

# PIMS/SECI Testing Plan

(link to [PIMS Testing Punchlist](#))

Provided below are a set of usage scenarios for the PIMS and SECI system meant to exercise the functions of the system.

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## Setting up for using the pimscache command line

- log into your preferred machine with lustre visibility as vlapipe
- activate\_profile vlass.test
  - Note the prompt will look like:
    - (vlass.t1) vlapipe@hamilton\$
    - Could be t1, t2, t3. Nothing to be alarmed about. vlass.test is an alias for the 'active' workflow deployment. There are 3 options to keep old workflow servers active to allow jobs to complete normally rather than be abandoned.
    - Similarly for production, vlass.prod is an alias for the active deployment among p1, p2, p3
- pimscache is now in your PATH, and can be readily accessed.

## Testing Scenarios

### 1) Standard Usage – Prepare a Tile for Imaging

- Manager: Lookup associated calibration for the tile
    - Jobs Tab Name: VLASS1.2\_TAAtaa.TBBtbb.TCctcc\_GvN
    - Jobs Tab ID: 9999
  - CLI: check the cache
    - pimscache ls VLASS1.2\_TAAtaa.TBBtbb.TCctcc\_GvN
      - AmyK: works but user cannot easily copy/paste this from VlassMgr
    - Result: No files found
  - CLI: initiate split
    - pimscache split -v 9999 -t TAAtaa
      - Creates SECI products in WAITING state
        - AmyK: products show up under "SE Continuum Image" in VlassMgr. We therefore have superfluous product type "SE Continuum" showing in Manager. That should be *replaced* with "SE Continuum Image" products, to preserve product order in the Type dropdown menu (i.e., SE Continuum Image should be after SE Calibration)
        - AmyK: Jim reports that interrupting the command does not terminate the workflow. Perhaps we could have some sort of notification (emailed, supplied by user?) when a restore initiated by the pimscache command is complete? (if command is not interrupted, is the new "restore parameter" reported to user? I'm not sure this question makes sense, as I am still just experimenting with pimscache (March 19) and waiting to see what happens)
      - Initiates a workflow which performs a restore, and then a parallel set of Splits
        - Uses the casa specified by the VLASS profile variable: edu.nrao.archive.workflow.config.CasaVersions.homeForReprocessing
      - places split MSs into the cache
    - (vlass.d3) vlapipe@wirth-vm1\$ pimscache split -v 8866 -t T03t30
- Generated [VLASS1.1.se.T03t30.J192219-313000.06.2048](#) in the VLASS manager database
- Generated [VLASS1.1.se.T03t30.J192659-313000.06.2048](#) in the VLASS manager database
- Generated [VLASS1.1.se.T03t30.J193139-313000.06.2048](#) in the VLASS manager database
- Generated [VLASS1.1.se.T03t30.J193619-313000.06.2048](#) in the VLASS manager database
- Generated [VLASS1.1.se.T03t30.J194059-313000.06.2048](#) in the VLASS manager database
- Generated [VLASS1.1.se.T03t30.J194539-313000.06.2048](#) in the VLASS manager database
- Generated [VLASS1.1.se.T03t30.J195019-313000.06.2048](#) in the VLASS manager database
- Generated [VLASS1.1.se.T03t30.J195459-313000.06.2048](#) in the VLASS manager database

Generated [VLASS1.1.se.T03t30.J195839-313000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J192218-303000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J192655-303000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J193132-303000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J193609-303000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J194047-303000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J194524-303000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J195001-303000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J195438-303000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J195828-303000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J192217-293000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J192651-293000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J193126-293000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J193600-293000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J194034-293000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J194509-293000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J194943-293000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J195418-293000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J195817-293000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J192215-283000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J192647-283000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J193119-283000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J193551-283000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J194023-283000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J194454-283000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J194926-283000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J195358-283000.06.2048](#) in the VLASS manager database  
Generated [VLASS1.1.se.T03t30.J195807-283000.06.2048](#) in the VLASS manager database

Starting split to per-image measurement sets on VLASS1.1.sb35118798.eb35120996.58169.55511674768 with calibration VLASS1.1\_T03t30\_P26880v1

providing path: None

cf830f1e: No existing restore parameter; restoring from scratch (will take several hours)

cf830f1e: Extracting data from archive...

cf830f1e: Arranging for processing...

cf830f1e: Initiating the casa restore...

cf830f1e: Running CASA to split PIMS for phase center J2000 19:22:19.996 -31.30.0.0000

cf830f1e: Running CASA to split PIMS for phase center J2000 19:26:59.988 -31.30.0.0000

cf830f1e: Running CASA to split PIMS for phase center J2000 19:31:39.980 -31.30.0.0000

cf830f1e: Running CASA to split PIMS for phase center J2000 19:36:19.972 -31.30.0.0000

cf830f1e: Running CASA to split PIMS for phase center J2000 19:40:59.964 -31.30.0.0000

cf830f1e: Running CASA to split PIMS for phase center J2000 19:45:39.956 -31.30.0.0000

cf830f1e: Running CASA to split PIMS for phase center J2000 19:50:19.948 -31.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:54:59.940 -31.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:58:39.968 -31.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:22:18.564 -30.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:26:55.692 -30.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:31:32.820 -30.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:36:9.948 -30.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:40:47.077 -30.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:45:24.205 -30.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:50:1.333 -30.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:54:38.461 -30.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:58:28.513 -30.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:22:17.202 -29.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:26:51.607 -29.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:31:26.012 -29.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:36:0.417 -29.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:40:34.822 -29.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:45:9.227 -29.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:49:43.632 -29.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:54:18.037 -29.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:58:17.620 -29.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:22:15.908 -28.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:26:47.725 -28.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:31:19.542 -28.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:35:51.359 -28.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:40:23.176 -28.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:44:54.992 -28.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:49:26.809 -28.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:53:58.626 -28.30.0.0000  
cf830f1e: Running CASA to split PIMS for phase center J2000 19:58:7.267 -28.30.0.0000  
cf830f1e: CASA complete for phase center J2000 19:22:18.564 -30.30.0.0000  
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cf830f1e: Caching split for phase center J2000 19:31:32.820 -30.30.0.0000

cf830f1e: CASA complete for phase center J2000 19:26:59.988 -31.30.0.0000

cf830f1e: Caching split for phase center J2000 19:26:59.988 -31.30.0.0000

cf830f1e: SECI split complete for [uid://evla/execution/f0c3929e-1e46-476b-ab63-5a4c01991f31](https://evla/execution/f0c3929e-1e46-476b-ab63-5a4c01991f31)

- CLI: check cache

- `pimscache ls VLASS1.2_TAAtaa.TBBtbb.TCctcc_GvN`
- `(vlass.d3) vlapipe@wirth-vm1$ pimscache ls VLASS1.1_T01t03_P22376v1`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J012741-383000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J010228-363000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J010230-373000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J010724-363000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J011252-393000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J010232-383000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J011221-363000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J012711-363000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J011231-373000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J012250-383000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J010743-393000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J010736-383000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J012731-373000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J012752-393000`  
`/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J012214-363000`

- ```

/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J010234-393000
/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J011718-363000
/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J012949-363000
/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J011745-383000
/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J011731-373000
/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J012232-373000
/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J011241-383000
/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J011800-393000
/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J012309-393000
/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T01t03_P22376v1/J010730-373000

```
- Per Phase Center:
    - Manager: Set the product status to 'Ready' and create the Job
      - An execution is automatically submitted.
    - Manager: image and QA loop
  - CLI: remove the PIMS
    - `pimscache rm -v 9999 -p J0000000-0000000`
    - `(vlass.d3) vlapipe@wirth-vml$ pimscache ls VLASS1.1_T14t05_P21842v1`

```

/lustre/aoc/cluster/pipeline/vlass_dev/cache/pims/VLASS1.1_T14t05_P21842v1/J025021+153000
(vlass.d3) vlapipe@wirth-vml$ pimscache rm -c VLASS1.1_T14t05_P21842v1 -p J025021+153000
Removed phase center J025021+153000
(vlass.d3) vlapipe@wirth-vml$ pimscache ls VLASS1.1_T14t05_P21842v1
No files found

```

## 2) Re-using an existing Restore – Next Tile for the same calibration

When you're ready to prep the next set of images, if you have the previous restore around, you can skip the restore, saving time.

- CLI: initiate split
  - `pimscache split -v 9999 -t TBBtbb -r /path/to/old/cms/working/directory/`
  - `(vlass.d3) vlapipe@wirth-vml$ pimscache split -v 8448 -t T01t03 -r /lustre/aoc/cluster/pipeline/vlass_dev/spool/VLASS1_2018_02_02_T17_13_54.908/working/VLASS1.1.sb34940218.eb34992438.58151.92216394676.ms`

```

VLASS1.1.se.T01t03.J010234-393000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J010743-393000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J011252-393000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J011800-393000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J012309-393000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J012752-393000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J010232-383000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J010736-383000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J011241-383000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J011745-383000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J012250-383000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J012741-383000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J010230-373000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J010730-373000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J011231-373000.06.2048 already exists in the VLASS manager database; skipping
VLASS1.1.se.T01t03.J011731-373000.06.2048 already exists in the VLASS manager database; skipping

```

[VLASS1.1.se.T01t03.J012232-373000.06.2048](#) already exists in the VLASS manager database; skipping  
[VLASS1.1.se.T01t03.J012731-373000.06.2048](#) already exists in the VLASS manager database; skipping  
[VLASS1.1.se.T01t03.J010228-363000.06.2048](#) already exists in the VLASS manager database; skipping  
[VLASS1.1.se.T01t03.J010724-363000.06.2048](#) already exists in the VLASS manager database; skipping  
[VLASS1.1.se.T01t03.J011221-363000.06.2048](#) already exists in the VLASS manager database; skipping  
[VLASS1.1.se.T01t03.J011718-363000.06.2048](#) already exists in the VLASS manager database; skipping  
[VLASS1.1.se.T01t03.J012214-363000.06.2048](#) already exists in the VLASS manager database; skipping  
[VLASS1.1.se.T01t03.J012711-363000.06.2048](#) already exists in the VLASS manager database; skipping  
[VLASS1.1.se.T01t03.J012949-363000.06.2048](#) already exists in the VLASS manager database; skipping

Starting split to per-image measurement sets on VLASS1.1.sb34940218.eb34992438.58151.92216394676 with calibration VLASS1.1\_T01t03\_P22376v1

providing path: /lustre/aoc/cluster/pipeline/vlass\_dev/spool/VLASS1\_2018\_02\_02\_T17\_13\_54.908/working/[VLASS1.1.sb34940218.eb34992438.58151.92216394676.ms](#)

db4a7590: Found existing restore parameter with /lustre/aoc/cluster/pipeline/vlass\_dev/spool/VLASS1\_2018\_02\_02\_T17\_13\_54.908/working/[VLASS1.1.sb34940218.eb34992438.58151.92216394676.ms](#)

db4a7590: Running CASA to split PIMS for phase center J2000 01:02:34.411 -39.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:07:43.233 -39.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:12:52.056 -39.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:18:0.878 -39.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:23:9.700 -39.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:27:52.056 -39.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:02:32.282 -38.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:07:36.847 -38.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:12:41.411 -38.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:17:45.975 -38.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:22:50.540 -38.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:27:41.411 -38.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:02:30.256 -37.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:07:30.769 -37.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:12:31.281 -37.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:17:31.794 -37.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:22:32.307 -37.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:27:31.281 -37.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:02:28.328 -36.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:07:24.984 -36.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:12:21.641 -36.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:17:18.297 -36.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:22:14.953 -36.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:27:11.610 -36.30.0.0000

db4a7590: Running CASA to split PIMS for phase center J2000 01:29:49.969 -36.30.0.0000

db4a7590: CASA complete for phase center J2000 01:29:49.969 -36.30.0.0000

db4a7590: Caching split for phase center J2000 01:29:49.969 -36.30.0.0000

db4a7590: CASA complete for phase center J2000 01:18:0.878 -39.30.0.0000  
db4a7590: Caching split for phase center J2000 01:18:0.878 -39.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:23:9.700 -39.30.0.0000  
db4a7590: Caching split for phase center J2000 01:23:9.700 -39.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:12:52.056 -39.30.0.0000  
db4a7590: Caching split for phase center J2000 01:12:52.056 -39.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:07:43.233 -39.30.0.0000  
db4a7590: Caching split for phase center J2000 01:07:43.233 -39.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:27:11.610 -36.30.0.0000  
db4a7590: Caching split for phase center J2000 01:27:11.610 -36.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:22:14.953 -36.30.0.0000  
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db4a7590: CASA complete for phase center J2000 01:02:34.411 -39.30.0.0000  
db4a7590: Caching split for phase center J2000 01:02:34.411 -39.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:27:52.056 -39.30.0.0000  
db4a7590: Caching split for phase center J2000 01:27:52.056 -39.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:27:41.411 -38.30.0.0000  
db4a7590: Caching split for phase center J2000 01:27:41.411 -38.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:02:28.328 -36.30.0.0000  
db4a7590: Caching split for phase center J2000 01:02:28.328 -36.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:27:31.281 -37.30.0.0000  
db4a7590: Caching split for phase center J2000 01:27:31.281 -37.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:12:21.641 -36.30.0.0000  
db4a7590: Caching split for phase center J2000 01:12:21.641 -36.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:12:31.281 -37.30.0.0000  
db4a7590: Caching split for phase center J2000 01:12:31.281 -37.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:07:24.984 -36.30.0.0000  
db4a7590: Caching split for phase center J2000 01:07:24.984 -36.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:02:32.282 -38.30.0.0000  
db4a7590: Caching split for phase center J2000 01:02:32.282 -38.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:02:30.256 -37.30.0.0000  
db4a7590: Caching split for phase center J2000 01:02:30.256 -37.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:07:30.769 -37.30.0.0000  
db4a7590: Caching split for phase center J2000 01:07:30.769 -37.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:17:31.794 -37.30.0.0000  
db4a7590: Caching split for phase center J2000 01:17:31.794 -37.30.0.0000  
db4a7590: CASA complete for phase center J2000 01:22:32.307 -37.30.0.0000  
db4a7590: Caching split for phase center J2000 01:22:32.307 -37.30.0.0000



db4a7590: CASA complete for phase center J2000 01:22:50.540 -38.30.0.0000

db4a7590: Caching split for phase center J2000 01:22:50.540 -38.30.0.0000

db4a7590: CASA complete for phase center J2000 01:17:45.975 -38.30.0.0000

db4a7590: Caching split for phase center J2000 01:17:45.975 -38.30.0.0000

db4a7590: CASA complete for phase center J2000 01:07:36.847 -38.30.0.0000

db4a7590: Caching split for phase center J2000 01:07:36.847 -38.30.0.0000

db4a7590: CASA complete for phase center J2000 01:12:41.411 -38.30.0.0000

db4a7590: Caching split for phase center J2000 01:12:41.411 -38.30.0.0000

db4a7590: SECI split complete for [uid://evla/executionblock/692b3ed2-b610-47cf-b950-b4eba2d310ac](https://evla/executionblock/692b3ed2-b610-47cf-b950-b4eba2d310ac)

- CLI: check cache
  - `pimscache ls VLASS1.2_ABC_GvN`
    - You'd expect both tile's worth of phase centers to be shown.
- Manager: imaging for each phase center as before

### 3) make split ms's for all tiles in a calibration

Simply leave off the "-t" option to request splitting of all tiles/phasecenters associated with a calibration.

- CLI: check the cache
  - `pimscache ls VLASS1.2_TAAtaa.TBBtbb.TCctcc_GvN`
    - Result: No files found
- CLI: initiate split
  - `pimscache split -v 9999`

### 4) Single Image Needs to be Redone

If an image is later found to be in error, it is possible to simply create a single PIMS via the split. This is assuming that the restore needs to be redone due to removal of data previously.

- CLI: Initiate the split
  - `pimscache split -v 9999 -p J010228-363000`
  - (vlass.d3) vlapipe@wirth-vml\$ `pimscache split -v 5947 -p J025021+153000`  
  
Generated VLASS1.1.se.T14t05.J025021+153000.06.2048 in the VLASS manager database  
  
Starting split to per-image measurement sets on VLASS1.1.sb34812068.eb34812594.58122.954574675925 with calibration VLASS1.1\_T14t05\_P21842v1  
  
providing path: None  
  
2c2fd395: No existing restore parameter; restoring from scratch (will take several hours)  
  
2c2fd395: Extracting data from archive...  
  
2c2fd395: Arranging for processing...  
  
2c2fd395: Initiating the casa restore...  
  
2c2fd395: Running CASA to split PIMS for phase center J2000 02:50:21.166 +15.30.0.0000  
  
2c2fd395: CASA complete for phase center J2000 02:50:21.166 +15.30.0.0000  
  
2c2fd395: Caching split for phase center J2000 02:50:21.166 +15.30.0.0000  
  
2c2fd395: SECI split complete for uid://evla/executionblock/e84e61c6-fbd3-49be-a3be-264da4f5e043  
  
(vlass.d3) vlapipe@wirth-vml\$
- Manager: create a and run a new execution & continue QA

### 5) Experimentation – Use a PIMS from the cache for interactive casa exploration

For validation purposes, or for investigation of a particularly difficult imaging problem, you can use the data in the cache.

- Choose your data set
  - Jobs Tab Name: VLASS1.2\_ABC\_GvN

- Jobs Tab ID: 9999
- Phase Center: J000000+000000
- Confirm it's available:
  - pimscache ls VLASS1.2\_ABC\_GvN | grep J000000+000000
  - (vlass.d3) vlapipe@wirth-vm1\$ pimscache ls VLASS1.1\_T03t30\_P26880v1 | grep 194539-313000 /lustre/aoc/cluster/pipeline/vlass\_dev/cache/pims/VLASS1.1\_T03t30\_P26880v1/J194539-313000
- Link it to your scratch work area:
  - pimscache ln -v 9999 -p J000000+000000 /lustre/aoc/rest/of/the/path/working
  - (vlass.d3) vlapipe@wirth-vm1\$ pimscache ln -v 8866 -p J194539-313000 /lustre/aoc/cluster/pipeline/jls\_test/pims/

Successfully linked phase center J194539-313000 to /lustre/aoc/cluster/pipeline/jls\_test/pims

(vlass.d3) vlapipe@wirth-vm1\$ ls

VLASS1.1.sb35118798.eb35120996.58169.55511674768\_split.ms@

(vlass.d3) vlapipe@wirth-vm1\$

## References

### Single Tile Calibrations

- T01t03
  - VLASS1.1\_T01t03\_P22276v1
  - 8448
- T03t30
  - VLASS1.1\_T03t30\_P26880v1
  - 8866
- T14t05
  - VLASS1.1\_T14t05\_P21842v1
  - 5947

### Obtaining Phase Center information

- Names of the imaging products contain the phase center
- CLI provides them by tile:
  - pimscache lspc T01t03
  - J010234-393000
  - J010743-393000
  - J011252-393000
  - J011800-393000
  - J012309-393000
  - J012752-393000
  - J010232-383000
  - J010736-383000
  - J011241-383000
  - J011745-383000
  - J012250-383000
  - J012741-383000
  - J010230-373000
  - J010730-373000
  - J011231-373000
  - J011731-373000
  - J012232-373000
  - J012731-373000
  - J010228-363000

J010724-363000

J011221-363000

J011718-363000

J012214-363000

J012711-363000

J012949-363000