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# TECH TIP

## USING BI PUBLISHER TO VIEW AND TROUBLESHOOT UNIFIER CUSTOM REPORTS
## ORACLE PRIMAVERA UNIFIER & BI PUBLISHER

Unifier uses BI Publisher as the reporting engine for its Custom Reports. Where User Defined Reports (UDR) utilize a built-in report engine in Unifier, Custom Reports and Custom Prints use Oracle's BI server as the engine to run and render these types.

In this tip, we're going to show you how to look at a custom report with an internal data model in the Oracle BI Publisher tool as a way to assist in troubleshooting issues you might have.

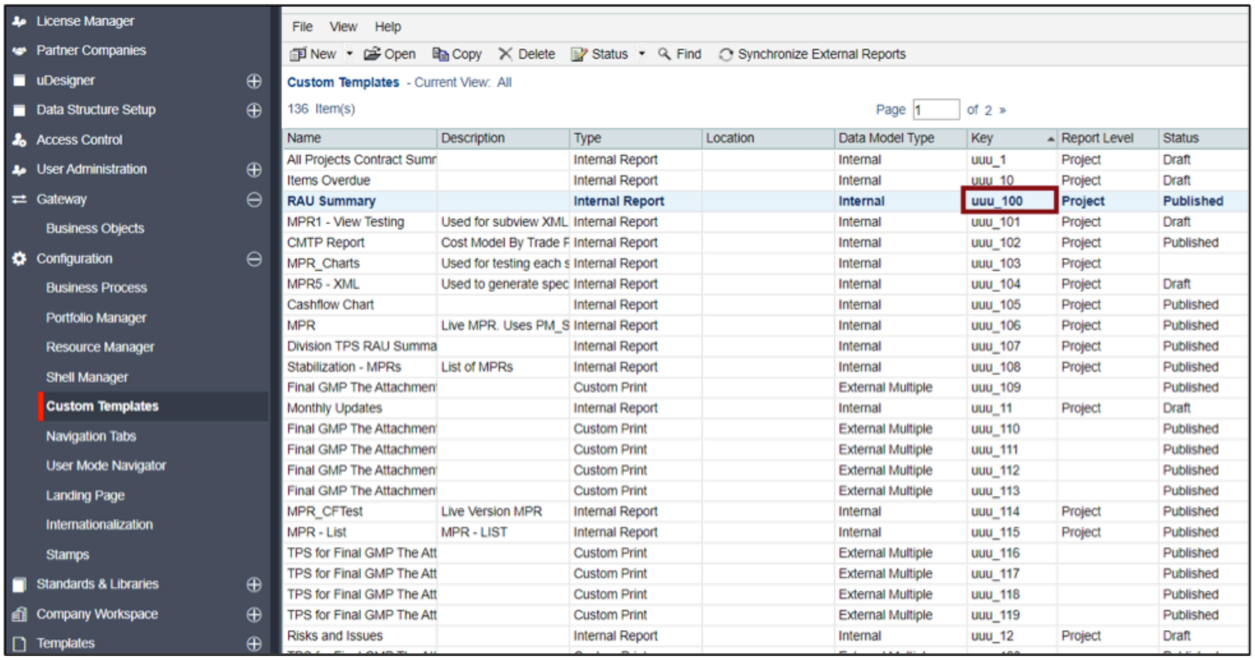
For this tip, we're focusing on the internal data model type, but Unifier also supports using an external data model as well. For internal data models, you will still make any edits in Unifier; however, we're going to show you how you can view the SQL created when looking in BI Publisher.

For the custom report with an internal data model, you previously had created the data model in Unifier, generated sample data then created an RTF (rich text) Template layout and uploaded. For this, you worked in the BI Publisher Desktop application and Unifier.

Here, we're now going to look at how you can find and review this report when logged into the BI Publisher Enterprise server.

**Unifier Custom Templates**
First, let's look for the custom report design in Unifier. Below is the screenshot of the Unifier Custom Reports. It is located under **Company Workspace** > **Configuration** > **Custom Templates**. The "Key" column shows the name of the report stored in the system, with the format "**uuu_###**"

These tech tips are offered free of charge in the spirit of sharing knowledge with others. They do not include technical support, should you have a problem with them. We are always interested in how they can be improved, please do not hesitate to email us your comments. These tips have been thoroughly tested by our consultants in a variety of environments. Please read these tech tips thoroughly and be sure that you understand them before trying to use them. We can not be responsible for issues that develop because of the configuration of your hardware, technical environment or application of the tech memos. If you are not sure, then we urge you to contact Oracle technical support or your local support consultant for assistance.



Custom Templates - Current View: All

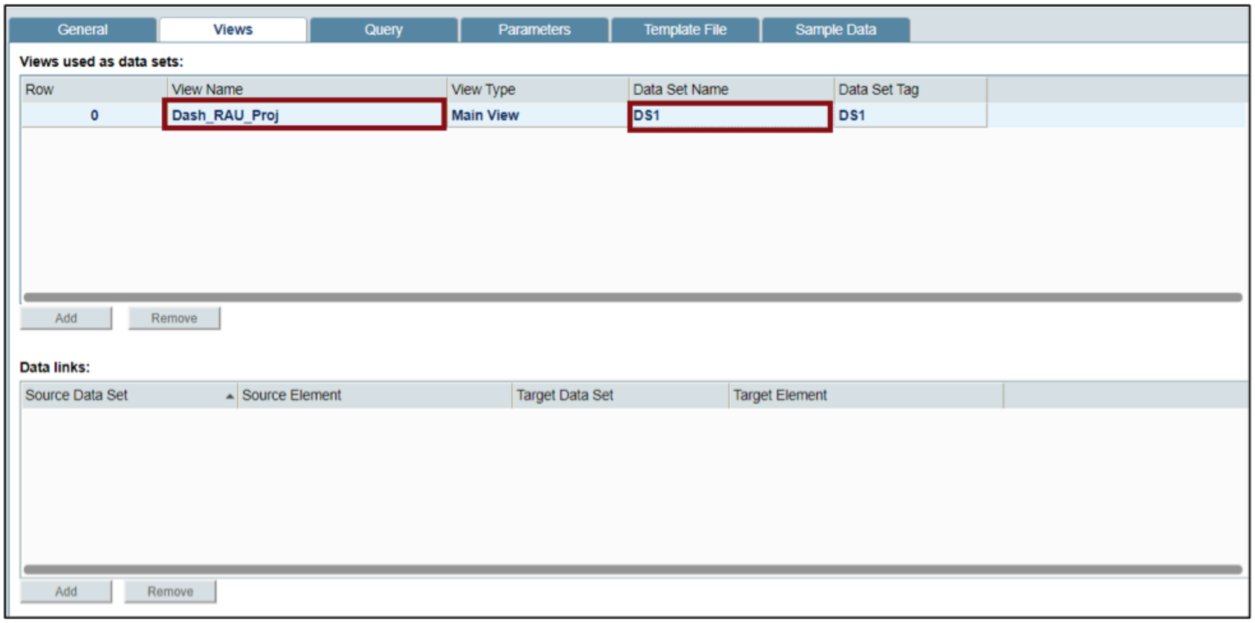
136 Item(s)

Page 1 of 2 »

| Name | Description | Type | Location | Data Model Type | Key | Report Level | Status |
|---|---|---|---|---|---|---|---|
| All Projects Contract Sumr | | Internal Report | | Internal | uuu_1 | Project | Draft |
| Items Overdue | | Internal Report | | Internal | uuu_10 | Project | Draft |
| **RAU Summary** | | **Internal Report** | | **Internal** | **uuu_100** | **Project** | **Published** |
| MPR1 - View Testing | Used for subview XML | Internal Report | | Internal | uuu_101 | Project | Draft |
| CMTP Report | Cost Model By Trade F | Internal Report | | Internal | uuu_102 | Project | Published |
| MPR_Charts | Used for testing each s | Internal Report | | Internal | uuu_103 | Project | |
| MPR5 - XML | Used to generate spec | Internal Report | | Internal | uuu_104 | Project | Draft |
| Cashflow Chart | | Internal Report | | Internal | uuu_105 | Project | Published |
| MPR | Live MPR. Uses PM_S | Internal Report | | Internal | uuu_106 | Project | Published |
| Division TPS RAU Summa | | Internal Report | | Internal | uuu_107 | Project | Published |
| Stabilization - MPRs | List of MPRs | Internal Report | | Internal | uuu_108 | Project | Published |
| Final GMP The Attachmen | | Custom Print | | External Multiple | uuu_109 | | Published |
| Monthly Updates | | Internal Report | | Internal | uuu_11 | Project | Draft |
| Final GMP The Attachmen | | Custom Print | | External Multiple | uuu_110 | | Published |
| Final GMP The Attachmen | | Custom Print | | External Multiple | uuu_111 | | Published |
| Final GMP The Attachmen | | Custom Print | | External Multiple | uuu_112 | | Published |
| Final GMP The Attachmen | | Custom Print | | External Multiple | uuu_113 | | Published |
| MPR_CFTest | Live Version MPR | Internal Report | | Internal | uuu_114 | Project | Published |
| MPR - List | MPR - LIST | Internal Report | | Internal | uuu_115 | Project | Published |
| TPS for Final GMP The Att | | Custom Print | | External Multiple | uuu_116 | | Published |
| TPS for Final GMP The Att | | Custom Print | | External Multiple | uuu_117 | | Published |
| TPS for Final GMP The Att | | Custom Print | | External Multiple | uuu_118 | | Published |
| TPS for Final GMP The Att | | Custom Print | | External Multiple | uuu_119 | | Published |
| Risks and Issues | | Internal Report | | Internal | uuu_12 | Project | Draft |

When you create these reports, this key is assigned by Unifier automatically and is used to locate the design in the BI Publisher server, as you'll see later.

When you open the report, you will see the View Name and Data Set Name under the 2nd tab. View Name is the Custom Data View created in Unifier. The Data Set name is the tag to identify the result set.



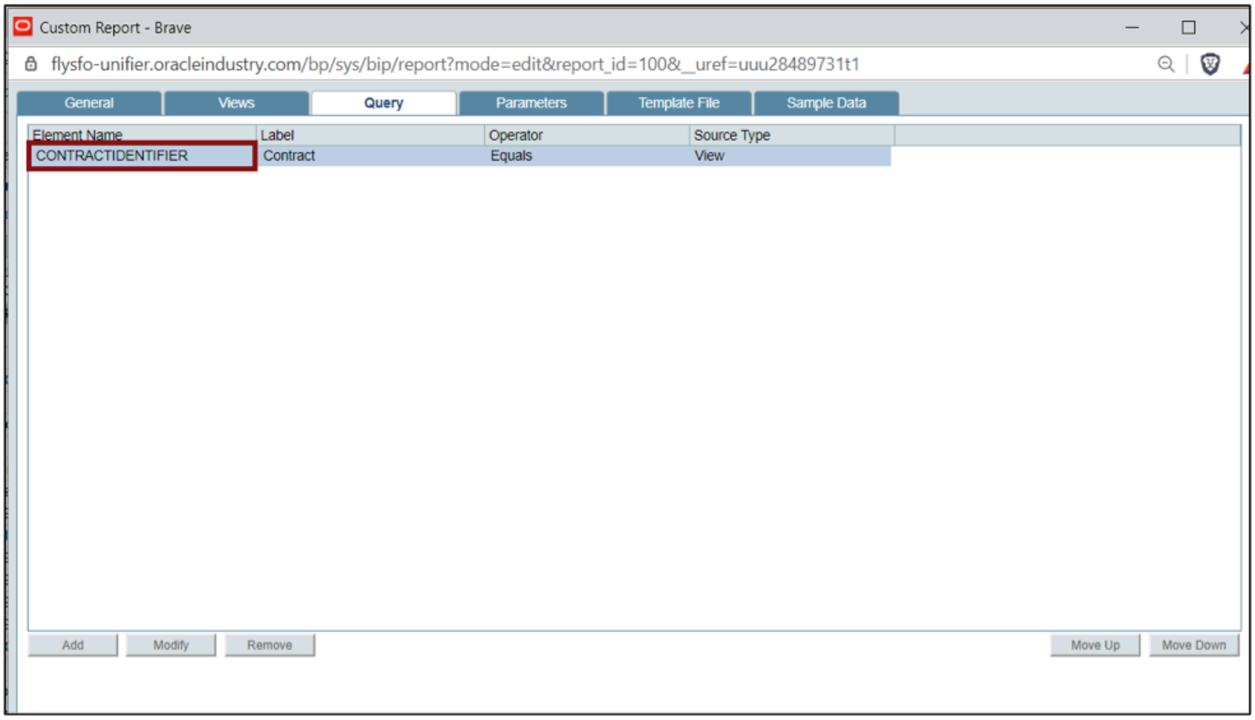
Views used as data sets:

| Row | View Name | View Type | Data Set Name | Data Set Tag |
|---|---|---|---|---|
| 0 | Dash_RAU_Proj | Main View | DS1 | DS1 |

Data links:

| Source Data Set | Source Element | Target Data Set | Target Element |
|---|---|---|---|

Under the 3rd tab "Query", it defines the report query condition which gives report users the option to filter the report data set. In this example, it is filtered by Contract.



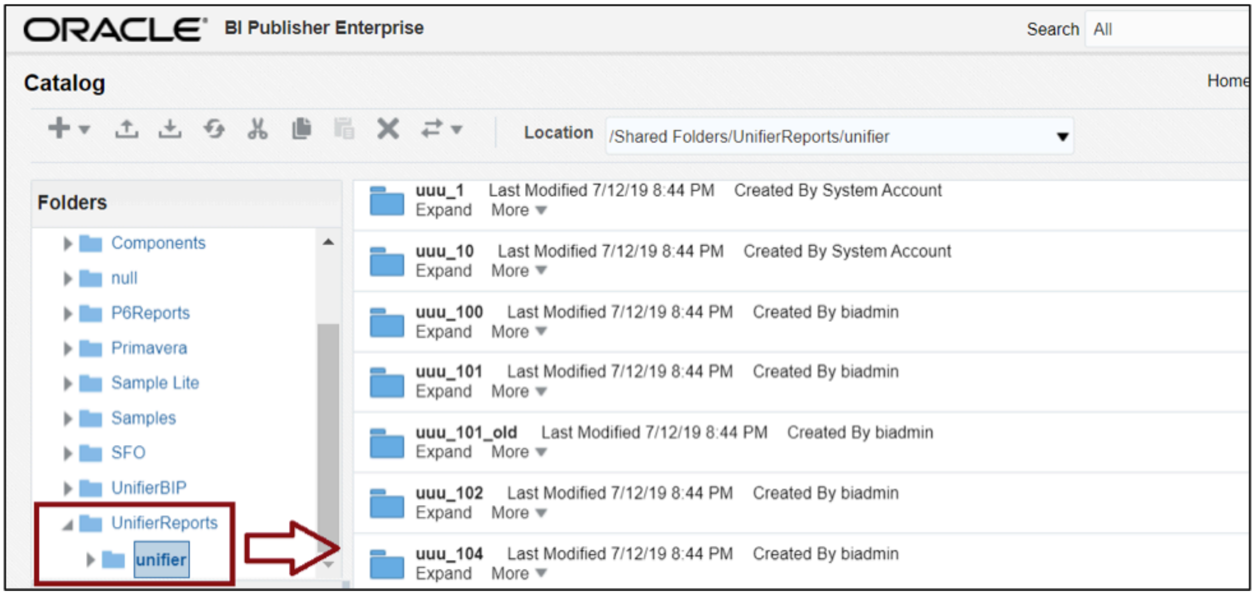
flysfo-unifier.oracleindustry.com/bp/sys/bip/report?mode=edit&report_id=100&_uref=uuu28489731t1

| Element Name | Label | Operator | Source Type |
|---|---|---|---|
| CONTRACTIDENTIFIER | Contract | Equals | View |

### Oracle BI Publisher Enterprise

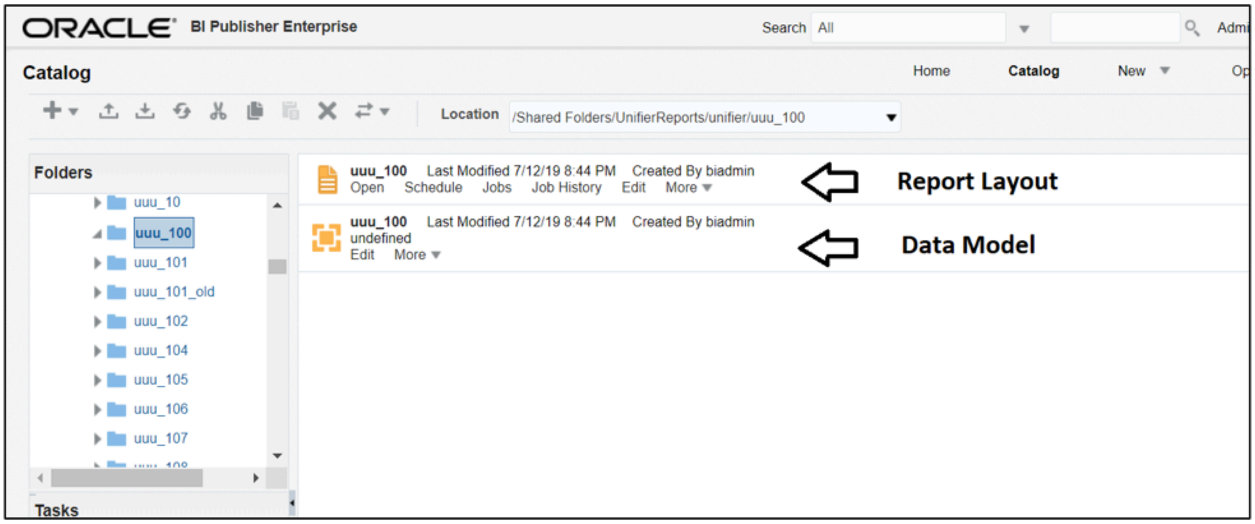
Now that you know the name and key of the report, let's open Oracle BI Publisher and look at the report.

First of all, click **Catalog** and navigate the **Folders** structure. Unifier Custom Reports are stored under **Shared Folders** > **UnifierReports** > **unifier**. Under the unifier folder, you can see all subfolders with the "**uuu_###**" format which is the same as the "Key" value stored in Unifier.



uuu_1 Last Modified 7/12/19 8:44 PM Created By System Account
Expand More
uuu_10 Last Modified 7/12/19 8:44 PM Created By System Account
Expand More
uuu_100 Last Modified 7/12/19 8:44 PM Created By biadmin
Expand More
uuu_101 Last Modified 7/12/19 8:44 PM Created By biadmin
Expand More
uuu_101_old Last Modified 7/12/19 8:44 PM Created By biadmin
Expand More
uuu_102 Last Modified 7/12/19 8:44 PM Created By biadmin
Expand More
uuu_104 Last Modified 7/12/19 8:44 PM Created By biadmin
Expand More

Open each subfolder (**uuu_###**), there are 2 objects: **Report Layout** and **Data Model**.



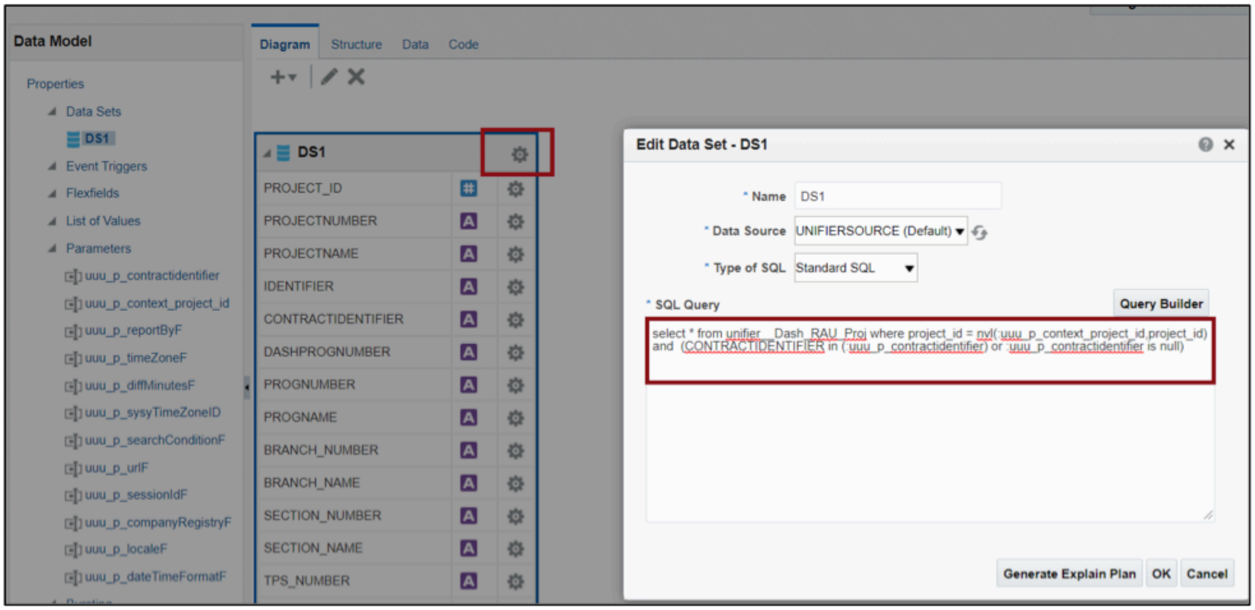
uuu_100 Last Modified 7/12/19 8:44 PM Created By biadmin
Open Schedule Jobs Job History Edit More
uuu_100 Last Modified 7/12/19 8:44 PM Created By biadmin
undefined
Edit More

**Reviewing the Data Model**
Open the Data Model by clicking "Edit". The Data Set name "**DS1**" in Unifier is also shown here. Continue to click "**Edit Data Set**" under the "gear" icon at the upper right corner of the DS1 Data Set diagram. Pay special attention to the structure of the query. In this example:

*select * from **unifier__Dash_RAU_Proj** where **project_id = nvl(:uuu_p_context_project_id,project_id)** and **(CONTRACTIDENTIFIER in (:uuu_p_contractidentifier) or :uuu_p_contractidentifier is null)***

- **unifier__Dash_RAU_Proj** is the Unifier Custom Data View for this report.
- **project_id = nvl(:uuu_p_context_project_id,project_id)** is the built-in clause to filter the project shell.
- **(CONTRACTIDENTIFIER in (:uuu_p_contractidentifier) or :uuu_p_contractidentifier is null)** is the "Query" condition set in Unifier.
-

The above three clauses are determined during the Unifier Custom Report creation process. Once they are properly defined in Unifier Custom Report configuration page, it will be automatically carried over to BI Publisher and injected in the SQL query.



Edit Data Set - DS1

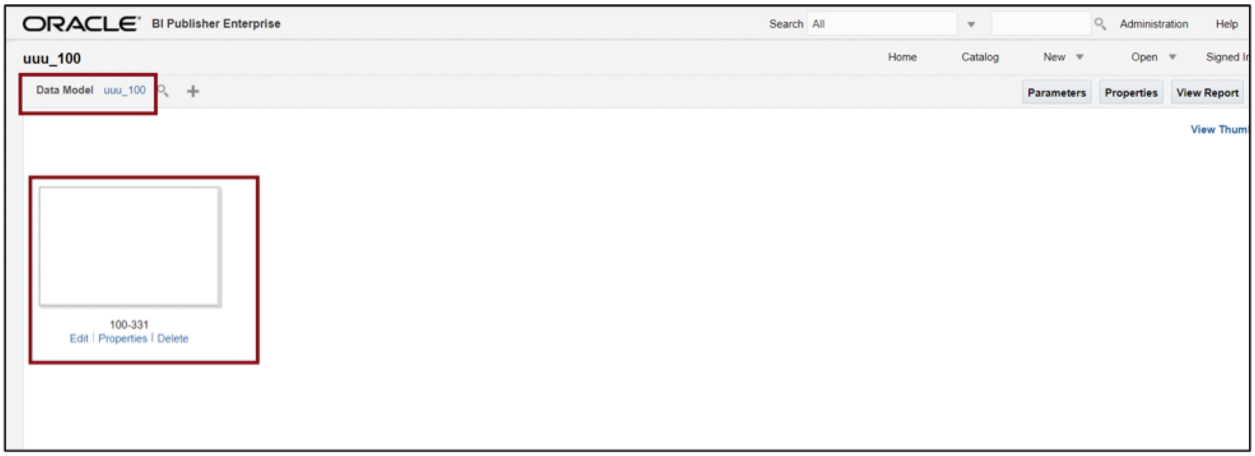
* Name: DS1
* Data Source: UNIFIERSOURCE (Default)
* Type of SQL: Standard SQL
* SQL Query:

```
select * from unifier__Dash_RAU_Proj where project_id = nvl(:uuu_p_context_project_id,project_id)
and  (CONTRACTIDENTIFIER in (:uuu_p_contractidentifier) or :uuu_p_contractidentifier is null)
```

Note: You will NOT be editing this SQL here for this ***internal*** data model since this gets generated from Unifier when editing there. If you are creating, however a custom report with an ***external*** data model, you would make your changes here in BI.

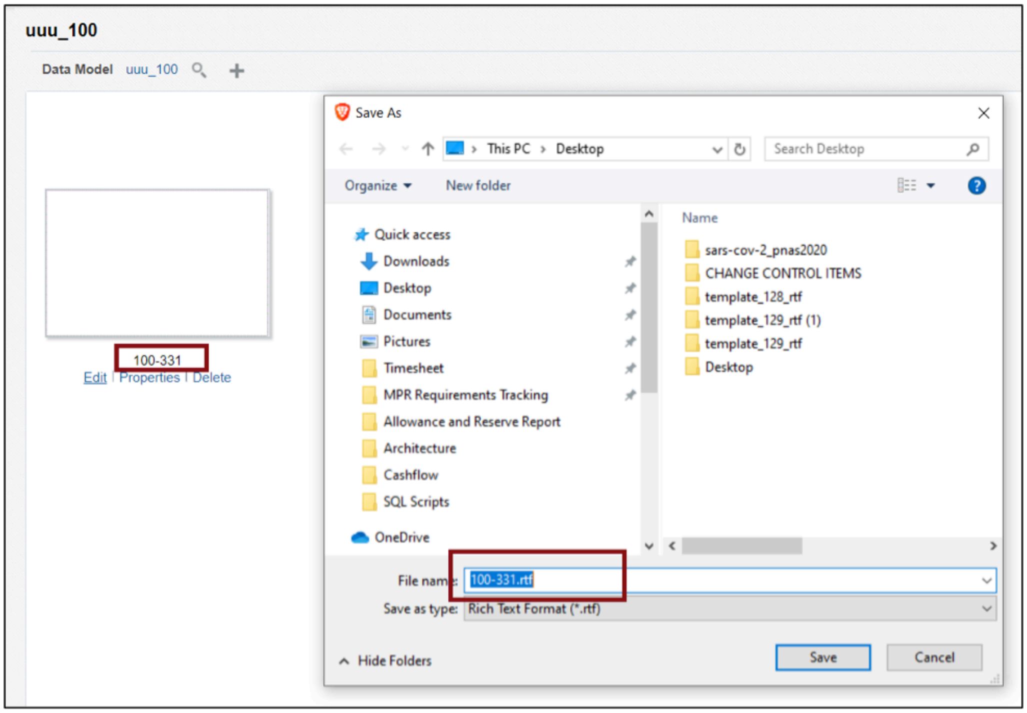
### Reviewing the Report Layout

Next, open the Report Layout by clicking “Edit”. You will see the Data Model identifier “uuu_###” again at the top left corner. You can click the link to view or edit the Data Model.



The main content on this page is the Report Layout. Click “Edit” and it will display a file download request which would download the RTF file to your local drive.

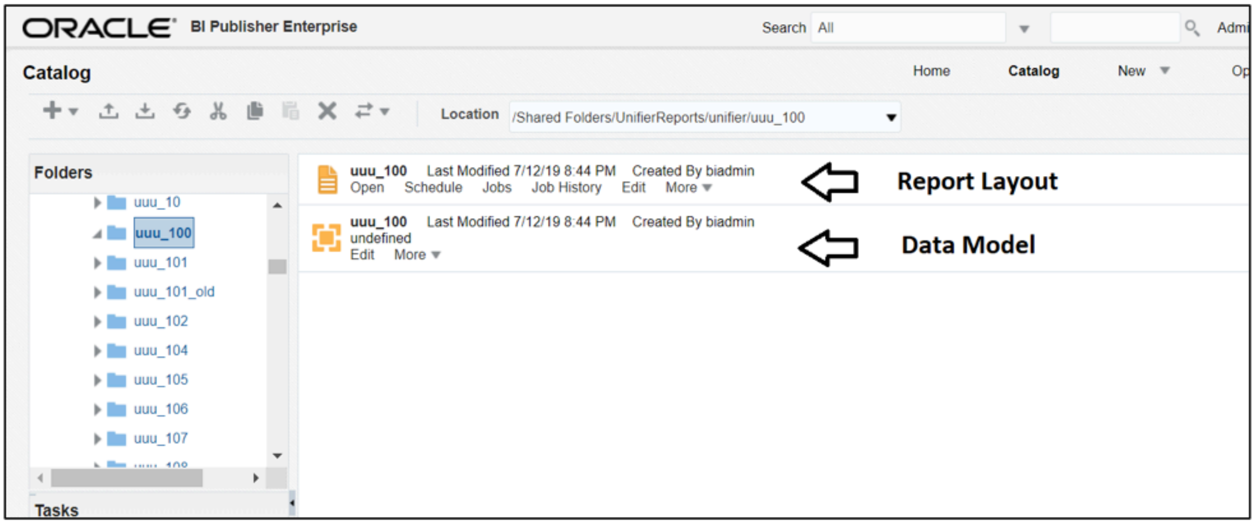
The filename (100-331) is the Custom Report identifier ### plus the report serial number. In this example, 100 is the Custom Report identifier, and 331 is the system serial number. This file is exactly the same template file you loaded into Unifier, but with its own name saved in BI Publisher.



File name: 100-331.rtf

Save as type: Rich Text Format (*.rtf)

If you previously created this report, you may have a copy of the RTF. Also, you can retrieve this template by downloading it from Unifier. ***An important note: if you plan on modifying you'll want to upload the new RTF template in the Unifier screen, not here in BI.***



Location /Shared Folders/UnifierReports/unifier/uuu_100

uuu_100 Last Modified 7/12/19 8:44 PM Created By biadmin
Open Schedule Jobs Job History Edit More

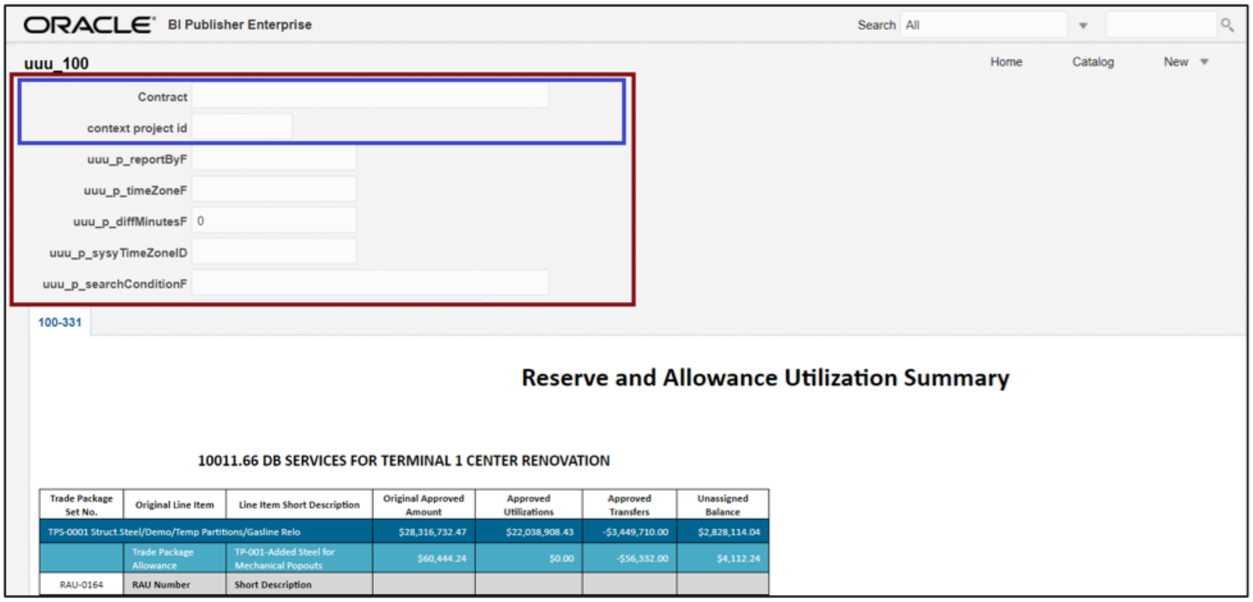
uuu_100 Last Modified 7/12/19 8:44 PM Created By biadmin
undefined
Edit More

Go back to BI Publisher's report folder, then click **Open** to run the report. As you can see in the screenshot below, there are many parameter fields. The essential fields to run the report are highlighted in the blue box:

- **Contract:** This is the field defined under Unifier's "**Parameters**" tab in the Custom Report definition page.
- **context project id:** This is a system default field applied to any Shell-level Custom Report, which implies the "Project ID" is a mandatory field in the underlying SQL Data View. In the Data View design, Unifier Custom Report at shell level always requires the "project_id" column in the SQL query.

This page also allows us to run Unifier's Custom Report in BI Publisher directly, as long as the proper parameter values are provided. The result will be the same when running the report natively in Unifier.

One occasion to run the report in BI Publisher directly is for report developer's troubleshooting. In Unifier, if the report has a problem, it will not display anything other than a blank page. But running in BI Publisher will display the error message on this page, the report display area.



| | |
|---|---|
| Contract | |
| context project id | |
| uuu_p_reportByF | |
| uuu_p_timeZoneF | |
| uuu_p_diffMinutesF | 0 |
| uuu_p_sysyTimeZoneID | |
| uuu_p_searchConditionF | |

Reserve and Allowance Utilization Summary

10011.66 DB SERVICES FOR TERMINAL 1 CENTER RENOVATION

| Trade Package Set No. | Original Line Item | Line Item Short Description | Original Approved Amount | Approved Utilizations | Approved Transfers | Unassigned Balance |
|---|---|---|---|---|---|---|
| TPS-0001 Struct.Steel/Demo/Temp Partitions/Gasline Relo | | | $28,316,732.47 | $22,038,908.43 | -$3,449,710.00 | $2,828,114.04 |
| | Trade Package Allowance | TP-001-Added Steel for Mechanical Popouts | $60,444.24 | $0.00 | -$56,332.00 | $4,112.24 |
| RAU-0164 | RAU Number | Short Description | | | | |

**Summary:**
While you use the Unifier interface to edit the Internal type data model and use Unifier to upload the revised RTF layout for the report, this review in Oracle BI can be helpful to understanding the report parameters and details and help troubleshoot other elements like repeating groups, conditional sections by reviewing the design here.  Also, this engine is used when developing reports with External data model types, which can create reports that are more complex and can even report multiple data sources in one report.