**CDH Software**

**Scheduling Test Document**

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| **Prepared by** | Keenan Burnett |
| **Revision** | 1.0 |
| **Date** | 2016.01.08 |
| **Reference** | Scheduling 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. **Adding Scheduled Commands**
   1. Create a dummy command which can be used to verify the functionality of scheduling, this could be simply blinking an LED on the OBC or telling an SSM to blink an LED.
   2. Execute a terminal command ADD\_SCHEDULE to schedule the dummy command.
   3. Verify that the scheduled command is executed approximately when it is supposed to (can be off by about 10s)
   4. Verify that an event log is received indicating the success of the scheduled command.
   5. Cause the scheduled command to fail in the code, and verify that a failed command report is received.
   6. Verify that all the correct TC verification packets were received and logged under /telemetry/.
   7. Try to overflow the OBC’s schedule by adding too many commands. Verify that an event report is received which indicates that a command was kicked out of the OBC’s schedule.
   8. Try adding a command to the schedule which doesn’t actually correspond to a normal command. Verify that nothing happens.
   9. 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.
2. **Clearing the schedule**
   1. Add several dummy commands to the satellite’s schedule, which are due to be executed after 5-10 minutes.
   2. Using the terminal, send a CLEAR\_SCHEDULE command.
   3. Verify that none of the scheduled commands are executed.
   4. Verify that all the correct TC verification packets were received and logged under /telemetry/.
   5. 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.
3. **Request Schedule Report**
   1. Add several real / dummy commands to the satellite’s schedule with varying times to be completed by. (minimum time of 5 minutes)
   2. Using the terminal, send a REQUEST\_SCHEDULE\_REPORT command.
   3. Verify that all the commands which were scheduled are indeed in the schedule.
   4. Wait for some of the commands to be executed.
   5. Repeat step (b) and verify that some commands are now missing due to being executed.
   6. Verify that all the correct TC verification packets were received and logged under /telemetry/.
4. **Pause / Resume Operations**
   1. Add several real / dummy commands to the satellite’s schedule with varying times to be completed by. (minimum time of 5 minutes)
   2. Using the terminal, send a REQUEST\_SCHEDULE\_REPORT command.
   3. Verify that all the commands which were scheduled are indeed in the schedule.
   4. Enter the command to pause scheduled operations.
   5. Verify that the operations which should have been executed have not been executed yet.
   6. Enter the command to resume scheduled operations.
   7. Verify that the commands which were scheduled are now executed.
   8. 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)