Department of the Interior
U.S. Geological Survey

DATA CAPTURE SYSTEM (DCS) SYSTEM TEST PLAN

DCS 3.3.0

Version 15

April 2009

USGS
science for a changing world

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Section 1Introduction

1.1 Purpose and Scope

This document provides the necessary procedures to verify Configuration Change Requests (CCRs) assigned to a DCS software release. In addition to providing procedures for test execution, this document defines test assumptions, constraints, test data, test tools and any special system configuration items.

1.1.1 Objective

The objective of system test will be to verify that changes completed for the release produce the desired results.

1.1.2 Limitations

Due to limited resources there will be limitations posed on System Test. This may include simulating interfaces where needed. Section 2 will describe any specific limitations on System Test.

1.1.3 Test Approach

The strategy for testing each CCR is to focus on the changes completed with regression tests performed as needed. Test cases that cannot be verified by testing will be verified by inspection.

1.1.4 Test Data

Landsat 5 and Landsat 7 data will be used for System Test. It may be data from live downlink or from tape (DLT or Ampex). If a specific data set is required it will be documented in the Test Procedure that it pertains to. For regression testing a benchmark data set will be used.

Section 2 System Test Considerations

2.1 Assigned CCRs

The specific CCRs for release 3.3.0 are listed in Table 2-1. The 'IAS' column indicates if the CCR will require any special IAS data validation. The 'LACS' column indicates which CCRs require LACS processing to complete the test validation. The 'LPS' column indicates which CCRs require LPS processing to complete the test validation. The 'CAP' column indicates which CCRs require actual data to be captured on the CTS (either transmitted from scheduled 'live' downlinks, from wideband tape, or from another CTS utilizing the 'rdc_Transmit' utility), and thus will require coordination with operations (matrix switch configuration, starting/stopping Ampex playback and/or contact schedule delivery for ingest on the DDS, as appropriate). If the CCR indicates that processing or captures are required it doesn't necessarily mean that this will be done during the Test Procedure for that CCR but may be included in the live captures and regression testing.

CCR#	Title	IAS	LACS	DCS	CAP
5228	DCS – Deleting a file is slow			X	
5583	DCS – Ingesting CPF for MWD offsets			X	
5605	DCS – GUI crashes during manual transfer of CTS files			X	X

Table 2-1 DCS 3.3.0 Assigned CCRs

2.2 System Configuration

The configuration for System Test is shown in Table 2-2. If a special configuration is needed for a Test Procedure it will be documented in that procedure.

System	Environment
edclxs14	DCS ST
edclxs14	LPS ST
edclxs40	CTS ST

Table 2-2 System Test Configuration

2.3 System Test Limitations

The following is a list of known system test limitations for this testing effort:

1. Where needed, some interfaces may need to be simulated.
2. Live captures are dependent upon the operational status of each spacecraft.

2.4 System Test Assumptions

It is assumed that during the duration of System Test that all downlinks available will be captured by the Development Capture Transfer Subsystems. The only exception to this assumption is if this action will interfere with a specific test case.

2.5 Regression Testing

DCPF Operations Staff will maintain a standard group of datasets and current operational procedures to regression test the entire Ground System, from capture to processing to archiving. DCPF OPS is responsible for maintaining the Regression Test Plan. DCPF OPS has identified a known good Ampex tape containing “benchmark” data to be used for all manual captures. Expectations are that every manual capture performed during testing will produce the same results. Live downlinks will be captured in parallel to another operational CTS. A comparison will be done between the results from the operational live downlinks and the live downlinks to the system test environment.

2.6 System Test Schedule

System Test is scheduled for April 20, 2009 – April 28, 2009.

Section 3Test Procedures

3.1 Deleting a File

3.1.1 CCR 5228 - Deleting a file is slow

3.1.2 Objective: Verify a significant improvement in response time for deleting an RCC file.

NOTE: Prior to DCS 3.3.0, deleting an rcc file from the GUI took around 30 seconds. This should be cut down to around 5 seconds or less with this release.

3.1.3 Test Data

Any RCC file available for deletion from the GUI.

3.1.4 Deleting a file

Step	Action	Response
1.	Start up DDS GUI (A.1) as dcsst.	The Data Capture System GUI appears.
2.	Select and delete an RCC file from the GUI (A.5).	The file should be deleted.
3.	Verify in the journal that the response time to delete the file is close to 5 seconds.	
4.	Delete an RCC file using the command line *mac_Delete –u –f <path/filename>*	The file should be deleted
5.	Verify in the journal that the response time to delete the file is close to 5 seconds.	

3.2 Ingesting a CPF File

3.2.1 CCR 5583 - Ingesting CPF for MWD offsets

3.2.2 Objective: Verify that the different CPFs successfully ingest.

3.2.3 Test Data

- CPF L5CPF20090101_20090331
- 2009 Quarter 1 CPF

3.2.4 Ingest CPF L5CPF20090101_20090331

Step	Action	Response
1.	Start up DDS GUI (A.1) as dcsst.	The Data Capture System GUI appears.
2.	Ingest the L5 CPF listed above (A.8.3).	A message in the journal verifies the successful ingest of the CPF.
3.	Repeat step 2 using all subsequent 2009 CPFs.	

3.3 Transfer CTS File

3.3.1 CCR 5605 – GUI crashes during manual transfer of CTS file.

3.3.2 Objective: Verify that double clicking on "OK" when transferring a file does not cause the GUI to crash.

3.3.3 Test Data

Any Nominal downlink

3.3.4 Antenna Id

Step	Action	Response
1.	Start up DDS GUI (A.1) as dcsst.	The Data Capture System GUI appears.
2.	Begin transferring an RCC file from the CTS to the DDS via the GUI (Transfer CTS File (A.10.5)). NOTE: Make sure to double-click on the OK button when making the transfer (Step 6 in the A.10.5 procedure).	The GUI should not react to OK or Cancel being clicked again.
3.	Repeat Step 2 and double-click on the Cancel button instead of the OK button for the transfer.	The GUI should not react to OK or Cancel being clicked again.

3.4 End-to-End

3.4.1 Objective: Verify the DCS correctly performs routine tasks that may not have been already addressed specifically in Test Cases.

3.4.2 Day in the Life

Configure the DCS, LACS, and LPS as will be done for normal operations. Take one day's worth of passes (i.e. Landsat 5, and Landsat 7). Make the data available to the LAM, LACS, and LPS in their respective test environments for processing/archiving. Monitor the MWD during the supports.

Appendix AGeneric Test Procedures

A.1 Start up DDS GUI.

Step	Action	Response
1	Log on to the DDS machine	
2	Type: “dcs” or “mac_DDS”	The database login comes up, after logging in the Data Capture System GUI appears.

A.2 Start up MWD on PC

Step	Action	Response
1	Log on to the MWD PC.	
2	Use the MWD short-cut on the desktop to start each of the moving window displays.	The MWD comes up.

A.3 Verify Data Capture System GUI

Step	Action	Response
1.	With no files selected only the Information, Delete, Backup, and Refresh buttons should be active.	The Restage button should be disabled.
2.	Enter a partial file name that is offline in the “Find File” text box. Click “Refresh”.	The file(s) matching the text entered in the Find File text box should be displayed.
3.	Erase the text in the “Find File” text box. Click “Refresh”	The GUI should refresh with all online files being displayed.
4.	Click on a file that is not online.	The Delete, Backup, and Restage buttons should be disabled.
5.	Enter a partial file name that is online in the “Find File” text box. Click “Refresh”.	The file(s) matching the text entered in the Find File text box should be displayed.
6.	Erase the text in the “Find File” text box. Click “Refresh”	The GUI should refresh with only the online files. The Restage button will be active if a file has been backed up to tape.
7.	Click on the column heading “RCC File Name”	The GUI is refreshed sorting the files by RCC File Name in descending order.
8.	Click on the column heading “RCC File Name”	The GUI is refreshed sorting the files by RCC File Name in ascending order.
9.	Repeat steps 6 and 7 for the remaining columns.	
10.	Verify the GUI shows the correct user in the top right hand corner.	
11.	Click Setup → DDS Options	The Set DDS Options Window appears.
12.	Make note of the GUI Refresh Interval. Click “Cancel”.	Current GUI Refresh Interval: ____ The Set DDS Options Window disappears.
13.	Keep track of the time and ensure the GUI refreshes according to the time noted in step 13.	Note: The first time the GUI refreshes after changing the value, it will be based on the old value. So let the GUI refresh once and then start counting to ensure the new value is used.
14.	Click Setup → DDS Options	The Set DDS Options Window appears.
15.	Change the GUI Refresh Interval to a shorter time, like 9. Click “OK”.	The Changes are saved and the Set DDS Options Window disappears.

16.	Verify the time was changed. SQL> select GUI_REFRESH_INTERVAL from DCS_CONFIGURATION;	The new time should be displayed.
17.	Keep track of the time and ensure the GUI refreshes according to the new time from step 16.	
18.	Delete all RCC Files online.	The GUI should now be empty and the Information, Delete, Backup, and Restage buttons should be disabled.
19.	Click Setup → DDS Options. Change the GUI Refresh Interval back to the original time from step 13.	

A.4 Information

Step	Action	Response
1.	Select a file and click "Information" button.	The Information Window appears.
2.	Click "Cancel".	The Information Window disappears.
3.	Select a file and click "Information" button.	The Information Window appears.
4.	Verify the appropriate parameters are displayed. SQL> select on_line_flag, capture_source, data_category, mission_id, rcc_file_size, station_id, capture_device_id, from dcs_rawfile_acct where rcc_file_name like 'filename.data';	Note: If on_line_flag is 1 then Yes is displayed, if 0 No is displayed.
5.	Verify the appropriate parameters are displayed in the Backup Tape section. SQL> select * from backup_acct where rcc_file_name = 'filename.data';	The tape id, position, and date/time should be the same as displayed in the Window.
6.	Click the "History" button.	The History Window appears.
7.	Verify the transfer history is displayed. SQL> select * from transfer_acct_archive where rcc_file_name = 'filename.data';	The values should be the same as displayed in the History Window. If there are no values, find a file that has a transfer history. You may need to check offline files if there aren't many online files. All times should be displayed in 24hr format.
8.	Click "OK"	The History Window disappears.
9.	On the Information Window, select a transfer record where the status = "READY"	The Hold and Queue buttons are enabled and the ready button is disabled.
10.	Click "Hold" button.	The Status Changes to Hold-Ops.
11.	Click "Cancel" button.	The Window disappears.
12.	Select the same file name and click "Information"	The Information Window appears. The status is still Ready.
13.	Repeat steps 9-10. This time click "Apply".	
14.	Verify the value is changed in the database. SQL> select * from transfer_acct where rcc_file_name = 'filename.data';	The value is updated to "Hold-Ops" for the dest_sys_id that was selected.
15.	Hightlight the transfer record that was changed to In-Queue in step 13.	The Ready and Hold buttons should be enabled, the Queue button should be disabled.
16.	Repeat steps 19 – 14, this time clicking "Ready".	The Status is changed to Ready.

A.5 Deletion

Step	Action	Response
1.	Select a file click “Delete”.	The Delete Window appears.
2.	Click “Cancel”.	The Delete Window disappears. Verify the selected file did not delete.
3.	Select a file that has not been archived. Click “Delete.”	The Delete Window appears.
4.	Make sure “Unconditional Delete” is not selected and click “OK.”	The Information Window disappears. A journal message should appear stating the file will not be deleted because it hasn’t been archived.
5.	Verify the file hasn’t been deleting by doing a ls in the RCC File directory.	The raw file should still be there.
6.	Repeat steps 3-4, this time selecting “Unconditional Delete.” Click “OK”.	The file is deleted.
7.	Verify the file has been deleting by doing a ls in the RCC File directory.	The raw file should no longer be there.

A.6 Backup

Step	Action	Response
1.	Select a file click “Backup”.	The Backup Window appears.
2.	Click “Cancel”.	The Backup Window disappears.
3.	Select a file that has not been backed up. Click “Backup.”	The Backup Window appears.
4.	Load a recently created tape into the appropriate drive.	NOTE: If a new tape is not available, it will be necessary to backup a file (steps 1-6) and then re-execute the steps 1-6 with the same tape and different file.
5.	Click “Refresh” until the Tape Drive status is “ONLINE IM REP EN”.	
6.	Highlight the tape drive, make sure “Check Tape Date” is selected and click “OK.”	The Backup Window disappears. The backup will not start because the tape is too new.
7.	Repeat steps 5-6 again, this time making sure “Check Tape Date” is not selected.	The backup will start. Allow it to complete. The file will be backed up to tape. This can be verified by using Raw File Details to view the Backup Tape information.
8.	Verify files have been successfully added to the tape. Rewind the tape, mt -f /dev/nst0 rewind List the contents, tar -tvf /dev/nst0	The files appear in the output of the tape contents.

A.7 Restage

Step	Action	Response
1.	Select the file that was backed up in Test Case A.6 step 7 and click “Restage.”	The Restage Window appears.
2.	Click “Cancel”.	The Restage Window disappears.
3.	Repeat Step 1.	The Restage Window appears.
4.	Load the tape into the appropriate drive.	

5.	Click “Refresh” until the Tape Drive status is ready.	
6.	Highlight the tape drive, and click “OK.”	The Restage Window disappears. The restage will start. Allow it to complete. Verify the file is in the RCC File directory.
7.	Verify the file is in the RCC File directory. %ls	The file is now back in the directory.

A.8 Setup Menu

A.8.1. Capture Parameters

Step	Action	Response
1.	Click Setup → Capture Parameters.	The Capture Parameters Window appears.
2.	Click “Cancel.”	The Capture Parameters Window disappears.
3.	Click Setup → Capture Parameters.	The Capture Parameters Window appears. A message stating the form is read only except for certain fields should appear at the top of the form.
4.	Click on the “Capture System Id” column heading.	The columns will be sorted in ascending order according to Id.
5.	Click on the “Capture System Id” column heading again.	The columns will be sorted in descending order according to Id.
6.	Repeat steps 4-5 for the remaining columns.	
7.	Right click on the “Capture System Id” field.	The Update, insert, and delete options will be disabled.
8.	Repeat step 7 for SW Version, Username, Schedule Directory , Parameter Directory, and Hostname fields.	The Update, insert, and delete options will be disabled.
9.	Verify by inspection there is no Password column.	
10.	Make note of all the values before the following steps.	Screenshots are encouraged.
11.	Right click on the Transfer field for any CTS.	The Insert and Delete options are disabled, the Update option is enabled.
12.	Select “Update.”	The field turns into a Combo Box containing the available Transfer Options.
13.	Select a different option other than the original value and hit “Enter” on the keyboard.	The value is changed and the combo box disappears.
14.	Click “Cancel.”	The Capture Parameters Window disappears.
15.	Verify the value was not changed by inspecting the database. SQL> select transfer_option from dcs_capture_acct where capt_sys_id = ‘capt_sys_id_that_was_changed’;	The value should be the original value.
16.	Click Setup → Capture Parameters.	The Capture Parameters Window appears.
17.	Repeat steps 11 – 15, this time clicking “Apply”.	The value is updated and the Window remains up.

18.	Repeat steps 11 – 15 for the remaining fields. There is no need to click "Cancel" after attempting to update fields. Vary by clicking "OK" instead of "Apply" at times. When the tape drive field is selecting for update, the list will be populated with the available tape drives on that CTS.	Some fields will be combo boxes, some will not.
19.	Click "Send Setup."	The Select CTS Window appears.
20.	Select the appropriate CTS and click "Apply".	A confirmation window will appear, click "YES" to save the changes. The Setup file will be sent to the CTS and the Window will remain open.
21.	Verify the setup file was sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS.	
22.	%more ctsSetupFile	The values should be the same values that were entered in the previous steps.
23.	Select another CTS and click "OK."	The Select Window disappears and the setup file is sent to the appropriate CTS.
24.	Repeat step 21 to verify the Setup file was sent.	
25.	%more ctsSetupFile	The values should be the same values that were entered in the previous steps.
26.	Click Setup → Capture Parameters.	The Capture Parameters Window appears.
27.	Change the values back to the original values from step 10.	
28.	Click "Send Setup" and select "Yes" to saving changes.	
29.	Click "OK."	The setup file is sent to the appropriate CTS.
30.	Verify the setup file was sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS.	
31.	%more ctsSetupFile	The values should be the original values from step 10.

A.8.2. Capture Parameters - GSAST

Step	Action	Response
1.	Click Setup → Capture Parameters.	The Capture Parameters Window appears.
2.	Right click on the "Capture System Id" field.	The Update, insert, and delete options will be enabled.
3.	Repeat step 2 for the remaining fields.	The Update, insert, and delete options will be enabled.
4.	Verify by inspection there is a Password column.	
5.	Make note of all the values before the following steps.	Screenshots are encouraged.
6.	Right click on any field for a CTS, except Capture System Id.	All options are enabled.
7.	Select "Update."	
8.	Enter a different option than the original value and hit "Enter" on the keyboard.	The value is changed.
9.	Click "OK"	The Window is closed.

10.	Verify the value was changed by inspecting the database. SQL> select * from dcs_capture_acct where capt_sys_id = 'capt_sys_id_that_was_changed';	The value should be the new value.
11.	Repeat steps 6-10 for the remaining fields. Vary by clicking "Apply" instead of "OK" at times. When the tape drive field is selecting for update, the list will be populated with the available tape drives on that CTS.	Some fields will be combo boxes, some will not.
12.	Shutdown DCS (A.12)	
13.	Start up DDS GUI (A.1) as dcsst.	
14.	Click Setup → Mission Setup.	The Mission Setup Window appears.
15.	Click "Send Setup."	The Select CTS Window appears.
16.	A save changes window will appear, click "Yes" to send the Setup file. Select the appropriate CTS and click "Apply".	The Setup file will be sent to the CTS and the Window will remain open.
17.	Verify the setup file was sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS.	
18.	%more ctsMissionInfoFile	The values should be the same values that were entered in the previous steps.
19.	Shutdown DCS (A.12)	
20.	Start up DDS GUI (A.1) as gsast.	
21.	Click Setup → Mission Setup.	The Mission Setup Window appears.
22.	Click Setup → Capture Parameters.	The Capture Parameters Window appears.
23.	Change the values back to the original values in step 5.	
24.	Shutdown DCS (A.12)	
25.	Start up DDS GUI (A.1) as dcsst.	
26.	Click Setup → Mission Setup.	The Mission Setup Window appears.
27.	Click "Send Setup" and select "Yes" to saving changes.	
28.	Click "OK."	The setup file is sent to the appropriate CTS.
29.	Verify the setup file was sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS.	
30.	%more ctsMissionInfoFile	The values should be the original values from step 5.
31.	Shutdown DCS (A.12)	
32.	Start up DDS GUI (A.1) as gsast.	
33.	Click Setup → Mission Setup.	The Mission Setup Window appears.
34.	Click Setup → Capture Parameters	The Capture Parameters Window appears.
35.	Right click on the table, select "Insert."	A new line is created.
36.	Enter in the values and Tab between fields. Once all fields are entered, hit "Enter" on the keyboard.	
37.	Click "OK"	The form is closed and the new CTS is inserted in the database.

38.	Verify the new CTS is in the database. SQL> select * from dcs_capture_acct where capt_sys_id = ‘new_cts”;	The new CTS should have all of the values that were entered.
39.	Click Setup → Capture Parameters	The Capture Parameters Window appears.
40.	Right click on the CTS that was entered in step 36.	
41.	Select “Delete”	A confirmation message appears.
42.	Select “Yes” on the confirmation message.	The CTS is deleted.
43.	Click “OK”	The form is closed and the database is updated.
44.	Verify the database was updated. SQL> select * from dcs_capture_acct where capt_sys_id = ‘new_cts”;	No rows returned.

A.8.3. Ingest CPF

Step	Action	Response
1.	Put an L5 CPF File in the $DDS_CPF_PATH directory.	
2.	Click Setup → Ingest CPF.	The Ingest CPF Window appears.
3.	Click “Cancel.”	The Ingest CPF Window disappears.
4.	Click Setup → Ingest CPF.	The Ingest CPF Window appears.
5.	Highlight a CPF file.	
6.	Click “OK.”	The Ingest CPF Window disappears and the CPF is ingested. The Journal will indicate CPF <location> loaded successfully.
7.	Verify the contact schedule was ingested. SQL> select * from cpf_master;	The new CPF should now be in the database.
8.	% ls $DDS_CPF_PATH /processed	Verify the CPF is now in the processed directory.
9.	Place a contact schedule in the $DDS_CPF_PATH directory.	
10.	Repeat steps 4-6 with the contact schedule file, and observe the journal for failure notification	The journal will display a failure message.
11.	Remove the contact schedule in the $DDS_CPF_PATH directory.	

A.8.4. Ingest Contact Schedule

Step	Action	Response
1.	Put an L7 contact schedule in the $DDS_CONT_SCHED_PATH directory.	It also maybe necessary to change the Contact Schedule Poll Interval to 0 in the DDS options window.
2.	Click Setup → Ingest Contact Schedule.	The Ingest Contact Schedule Window appears.
3.	Click “Cancel.”	The Ingest Contact Schedule Window disappears.
4.	Click Setup → Ingest Contact Schedule.	The Ingest Contact Schedule Window appears.
5.	Highlight the contact schedule.	
6.	Click “OK.”	The Ingest Contact Schedule Window disappears and the contact schedule is ingested.

7.	Verify the contact schedule was ingested. SQL> select * from contact_schedules;	The new times should now be in the database.
8.	% ls $DDS_RUN/processed_sched	Verify the contact schedule is now in the processed directory.
9.	Repeat steps 1-6 for any other missions.	

A.8.5. Contact Schedule

Step	Action	Response
1.	Click Setup → Contact Schedule.	The Contact Schedule Window appears.
2.	Click "Cancel."	The Contact Schedule Window disappears.
3.	Click Setup → Contact Schedule.	The Contact Schedule Window appears.
4.	Verify the times with the database. SQL> Select * from contact_schedules where mission_id = 'missionid';	The times in the database should match the times in the contact schedule.
5.	Change the Mission Id by using the drop down list.	The times will be refreshed with the contact schedules for that mission.
6.	Repeat step 4-5 for each remaining mission.	
7.	Right click on the table and select "Insert". Add a contact for a mission, such as L7. Make sure L7 is the selected mission.	A new line is created.
8.	Enter in the time for the contact. The time can either be typed in or entered in via the arrows. Tab after the start time is entered. After entering the stop time, hit "Enter" on the keyboard.	The new time is added.
9.	Repeat step 8 if necessary for the other channel.	
10.	Click "OK"	The new times are entered in the database and the form is closed.
11.	Verify the times with the database. SQL> Select * from contact_schedules where mission_id = 'missionid';	The times in the database should match the new times entered in.
12.	Repeat steps 7-11 for a different mission, this time clicking "Apply".	The form will remain open and the database will be updated.
13.	Repeat steps 7-11 for another mission, this time clicking "Cancel."	The form will close and the database will not be updated.
14.	Highlight a contact period for any given mission.	
15.	Right click and select "Delete" and "Yes" to the confirmation.	
16.	Click "OK"	The database is updated and the form is closed.
17.	Verify the times with the database. SQL> Select * from contact_schedules where mission_id = 'missionid';	The select period that was deleted should no longer be in the database.
18.	Highlight a contact period for any given mission	
19.	Right click on the stop time and select "Update."	The time turns into an edit box.
20.	Modify the stop time to be before the start time and hit "Enter" on the keyboard.	
21.	Click "OK."	A message will appear stating that the stop time must be after the start time.

22.	Right click on the same stop time and select "Update."	
23.	Change the stop time to be greater than 20 minutes after the start time and hit "Enter" on the keyboard.	
24.	Click "OK."	A message will appear stating that the stop time must less than 20 minutes after the start time.
25.	Click "OK."	
26.	Right click on the same stop time and select "Update."	
27.	Change the stop time to be no more than 20 minutes past the start time and hit "Enter" on the keyboard.	
28.	Click "OK"	The database is updated and the form is closed.
29.	Verify the times with the database. SQL> Select * from contact_schedules where mission_id = 'missionid';	The times should match the times in the form.

A.9 Mission Setup

A.9.1. Mission Setup

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click "Cancel."	The Mission Setup Window disappears.
3.	Click Setup → Mission Setup.	The Mission Setup Window appears. A message stating the form is read only except for certain fields should appear at the top of the form.
4.	Click on the "Mission Id" column heading.	The columns will be sorted in descending order according to Mission Id.
5.	Click on the "Mission Id" column heading again.	The columns will be sorted in ascending order according to Mission Id.
6.	Repeat steps 4-5 for the remaining columns.	
7.	Right click on the "Mission Id" field.	The Update, insert, and delete options will be disabled.
8.	Repeat step 7 for Mission Name, Data Category, Priority, Bit Rate, Channel, RCC Data Directory, Transfer Directory, Subsample, Start Location, Sensor Mode, Spacecraft Id, Satellite, Data Type.	The Update, insert, and delete options will be disabled.
9.	Repeat step 7 for Discard, CRC Verify, CRC Host, GUI Color, Sensor Id.	The insert, and delete options will be disabled.
10.	Make note of all the values before the following steps.	Screenshots are encouraged.
11.	Right click on the Discard field for any Mission Id that is currently active on the ST CTS.	The Insert and Delete options are disabled, the Update option is enabled.
12.	Select "Update."	The field turns into a Combo Box containing the available Yes/No options.

13.	Select a different option than the original value and hit “Enter” on the keyboard.	The value is changed and the combo box disappears.
14.	Click “Cancel.”	The Mission Setup Window disappears.
15.	Verify the value was not changed by inspecting the database. SQL> select discard_before_aos from mission_acct where mission_id = ‘mission_id_that_was_changed’ and data_category = ‘data_category_that_was_changed’;	The value should be the original value.
16.	Repeat steps 11-15, this time clicking “Apply”.	The value is updated and the Window remains up.
17.	Repeat steps 11-15 for the remaining fields. There is no need to click “Cancel” after attempting to update fields. Vary by clicking “OK” instead of “Apply” at times. For GUI Color, pick any color. The color you chose shall appear on the main screen for that Mission Id / Data Category after a refresh.	Some fields will be combo boxes, some will not.
18.	Click “Send Setup.”	The Select CTS Window appears.
19.	Select the appropriate CTS and click “Apply”.	A confirmation window will appear, click “YES” to send the Setup file. The Setup file will be sent to the CTS and the Window will remain open.
20.	Verify the ctsSetupFile and ctsMissionInfoFile were sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS.	
21.	%more ctsSetupFile %more ctsMissionInfoFile	The values should be the same values that were entered in the previous steps. Only the Discard before AOS field will be updated in the ctsMissionInfoFile. The ctsSetupFile should be unchanged, otherthan the timestamp.
22.	Select another CTS and click “OK.”	The Select Window disappears and the setup file is sent to the appropriate CTS.
23.	Repeat step 20-21to verify the ctsSetupFile and ctsMissionInfoFile were sent and are correct.	The values should be the same values that were entered in the previous steps.
24.	Change the values back to the original values from step 10.	
25.	Click “Send Setup” for each CTS and select “Yes” to saving changes.	
26.	Click “OK.”	The setup file is sent to the appropriate CTS.
27.	Repeat step 20-21 to verify the ctsSetupFile and ctsMissionInfoFile were sent and are correct.	The values should be the same values as the original in step 9.

A.9.2. Mission Setup - GSAST

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Right click on the “Mission Id” field.	The update, insert, and delete options will be enabled.

3.	Repeat step 2 for the remaining fields.	The update, insert, and delete options will be enabled.
4.	Make note of all the values before the following steps.	Screenshots are encouraged.
5.	Right click on any field for a Mission Id.	All options are enabled.
6.	Select “Update.”	
7.	Enter a different option than the original value and hit “Enter” on the keyboard.	The value is changed.
8.	Click “OK”	The Window is closed.
9.	Verify the value was changed by inspecting the database. SQL> select * from mission_acct where mission_id = ‘mission_id_that_was_changed’ and data_category = ‘data_category_that_was_changed’;	The value should be the new value.
10.	Repeat steps 5-9 for the remaining fields. Vary by clicking “Apply” instead of “OK” at times. When the tape drive field is selected for update, the list will be populated with the available tape drives on that CTS.	Some fields will be combo boxes, some will not. NOTE: the Mission Id and Data Category columns cannot be updated.
11.	Shutdown DCS (A.12)	
12.	Start up DDS GUI (A.1) as dcsst.	
13.	Click Setup → Mission Setup.	The Mission Setup Window appears.
14.	Click “Send Setup.”	The Select CTS Window appears.
15.	Select the appropriate CTS and click “Apply”.	The Setup file will be sent to the CTS and the Window will remain open.
16.	Verify the ctsSetupFile and ctsMissionInfoFile were sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS.	
17.	%more ctsSetupFile %more ctsMissionInfoFile	The values should be the same values that were entered in the previous steps.
18.	Select another CTS and click “OK.”	The Select Window disappears and the setup file is sent to the appropriate CTS.
19.	Shutdown DCS (A.12)	
20.	Start up DDS GUI (A.1) as gsast.	
21.	Click Setup → Mission Setup.	The Mission Setup Window appears.
22.	Change the values back to the original values in step 4.	
23.	Shutdown DCS (A.12)	
24.	Start up DDS GUI (A.1) as dcsst.	
25.	Click Setup → Mission Setup.	The Mission Setup Window appears.
26.	Click “Send Setup” for each CTS and select “Yes” to saving changes.	
27.	Click “OK.”	The setup file is sent to the appropriate CTS.
28.	Repeat step 15-16 to verify the ctsSetupFile and ctsMissionInfoFile were sent and are correct.	The values should be the same values as the original in step 4.
29.	Click Setup → Mission Setup	The Mission Setup Window appears.
30.	Shutdown DCS (A.12)	

31.	Start up DDS GUI (A.1) as gsast.	
32.	Click Setup → Mission Setup.	The Mission Setup Window appears.
33.	Right click on the table, select "Insert."	A new line is created.
34.	Enter in the values and Tab between fields. Once all fields are entered, hit "Enter" on the keyboard.	
35.	Click "OK"	The form is closed and the new Mission Id is inserted in the database.
36.	Verify the new CTS is in the database. SQL> select * from mission_acct where mission_id = 'new_mission";	The new Mission Id should have all of the values that were entered.
37.	Click Setup → Mission Setup	The Mission Ids Window appears.
38.	Right click on the Mission Id / Data Category that was entered in step 33.	
39.	Select "Delete"	A confirmation message appears.
40.	Select "Yes" on the confirmation message.	The Mission Id is deleted.
41.	Click "OK"	The form is closed and the database is updated.
42.	Verify the database was updated. SQL> select * from mission_acct where mission_id = 'new_mission';	No rows returned.

A.9.3. Data Categories

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click "Data Categories"	The Data Categories Window appears.
3.	Click "Cancel"	The Data Categories Window disappears.
4.	Click "Data Categories"	The Data Categories Window appears.
5.	Verify there is a message at the top stating the form is read only.	
6.	Right click on the table.	No options should be available.
7.	Click "OK"	The Data Categories Window disappears.

A.9.4. Data Categories - GSAST

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click "Data Categories"	The Data Categories Window appears.
3.	Verify the following Data Categories exist: ENGINEERING EXCHANGE NOMINAL TEST VALIDATION	LMDD compliant Data Categories should appear as stated.
4.	Select "Update" on the description column.	
5.	Enter in a new value.	
6.	Click "OK"	The Data Categories Window disappears and the database is updated.
7.	Verify the database was updated. SQL> select * from dcs_datatype_acct	The updated Data Category should be there.

A.9.5. Station Ids

Step	Action	Response
1.	Click Setup → Mission Setup.	The Station Ids Window appears.
2.	Click “Station Ids”	The Station Ids Window appears.
3.	Click “Cancel”	The Station Ids Window disappears.
4.	Click “Station Ids”	The Station Ids Window appears.
5.	Verify there is a message at the top stating the form is read only.	
6.	Right click on the table.	No options should be available.
7.	Verify the Stations are correct for the Mission Id/ Data Category. SQL> select * from mission_station_acct where mission_id = ‘mission_id’ and data_category = ‘data_category’;	The Station Ids should match the Station Ids in the Window for the selected Mission Id/Data Category.
8.	Change the Mission Id/Data Category combo boxes.	The table is refreshed with the correct Station Ids.
9.	Repeat step 7 for the selected Mission Id/ Data Category.	
10.	Click “OK”	The Station Id Window disappears.

A.9.6. Station Ids - GSAST

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click “Station Ids”	The Station Ids Window appears.
3.	Right click on the table.	All options should be enabled.
4.	Click “Update”	
5.	Enter in a different Station Id.	
6.	Click “OK”	The form is closed and the database is updated.
7.	Verify the Stations were updated for the Mission Id/ Data Category. SQL> select * from mission_station_acct where mission_id = ‘mission_id’ and data_category = ‘data_category’;	The Station Ids should match the Station Ids in the Window for the selected Mission Id/Data Category.
8.	Click Setup → Mission Setup.	The Station Ids Window appears.
9.	Click “Station Ids”	The Station Ids Window appears.
10.	Change the Mission Id/Data Category combo boxes.	The table is refreshed with the correct Station Ids.
11.	Right click on the table and click “Insert”	A new line is created.
12.	Enter in a new Station Id.	
13.	Click “Apply”	The database is updated, the Window remains open.
14.	Verify the Stations were updated for the Mission Id/ Data Category. SQL> select * from mission_station_acct where mission_id = ‘mission_id’ and data_category = ‘data_category’;	The Station Ids should match the Station Ids in the Window for the selected Mission Id/Data Category.
15.	Right click on the new Station Id that was inserted, select “Delete”.	A confirmation message appears.

16.	Click “Yes”	The Station Id is deleted.
17.	Click “OK”	The Window is closed and the database is updated.
18.	Verify the Stations were updated for the Mission Id/ Data Category. SQL> select * from mission_station_acct where mission_id = ‘mission_id’ and data_category = ‘data_category’;	The new Station Ids is deleted for the Mission Id / Data Category.

A.9.7. Capture Systems

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click “Capture Systems”	The Capture Systems Window appears.
3.	Click “Cancel”	The Capture Systems Window disappears.
4.	Click “Capture Systems”	The Capture Systems Window appears.
5.	Right click on the table.	The Insert and Delete options should be disabled, the Update option is enabled.
6.	Verify the Capture systems are correct for the Mission Id/ Data Category. SQL> select * from capture_mission_acct;	The parameters should match the Station Ids in the Window for the selected capture system.
7.	Change the capture system id combobox.	The table is refreshed with the correct parameters.
8.	Repeat step 6 for the selected capture system.	
9.	Make note of all the values before the following steps.	
10.	Right click on the Operational field for any CTS.	
11.	Select “Update.”	The field turns into a Combo Box containing the available Yes/No options.
12.	Select a different option than the original value and hit “Enter” on the keyboard.	The value is changed and the combo box disappears.
13.	Click “Cancel.”	The Capture Systems Window disappears.
14.	Verify the value was not changed by inspecting the database. SQL> select operational from capture_mission_acct where capt_sys_id = ‘capt_sys_id_that_was_changed’;	The value should be the original value.
15.	Click “Capture Systems”	The Capture Systems Window appears.
16.	Repeat steps 10-14, this time clicking “Apply”.	The value is updated and the Window remains up.
17.	When Apply is clicked, the setup file is sent to the selected CTS.	
18.	Verify the setup file was sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS. Verify the new schedule was received.	
19.	%more ctsSetupFile	The values should be the same values that were entered in the previous steps.

20.	Repeat steps 10-14 for the remaining fields. There is no need to click “Cancel” after attempting to update fields. Vary by clicking “OK” instead of “Apply” at times. When the tape drive field is selecting for update, the list will be populated with the available tape drives on that CTS.	Some fields will be combo boxes, some will not. The setup file should be sent to the selected CTS after OK or Apply is selected.
21.	For Operational field, set conflicting missions to Yes and hit “Enter” on the keyboard.	
22.	Click “OK”.	A message will appear stating the missions are conflicting. Both cannot be set to operational.
23.	Change one of the conflicting missions to No for Operational.	
24.	Click “OK”	The Window disappears. The changes are saved in the database and the setup file is sent.
25.	Verify the value was not changed by inspecting the database. SQL> select operational from capture_mission_acct where capt_sys_id = ‘capturesystem_that_was_changed’;	
26.	Verify the setup file was sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS.	
27.	%more ctsSetupFile	The values should be the same values that were entered in the previous steps.

A.9.8. Capture Systems - GSAST

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click “Capture Systems”	The Capture Systems Window appears.
3.	Right click on the table, select “Insert”.	All options are enabled, a new line is created.
4.	Enter in a new Mission Id / Data Category combination and the associated parameters, hit “Tab” between fields and “Enter” after all fields have been entered.	
5.	Click “Apply”	The form remains open; the new value is entered in the database.
6.	Verify the Capture systems are correct for the Mission Id/ Data Category. SQL> select * from capture_mission_acct where capt_sys_id = ‘capt_sys_id_that_was_changed’;	The parameters should match the Station Ids in the Window for the selected capture system.
7.	Right click on the table, select “Delete”	A confirmation message appears.
8.	Click “Yes”	The Mission Id / Data Category combination for the select CTS is deleted.
9.	Click “OK”	The form is closed and the database is updated.
10.	Verify the Capture systems are correct for the Mission Id/ Data Category. SQL> select * from capture_mission_acct where capt_sys_id = ‘capt_sys_id_that_was_changed’;	The parameters should match the Station Ids in the Window for the selected capture system.

A.9.9. Channel Map

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click "Capture Systems"	The Capture Systems Window appears.
3.	Click "Channel Map" in the right hand corner.	The Channel Map Window appears.
4.	Click "Cancel"	The Capture Systems Window disappears.
5.	Click "Channel Map"	The Channel Map Window appears.
6.	Verify the capture devices are correct for the Capture System Id /Mission Id/ Data Category. SQL> select * from dcs_mission_capt_chan_map where capt_sys_id = 'capt_sys_id_that_was_changed' and mission_id = 'mission' and data_category = 'data_category';	The parameters should match the parameters in the Window for the selected Capture System Id/ Mission Id/ Data Category.
7.	Change a combination of Capture System Id, Mission Id, Data Category.	The Window is refreshed with the appropriate parameters.
8.	Select a Capture System Id, Mission Id, Data Category combination. Change the channel to either *, 1 or 2 (something other than its current value, and different than the last digit of the CTS's hostname) by right clicking on the field and selecting update. Hit "Enter" on the keyboard.	
9.	Click "OK"	
10.	Verify the capture devices are correct for the Capture System Id /Mission Id/ Data Category. SQL> select * from dcs_mission_capt_chan_map where capture_sys_id = 'capt_sys_id_that_was_changed' and mission_id = 'mission' and data_category = 'data_category';	The parameters should match the parameters in the Window for the selected Capture System Id / Mission Id/ Data Category.
11.	Click "Send Setup."	The Select CTS Window appears.
12.	Select the appropriate CTS and click "Apply".	A confirmation window will appear, click "YES" to send the Setup file. The Setup file will be sent to the CTS and the Window will remain open.
13.	Verify the setup file was sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS. Verify the new schedule was received.	
14.	%more ctsSetupFile	The values should be the same values that were entered in the previous steps.
15.	Select a Capture System Id, Mission Id, Data Category combination where the channel is not *.	
16.	Click "Reset"	The channel is changed back to *.
17.	Click "OK."	The database is updated and the setup file is sent.
18.	Verify the capture devices are correct for the capture system /Mission Id/ Data Category. SQL> select * from dcs_mission_capt_chan_map where capture_sys_id = 'capt_sys_id_that_was_changed' and mission_id = 'mission' and data_category = 'data_category';	The parameters should match the parameters in the Window for the selected Capture System Id / Mission Id/ Data Category.
19.	Click "Send Setup."	The Select CTS Window appears.

20.	Select the appropriate CTS and click “Apply”.	A confirmation window will appear, click “YES” to send the Setup file. The Setup file will be sent to the CTS and the Window will remain open.
21.	Verify the setup file was sent by doing a ls in the $CTS_SETUP_FILE_PATH on the appropriate CTS. Verify the new schedule was received.	
22.	%more ctsSetupFile	The values should be the same values that were entered in the previous steps.

A.9.10. Routing Information

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click “Routing Information.”	The Routing Information Window appears.
3.	Click “Cancel.”	The Routing Information Window disappears.
4.	Click “Routing Information.”	The Routing Information Window appears.
5.	Verify that the “Edit Valid Transfer Statuses” button is disabled.	
6.	Verify the routing information matches the routing information in the database for the Mission Id/ Data Category/ Station Id. SQL> select * from routing_acct where mission_id = ‘mission’ and data_category = ‘data_category’ and station_id = ‘station’;	The parameters in the database should match the parameters in the Window for the selected Mission Id/ Data Category / Station Id.
7.	Change a combination of Mission Id, Data Category, and Station Id.	The Window is refreshed with the appropriate parameters.
8.	Repeat step 6 to verify the parameters are correct.	
9.	Right click on the table for the initial status.	The Insert and Delete options are disabled, the update option is enabled.
10.	Select “Update”	Update turns into a list with the available statuses.
11.	Select any status other than it’s original value and hit “Enter” on the keyboard.	
12.	Click “Apply”	The value is updated.
13.	Verify the routing information matches the routing information in the database for the Mission Id/ Data Category/ Station Id. SQL> select * from routing_acct where mission_id = ‘mission’ and data_category = ‘data_category’ and station_id = ‘station’;	The parameters in the database should match the parameters in the Window for the selected Mission Id/ Data Category / Station Id.
14.	Repeat steps 9-12, this time clicking “OK”.	The value is updated and the form is closed.

A.9.11. Routing Information - GSAST

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click “Routing Information.”	The Routing Information Window appears.
3.	Right click on the table.	All options are enabled, if data is already in the table. If the table is empty only “Insert” will be available.

4.	Select “Insert”	A new line is created.
5.	Enter a new Destination system and statuses.	
6.	Click “Apply”	The database is updated.
7.	Verify the database was updated. SQL> select * from routing_acct where mission_id = ‘mission’ and data_category = ‘data_category’ and station_id = ‘station’;	The new destination should be listed.
8.	Right click on the table on the new destination system that was just entered.	All options are enabled.
9.	Select “Delete”	A confirmation message appears.
10.	Select “Yes”	The destination system is deleted.
11.	Click “OK”	The Window is closed and the database is updated.
12.	Verify the database was updated. SQL> select * from routing_acct where mission_id = ‘mission’ and data_category = ‘data_category’ and station_id = ‘station’;	The destination system should not be listed.

A.9.12. Transfer Statuses - GSAST

Step	Action	Response
1.	Click Setup → Mission Setup.	The Mission Setup Window appears.
2.	Click “Routing Information.”	The Routing Information Window appears.
3.	Click “Edit Valid Transfer Statuses”	The Edit Valid Transfer Statuses Window appears.
4.	Right click on the table, select “Update”	
5.	Change the value of the Transfer Status.	
6.	Click “OK”	The transfer status is updated and the Window is closed.
7.	Verify the database was updated. SQL > select * from valid_xfer_status;	The new value is shown.
8.	Repeat steps 1-7 for the Description field.	
9.	Click Setup → Mission Setup.	The Mission Setup Window appears.
10.	Click “Routing Information.”	The Routing Information Window appears.
11.	Click “Edit Valid Transfer Statuses”	The Edit Valid Transfer Statuses Window appears.
12.	Right click on the table, select “Insert”	A new line is created.
13.	Enter in a new transfer status and description, hit “Tab” between fields and “Enter” after all fields have been entered.	
14.	Click “Apply”	The database is updated.
15.	Verify the database was updated. SQL> select * from valid_xfer_status;	The new transfer status should be listed.
16.	Right click on the table on the new transfer status that was just entered.	All options are enabled.
17.	Select “Delete”	A confirmation message appears.
18.	Select “Yes”	The destination system is deleted.
19.	Click “OK”	The Window is closed and the database is updated.

20.	Verify the database was updated. SQL> select * from valid_xfer_status;	The transfer status should not be listed.
21.	Change the Transfer Status and Description columns to the original values from step 13.	

A.9.13. Versioning

Step	Action	Response
1.	Click Setup → Versioning.	The Versioning Window appears.
2.	Click “Cancel”	The Versioning Window disappears.
3.	Click Setup → Versioning.	The Versioning Window appears.
4.	There should be a label at the top indicating Read Only.	
5.	Change the Mission Id and Station Id.	The Table is refreshed.
6.	Verify the values match the database. SQL> select * from dcs_versioning_acct where mission_id = ‘mission_id’ and station_id = ‘station_id’;	The values should match.
7.	Right click on the table.	Nothing happens.
8.	Click “OK.”	The Window disappears.

A.9.14. Versioning - GSAST

Step	Action	Response
1.	Click Setup → Versioning.	The Versioning Window appears.
2.	Select a Mission Id / Station Id that has values entered. Make note of the current values.	
3.	Right click on the table, select “Update”.	
4.	Change the “No Version” status.	
5.	Click “Apply”	The database is updated, the Window remains open.
6.	Verify the value was changed in the databse. SQL> select * from dcs_versioning_acct where mission_id = ‘mission_id’ and station_id = ‘station_id’;	The new status is displayed.
7.	Repeat steps 4-6 for the remaining statuses.	
8.	Change all settings back to original as noted in Step 2.	
9.	Select a Mission Id /Station Id that has no values listed.	
10.	Right click on the table, select “Insert”	A new line is created.
11.	Enter in values for all statues.	
12.	Click “OK”	The database is updated and the Window is closed.
13.	Verify the database was updated. SQL> select * from dcs_versioning_acct where mission_id = ‘mission_id’ and station_id = ‘station_id’;	The new values are shown.
14.	Click Setup → Versioning	The Versioning Window appears.

15.	Select the Mission Id / Station Id that was just modified in step 10.	
16.	Right click on the table, select “Delete.”	A confirmation message appears.
17.	Click “Yes”	The record is deleted.
18.	Click “OK”.	The database is updated, the Window is closed.
19.	Verify the database was updated. SQL> select * from dcs_versioning_acct where mission_id = ‘mission_id’ and station_id = ‘station_id’;	There are no records.

A.9.15. Destination Setup

Step	Action	Response
1.	Click Setup → Destination Setup.	The Destination Setup Window appears.
2.	Click “Cancel”	The Destination Setup Window disappears.
3.	Click Setup → Destination Setup.	The Destination Setup Window appears.
4.	There should be a label at the top indicating Read Only.	
5.	Verify the values match the database. SQL> select * from destination_acct;	The values should match. If the archive_flag is 1 the Window will show Yes. If the Archive Flag is 0 then Window will show No.
6.	Right click on the table.	Nothing happens.
7.	Click “OK.”	The Window disappears.

A.9.16. Destination Setup - GSAST

Step	Action	Response
1.	Click Setup → Destination Setup.	The Destination Setup Window appears. Make note of the current settings.
2.	Right click on the table, select “Update”.	
3.	Change the System Name and hit “Enter”.	The value is updated.
4.	Click “OK.”	The Window closes and the database is updated.
5.	Verify the database was updated. SQL> select * from destination_acct;	The new value is shown.
6.	Repeat steps 1-6 for the Archive fields.	
7.	Click Setup → Destination Setup	The Destination Setup Window appears.
8.	Right click on the table, select “Insert”	A new line is created.
9.	Enter a new record, hitting “Tab” between fields and “Enter” after all fields have been entered.	
10.	Click “Apply”	The database is updated, the Window remains open.
11.	Verify the record was inserted. SQL > select * from destination_acct	The new record is shown. The values should match. If the Archive_flag is 1 the Window will show Yes. If the Archive Flag is 0 then Window will show No.
12.	Right click on the record that was just created, select “Delete”	A confirmation message appears.
13.	Click “Yes”	The record is deleted.
14.	Click “OK”	The Window is closed, the database is updated.

15.	Verify the database is updated. SQL > select * from destination_acct	The new record is no longer shown.
16.	Update the settings back to the original seen in Step 1.	

A.9.17. DDS Options

Step	Action	Response
1.	Click Setup → DDS Options.	The DDS Options Window appears.
2.	Click "Cancel"	The DDS Parameters Window disappears.
3.	Click Setup → DDS Options.	The DDS Options Window appears.
4.	There should be a label at the top indicating Read Only except for certain fields.	
5.	Attempt to change DDS Hostname, Station Id, DDS Software Version, FTP Login Name, and FTP Password by clicking in the text box and typing.	You should not be able to change these values.
6.	Make note of all the values before the following steps.	Screenshots are encouraged.
7.	Change Schedule Poll Interval.	
8.	Click "OK."	The Window is closed and the value is updated.
9.	Verify the value is updated in the database. SQL> select schedule_poll from dcs_configuration;	The value should be the new value entered in step 6.
10.	Click Setup → DDS Options.	The DDS Options Window appears.
11.	Repeat step 7-9 for Transfer Poll Interval, Disk Space Poll Interval, On-Line Flag Poll Interval, Disk Space Threshold, Cleanup Delay, and GUI Refresh Interval. Click "Apply"	The Window should remain open the the database is updated with the new values.
12.	Change all values back to their original values from step 6 and click "OK"	The database is updated and the Window is closed.
13.	Verify the values are updated in the database. SQL> select * from dcs_configuration;	The values should be updated.

A.9.18. DDS Options - GSAST

Step	Action	Response
1.	Click Setup → DDS Options.	The DDS Options Window appears.
2.	Make note of all the values before the following steps.	Screenshots are encouraged.
3.	Change the DDS Hostname.	
4.	Click "OK"	The DDS Options Window is closed, the database is updated.
5.	Verify the value is updated in the database. SQL> select * from dcs_configuration;	The value should be the new value that was entered.
6.	Repeat steps 3-5 for the remaining fields, varying between clicking "OK" and "Apply"	
7.	Change all values back to their original values from step 2 and click "OK"	The database is updated and the DDS Options Window is closed.

8.	Verify the values are updated in the database. SQL> select * from dcs_configuration;	The values should be updated.

A.9.19. Remote Tape Systems

Step	Action	Response
1.	Click Setup → Remote Tape Systems.	The Remote Tape Systems Window appears.
2.	Click "Cancel"	The Remote Tape Systems Window disappears.
3.	Click Setup → Remote Tape Systems.	The Remote Tape Systems Window appears.
4.	There should be a label at the top indicating Read Only.	
5.	Verify the values match the database. SQL> select * from remote_tapesys_acct;	The values should match.
6.	Right click on the table.	Nothing happens.
7.	Click "OK."	The Window disappears.

A.9.20. Remote Tape Systems - GSAST

Step	Action	Response
1.	Click Setup → Remote Tape Systems.	The Remote Tape Systems Window appears.
2.	Click "Cancel"	The Remote Tape Systems Window disappears.
3.	Click Setup → Remote Tape Systems.	The Remote Tape Systems Window appears.
4.	Right click on the table, select "Insert"	A new line is created.
5.	Enter in a new Remote Tape System, and click "Enter".	
6.	Click "Apply"	The database is updated.
7.	Verify the values match the database. SQL> select * from remote_tapesys_acct;	The values should match.
8.	Click "OK."	The Window disappears.
9.	Click Setup → Remote Tape Systems.	The Remote Tape Systems Window appears.
10.	Right click on the record that was just created, select "Delete"	A confirmation message appears.
11.	Click "Yes"	The record is deleted.
12.	Click "OK"	The Window is closed, the database is updated.
13.	Verify the database is updated. SQL> select * from remote_tapesys_acct;	The new record is no longer shown.

A.9.21. Antenna Ids - GSAST

Step	Action	Response
1.	Click Setup → Antenna Ids.	The Antenna Ids Window appears.
2.	Right click on the table, select "Update"	
3.	Change the value of the Antenna.	
4.	Click "OK"	The Window is closed, the database is updated.
5.	Verify the database is updated. SQL> select * from dcs_antenna_acct;	The new value should be shown.
6.	Repeat steps 1-5 for the description.	
7.	Click Setup → Antenna Id.	The Antenna Id Window appears.
8.	Right click on the table, select "Insert"	A new line is created.

9.	Enter a value for a new antenna, click “Tab” between fields and “Enter” after all fields have been entered.	
10.	Click “Apply”	The database is updated.
11.	Verify the database is updated. SQL> select * from dcs_antenna_acct;	The new value should be shown.
12.	Right click on the new value that was entered, select “Delete”	A confirmation message appears.
13.	Click “Yes”	The record is deleted.
14.	Click “OK”	The Window is closed, the database is updated.
15.	Verify the database is updated. SQL> select * from dcs_antenna_acct;	The value should not be shown.

A.9.22. Antenna Ids

Step	Action	Response
1.	Setup → Antenna Ids.	The Antenna Ids Window appears.
2.	Click “Cancel”	The Antenna Ids Window disappears.
3.	Setup → Antenna Ids.	The Antenna Ids Window appears.
4.	There should be a label at the top indicating Read Only.	
5.	Verify the values match the database. SQL> select * from dcs_antenna_acct;	The values should match.
6.	Right click on the table.	Nothing happens.
7.	Click “OK.”	The Window disappears.

A.9.23. Conflicting Missions

Step	Action	Response
1.	Click Setup → Conflicting Missions.	The Conflicting Missions Window appears.
2.	Click “Cancel”	The Conflicting Missions Window disappears.
3.	Click Setup → Conflicting Missions.	The Conflicting Missions Window appears.
4.	There should be a label at the top indicating Read Only.	
5.	Verify the values match the database. SQL> select * from dcs_conflicting_missions;	The values should match.
6.	Right click on the table.	Nothing happens.
7.	Click “OK.”	The Window disappears.

A.9.24. Conflicting Missions - GSAST

Step	Action	Response
1.	Click Setup → Conflicting Missions.	The Conflicting Missions Window appears.
2.	Right click on the table and select “Update”	
3.	Enter in a different value for Mission Id 1.	
4.	Click “OK”	The Window is closed, the database is updated.
5.	Verify the database was updated. SQL> select * from dcs_conflicting_missions;	The values should match.
6.	Repeat steps 2-5 for Mission Id 2.	

7.	Click Setup → Conflicting Missions.	The Conflicting Missions Window appears.
8.	Right click on the table and select "Insert"	A new line is created.
9.	Enter in a new record, hit "Tab" between fields and "Enter" after all fields have been entered.	
10.	Click "Apply"	The database is updated.
11.	Verify the database was updated. SQL> select * from dcs_conflicting_missions;	The values should match.
12.	Right click on the new record that was entered and select "Delete"	The record is deleted.
13.	Click "OK."	The Window is closed, the database is updated.
14.	Verify the database was updated. SQL> select * from dcs_conflicting_missions;	The values should match.
15.	Execute Capture Systems (A.9.7) to confirm functionality.	

A.10 Control Menu

A.10.1. Manual Capture

Step	Action	Response
1.	Click Control → Manual Capture	The Manual Capture Window appears.
2.	Click "Cancel."	The Manual Capture Window disappears.
3.	Click Control → Manual Capture	The Manual Capture Window appears.
4.	Set up for a manual capture by entering in the parameters.	
5.	Click "Start."	The Start button is enabled and the Stop button is disabled.
6.	Allow the capture to complete.	The file is captured and online.
7.	Verify the file was captured by viewing the RCC File directory. % ls $CTS_RAWFILE_PATH	
8.	Repeat steps 4-7, this time selecting "Recapture."	
9.	Repeat steps 4-7, this time selecting "Dual Downlink"	
10.	Set up for another manual capture, this time selecting "Delete File". Allow the capture to start.	
11.	Click "Stop"	The capture is stopped and the RCC File is deleted.
12.	Verify the file was not saved to disk by viewing the RCC File directory. % ls $CTS_RAWFILE_PATH	
13.	Set up for another manual capture. Enter in a duration of something other than 14 minutes.	The start and stop time is automatically changed to reflect the new time.
14.	Change the start time. Hit "Tab."	The stop time is automatically updated according to the start time and the duration.
15.	Click "Start."	The Start button is disabled and the Stop button is enabled.
16.	Allow file to capture completely.	

17.	Verify the file was captured by viewing the RCC File directory. % ls $CTS_RAWFILE_PATH	
18.	Set up for another manual capture. Enter in a duration greater than 14 minutes.	
19.	Click "Start"	Play several Ampex Files back to back, to cover the duration.
20.	Allow capture to complete normally. Do NOT process this file.	The complete file is captured.

A.10.2. Start/Stop Restage

Step	Action	Response
1.	Click Control → Start Restage	The Start Restage Window appears. The list of devices will populate in less than 10 seconds.
2.	Click "Cancel."	The Start Restage Window disappears.
3.	Click Control → Start Restage	The Start Restage Window appears. The list of devices will populate in less than 10 seconds.
4.	Put a tape the drive.	
5.	Click "Refresh"	The status is refreshed.
6.	Select a Data Category using the drop down list.	
7.	Select the Device.	
8.	Click "OK."	The Restage is started.
9.	Allow the restage to complete.	
10.	Verify the files were restaged by viewing the RCC File directory. % ls	
11.	Repeat steps 3-10, this time selecting the Remote button and selecting a different system.	The list is populated with the available systems. The list of devices will populate in less than 10 seconds. Allow restage to complete.
12.	Click Control → Start Restage.	
13.	Set up for a restage and click "OK."	The restage is started.
14.	After the restage has started,click Control → Stop Restage.	The Stop Restage Window appears.
15.	Click "Cancel."	The Stop Restage Window disappears.
16.	Click Control → Stop Restage	The Stop Restage Window appears.
17.	Select the restage process.	
18.	Click "OK."	The restage is stopped.
19.	Verify the restage has been stopped. % ps –deaf	There should be no restage or tar process.

A.10.3. Initialize Tape

Step	Action	Response
1.	Click Control → Initialize Tape	The Initialize Tape Window appears. The list of devices will populate in less than 10 seconds. Allow initialization to complete.
2.	Click "Cancel."	The Initialize Tape Window disappears.

3.	Click Control → Initialize Tape	The Initialize Tape Window appears. The list of devices will populate in less than 10 seconds. Allow initialization to complete.
4.	Put a tape in the drive.	
5.	Click "Refresh"	The status is refreshed.
6.	Select the Device.	
7.	Click "OK."	The Restage is started.
8.	Allow the initialization to complete.	The journal message should not indicate any errors. Verify tape label printed.
9.	Repeat steps 3-8, this time selecting Remote button and selecting a different system.	The list is populated with the available systems. The list of devices will populate in less than 10 seconds. Allow initialization to complete.

A.10.4. Generate Tape Label

Step	Action	Response
1.	Click Control → Generate Tape Label	The Generate Tape Label Window appears.
2.	Click "Cancel."	The Generate Tape Label Window disappears.
3.	Click Control → Generate Tape Label	The Generate Tape Label Window appears.
4.	Select a Hostname from the drop down list.	The drop down list is populated with the available Hostnames.
5.	Enter a Tape Id in the text box.	
6.	Click "OK."	The label is created.
7.	Verify the label is created by checking the printer.	

A.10.5. Transfer CTS File

Step	Action	Response
1.	Click Control → Transfer CTS File	The Transfer CTS File Window appears.
2.	Click "Cancel."	The Transfer CTS File Window disappears.
3.	Click Control → Transfer CTS File	The Transfer CTS File Window appears.
4.	Select a Capture System Id from the drop down list.	The drop down list is populated with the available Capture System Ids.
5.	Select an RCC file to transfer.	
6.	Click "OK".	The file is transferred to the DDS.
7.	Verify the file was transferred to the DDS by viewing the RCC File directory. % ls	The RCC File should be in the DDS RCC File directory.
8.	Verify the file is still on the CTS by viewing the RCC File directory on the CTS. % ls $CTS_RAWFILE_PATH	The RCC File should be in the CTS RCC File directory
9.	Repeats steps 3-8, this time selecting "Delete after Transfer."	The RCC File should be transferred to the DDS and be deleted from the CTS.

A.10.6. Transmit CTS File

Step	Action	Response
1.	Click Control → Transmit CTS File	The Transmit CTS File Window appears.
2.	Click "Cancel."	The Transmit CTS File Window disappears.
3.	Click Control → Transmit CTS File	The Transmit CTS File Window appears.

4.	Select a Capture System Id from the drop down list.	The drop down list is populated with the available Capture System Ids. The device drop down list is also repopulated with the available devices on the selected CTS.
5.	Set up the other parameters, including MWD, Bit Rate, and Device.	
6.	Select an RCC file to transmit.	
7.	Click "Start".	The file is transmitted. The Start button is disabled and the Stop button is enabled.
8.	Verify the file is being transmitted by viewing the MWD, if applicable, and also verify the transmit process is running. % ps –eaf | grep rdc_Transmit	Allow the file to transmit completely.
9.	Click "Stop" after the transmit is completed.	
10.	Repeat steps 4-8, this time clicking "Stop" before the transmit is complete.	The transmit should be stopped. The Window disappears.
11.	%ps –eaf | grep rdc_Transmit	No rdc_Transmit process appears.

A.10.7. Send all RCC Files to LAM

Step	Action	Response
1.	Click Control → Send all RCC Files to LAM	A confirmation Send all RCC Files to LAM Window appears.
2.	Click "Cancel."	The Send all RCC Files to LAM Window disappears.
3.	Coordinate data transfer with the LAM.	
4.	Make sure there are RCC Files that are HOLD-OPS for LAM. SQL> select count(*) from dcs_rawfile_acct d, transfer_acct t where d.on_line_flag = 1 and t.xfer_status = 'HOLD-OPS' and t.dest_sys_id = 'LAM' and d.rcc_file_name = t.rcc_file_name;	It is not recommended to make more than six (6) RCC Files available at a given time, as it is not the objective of this test to aggravate the LAM operators.
5.	Click Control → Send all RCC Files to LAM	A confirmation Send all RCC Files to LAM Window appears.
6.	Click "OK"	All files that are HOLD-OPS should made ready for the LAM.
7.	SQL> select count(*) from dcs_rawfile_acct d, transfer_acct t where d.on_line_flag = 1 and t.xfer_status = 'HOLD-OPS' and t.dest_sys_id = 'LAM' and d.rcc_file_name = t.rcc_file_name ;	Count should be zero.

A.11 Monitor Menu

A.11.1. Add Journal Entry

Step	Action	Response
1.	Click Monitor → Add Journal Entry	The Add Journal Entry Window appears.
2.	Click "Cancel."	The Add Journal Entry Window disappears.
3.	Click Monitor → Add Journal Entry	The Add Journal Entry Window appears.

4.	Click “OK”.	An error message will appear, indicting that text needs to be entered.
5.	Enter text in the text box.	
6.	Click “OK.”	The Add Journal Entry Window disappears.
7.	View the journal to make sure the message appears.	

A.11.2. Display Operational Messages

Step	Action	Response
1.	Click Monitor → Display Operational Messages	The Display Operational Messages Window appears.
2.	Click “Cancel.”	The Display Operational Messages Window disappears.
3.	Click Monitor → Display Operational Messages	The Display Operational Messages Window appears.
4.	Click “OK”.	Journal messages that are displayed with Error, Warning, Notice, and Informational messages.
5.	Repeat steps 3-4, this time selecting only Error.	Journal messages that are errors are displayed.
6.	Repeat step 5 for the remaining options.	

A.11.3. Disk Usage

Step	Action	Response
1.	Click Monitor → Disk Usage	The Disk Usage Window appears.
2.	Verify the disk usage is displayed correctly. % df –h	The mounts and disk usage values should match the values on the Window.
3.	Select “Remote”	The Capture System Id list is enabled and the Window is refreshed with the current capture system.
4.	Verify the disk usage is displayed correctly. % df –h	The mounts and disk usage values should match the values on the Window.
5.	Select a different capture system id.	The Window is refreshed with the values on the selected CTS.
6.	Verify the disk usage is displayed correctly. % df –h	The mounts and disk usage values should match the values on the Window.
7.	Click “Local”	The Capture System Id list is disabled and the Window is refreshed with the disk usage values for the system that the DCS is running on.
8.	Click “Refresh”	The Window is refreshed.
9.	Verify the disk usage is displayed correctly. % df –h	The mounts and disk usage values should match the values on the Window.
10.	Click “Cancel”	The Window is closed.

A.12 Shutdown

Step	Action	Response
1.	Click Shutdown → Shutdown	A confirmation Shutdown Window appears.
2.	Click “No”	The DCS is not shut down and the confirmation Window disappears.

3.	Click “Yes”	The DCS is shut down and the DCS Shutdown Window disappears.

A.13 Moving Window Display

A.13.1. Verify MWD filters

Step	Action	Response
1.	Set up MWDDistributor1 to have multiple inputs and multiple outputs. Set up MWD1, MWD2, MWDDistributor2 inputs 1-4 to receive data.	Insure that “Bogus” does not appear as an input on the main screen or as an input in the output setup.
2.	Set up MWDDistributor2 to have multiple inputs and multiple outputs. Set at least one output to realtime only.	
3.	Set up for schedule passes for L7 and L5.	
4.	Allow the captures to complete throughout the day.	The MWD’s should receive the appropriate data for all contacts. Insure the data displayed matches the selected flag.
5.	Repeat for any other missions.	

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