**CDH Software**

**Housekeeping Test Document**

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| **Prepared by** | Keenan Burnett |
| **Revision** | 1.0 |
| **Date** | 2016.01.08 |
| **Reference** | Housekeeping Test Document |
| **Signed By** | Keenan Burnett |

# Document Change Log

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| **Description of Changes** | | | **Modified Section** | **Revision** | **Date** | |
| Initial Issue | | |  | 1.0 | 2016.01.08 | |
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# Procedures

**(To be used in conjunction with the PUS Service Interfaces document, and the Command Line Interface document)**

1. **Housekeeping Reports**
   1. Verify that housekeeping is generated periodically as expected (once every 30 minutes). The GSSW should parse the incoming housekeeping and update the HK log under /housekeeping/logs/ in the GSSW software folders.
   2. Verify that each of the parameters is reporting a value that seems appropriate. If suspicious that a certain parameter is not working correctly, manually insert a specific value in the SSM code and verify that the result is as expected.
   3. Cause some change to be observed in the housekeeping variables (heating up temperature sensors in various parts of the satellite would do)
   4. Try overflowing the housekeeping memory slots and verify that old housekeeping is simply overwritten.
   5. Try acquiring a sensor value that doesn’t exist. Verify that nothing happens.
   6. Violate each of the constraints which are checked for in verify\_telecommand( ) in obc\_packet\_router.c (by modifying GSSW code). Verify that these errors are caught.
   7. Verify that the housekeeping log created by the GSSW can be opened in excel / matlab and turned into a graph easily.
2. **Housekeeping Definitions**
   1. Wait for the normal housekeeping report to be received and parsed by the GSSW.
   2. Verify that the housekeeping report is yielding sensible values.
   3. Enable Parameter Report Generation and verify that the definition report is received under /housekeeping/logs. Verify that this definition report corresponds to the default housekeeping definition
   4. Disable Parameter Reports and verify that no more are generated.
   5. Re-enable Parameter Reports and verify that they come back.
   6. Execute terminal command to create a new housekeeping parameter report.
   7. Wait for the normal housekeeping report to be received and parsed by the GSSW.
   8. Verify that the housekeeping report is yielding sensible values.
   9. Enable Parameter Report Generation and verify that the definition report is received under /housekeeping/logs. Verify that this definition report corresponds to the new housekeeping definition.
   10. Execute terminal commands to clear the housekeeping definition.
   11. Repeat steps (a-c).
   12. Verify that all the correct TC verification packets were received and logged under /telemetry/.

# Test Results

Report the results of each major test here and the actions that were taken to correct any issues (or simply insert a link to the issue that was opened)