdcin:/local/wsdcin/inbox/operations directories hrp and mos for new files. Once finding the new file, it will copy the new directory from wsdcin:/local/wsdcin/inbox directory hrp or mos to a temporary directory with subdirectories conforming to the ingest convention. The wsdcin:/local/wsdcin/inbox/operations file will also be copied to the same directory on the ingest machine, in this case wcnode35. This file containing filenames, sizes and checksums will then be used to ensure the copy was complete. The last step following checkout is to move the subdirectories from the

temporary directory location to the ingest expected directory.

3.3 get_wsdcin Log File

The get_wsdcin log file is in /wise/fops/operations/raw_del/tranfer_summary.

```
beck@caustic;rhe4(ops):raw_del[0]% ls -al /wise/fops/operations/raw_del/tranfer_summary
-rw-rwxr-x 1 beck wise 102836 Jul 31 11:35
/wise/fops/operations/raw_del/tranfer_summary
```

Here is a sample of the log file.

```
beck@caustic;rhe4(ops):raw_del[0]% tail !$
tail /wise/fops/operations/raw_del/tranfer_summary
Jul 31 11:15:04: sleeping 600 ...
Jul 31 11:25:05: sleeping 600 ...

Jul 31 11:35:05: found 09212T181734 to transfer ...
mkdir -p /wise/fops/ingest/delivs/transfer/09212/09212T181734
scp wsdcin:/local/wsdcin/inbox/hrp/2009_212_18_17_34/*
/wise/fops/ingest/delivs/transfer/09212/09212T181734
scp wsdcin:/local/wsdcin/inbox/operations/hrp/2009_212_18_17_34
/wise/fops/operations/hrp
mv transfer/09212/09212T181734 /wise/fops/ingest/delivs/09212
transfer successful for 09212T181734 ...
Jul 31 11:35:13: sleeping 600 ...
```

3.4 get_wsdcin Data Locations

Here is the data on wsdcin. Note the YYYY_JJJ_HH_MM_SS directory name.

```
-bash-3.2$ ls -al /local/wsdcin/inbox/hrp/2009_212_18_17_34/
-rwxr-xr-- 1 wsdcin wise 68481504 Jul 31 11:29
WIS_HRP_PKT_FE1A_2009_212_18_17_34_001.bin
-rwxr-xr-- 1 wsdcin wise 67516176 Jul 31 11:29
WIS_HRP_PKT_FE1B_2009_212_18_17_34_001.bin
-rwxr-xr-- 1 wsdcin wise 63101220 Jul 31 11:30
WIS_HRP_PKT_FE1C_2009_212_18_17_34_001.bin
-rwxr-xr-- 1 wsdcin wise 15643992 Jul 31 11:24
WIS_HRP_PKT_FE1D_2009_212_18_17_34_001.bin
-rw-r--r-- 1 wsdcin wise      214 Jul 31 11:20 WIS_HRP_SUM_2009_212_18_17_34.txt
```

3.5 get_wsdcin Manifest Files

Here is the manifest file and it's contents for this delivery.

```
-bash-3.2$ ls -al /local/wsdcin/inbox/operations/hrp/2009_212_18_17_34
-rw-r--r-- 1 beck wise 283 Jul 31 11:34
/local/wsdcin/inbox/operations/hrp/2009_212_18_17_34

-bash-3.2$ cat /local/wsdcin/inbox/operations/hrp/2009_212_18_17_34
WIS_HRP_PKT_FE1A_2009_212_18_17_34_001.bin 68481504 3591429130
WIS_HRP_PKT_FE1B_2009_212_18_17_34_001.bin 67516176 3573394291
WIS_HRP_PKT_FE1C_2009_212_18_17_34_001.bin 63101220 49348116
WIS_HRP_PKT_FE1D_2009_212_18_17_34_001.bin 15643992 2966573232
WIS_HRP_SUM_2009_212_18_17_34.txt 214 2887854670
```

3.6 get_wsdcin Log File example

Here is the log file from get_wsdcin where this delivery was transferred. One can find this output in the /wise/fops/operations/raw_del/tranfer_summary file.

```
Jul 31 11:35:05: found 09212T181734 to transfer ...
mkdir -p /wise/fops/ingest/delivs/transfer/09212/09212T181734
scp wsdcin:/local/wsdcin/inbox/hrp/2009_212_18_17_34/*
/wise/fops/ingest/delivs/transfer/09212/09212T181734
scp wsdcin:/local/wsdcin/inbox/operations/hrp/2009_212_18_17_34
/wise/fops/operations/hrp
mv transfer/09212/09212T181734 /wise/fops/ingest/delivs/09212
transfer successful for 09212T181734 ...
```

3.7 Output Files Locations

Here is the output location on wcnode35 and the directory contents.

```
beck@caustic;rhe4(ops):~[0]% ls -al /wise/fops/ingest/delivs/09212/09212T181734
-rwxr-xr-- 1 beck wise 68481504 Jul 31 11:35 WIS_HRP_PKT_FE1A_2009_212_18_17_34_001.bin
-rwxr-xr-- 1 beck wise 67516176 Jul 31 11:35 WIS_HRP_PKT_FE1B_2009_212_18_17_34_001.bin
-rwxr-xr-- 1 beck wise 63101220 Jul 31 11:35 WIS_HRP_PKT_FE1C_2009_212_18_17_34_001.bin
-rwxr-xr-- 1 beck wise 15643992 Jul 31 11:35 WIS_HRP_PKT_FE1D_2009_212_18_17_34_001.bin
-rw-r--r-- 1 beck wise      214 Jul 31 11:35 WIS_HRP_SUM_2009_212_18_17_34.txt
```

4 Ingestpipe Procedures

4.1 Ingestpipe Command

The ingestpipe command basically takes all the MOS data and copies it to the correct location, loads the housekeeping data into the hk database, decommutates the telemetry packet files into their scan delimited frames and starts the quicklook processing.

Here is a "vanilla" ingestpipe command line. This command will ingest the MOS delivery 09202M001533.

```
ingestpipe -delivid 09202M001533 -run @mos
```

Here is an example of a telemetry ingest. The '-v' turns on the verbose output for delivery telemetry 09154T205309. Note the '@tlm' for telemetry. The '@ql' means run the telemetry code without starting the quicklook pipeline processing. the '-replace' means this delivery has been done previously and I want to replace the frames in the /wise/fops/l0 and /wise/fops/scans directories with this run. The 'orbitoff=200' means to add 200 to the beginning scan number. This is used prior to launch for testing with limited amounts of test data.

```
ingestpipe -v -delivid 09154T205309 -run @tlm,-@ql -replace -opts orbitoff=200
```

There are any number of parameters input to ingestpipe that can be displayed with the "ingestpipe -help2" command. Some of the parameters that we currently use frequently are displayed below.

```
-data_root - this overrides the default data_root of /wise/fops. typically we
will use /wise/tops for testing purposes.
-opts mosauto=1 - when ingesting science telemetry, this will check to see
that we have all the necessary MOS files that cover the time range.
-opts ck_scid=-163000 - this overrides the pointing data's spacecraft id to the
correct number that ingest expects.
```

-:wqlspipe:wsspiped:wqlfpiped:wspiped '-opts ignore_qa_rc=1' - this actually passes override parameters to the quicklook pipelines. This override tells the pipelines to ignore frame failures when running the QA module.

4.2 run_ingest and run_ingest.auto Commands

There is a command called run_ingest. This is used to ingest the mos or telemetry data separately. One should ingest the mos data prior to ingesting telemetry data. This should

be run as wiseops on wcnode35 using the newcfg ops configuration unless requested otherwise.

This would be used when we need better control over what is being ingested. For example if a

new pef file is coming in that needs to be verified prior to ingesting. Generally the OPS team

will be notified by other WISE personnel if file verification is needed on specific incoming files.

Otherwise the run_ingest.auto mentioned further down is generally running in the background.

```
command usage: run_ingest TYPE template
               where  TYPE is mos or tlm
               template is template filename
```

Example(s):

```
wiseops@wcnode35;rhe4(ops):~[0]%/home/beck/bin/run_ingest mos
/wise/fops/operations/templates/mos.ingest
```

or

```
wiseops@wcnode35;rhe4(ops):~[0]%/home/beck/bin/run_ingest tlm
/wise/fops/operations/templates/tlm.ingest.cover_off
```

The run_ingest.auto is a process that we try to keep running in the background on wcnode35. It should be started up as wiseops on wcnode35 using the newcfg ops configuration.

This will ingest the incoming mos and telemetry data as it arrives. It will check to see if there are any delivery id's in the /wise/fops/operations/ingest file.

If there are it will first ingest the mos data and then the telemetry data. As it ingest the data it will write to the /wise/fops/operations/logs/ingest.log file.

```
command usage: run_ingest.auto MOSTEMPLATE TLMTEMPLATE
```

```
where  MOSTEMPLATE is mos template filename
       TLMTEMPLATE is tlm template filename
```

To verify the process is running:

```
wiseops@wcnode35;rhe4(ops):bin[0]% ps -ef | grep ingest
wiseops 20183      1  0 Jan12 ?          00:00:00 /usr/bin/perl
/home/beck/bin/run_ingest.auto
/wise/fops/operations/templates/mos.ingest
/wise/fops/operations/templates/tlm.ingest.cover_off
wiseops 20185 20183  0 Jan12 ?          00:00:00 tee -a
/wise/fops/operations/logs/ingest.log
wiseops 26707 26635  0 08:19 pts/4      00:00:00 grep ingest
```

Examples of the templates used in the above command:

```
wiseops@wcnode35;rhe4(ops):~[0]% cat /wise/fops/operations/templates/mos.ingest
ingestpipe -v -run @mos -delivid XXXXXX
```

```
wiseops@wcnode35;rhe4(ops):~[0]% cat /wise/fops/operations/templates/tlm.ingest.cover_off
ingestpipe -v -run @tlm -opts mosauto=1 -delivid XXXXXX -replace
```

4.3 Input Data Location

The input to ingestpipe are in the /wise/fops/ingest/delivs directory. To run ingestpipe, the output directory is created in /wise/fops/ingest. For example, in the above 09154T205309 delivery mentioned in section 4.1, input data will be found in /wise/fops/ingest/delivs/09154/09154T205309. The files are the four bands of packet telemetry.

```
beck@caustic;rhe4(ops):delivs[1]% ls -al /wise/fops/ingest/delivs/09154/09154T205309
-rw-rw-r-- 1 beck wise 1241800560 Jun  4 15:29 WIS_HRP_PKT_FE1A_2009_06_03_20_53_09.bin
-rw-rw-r-- 1 beck wise 1403922156 Jun  4 15:29 WIS_HRP_PKT_FE1B_2009_06_03_20_53_09.bin
-rw-rw-r-- 1 beck wise 2107553448 Jun  4 15:30 WIS_HRP_PKT_FE1C_2009_06_03_20_53_09.bin
-rw-rw-r-- 1 beck wise  509920320 Jun  4 15:30 WIS_HRP_PKT_FE1D_2009_06_03_20_53_09.bin
```

4.4 Output Data Location

The output directory has been created in /wise/fops/ingest/09154/09154T205309 and the ingestpipe command has been run from this directory. The *frames.tbl contain the frame numbers and associated information for each scan. The scan numbers are the 004??a identifiers at the beginning of the *frames.tbl. The 09154T205309-scans.tbl contains a summary of the scans for the delivery also. Any errors from the ingestpipe will end up in the stderr*.txt files, one per band.

```
beck@caustic;rhe4(ops):delivs[0]% ls -al /wise/fops/ingest/09154/09154T205309
-rw-rw-r-- 1 beck wise  360364 Jul 31 10:12 00485a_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise  397156 Jul 31 10:12 00486a_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise   15524 Jul 31 10:12 00486x_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise  393124 Jul 31 10:13 00487a_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise   14008 Jul 31 10:13 00487x_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise  395140 Jul 31 10:13 00488a_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise   13972 Jul 31 10:13 00488x_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise  393124 Jul 31 10:13 00489a_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise   13972 Jul 31 10:13 00489x_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise  395140 Jul 31 10:13 00490a_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise   13972 Jul 31 10:13 00490x_09154T205309-frames.tbl
```

```

-rw-rw-r-- 1 beck wise 393124 Jul 31 10:14 00491a_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise 14008 Jul 31 10:14 00491x_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise 394132 Jul 31 10:14 00492a_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise 13972 Jul 31 10:14 00492x_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise 4672 Jul 31 10:14 00493x_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise 22392 Jul 31 10:16 09154T205309-meta-ingest.tbl
-rw-rw-r-- 1 beck wise 9204 Jul 31 10:14 09154T205309-scans.tbl
-rw-rw-r-- 1 beck wise 86339496 Jul 31 10:12 09154T205309-state.pds
-rw-rw-r-- 1 beck wise 160686 Jul 31 10:16 ingestpipe.out
-rw-rw-r-- 1 beck wise 0 Jul 31 10:10 stderr-w1.txt
-rw-rw-r-- 1 beck wise 0 Jul 31 10:11 stderr-w2.txt
-rw-rw-r-- 1 beck wise 0 Jul 31 10:11 stderr-w3.txt
-rw-rw-r-- 1 beck wise 0 Jul 31 10:03 stderr-w4.txt

```

The ingestpipe will create or in the case of '-replace' rewrite the frame directories in both the /wise/fops/l0 and scans directories. The /wise/fops/l0 directory is the actual location for the raw frame data.

4.5 L0 Data Location

Here is the actual l0 directory for the 09154T205309 scan 00485a.

```

beck@caustic;rhe4(ops):~[0]% ls -al /wise/fops/l0/5a/00485a/
-rw-rw-r-- 1 beck wise 32680 Jul 31 09:19 00485a_09154T175416-frames.tbl
-rw-rw-r-- 1 beck wise 4972 Jul 31 09:19 00485a_09154T175416-meta-ingest-scan.tbl
-rw-rw-r-- 1 beck wise 2304 Jul 31 09:19 00485a_09154T175416-scans.tbl
-rw-rw-r-- 1 beck wise 360364 Jul 31 10:12 00485a_09154T205309-frames.tbl
-rw-rw-r-- 1 beck wise 4972 Jul 31 10:14 00485a_09154T205309-meta-ingest-scan.tbl
-rw-rw-r-- 1 beck wise 2304 Jul 31 10:14 00485a_09154T205309-scans.tbl
drwxrwxr-x 252 beck wise 252 Jun 29 12:59 fr

```

Here are all the frame directories for scan 00485a.

```

beck@caustic;rhe4(ops):~[0]% ls /wise/fops/l0/5a/00485a/fr/
001 019 036 054 072 089 107 124 142 160 177 195 212 230 248 265
002 020 037 055 073 090 108 125 143 161 178 196 213 231 249 266
003 021 039 056 074 091 109 127 144 162 179 197 215 232 250 267
004 022 040 057 075 092 110 128 145 163 180 198 216 233 251 268
006 023 041 058 076 094 111 129 146 164 182 199 217 234 252 270
007 024 042 059 077 095 112 130 147 165 183 200 218 235 253 271
008 025 043 061 078 096 113 131 149 166 184 201 219 237 254 272
009 026 044 062 079 097 114 132 150 167 185 202 220 238 255 273
010 028 045 063 080 098 116 133 151 168 186 204 221 239 256 274
011 029 046 064 081 099 117 134 152 169 187 205 222 240 257 275
012 030 047 065 083 100 118 135 153 171 188 206 223 241 259
013 031 048 066 084 101 119 136 154 172 189 207 224 242 260
014 032 050 067 085 102 120 138 155 173 190 208 226 243 261
015 033 051 068 086 103 121 139 156 174 191 209 227 244 262
017 034 052 069 087 105 122 140 157 175 193 210 228 245 263
018 035 053 070 088 106 123 141 158 176 194 211 229 246 264

```

Here are the contents of the frame 1 directory. The *.fits files are the actual raw images for the four bands.

```

beck@caustic;rhe4(ops):~[0]% ls -al /wise/fops/l0/5a/00485a/fr/001
-rw-rw-r-- 1 beck wise 61204 Jul 31 09:19 00485a001-meta-ingest.tbl
-rw-rw-r-- 1 beck wise 4224960 Jul 31 09:14 00485a001-w1-int-0.fits.gz
-rw-rw-r-- 1 beck wise 4224960 Jul 31 09:16 00485a001-w2-int-0.fits.gz
-rw-rw-r-- 1 beck wise 4224960 Jul 31 09:16 00485a001-w3-int-0.fits.gz
-rw-rw-r-- 1 beck wise 1080000 Jul 31 09:07 00485a001-w4-int-0.fits.gz

```

4.6 Scans Data Location

Here is the actual scan frame directories for the 09154T205309 scan 00485a. Note the directory structure is the same except the 10 is replaced by scans and there are the same number of frames.

```
beck@caustic;rhe4(ops):~[0]% ls /wise/fops/scans/5a/00485a/fr
001 019 036 054 072 089 107 124 142 160 177 195 212 230 248 265
002 020 037 055 073 090 108 125 143 161 178 196 213 231 249 266
003 021 039 056 074 091 109 127 144 162 179 197 215 232 250 267
004 022 040 057 075 092 110 128 145 163 180 198 216 233 251 268
006 023 041 058 076 094 111 129 146 164 182 199 217 234 252 270
007 024 042 059 077 095 112 130 147 165 183 200 218 235 253 271
008 025 043 061 078 096 113 131 149 166 184 201 219 237 254 272
009 026 044 062 079 097 114 132 150 167 185 202 220 238 255 273
010 028 045 063 080 098 116 133 151 168 186 204 221 239 256 274
011 029 046 064 081 099 117 134 152 169 187 205 222 240 257 275
012 030 047 065 083 100 118 135 153 171 188 206 223 241 259
013 031 048 066 084 101 119 136 154 172 189 207 224 242 260
014 032 050 067 085 102 120 138 155 173 190 208 226 243 261
015 033 051 068 086 103 121 139 156 174 191 209 227 244 262
017 034 052 069 087 105 122 140 157 175 193 210 228 245 263
018 035 053 070 088 106 123 141 158 176 194 211 229 246 264
```

Here is the contents of the frame 1 directory. Note they are links to the raw data in the corresponding 10 directory. No need to keep two sets of files online.

```
beck@caustic;rhe4(ops):~[0]% ls -al /wise/fops/scans/5a/00485a/fr/001
lrwxrwxrwx 1 beck wise 66 Aug 2 00:44 00485a001-w1-int-0.fits.gz -> /wise-ops/01/wise/fops/10/5a/00485a/fr/001/00485a001-w1-int-0.fits.gz
lrwxrwxrwx 1 beck wise 66 Aug 2 00:44 00485a001-w2-int-0.fits.gz -> /wise-ops/01/wise/fops/10/5a/00485a/fr/001/00485a001-w2-int-0.fits.gz
lrwxrwxrwx 1 beck wise 66 Aug 2 00:44 00485a001-w3-int-0.fits.gz -> /wise-ops/01/wise/fops/10/5a/00485a/fr/001/00485a001-w3-int-0.fits.gz
lrwxrwxrwx 1 beck wise 66 Aug 2 00:44 00485a001-w4-int-0.fits.gz -> /wise-ops/01/wise/fops/10/5a/00485a/fr/001/00485a001-w4-int-0.fits.gz
```

4.7 Quicklook Processing

The ingestpipe will also setup and run quicklook processing on the telemetry deliveries as a default. The quicklook processing will algorithmically select about 100 frames per delivery to run through an abbreviated scan pipeline. Output for this example is in /wise/fops/ql/4m/09194m. The directory naming convention is the YYJJJ increased alphabetically from letter a for each YYJJJ delivery for that julian day. This delivery was the mth quicklook run for this day.

```
beck@caustic;rhe4(ops):09194m[0]% ls -al /wise/fops/ql/4m/09194m
-rw-rw-r-- 1 beck wise 2110 Jul 13 10:56 09194m-frames.tbl
-rw-rw-r-- 1 beck wise 2764 Jul 13 10:56 09194m-meta-sspipe.tbl
-rw-rw-r-- 1 beck wise 4987 Jul 13 10:56 09194m-metasum-framestat.tbl
-rw-rw-r-- 1 beck wise 500 Jul 13 10:56 WQLPipe.09194m.stderr.txt
-rw-rw-r-- 1 beck wise 61063 Jul 13 10:56 WQLPipe.09194m.stdout.txt
-rwxrwxr-x 2 beck wise 69508 Jul 13 10:56 WQLSPipe.log
-rwxrwxr-x 2 beck wise 69508 Jul 13 10:56 WQLSPipe_090713_175516_etec.save_log
drwxrwxr-x 2 beck wise 2 Jul 13 10:55 cal
drwxrwxr-x 31 beck wise 31 Jul 13 10:55 fr
drwxrwxr-x 2 beck wise 2 Jul 13 10:55 qa
drwxrwxr-x 2 beck wise 2 Jul 13 10:55 work
-rw-rw-r-- 1 beck wise 29161 Jul 13 10:55 wqlfpipe.condor.submit
```

4.8 Quicklook Summary

Quicklook processing is done to get a quick look of the delivery before the formal scan pipeline processing runs. The QA people are to be alerted when a quicklook has completed by emailing quicklook location and a summary of the processing. The quicklook summary can be generated following quicklook completion with the following command. Parm LOGDIR is the quicklook directory such as /wise/fops/ql/4m/09194m in the previous example.

```
beck@caustic;rhe4(ops):~[0]% /home/beck/bin/qlook_summary
command qlook_summary: LOGDIR
```

Here is an example of the output from qlook_summary. In this example, frame 1 pipeline blew with a 64 return code. The error messages directly following the 001 frame number were copied from the offending frame directory's error log. In this case the pattern match failed because there was only one band for that frame.

```
beck@caustic;rhe4(ops):~[0]% m /wise/fops/operations/problems/09195j.MM-DOY-
HH:MM:SS.errors
FRAME          START          ELAP STAT  SIG CODE HOST  PROGRAM
      09/07/26_18:14:19  10:22    1    1    0   01 WSSPipe
      09/07/26_18:14:19  10:23    1    1    0   01 WQLSPipe
      09/07/26_18:14:19  10:23   256    0    1   01 Spawn_wsspipe
001 09/07/26_18:14:47  00:35    64   64    0   10 WQLFPipe
PAT_MCH_FAILED_f 3 0.0375841843392298 -430.39430895390024 -22.400645419265686
2459.690419256077 0.9863284482974116
===WARNING: SFPReX/pmr dif - NO PATTERN MATCH          3          0.0375841843          0
.0010000000
pmr dif-99 2
***ERROR: SFPReX - fatal error code from pmr dif: 2
002 09/07/26_18:14:49  05:04    0    0    0   10 WQLFPipe
003 09/07/26_18:14:48  09:00    0    0    0   02 WQLFPipe
004 09/07/26_18:14:47  06:16    0    0    0   11 WQLFPipe
005 09/07/26_18:14:47  05:26    0    0    0   10 WQLFPipe
006 09/07/26_18:14:47  06:39    0    0    0   02 WQLFPipe
007 09/07/26_18:14:47  04:18    0    0    0   20 WQLFPipe
008 09/07/26_18:14:47  05:21    0    0    0   11 WQLFPipe
009 09/07/26_18:14:46  05:09    0    0    0   10 WQLFPipe
010 09/07/26_18:14:47  05:07    0    0    0   21 WQLFPipe
011 09/07/26_18:14:49  06:26    0    0    0   02 WQLFPipe
012 09/07/26_18:14:48  06:30    0    0    0   03 WQLFPipe
013 09/07/26_18:14:48  04:35    0    0    0   20 WQLFPipe
014 09/07/26_18:14:48  05:00    0    0    0   30 WQLFPipe
015 09/07/26_18:14:48  05:17    0    0    0   11 WQLFPipe
016 09/07/26_18:14:48  05:06    0    0    0   12 WQLFPipe
017 09/07/26_18:14:46  05:06    0    0    0   10 WQLFPipe
018 09/07/26_18:14:48  05:03    0    0    0   21 WQLFPipe
019 09/07/26_18:14:47  06:16    0    0    0   02 WQLFPipe
020 09/07/26_18:14:47  06:09    0    0    0   03 WQLFPipe
021 09/07/26_18:14:46  05:06    0    0    0   10 WQLFPipe
022 09/07/26_18:14:48  04:21    0    0    0   20 WQLFPipe
023 09/07/26_18:14:47  04:59    0    0    0   30 WQLFPipe
024 09/07/26_18:14:47  05:20    0    0    0   11 WQLFPipe
025 09/07/26_18:14:48  04:58    0    0    0   12 WQLFPipe
026 09/07/26_18:14:48  05:03    0    0    0   08 WQLFPipe
027 09/07/26_18:14:47  05:03    0    0    0   21 WQLFPipe
028 09/07/26_18:14:47  04:21    0    0    0   13 WQLFPipe
```

| | | | | | | | |
|-----|-------------------|-------|---|---|---|----|----------|
| 029 | 09/07/26_18:14:47 | 06:37 | 0 | 0 | 0 | 02 | WQLFPipe |
| 030 | 09/07/26_18:14:49 | 06:37 | 0 | 0 | 0 | 03 | WQLFPipe |
| 031 | 09/07/26_18:14:46 | 05:50 | 0 | 0 | 0 | 10 | WQLFPipe |
| 032 | 09/07/26_18:14:49 | 05:21 | 0 | 0 | 0 | 08 | WQLFPipe |
| 033 | 09/07/26_18:14:47 | 04:45 | 0 | 0 | 0 | 20 | WQLFPipe |
| 034 | 09/07/26_18:14:47 | 04:07 | 0 | 0 | 0 | 31 | WQLFPipe |
| 035 | 09/07/26_18:14:46 | 04:06 | 0 | 0 | 0 | 22 | WQLFPipe |
| 036 | 09/07/26_18:14:46 | 04:53 | 0 | 0 | 0 | 30 | WQLFPipe |
| 037 | 09/07/26_18:14:46 | 05:15 | 0 | 0 | 0 | 04 | WQLFPipe |
| 038 | 09/07/26_18:14:47 | 05:41 | 0 | 0 | 0 | 11 | WQLFPipe |
| 039 | 09/07/26_18:14:46 | 05:01 | 0 | 0 | 0 | 12 | WQLFPipe |
| 040 | 09/07/26_18:14:47 | 05:04 | 0 | 0 | 0 | 21 | WQLFPipe |
| 041 | 09/07/26_18:14:48 | 04:32 | 0 | 0 | 0 | 09 | WQLFPipe |
| 042 | 09/07/26_18:14:46 | 04:03 | 0 | 0 | 0 | 13 | WQLFPipe |
| 043 | 09/07/26_18:14:47 | 06:14 | 0 | 0 | 0 | 02 | WQLFPipe |
| 044 | 09/07/26_18:14:47 | 06:09 | 0 | 0 | 0 | 03 | WQLFPipe |
| 045 | 09/07/26_18:14:47 | 05:12 | 0 | 0 | 0 | 08 | WQLFPipe |
| 046 | 09/07/26_18:14:46 | 05:09 | 0 | 0 | 0 | 30 | WQLFPipe |
| 047 | 09/07/26_18:14:47 | 04:04 | 0 | 0 | 0 | 18 | WQLFPipe |
| 048 | 09/07/26_18:14:46 | 04:24 | 0 | 0 | 0 | 31 | WQLFPipe |
| 049 | 09/07/26_18:14:46 | 04:19 | 0 | 0 | 0 | 22 | WQLFPipe |
| 050 | 09/07/26_18:14:46 | 04:29 | 0 | 0 | 0 | 20 | WQLFPipe |
| 051 | 09/07/26_18:14:47 | 05:24 | 0 | 0 | 0 | 04 | WQLFPipe |
| 052 | 09/07/26_18:14:46 | 05:08 | 0 | 0 | 0 | 10 | WQLFPipe |
| 053 | 09/07/26_18:14:48 | 05:19 | 0 | 0 | 0 | 11 | WQLFPipe |
| 054 | 09/07/26_18:14:48 | 05:06 | 0 | 0 | 0 | 12 | WQLFPipe |
| 055 | 09/07/26_18:14:48 | 05:00 | 0 | 0 | 0 | 21 | WQLFPipe |
| 056 | 09/07/26_18:14:46 | 04:33 | 0 | 0 | 0 | 09 | WQLFPipe |
| 057 | 09/07/26_18:14:48 | 04:23 | 0 | 0 | 0 | 13 | WQLFPipe |
| 058 | 09/07/26_18:14:48 | 06:13 | 0 | 0 | 0 | 02 | WQLFPipe |
| 059 | 09/07/26_18:14:48 | 06:41 | 0 | 0 | 0 | 03 | WQLFPipe |
| 060 | 09/07/26_18:14:49 | 05:26 | 0 | 0 | 0 | 08 | WQLFPipe |
| 061 | 09/07/26_18:14:47 | 03:47 | 0 | 0 | 0 | 32 | WQLFPipe |
| 062 | 09/07/26_18:14:46 | 03:49 | 0 | 0 | 0 | 14 | WQLFPipe |
| 063 | 09/07/26_18:14:47 | 03:42 | 0 | 0 | 0 | 23 | WQLFPipe |
| 064 | 09/07/26_18:14:46 | 05:02 | 0 | 0 | 0 | 30 | WQLFPipe |
| 065 | 09/07/26_18:14:46 | 04:15 | 0 | 0 | 0 | 22 | WQLFPipe |
| 066 | 09/07/26_18:14:47 | 03:51 | 0 | 0 | 0 | 18 | WQLFPipe |
| 067 | 09/07/26_18:14:47 | 04:05 | 0 | 0 | 0 | 31 | WQLFPipe |
| 068 | 09/07/26_18:14:48 | 04:13 | 0 | 0 | 0 | 20 | WQLFPipe |
| 069 | 09/07/26_18:14:48 | 05:16 | 0 | 0 | 0 | 04 | WQLFPipe |
| 070 | 09/07/26_18:14:48 | 04:16 | 0 | 0 | 0 | 05 | WQLFPipe |
| 071 | 09/07/26_18:14:47 | 05:18 | 0 | 0 | 0 | 11 | WQLFPipe |
| 072 | 09/07/26_18:14:49 | 05:11 | 0 | 0 | 0 | 12 | WQLFPipe |
| 073 | 09/07/26_18:14:48 | 05:07 | 0 | 0 | 0 | 21 | WQLFPipe |
| 074 | 09/07/26_18:14:48 | 04:41 | 0 | 0 | 0 | 09 | WQLFPipe |
| 075 | 09/07/26_18:14:48 | 04:12 | 0 | 0 | 0 | 13 | WQLFPipe |
| 076 | 09/07/26_18:14:47 | 06:16 | 0 | 0 | 0 | 03 | WQLFPipe |
| 077 | 09/07/26_18:14:47 | 06:17 | 0 | 0 | 0 | 02 | WQLFPipe |
| 078 | 09/07/26_18:14:48 | 05:09 | 0 | 0 | 0 | 08 | WQLFPipe |
| 079 | 09/07/26_18:14:46 | 03:16 | 0 | 0 | 0 | 19 | WQLFPipe |
| 080 | 09/07/26_18:14:46 | 04:57 | 0 | 0 | 0 | 30 | WQLFPipe |
| 081 | 09/07/26_18:14:48 | 04:05 | 0 | 0 | 0 | 22 | WQLFPipe |
| 082 | 09/07/26_18:14:46 | 04:04 | 0 | 0 | 0 | 31 | WQLFPipe |
| 083 | 09/07/26_18:14:47 | 03:51 | 0 | 0 | 0 | 18 | WQLFPipe |
| 084 | 09/07/26_18:14:46 | 04:37 | 0 | 0 | 0 | 20 | WQLFPipe |
| 085 | 09/07/26_18:14:48 | 03:34 | 0 | 0 | 0 | 28 | WQLFPipe |
| 086 | 09/07/26_18:14:48 | 04:23 | 0 | 0 | 0 | 23 | WQLFPipe |
| 087 | 09/07/26_18:14:47 | 03:30 | 0 | 0 | 0 | 14 | WQLFPipe |
| 088 | 09/07/26_18:14:47 | 03:30 | 0 | 0 | 0 | 32 | WQLFPipe |

| | | | | | | | |
|-----|-------------------|-------|---|---|---|----|---------------|
| 089 | 09/07/26_18:14:46 | 05:17 | 0 | 0 | 0 | 04 | WQLFPipe |
| 090 | 09/07/26_18:14:48 | 05:16 | 0 | 0 | 0 | 11 | WQLFPipe |
| 091 | 09/07/26_18:14:48 | 04:37 | 0 | 0 | 0 | 05 | WQLFPipe |
| 092 | 09/07/26_18:14:47 | 05:24 | 0 | 0 | 0 | 12 | WQLFPipe |
| 093 | 09/07/26_18:14:47 | 05:17 | 0 | 0 | 0 | 21 | WQLFPipe |
| 094 | 09/07/26_18:14:47 | 05:18 | 0 | 0 | 0 | 09 | WQLFPipe |
| 095 | 09/07/26_18:14:46 | 04:33 | 0 | 0 | 0 | 13 | WQLFPipe |
| 096 | 09/07/26_18:14:47 | 06:58 | 0 | 0 | 0 | 03 | WQLFPipe |
| 097 | 09/07/26_18:14:47 | 05:29 | 0 | 0 | 0 | 08 | WQLFPipe |
| 098 | 09/07/26_18:14:46 | 05:16 | 0 | 0 | 0 | 12 | WQLFPipe |
| 099 | 09/07/26_18:14:46 | 04:15 | 0 | 0 | 0 | 22 | WQLFPipe |
| 100 | 09/07/26_18:14:48 | 04:05 | 0 | 0 | 0 | 31 | WQLFPipe |
| 101 | 09/07/26_18:14:47 | 03:56 | 0 | 0 | 0 | 18 | WQLFPipe |
| 102 | 09/07/26_18:14:47 | 03:23 | 0 | 0 | 0 | 24 | WQLFPipe |
| 103 | 09/07/26_18:14:47 | 03:23 | 0 | 0 | 0 | 15 | WQLFPipe |
| 104 | 09/07/26_18:14:48 | 03:22 | 0 | 0 | 0 | 28 | WQLFPipe |
| 105 | 09/07/26_18:14:46 | 05:01 | 0 | 0 | 0 | 30 | WQLFPipe |
| 106 | 09/07/26_18:14:47 | 03:52 | 0 | 0 | 0 | 19 | WQLFPipe |
| 107 | 09/07/26_18:14:47 | 04:27 | 0 | 0 | 0 | 23 | WQLFPipe |
| 108 | 09/07/26_18:14:46 | 03:49 | 0 | 0 | 0 | 14 | WQLFPipe |
| 109 | 09/07/26_18:14:47 | 03:29 | 0 | 0 | 0 | 32 | WQLFPipe |
| 110 | 09/07/26_18:14:46 | 05:23 | 0 | 0 | 0 | 04 | WQLFPipe |
| 111 | 09/07/26_18:14:48 | 04:12 | 0 | 0 | 0 | 06 | WQLFPipe |
| 112 | 09/07/26_18:14:48 | 04:27 | 0 | 0 | 0 | 05 | WQLFPipe |
| 113 | 09/07/26_18:14:47 | 05:08 | 0 | 0 | 0 | 21 | WQLFPipe |
| 114 | 09/07/26_18:14:47 | 04:34 | 0 | 0 | 0 | 09 | WQLFPipe |
| 115 | 09/07/26_18:14:46 | 04:11 | 0 | 0 | 0 | 13 | WQLFPipe |
| 116 | 09/07/26_18:14:48 | 06:12 | 0 | 0 | 0 | 03 | WQLFPipe |
| 117 | 09/07/26_18:14:47 | 05:08 | 0 | 0 | 0 | 08 | WQLFPipe |
| 118 | 09/07/26_18:14:47 | 03:14 | 0 | 0 | 0 | 29 | WQLFPipe |
| 119 | 09/07/26_18:14:46 | 04:05 | 0 | 0 | 0 | 31 | WQLFPipe |
| 120 | 09/07/26_18:14:47 | 03:51 | 0 | 0 | 0 | 18 | WQLFPipe |
| 121 | 09/07/26_18:14:46 | 03:24 | 0 | 0 | 0 | 28 | WQLFPipe |
| 122 | 09/07/26_18:14:47 | 05:00 | 0 | 0 | 0 | 30 | WQLFPipe |
| 123 | 09/07/26_18:14:48 | 03:21 | 0 | 0 | 0 | 15 | WQLFPipe |
| 124 | 09/07/26_18:14:47 | 03:23 | 0 | 0 | 0 | 24 | WQLFPipe |
| 125 | 09/07/26_18:14:46 | 04:15 | 0 | 0 | 0 | 22 | WQLFPipe |
| | 09/07/26_18:23:52 | 00:03 | 0 | 0 | 0 | 01 | Spawn_rotmeta |
| | 09/07/26_18:23:55 | 00:04 | 0 | 0 | 0 | 01 | Spawn_wsspcal |
| | 09/07/26_18:23:56 | 00:03 | 0 | 0 | 0 | 01 | Spawn_spcal |
| | 09/07/26_18:23:56 | 00:03 | 0 | 0 | 0 | 01 | WSSPCal |
| | 09/07/26_18:24:11 | 00:27 | 0 | 0 | 0 | 10 | ScanQA |
| | 09/07/26_18:24:12 | 00:03 | 0 | 0 | 0 | 10 | Spawn_rotmeta |
| | 09/07/26_18:24:16 | 00:08 | 0 | 0 | 0 | 10 | Spawn_rotmeta |
| | 09/07/26_18:24:25 | 00:00 | 0 | 0 | 0 | 10 | Spawn_rotmeta |
| | 09/07/26_18:24:26 | 00:02 | 0 | 0 | 0 | 10 | Spawn_rotmeta |
| | 09/07/26_18:24:28 | 00:04 | 0 | 0 | 0 | 10 | Spawn_rotmeta |
| | 09/07/26_18:24:32 | 00:02 | 0 | 0 | 0 | 10 | Spawn_rotmeta |
| | 09/07/26_18:24:35 | 00:00 | 0 | 0 | 0 | 10 | Spawn_rotmeta |
| | 09/07/26_18:24:36 | 00:02 | 0 | 0 | 0 | 10 | Spawn_dumptbl |

4.9 Short Quicklook Summary

Sometimes you just want to see a summary without all the error messages. The `qlook_summary.short` does just that. See example below.

```
command usage: qlook_summary.short LOGDIR
```

To obtain the quicklook directory from a telemetry delivery id cd or ls the directory in question. In the example below we went to the directory in which we were trying to obtain the QL directory location.

```
wiseops@wcnnode35;rhe4(ops):10019T041251[0]% pwd
/wise-ops/11/wise/fops/ingest/10019/10019T041251
```

```
wiseops@wcnnode35;rhe4(ops):10019T041251[0]% grep "QL dir" IngestPipe.log
... setting up 42 frame dirs in QL dir '/wise/fops/ql/9e/10019e' ...
```

```
wiseops@wcnnode35;rhe4(ops):10019T041251[0]% cd /wise/fops/ql/9e/10019e
wiseops@wcnnode35;rhe4(ops):10019e[0]% qllook_summary.short .
```

| FRAME | START | ELAP | STAT | SIG | CODE | HOST | PROGRAM |
|-------|-------------------|-------|------|-----|------|------|---------------|
| | 10/01/19_05:45:45 | 09:31 | 24 | 24 | 0 | 35 | WQLSPipe |
| | 10/01/19_05:45:46 | 09:30 | 24 | 24 | 0 | 35 | WSSPipe |
| | 10/01/19_05:45:46 | 09:30 | 6144 | 0 | 24 | 35 | Spawn_wsspipe |
| 001 | 10/01/19_05:45:53 | 05:01 | 0 | 0 | 0 | 10 | WQLFPipe |
| 002 | 10/01/19_05:45:56 | 04:40 | 0 | 0 | 0 | 20 | WQLFPipe |
| 003 | 10/01/19_05:45:56 | 04:58 | 64 | 64 | 0 | 11 | WQLFPipe |
| 004 | 10/01/19_05:45:56 | 04:37 | 64 | 64 | 0 | 20 | WQLFPipe |
| 005 | 10/01/19_05:45:56 | 03:43 | 64 | 64 | 0 | 03 | WQLFPipe |
| 006 | 10/01/19_05:45:56 | 04:35 | 64 | 64 | 0 | 30 | WQLFPipe |
| 007 | 10/01/19_05:45:56 | 04:48 | 0 | 0 | 0 | 21 | WQLFPipe |
| 008 | 10/01/19_05:45:56 | 04:57 | 0 | 0 | 0 | 20 | WQLFPipe |
| 009 | 10/01/19_05:45:53 | 06:42 | 0 | 0 | 0 | 11 | WQLFPipe |
| 010 | 10/01/19_05:45:56 | 04:46 | 0 | 0 | 0 | 30 | WQLFPipe |
| 011 | 10/01/19_05:45:56 | 04:51 | 64 | 64 | 0 | 21 | WQLFPipe |
| 012 | 10/01/19_05:45:53 | 05:01 | 64 | 64 | 0 | 08 | WQLFPipe |
| 013 | 10/01/19_05:45:53 | 05:00 | 0 | 0 | 0 | 10 | WQLFPipe |
| 014 | 10/01/19_05:45:53 | 06:53 | 64 | 64 | 0 | 03 | WQLFPipe |
| 015 | 10/01/19_05:45:53 | 04:19 | 64 | 64 | 0 | 31 | WQLFPipe |
| 016 | 10/01/19_05:45:53 | 04:33 | 64 | 64 | 0 | 30 | WQLFPipe |
| 017 | 10/01/19_05:45:53 | 04:32 | 64 | 64 | 0 | 21 | WQLFPipe |
| 018 | 10/01/19_05:45:53 | 04:16 | 64 | 64 | 0 | 22 | WQLFPipe |
| 019 | 10/01/19_05:45:54 | 04:39 | 0 | 0 | 0 | 20 | WQLFPipe |
| 020 | 10/01/19_05:45:53 | 04:35 | 0 | 0 | 0 | 40 | WQLFPipe |
| 021 | 10/01/19_05:45:53 | 05:03 | 64 | 64 | 0 | 08 | WQLFPipe |
| 022 | 10/01/19_05:45:53 | 05:00 | 64 | 64 | 0 | 11 | WQLFPipe |
| 023 | 10/01/19_05:45:53 | 06:52 | 0 | 0 | 0 | 04 | WQLFPipe |
| 024 | 10/01/19_05:45:53 | 04:16 | 0 | 0 | 0 | 13 | WQLFPipe |
| 025 | 10/01/19_05:45:54 | 06:52 | 64 | 64 | 0 | 03 | WQLFPipe |
| 026 | 10/01/19_05:45:53 | 04:19 | 64 | 64 | 0 | 31 | WQLFPipe |
| 027 | 10/01/19_05:45:54 | 04:23 | 0 | 0 | 0 | 30 | WQLFPipe |
| 028 | 10/01/19_05:45:53 | 04:38 | 64 | 64 | 0 | 21 | WQLFPipe |
| 029 | 10/01/19_05:45:53 | 04:24 | 64 | 64 | 0 | 22 | WQLFPipe |
| 030 | 10/01/19_05:45:53 | 04:25 | 0 | 0 | 0 | 20 | WQLFPipe |
| 031 | 10/01/19_05:45:54 | 04:38 | 0 | 0 | 0 | 40 | WQLFPipe |
| 032 | 10/01/19_05:45:53 | 05:07 | 0 | 0 | 0 | 08 | WQLFPipe |
| 033 | 10/01/19_05:45:53 | 06:42 | 64 | 64 | 0 | 11 | WQLFPipe |
| 034 | 10/01/19_05:45:53 | 05:17 | 64 | 64 | 0 | 09 | WQLFPipe |
| 035 | 10/01/19_05:45:54 | 05:03 | 0 | 0 | 0 | 12 | WQLFPipe |
| 036 | 10/01/19_05:45:53 | 04:16 | 0 | 0 | 0 | 13 | WQLFPipe |
| 037 | 10/01/19_05:45:53 | 06:52 | 64 | 64 | 0 | 03 | WQLFPipe |
| 038 | 10/01/19_05:45:53 | 04:22 | 64 | 64 | 0 | 31 | WQLFPipe |
| 039 | 10/01/19_05:45:53 | 04:27 | 64 | 64 | 0 | 30 | WQLFPipe |

| | | | | | | | |
|-----|-------------------|-------|----|----|---|----|---------------|
| 040 | 10/01/19_05:45:53 | 04:25 | 64 | 64 | 0 | 21 | WQLFPipe |
| 041 | 10/01/19_05:45:53 | 04:33 | 0 | 0 | 0 | 20 | WQLFPipe |
| 042 | 10/01/19_05:45:53 | 04:38 | 64 | 64 | 0 | 41 | WQLFPipe |
| | 10/01/19_05:53:01 | 00:02 | 0 | 0 | 0 | 35 | Spawn_rotmeta |
| | 10/01/19_05:53:03 | 00:01 | 0 | 0 | 0 | 35 | Spawn_wsspcal |
| | 10/01/19_05:53:03 | 00:01 | 0 | 0 | 0 | 35 | WSSPCal |
| | 10/01/19_05:53:04 | 00:00 | 0 | 0 | 0 | 35 | Spawn_spcal |
| | 10/01/19_05:53:04 | 02:10 | 0 | 0 | 0 | 35 | ScanQA |
| | 10/01/19_05:53:05 | 02:10 | 0 | 0 | 0 | 35 | Spawn_scanqa |
| | 10/01/19_05:53:06 | 00:00 | 0 | 0 | 0 | 35 | Spawn_rotmeta |
| | 10/01/19_05:53:06 | 00:03 | 0 | 0 | 0 | 35 | Spawn_rotmeta |
| | 10/01/19_05:53:10 | 00:00 | 0 | 0 | 0 | 35 | Spawn_rotmeta |
| | 10/01/19_05:53:10 | 00:01 | 0 | 0 | 0 | 35 | Spawn_rotmeta |
| | 10/01/19_05:53:12 | 00:00 | 0 | 0 | 0 | 35 | Spawn_rotmeta |
| | 10/01/19_05:53:13 | 00:01 | 0 | 0 | 0 | 35 | Spawn_rotmeta |
| | 10/01/19_05:53:14 | 00:00 | 0 | 0 | 0 | 35 | Spawn_rotmeta |
| | 10/01/19_05:53:14 | 00:01 | 0 | 0 | 0 | 35 | Spawn_dumptbl |
| | 10/01/19_05:53:15 | 00:02 | 0 | 0 | 0 | 35 | Spawn_dumptbl |
| | 10/01/19_05:53:26 | 00:01 | 0 | 0 | 0 | 35 | Spawn_dumptbl |
| | 10/01/19_05:53:32 | 00:00 | 0 | 0 | 0 | 35 | Spawn_dumptbl |
| | 10/01/19_05:53:34 | 00:01 | 0 | 0 | 0 | 35 | Spawn_dumptbl |
| | 10/01/19_05:55:11 | 00:02 | 0 | 0 | 0 | 08 | qagrade |
| | 10/01/19_05:55:12 | 00:01 | 0 | 0 | 0 | 08 | Spawn_rotmeta |

The output below the FRAME heading above is what would be sent to the QA people along with the quicklook location. In this qlook_summary.short example that would be /wise/fops/ql/9e/10019e.