

# TECH TIP

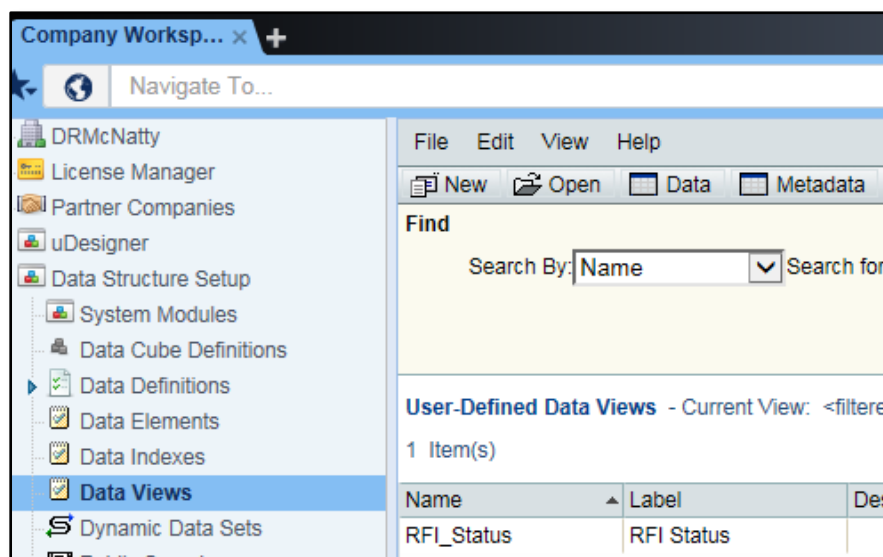
## CREATING AND PUBLISHING A CUSTOM REPORT PRIMAVERA UNIFIER

A custom report provides the flexibility to create high quality reporting within Unifier. The following steps outline how to publish a custom report. The custom report requires a Data View to extract the data and a design layout for the presentation layer. In this example we are looking at a simple custom report which lists the RFIs for a project.

### 1. SELECT THE DATA VIEW

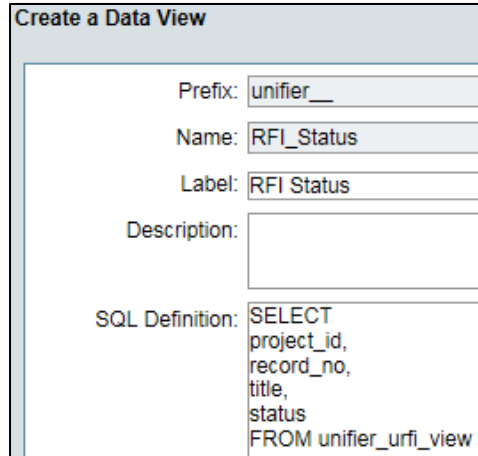
Data Views allow the user to create data sources which can be used in UDRs, custom reports and shell dashboards.

This example has a Data View already created called 'RFI\_Status'. Data Views are found by going to the Company Workspace > Data Structure Setup> Data Views node. *For more information on how to create a Data View please refer to December's Tech Tip: How to Use A Data View in a UDR.*



# CREATING AND PUBLISHING A CUSTOM REPORT

Opening the Data View will show the SQL query that retrieves RFI data.



The 'Create a Data View' dialog box contains the following fields:

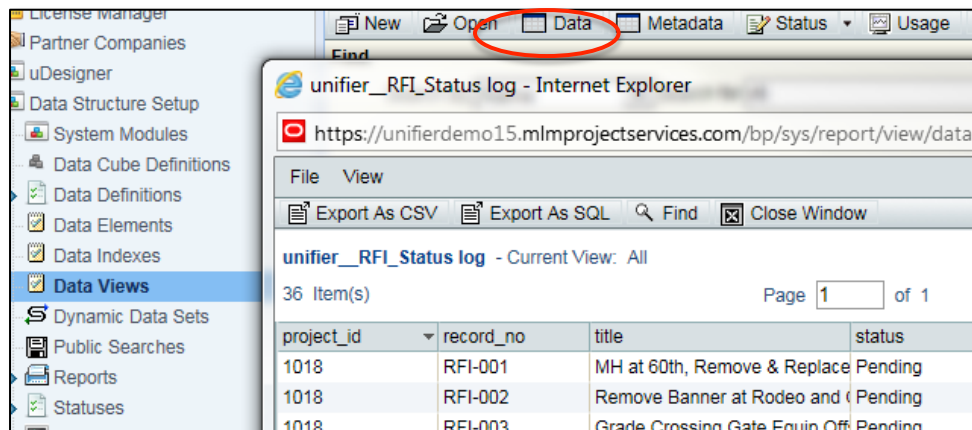
- Prefix:
- Name:
- Label:
- Description:
- SQL Definition: 

```
SELECT  
project_id,  
record_no,  
title,  
status  
FROM unifier_urfi_view
```

Ensure the Data View is published.

Name	Label	Description	Publish Date
RFI_Status	RFI Status		04/01/2016 01:30 AM

To test that the Data View is retrieving information correctly, select the Data View record and click the 'Data' button from the Data Views menu. A window will display with the result set. If all looks good, then close the window. If the output is incorrect, you'll need to return to the Data View setup to modify.



The screenshot shows the application's left-hand menu with 'Data Views' selected. The 'Data' button in the top toolbar is circled in red. A window titled 'unifier\_\_RFI\_Status log - Internet Explorer' is open, displaying the URL <https://unifierdemo15.mlmpojectservices.com/bp/sys/report/view/data?>. The window shows a table with 36 items, page 1 of 1, and the following data:

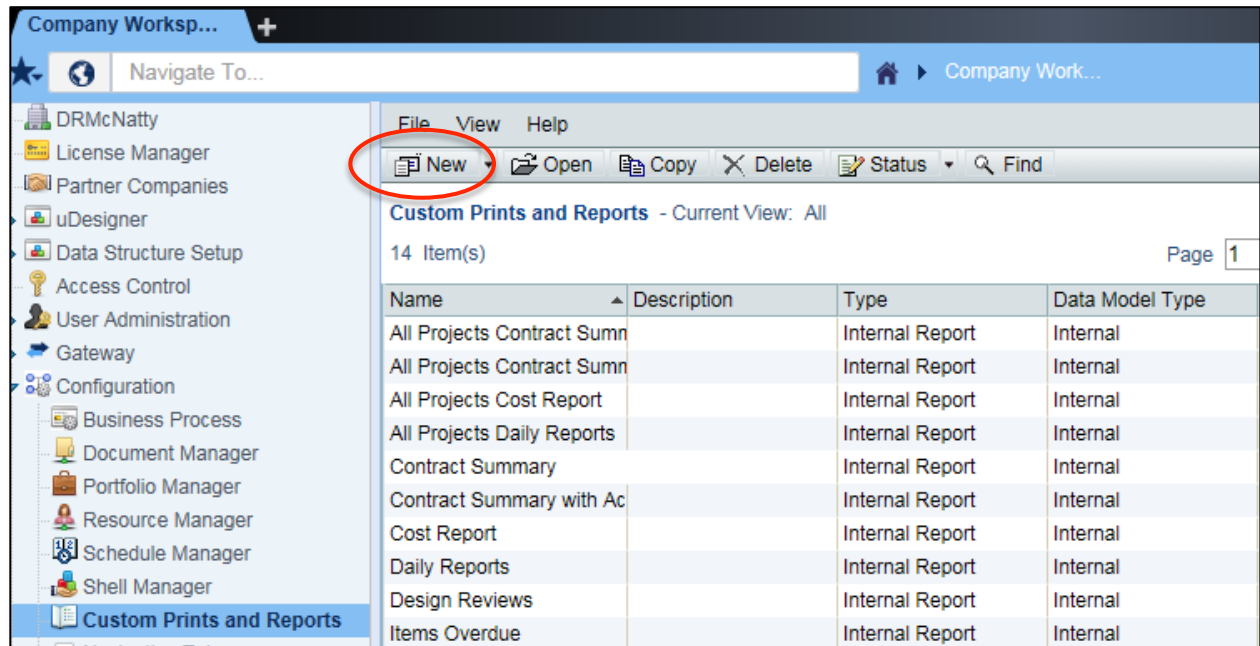
project_id	record_no	title	status
1018	RFI-001	MH at 60th, Remove & Replace	Pending
1018	RFI-002	Remove Banner at Rodeo and	Pending
1018	RFI-003	Grade Crossing Gate Equip Off	Pending

# CREATING AND PUBLISHING A CUSTOM REPORT

## 2. INITIATE REPORT AND GENERATE XML

The next step will be to create the custom report which can generate a sample XML data file. This XML file will be used in BI Publisher Desktop for Word to create the layout.

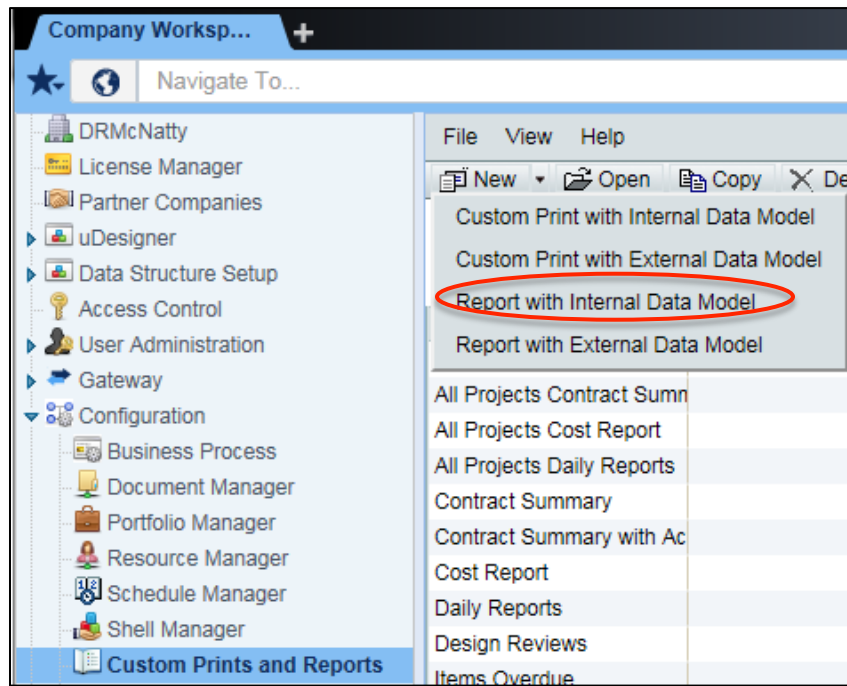
Go to Company Workspace > Configuration > Custom Prints and Reports node.



# CREATING AND PUBLISHING A CUSTOM REPORT

Click 'New' and select "Report with Internal Data Model" option.

*Note: This example will create a 'Report with Internal Data Model'. The selected option will allow Unifier to handle the Data Model internally for any changes. If 'Report with External Data Model' was selected then the Data Model is managed externally through an XDM file (modified within BI Publisher). "Custom Print..." options are used to generate a single "document" type form, not a summary report.*



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The report window is displayed. Enter Name of the report and select Report Level and Main View values from the drop down.

The Report Level is either 'Program' or 'Project' determined by which level the report will be run. This example is run at the project-level.

The Main View will display a list of all published Data Views available. This example, RFI\_Status is selected.

The screenshot shows a software window titled 'General' with tabs for 'General', 'Views', 'Query', and 'Parameters'. The 'General' tab is selected. Inside the window, there are several input fields and dropdown menus. The 'Name' field contains 'RFI Report'. The 'Description' field is empty. The 'Data Model Type' dropdown is set to 'Internal'. The 'Report Level' dropdown is set to 'Project'. The 'Main View' dropdown is set to 'RFI\_Status'. Each of the last three dropdowns has a small red asterisk to its right. At the bottom of the window, there are three buttons: 'Apply', 'OK', and 'Cancel'.

In the View tab click the 'Add' button for the 'Views used as data sets' section. In the View Name column select the same Data View. View Type should remain as the 'Main View' and enter an appropriate Data Set Name which will also populate the Data Set Tag column.

If your report uses multiple data sets, you would use the bottom section "Data Links" to create the linking or association between the data sets, but as this report has only one data set, leave this section blank.

Similarly, this example has no query conditions or parameters to include. Their tabs do not need to be modified.

Click the 'Apply' button.

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The screenshot shows a software interface with four tabs: General, Views, Query, and Parameters. The 'Views' tab is active. It contains two sections: 'Views used as data sets' and 'Data links'.

**Views used as data sets:**

Row	View Name	View Type	Data Set Name	Data Set Tag
0	RFI_Status	Main View	DS1	DS1

Below this table are 'Add' and 'Remove' buttons.

**Data links:**

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

Below this table are 'Add' and 'Remove' buttons.

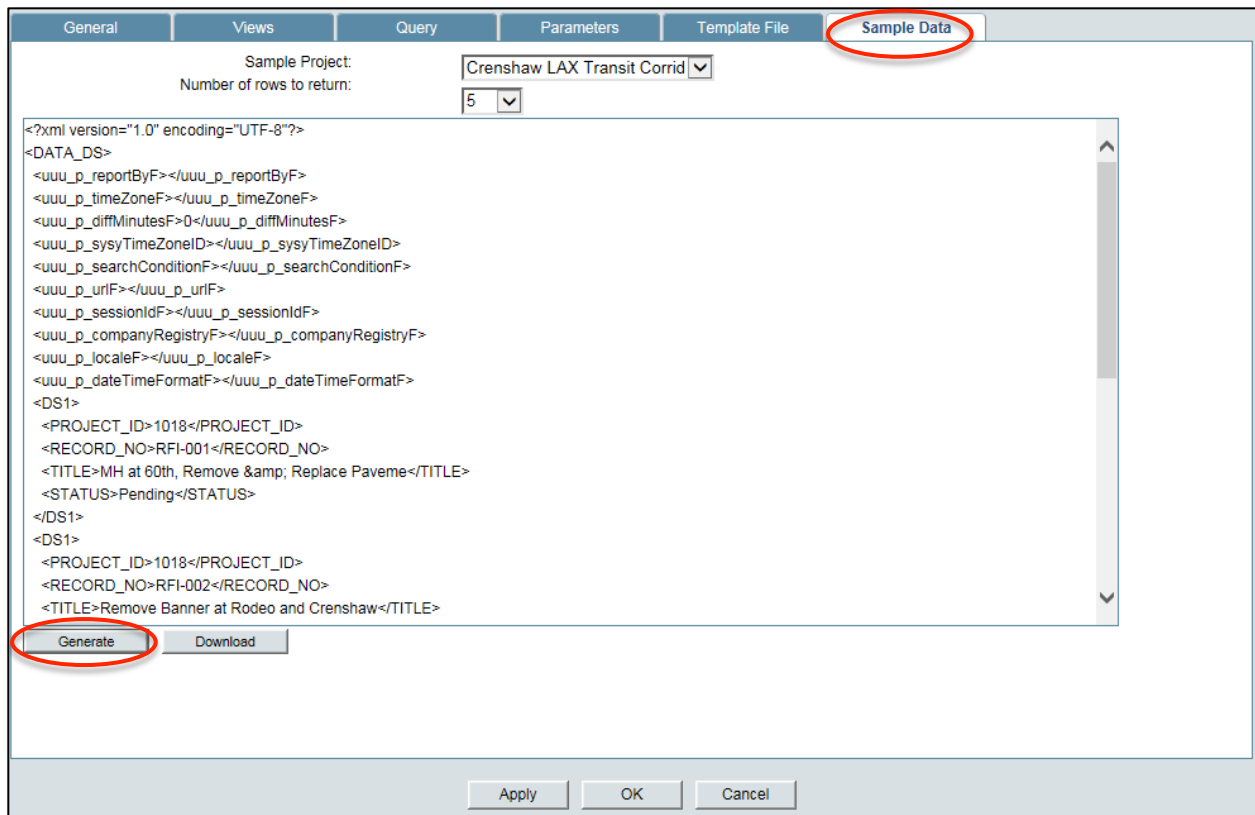
At the bottom of the interface, there are three buttons: 'Apply', 'OK', and 'Cancel'. The 'Apply' button is circled in red.

Clicking 'Apply' will result in two new tabs being displayed, the Template File tab and Sample Data tab. Select the Sample Data tab to download the XML data that will be used to create the report design layout.

Select a project from the Sample Project pulldown list and select the number of sample records to bring back (this example is selected for 5 but the other options are 10, 50 or 100) and click the 'Generate' button.

Once data (in XML format) is displayed click the 'Download' button to save the XML data file to an appropriate location.

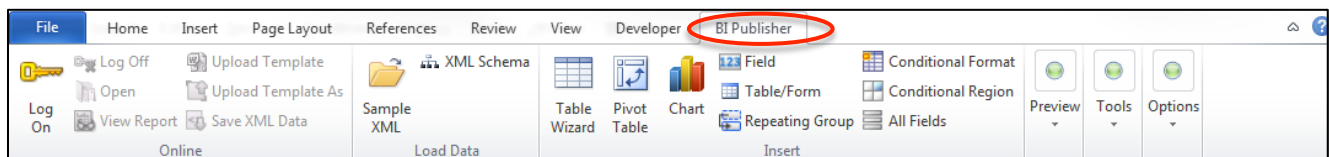
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## TE REPORT LAYOUT IN BI PUBLISHER DESKTOP

Next you will be working in Oracle Business Intelligence to create the report layout. This runs inside MS Word. If the BI Publisher Desktop for Word Plug-In has not been installed in MS Word, go to <http://www.oracle.com/technetwork/middleware/bi-publisher/downloads/index.html> to download and install.

Once installed, the plug-in creates a new Bi Publisher tab in MS Word.



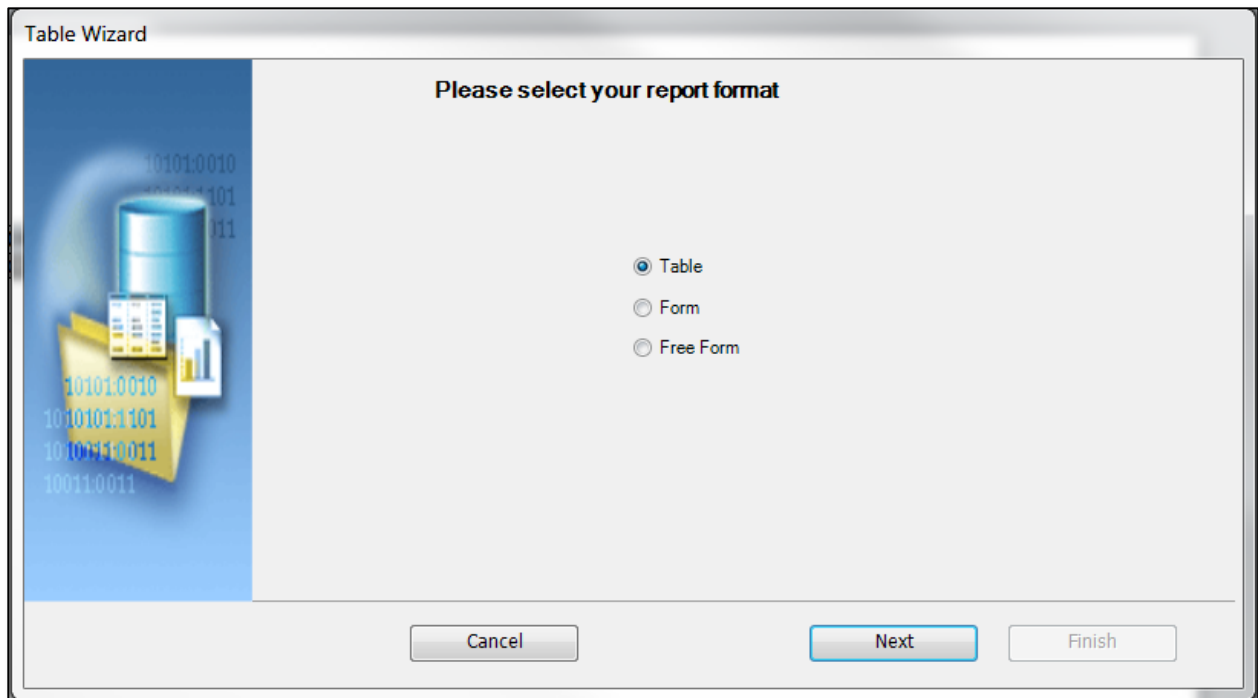
Click the 'Sample XML' folder icon to load the XML file downloaded from Unifier.

This example will use the Table Wizard (found in the BI Publisher toolbar) to create the report design layout.

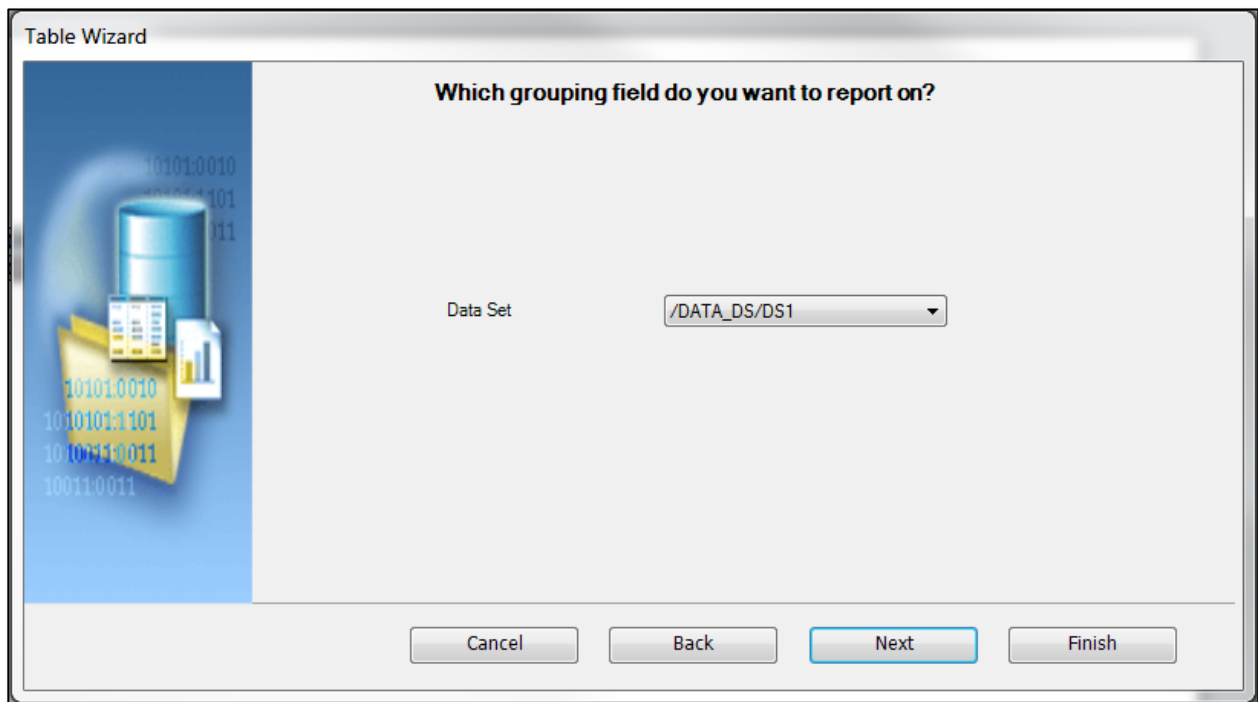
*Note: Once you are comfortable, you can also use the other BI Publisher commands to create more complex custom reports.*

Select Table and click 'Next'.

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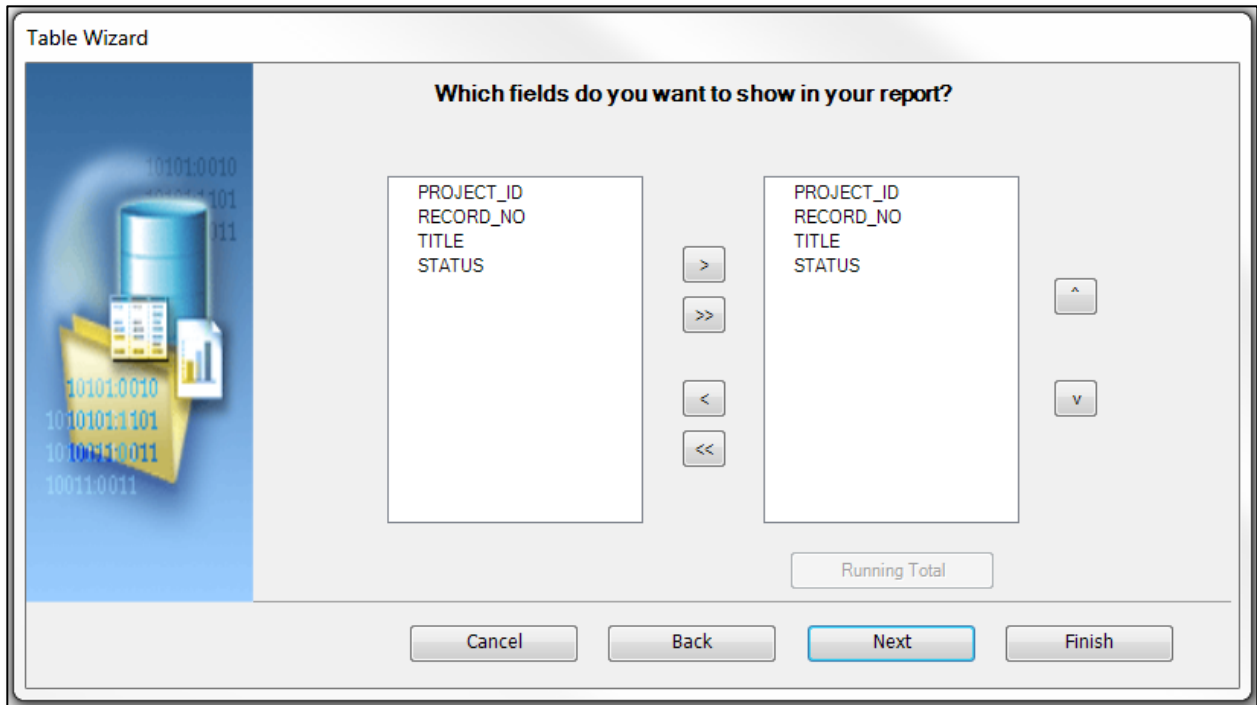
Keep the Data Set selection the same (this is automatically read from the uploaded XML file) and click 'Next'.



Select all fields from the left hand pane and click '>>'. This will display all those fields in the report as columns.

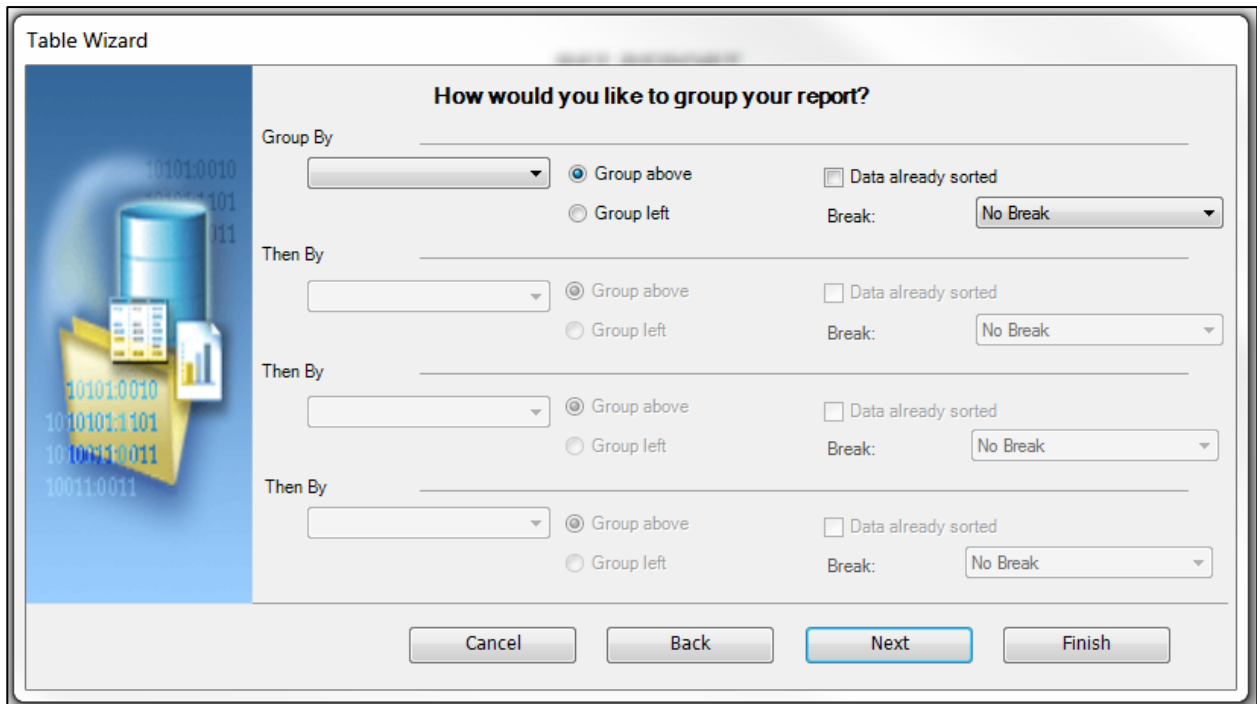


## CREATING AND PUBLISHING A CUSTOM REPORT



The 'Table Wizard' dialog box is titled 'Which fields do you want to show in your report?'. It features a decorative sidebar on the left with a blue background and binary code. The main area contains two lists of fields: 'PROJECT\_ID', 'RECORD\_NO', 'TITLE', and 'STATUS'. These fields are present in both the left and right lists. Between the lists are navigation buttons: '>', '>>', '<', and '<<'. To the right of the right list are '^' and 'v' buttons. A 'Running Total' button is located below the right list. At the bottom are 'Cancel', 'Back', 'Next', and 'Finish' buttons. The 'Next' button is highlighted in blue.

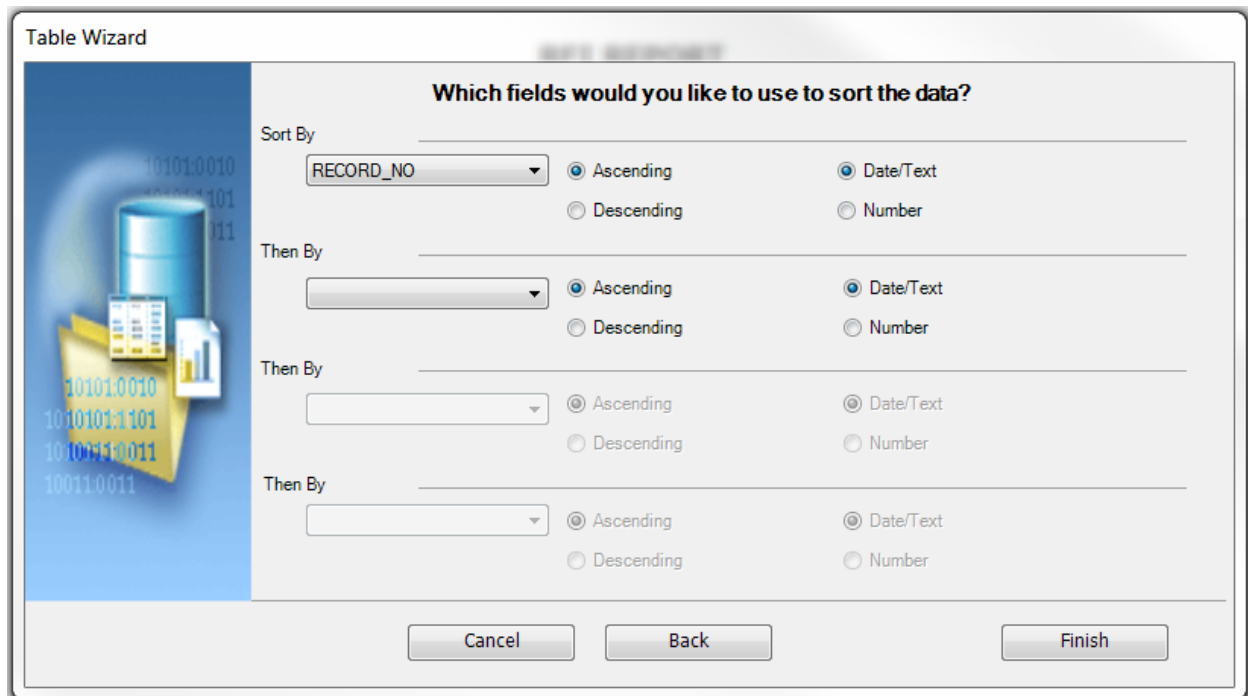
Click 'Next' in this window since there is no grouping requirement for this report.



The 'Table Wizard' dialog box is titled 'How would you like to group your report?'. It features the same decorative sidebar as the previous window. The main area is divided into four sections, each with a 'Group By' or 'Then By' dropdown menu. To the right of each dropdown are radio buttons for 'Group above' (selected) and 'Group left', a checkbox for 'Data already sorted', and a 'Break:' dropdown menu set to 'No Break'. At the bottom are 'Cancel', 'Back', 'Next', and 'Finish' buttons. The 'Next' button is highlighted in blue.

Sort data by Record\_No and in Ascending order, then click 'Next'.

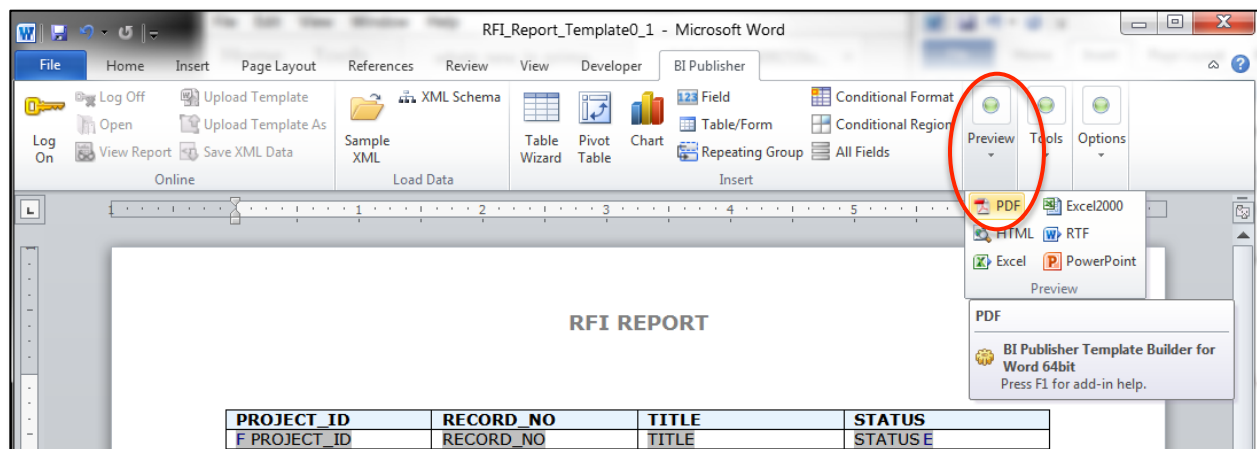
# CREATING AND PUBLISHING A CUSTOM REPORT



The Table Wizard automatically creates a table with the selected fields and column headings.

The design layout should now be saved in RTF format. This can be done through the File > 'Save As' option of Word, however, another option is to preview the report first (using the uploaded XML data).

The best option is to click the 'Preview' button and select the PDF option. This will *automatically* prompt you to save in RTF format. *If you select File > Save As option, make sure you select the Rich Text (RTF) document type and NOT a standard Word (DOC, DOCX) format.*



After saving the design layout in RTF format, the preview PDF window will display.

# CREATING AND PUBLISHING A CUSTOM REPORT

## RFI REPORT

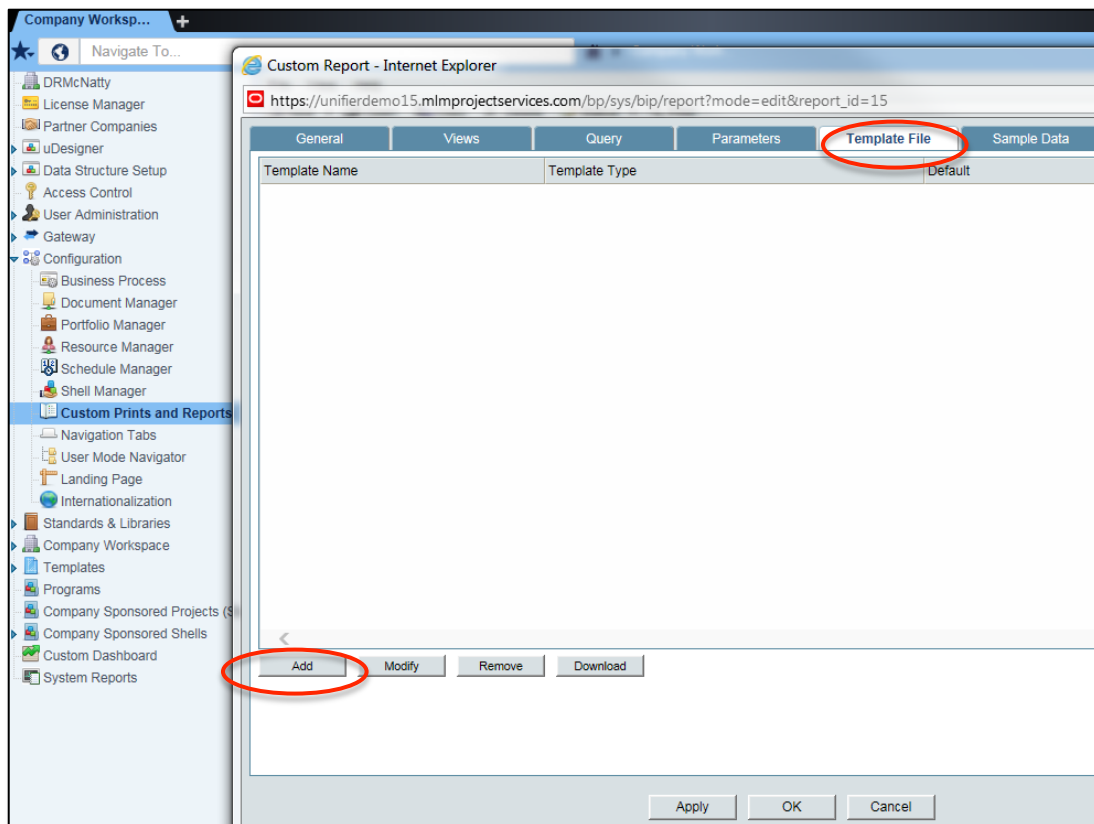
PROJECT_ID	RECORD_NO	TITLE	STATUS
1018	RFI-001	MH at 60th, Remove & Replace Paveme	Pending
1018	RFI-002	Remove Banner at Rodeo and Crenshaw	Pending
1018	RFI-003	Grade Crossing Gate Equip Offset	Pending
1018	RFI-004	OCS Clearance to SCE 220kV Line at	Pending
1018	RFI-005	Sec 018961 3.5 Performance Req	Pending

### 4. UPLOAD RTF LAYOUT TO UNIFIER

The RTF file can now be uploaded into the custom report in Unifier.

Go back to the report in Company Workspace > Configuration > Custom Prints and Reports node.

Open the report and select the Template File tab and click 'Add' button.



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In the Add Template and Files window, enter a Template Name. *Note: This is the description the user sees.*

Select RTF Template Type and locate the RTF file using the 'Browse' button. Click 'OK' on this window and the previous one.

Template Name: RFI Report

Template Type: RTF

Layout File: RFI\_Report\_Template.rtf

Translated XLIFF files for the Template

Chinese (Simplified):		Browse
Chinese (Traditional):		Browse
Dutch:		Browse
English:		Browse
French:		Browse
German:		Browse
Italian:		Browse
Japanese:		Browse
Korean:		Browse
Portuguese:		Browse
Russian:		Browse
Spanish:		Browse

OK Cancel

## 5. PUBLISH THE REPORT

Selecting the report record, publish the report using the 'Status' button.

Custom Prints and Reports - Current View: <filtered by Find attributes> [Cancel Filter]

1 Item(s) Page 1 of 1

Name	Description	Type	Data Model Type	Key	Report Level	Publish Date
RFI Report		Internal Report	Internal	uuu_15	Project	04/01/2016 05:01 AM

## 6. MAKE REPORT AVAILABLE IN USER MODE

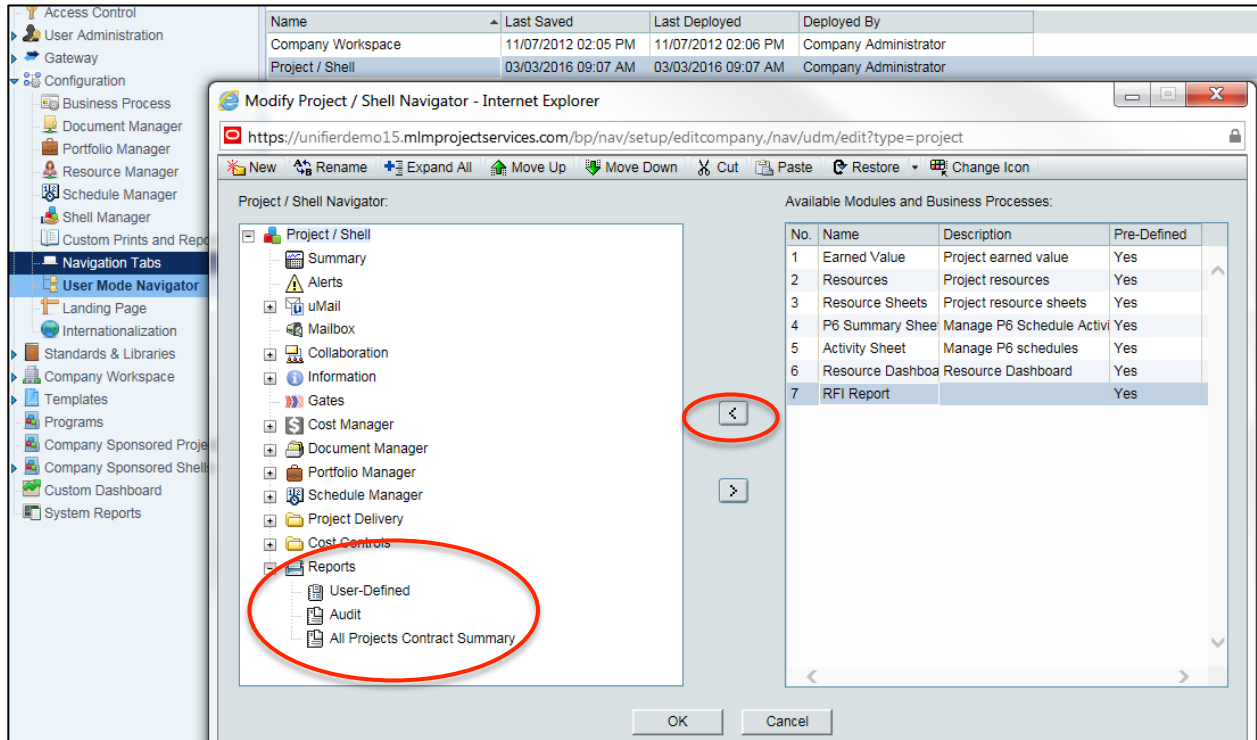
Once the report is published, it has to be made available in Unifier User Mode.

Go to Company Workspace > Configuration > User Mode Navigator node and open the Project/Shell record (this is the Project/shell navigator).

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The report is seen in the available list of Available Modules and Business Processes.

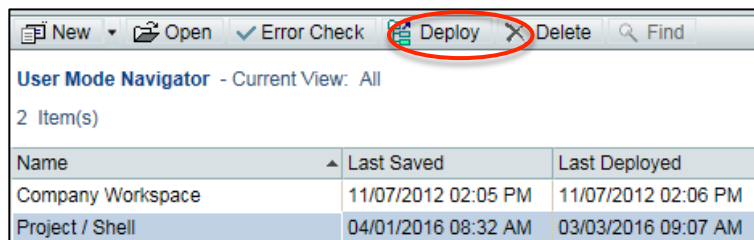
Use the left arrow icon to move the report into an appropriate User Mode node. This example will move the report into the default Reports node.



The report is now under the Reports node. Click 'OK'.



After selecting the Project/Shell record click 'Deploy' to make the change available in User Mode.



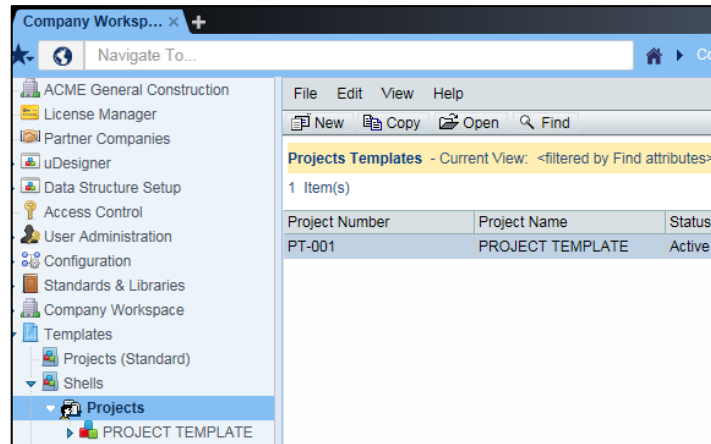
# CREATING AND PUBLISHING A CUSTOM REPORT

## 7. SET PERMISSIONS FOR THE REPORT

The final step is to add the permissions for the report in the appropriate project. This will be completed by using the Shell Template to push the changes to the project.

Go to Company Workspace > Templates > Shells to locate the shell template to use.

Open the shell template.

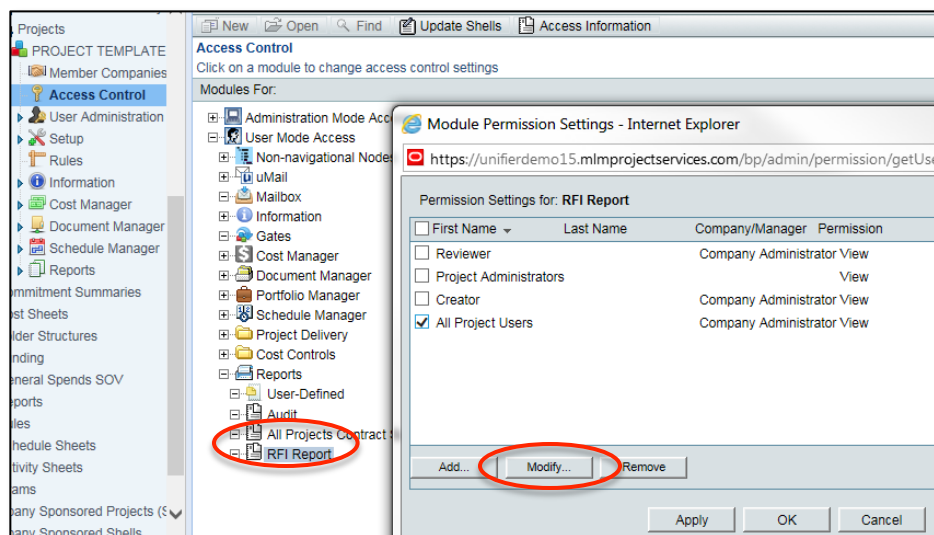


Select the Access Control node of the shell template and locate the report from the Reports node.

*Note: Log out and then log back in if the report cannot be initially seen in the Reports node.*

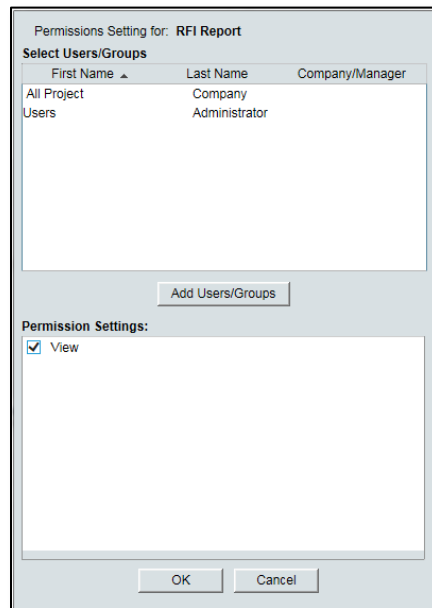
Select the report and a Permissions Settings window will appear.

Check the Group(s) required to access the report and click 'Modify'.



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In the new window check the View setting and click 'OK'.



Permissions Setting for: RFI Report

Select Users/Groups

First Name	Last Name	Company/Manager
All Project	Company	
Users	Administrator	

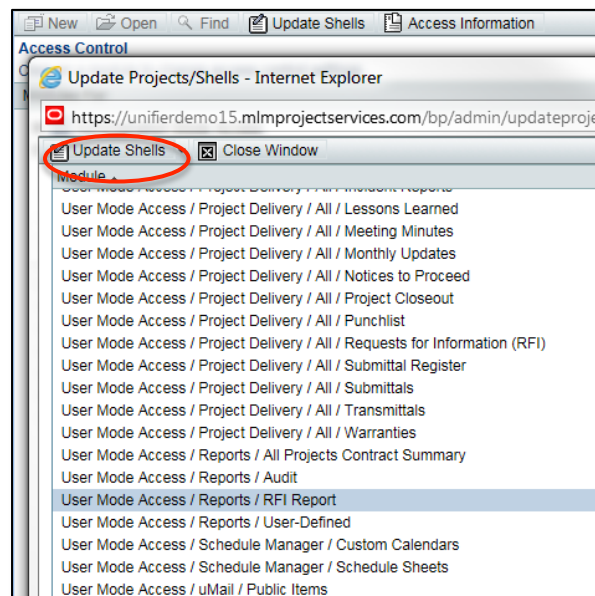
Add Users/Groups

Permission Settings:

☒ View

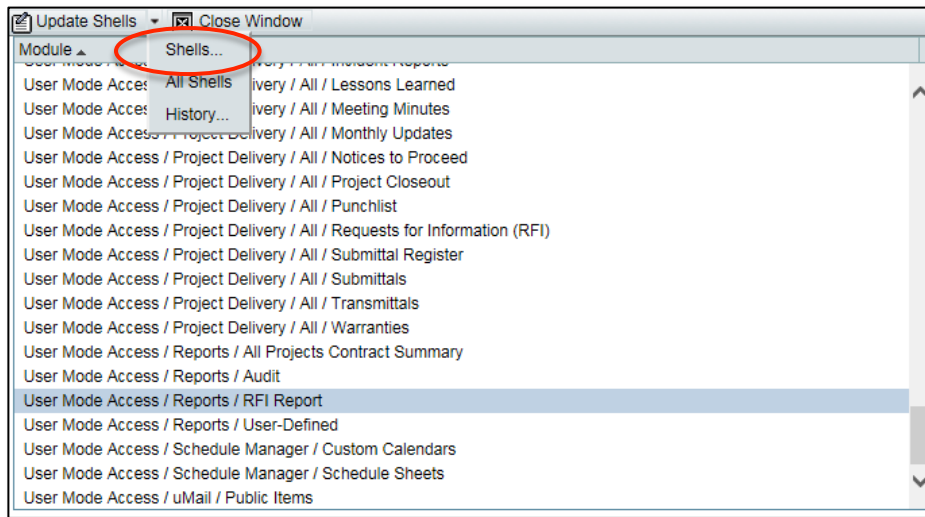
OK Cancel

Click 'Update Shells' to open up the module permission list. Locate and select the User Mode Access for the 'RFI Report'.

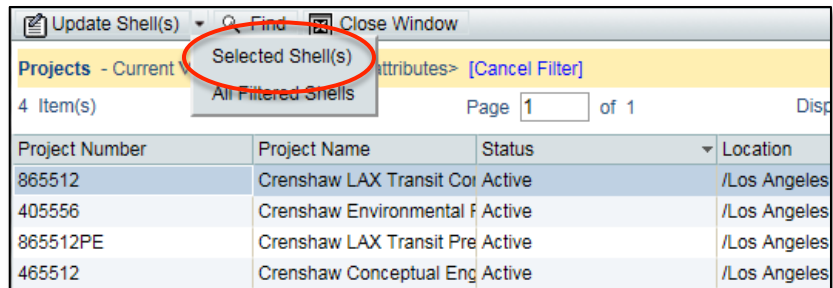


# CREATING AND PUBLISHING A CUSTOM REPORT

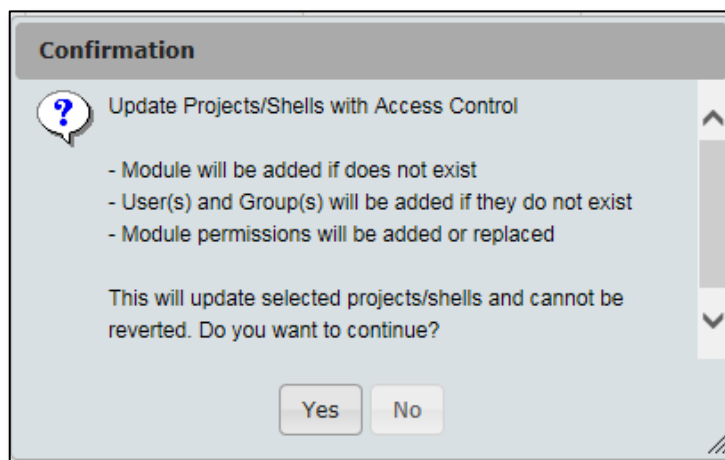
Click 'Update Shells' > Shells... from this window.



Select the project(s) this report will appear in and click 'Update Shell(s)' > Selected Shells from projects list window.



Click 'Yes'.



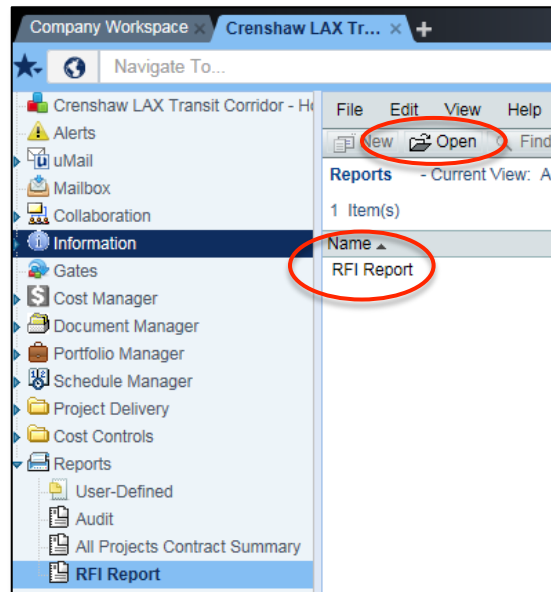


# CREATING AND PUBLISHING A CUSTOM REPORT

## 8. TEST REPORT PRINTING

The report now should be available and ready to test.

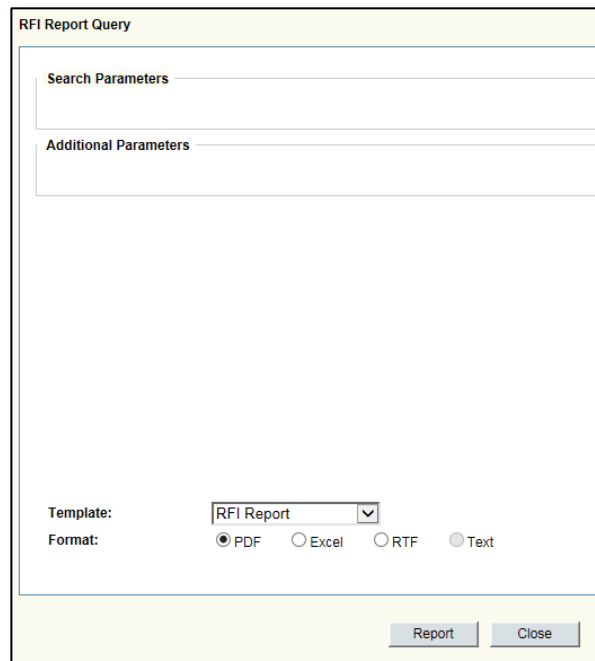
Go to the project in User Mode and select the Reports node. Select the report and click 'Open'.



The report query window now appears. The template uploaded has already been selected. Choose pdf for the format. Click the 'Report' button to run the report.

*Note: The Search Parameters and Additional Parameters sections are blank since query conditions and additional parameters were not included.*

## CREATING AND PUBLISHING A CUSTOM REPORT



The image shows a dialog box titled "RFI Report Query". It has a yellow header bar. Below the header, there are two input fields: "Search Parameters" and "Additional Parameters". At the bottom of the dialog, there is a "Template:" label next to a dropdown menu showing "RFI Report". Below that is a "Format:" label with four radio button options: "PDF" (selected), "Excel", "RTF", and "Text". At the very bottom right, there are two buttons: "Report" and "Close".

The report will display in PDF format once the data has been retrieved. The report can now be saved or printed.

*Note: You may also output reports in other formats (i.e. Excel, RTF, Text) depending upon your needs. Also in this example, we built ONE layout template for the report; however, you also have the option to build multiple layouts for the same base report should the layout needs change for different users/projects.*

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<https://unifierdemo15.mlmpjectservices.com/bp/sys/bip/report/runReport?id=6&sgnt=90ad602986351f9c164678fd5fb3!>

## RFI REPORT

PROJECT_ID	RECORD_NO	TITLE	STATUS
1018	RFI-001	MH at 60th, Remove & Replace Paveme	Pending
1018	RFI-002	Remove Banner at Rodeo and Crenshaw	Pending
1018	RFI-003	Grade Crossing Gate Equip Offset	Pending
1018	RFI-004	OCS Clearance to SCE 220kV Line at	Pending
1018	RFI-005	Sec 018961 3.5 Performance Req	Pending
1018	RFI-006	AMc 0002 TPSS No. 1	Pending
1018	RFI-007	TPSS 10 Build Out	Pending
1018	RFI-008	Emergency Power Receptacles	Pending
1018	RFI-009	Confirmation of Knock-out Panel	Pending
1018	RFI-010	Crenshaw-MLK Station Confirmation	Pending
1018	RFI-011	Electromagnetic Interference Rpt	Pending
1018	RFI-012	Conad Dir to Remove Sig Fdn at Arli	Pending
1018	RFI-013	Traffic Signal Loop Detect Costs	Pending
1018	RFI-014	MLK Sta-Unknown SD Conflict with Ex	Approved
1018	RFI-015	Changed SS Disposition & Conflict	Approved
1018	RFI-016	MLK Water Vault	Approved
1018	RFI-017	"Betterments" Requested LADOT	Approved
1018	RFI-018	UG Struc-Air Entrained Conc Pct and	Pending
1018	RFI-019	Status of Right of Entry	Pending
1018	RFI-020	Acceleration vs Speed Curves/Table	Pending
1018	RFI-021	Expo Temp Sewer Line 820 Align	Approved
1018	RFI-022	Removal of Remaining UG Struct MLK	Pending
1018	RFI-023	Excavation Support Monitoring Point	Pending
1018	RFI-024	Excavation Support Monitoring Point	Approved
1018	RFI-025	2in Buried Water Hose - Vernon	Approved
1018	RFI-026	Resp From LABOE for Expo Temp line	Pending
1018	RFI-027	Pole Mounted OCS Disconnect Switch	Pending
1018	RFI-028	Brynhurst 21in Storm Drain UID 1364	Approved
1018	RFI-029	Slauson Ave Widening Existing Pwr	Pending
1018	RFI-030	La Brea review by LABOE	Approved
1018	RFI-031	Clarify Gas Membrane Requirement	Approved
1018	RFI-032	Gas Line at TPSS 4	Approved
1018	RFI-033	Greenline Ex Plinth Removal Demo	Approved
1018	RFI-034	18in SS at Aviation Imperial to 111	Approved