



Vera C. Rubin Observatory  
Data Management

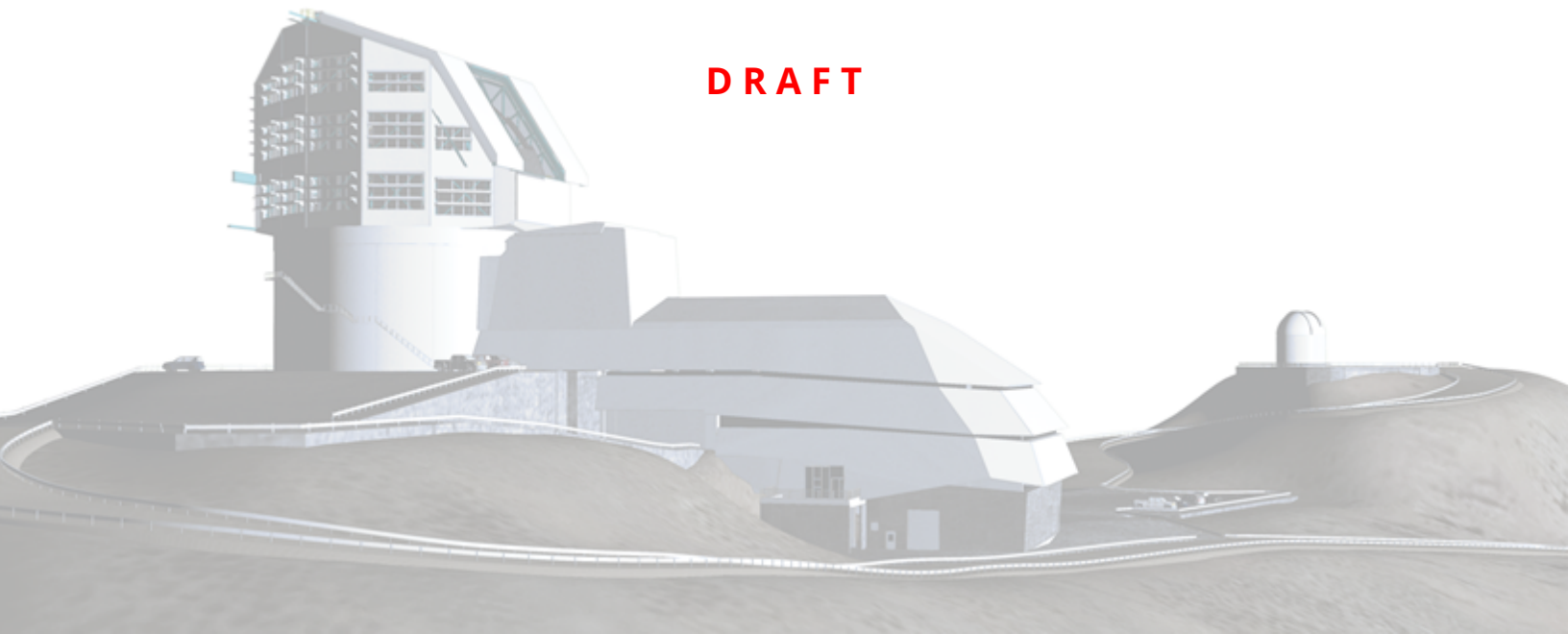
# LDM-503-14a: RSP redeployed on the Interim Data Facility (IDF), ready for DP0.1 Test Plan and Report

Gregory Dubois-Felsmann

DMTR-301

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**DRAFT**



## Abstract

This is the test plan and report for **RSP redeployed on the Interim Data Facility (IDF), ready for DP0.1** (LDM-503-14a), an LSST milestone pertaining to the Data Management Subsystem.

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## B Acronyms used in this document

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# LDM-503-14a: RSP redeployed on the Interim Data Facility (IDF), ready for DP0.1 Test Plan and Report

## 1 Introduction

### 1.1 Objectives

Demonstrate that the end-of-FY2020 capabilities of the Rubin Science Platform have been made available on the Interim Data Facility, and that DP0.1, based on ingested externally-provided DC2 data, can be supported. May be demonstrated with the DC2 DP0.1 dataset itself or with a dataset of equivalent complexity.

DP0.1 expectations are as described in RTN-001 and RTN-004 .

### 1.2 System Overview

### 1.3 Document Overview

This document was generated from Jira, obtaining the relevant information from the LVV-P79 Jira Test Plan and related Test Cycles ( LVV-C166 ).

Section 1 provides an overview of the test campaign, the system under test (LSP Services), the applicable documentation, and explains how this document is organized. Section 2 provides additional information about the test plan, like for example the configuration used for this test or related documentation. Section 3 describes the necessary roles and lists the individuals assigned to them.

Section 4 provides a summary of the test results, including an overview in Table 2, an overall assessment statement and suggestions for possible improvements. Section 5 provides detailed results for each step in each test case.

The current status of test plan LVV-P79 in Jira is **Approved** .

## 1.4 References

- [1] **[DMTN-178]**, Comoretto, G., 2021, *Docsteady Usecases for Rubin Observatory Construction*, DMTN-178, URL <http://DMTN-178.lsst.io>
- [2] **[DMTN-140]**, Comoretto, G., Guy, L.P., et al., 2020, *Documentation Automation for the Verification and Validation of Rubin Observatory Software*, DMTN-140, URL <https://dmtn-140.lsst.io/>
- [3] **[LSE-160]**, Selvy, B., 2013, *Verification and Validation Process*, LSE-160, URL <https://ls.st/LSE-160>

## 2 Test Plan Details

### 2.1 Data Collection

Observing is not required for this test campaign.

### 2.2 Verification Environment

Must be executed in a well-documented controlled state of the IDF.

### 2.3 Related Documentation

No additional documentation provided.

### 2.4 PMCS Activity

Primavera milestones related to the test campaign:

- LDM-503-14a



### 3 Personnel

The personnel involved in the test campaign is shown in the following table.

T. Plan LVW-P79 owner:		<b>Gregory Dubois-Felsmann</b>	
T. Cycle LVW-C166 owner:		<b>Gregory Dubois-Felsmann</b>	
<b>Test Cases</b>	<b>Assigned to</b>	<b>Executed by</b>	<b>Additional Test Personnel</b>
LVW-T2171	Gregory Dubois-Felsmann		Someone with credentials allowing access to the instance of the RSP at the IDF on which the data are deployed.
LVW-T2172	Gregory Dubois-Felsmann		

## 4 Test Campaign Overview

### 4.1 Summary

T. Plan LVV-P79:	<b>LDM-503-14a: RSP redeployed on the Interim Data Facility (IDF), ready for DP0.1</b>	Approved		
T. Cycle LVV-C166:	<b>LDM-503-14a: Test RSP capabilities on IDF for DP0.1 readiness</b>	Not Executed		
Test Cases	Ver.	Status	Comment	Issues
LVV-T2171	1	Not Executed		
LVV-T2172	1	Not Executed		

Table 2: Test Campaign Summary

### 4.2 Overall Assessment

Not yet available.

### 4.3 Recommended Improvements

Not yet available.

## 5 Detailed Test Results

### 5.1 Test Cycle LVV-C166

Open test cycle *LDM-503-14a: Test RSP capabilities on IDF for DP0.1 readiness* in Jira.

Test Cycle name: LDM-503-14a: Test RSP capabilities on IDF for DP0.1 readiness

Status: Not Executed

This test cycle contains the tests necessary to verify the readiness of the RSP as redeployed on the IDF to meet the needs of the DP0.1 exercise, essentially repeating tests previously carried out on the NCSA RSP deployments.

#### 5.1.1 Software Version/Baseline

Not provided.

#### 5.1.2 Configuration

Not provided.

#### 5.1.3 Test Cases in LVV-C166 Test Cycle

##### 5.1.3.1 LVV-T2171 - Notebook Aspect access to a DP0.1 dataset in the IDF-deployed RSP

Version **1**. Open *LW-T2171* test case in Jira.

Verify the availability through the Notebook Aspect of the DP0.1 test dataset or an equivalent, including access to both catalogs and images via the Butler.

**Preconditions:**

Creation of the DP0.1 dataset or a stand-in, in the form of a Butler repository accessible from the Notebook Aspect and with associated catalog data in a TAP service in the same RSP instance at the IDF.

Execution status: **Not Executed**

Final comment:

Detailed steps results:

---

Step 1	Step Execution Status: <b>Not Executed</b>
<b>Description</b>	
Authenticate to the notebook aspect of the LSST Science Platform (NB-LSP). This is currently at <a href="https://lsst-lsp-stable.ncsa.illinois.edu/nb">https://lsst-lsp-stable.ncsa.illinois.edu/nb</a> .	
-----	
<b>Expected Result</b>	
Redirection to the spawner page of the NB-LSP allowing selection of the containerized stack version and machine flavor.	
-----	
<b>Actual Result</b>	

---

Step 2	Step Execution Status: <b>Not Executed</b>
<b>Description</b>	
Spawn a container by:	
1) choosing an appropriate stack version: e.g. the latest weekly.	
2) choosing an appropriate machine flavor: e.g. medium	
3) click "Spawn"	
-----	
<b>Expected Result</b>	
Redirection to the JupyterLab environment served from the chosen container containing the correct stack version.	
-----	
<b>Actual Result</b>	

---

Step 3      Step Execution Status: **Not Executed**

---

Description

Use the file browser on the left of the JupyterLab UI to open the “LSST Catalog Access Tutorial” notebook.

-----  
Expected Result

-----  
Actual Result

---

Step 4      Step Execution Status: **Not Executed**

---

Description

Execute the notebook. Take note of any errors encountered along the way.

-----  
Expected Result

-----  
Actual Result

---

Step 5      Step Execution Status: **Not Executed**

---

Description

Use the file browser on the left of the JupyterLab UI to open the “Firefly” notebook.

-----  
Expected Result

-----  
Actual Result

---

Step 6      Step Execution Status: **Not Executed**

---

Description

Execute the notebook. Take note of any errors encountered along the way.

-----

Expected Result

-----

Actual Result

---

Step 7      Step Execution Status: **Not Executed**

Description

Log out of the Notebook Aspect.

-----

Expected Result

-----

Actual Result

### 5.1.3.2 LVV-T2172 - Portal Aspect access to a DP0.1 dataset in the IDF-deployed RSP

Version 1. Open *LVV-T2172* test case in Jira.

Verify the availability through the Portal Aspect to catalog data from the DP0.1 test dataset or an equivalent, via an RSP TAP service on the IDF. The emphasis will be on an Object-like catalog.

#### **Preconditions:**

Creation of the DP0.1 dataset or a stand-in, and service of the associated catalog data and schema in a TAP service in the same RSP instance at the IDF.

Execution status: **Not Executed**

Final comment:

Detailed steps results:

---

Step 1 Step Execution Status: **Not Executed**

---

Description

Navigate to the Portal Aspect endpoint. The stable version should be used for this test and is currently located at: <https://lsst-lsp-stable.ncsa.illinois.edu/portal/app/>.

-----  
Expected Result

A credential-entry screen should be displayed.

-----  
Actual Result

---

Step 2 Step Execution Status: **Not Executed**

---

Description

Enter a valid set of credentials for an LSST user with LSP access on the instance under test.

-----  
Expected Result

The Portal Aspect UI should be displayed following authentication.

-----  
Actual Result

---

Step 3 Step Execution Status: **Not Executed**

---

Description

Navigate to the TAP Search screen

-----  
Expected Result

-----  
Actual Result

---

Step 4      Step Execution Status: **Not Executed**

---

Description

Ensure that the TAP service internal to the RSP instance is selected. (This should be the default choice.)

-----  
Expected Result

A list of "schemas" available on that service should be displayed, along with a list of tables in the default schema.

-----  
Actual Result

---

Step 5      Step Execution Status: **Not Executed**

---

Description

Select the TAP "schema" for the data to be queried (see test parameter).

-----  
Test Data

dp01\_dc2\_catalogs

-----  
Expected Result

A list of tables in the selected schema should be displayed.

-----  
Actual Result

---

Step 6      Step Execution Status: **Not Executed**

---

Description

Select the catalog table to be queried (see test parameter).

-----  
Test Data

object

-----  
Expected Result

A search interface for the selected table should be presented.

---



-----  
Actual Result

---

Step 7      Step Execution Status: **Not Executed**

Description

Enter the sky coordinates of the location to be tested (see test parameter) in the “Spatial” query-builder element on the left of the screen. (Note that the test dataset is likely to be of limited extent on the sky.) Enter 100 arcseconds as the search radius.

-----  
Test Data  
(60,-35)

-----  
Expected Result

-----  
Actual Result

---

Step 8      Step Execution Status: **Not Executed**

Description

Verify that a list of available columns is displayed on the right of the search screen. Note in the test report whether a subset of the available columns is highlighted with a check mark, and if so which columns they are.

-----  
Expected Result

-----  
Actual Result

---

Step 9      Step Execution Status: **Not Executed**

Description

Execute the search.

-----  
Expected Result

Possibly after the display of an in-progress indication, a search result should be displayed in the “tri-view” - a coverage image on the upper left, a default X-Y plot on the upper right, and the tabular query result on the bottom.

Note that if the dataset is simulated, the coverage image may not correspond to the catalog data. (It is not a requirement of DP0.1 for a coverage image for DESC DC2 to be created or made available in the Portal Aspect.)

-----  
Actual Result

---

Step 10      Step Execution Status: **Not Executed**

Description

Verify that the query result covers the expected region of sky, and that the expected set of columns is included in the query result. Record the number of rows returned by the query.

Record the identity displayed for the coverage image.

-----  
Expected Result

-----  
Actual Result

---

Step 11      Step Execution Status: **Not Executed**

Description

Verify that the X-Y plot can be modified to display a user-selected pair of columns.

-----  
Expected Result

-----  
Actual Result

---

Step 12      Step Execution Status: **Not Executed**

Description

Verify that highlighted rows in the table, points in the X-Y plot, and marks on the coverage image are connected.

-----  
Expected Result

-----  
Actual Result

---

Step 13      Step Execution Status: **Not Executed**

---

Description

Verify that selections made in the three panes of the tri-view are reflected in the other panes.

-----  
Expected Result

-----  
Actual Result

---

Step 14      Step Execution Status: **Not Executed**

---

Description

Use the "diskette" icon in the table viewer toolbar to save the tabular query result as an attachment to the test record. Use the VOTable "TableData" format.

-----  
Expected Result

-----  
Actual Result

---

Step 15      Step Execution Status: **Not Executed**

---

Description

Click on the 'i'-in-a-circle button in the table viewer. Use the resulting dialog to record the URL for the query job result, and to download the XML file at that URL and save it as an attachment in the test record.

-----

Expected Result

-----

Actual Result

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## A Documentation

The verification process is defined in LSE-160. The use of Docsteady to format Jira information in various test and planing documents is described in DMTN-140 and practical commands are given in DMTN-178.

## B Acronyms used in this document

Acronym	Description
DC2	Data Challenge 2 (DESC)
DESC	Dark Energy Science Collaboration
DM	Data Management
DMTN	DM Technical Note
DP0	Data Preview 0
IDF	Interim Data Facility
LDM	LSST Data Management (Document Handle)
LSE	LSST Systems Engineering (Document Handle)
LSP	LSST Science Platform (now Rubin Science Platform)
LSST	Legacy Survey of Space and Time (formerly Large Synoptic Survey Telescope)
LVV	LSST Verification and Validation
NCSA	National Center for Supercomputing Applications
PMCS	Project Management Controls System
RSP	Rubin Science Platform
RTN	Rubin Technical Note
TAP	Table Access Protocol
UI	User Interface
URL	Universal Resource Locator
XML	eXtensible Markup Language