

Deltek PM Compass 8.5

Custom Reports and Microsoft SQL
Server® Reporting Services Guide

May 16, 2025



While Deltek has attempted to verify that the information in this document is accurate and complete, some typographical or technical errors may exist. The recipient of this document is solely responsible for all decisions relating to or use of the information provided herein.

The information contained in this publication is effective as of the publication date below and is subject to change without notice.

This publication contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, or translated into another language, without the prior written consent of Deltek, Inc.

This edition published May 2025.

© Deltek, Inc.

Deltek's software is also protected by copyright law and constitutes valuable confidential and proprietary information of Deltek, Inc. and its licensors. The Deltek software, and all related documentation, is provided for use only in accordance with the terms of the license agreement. Unauthorized reproduction or distribution of the program or any portion thereof could result in severe civil or criminal penalties.

All trademarks are the property of their respective owners.

Contents

Overview	1
Software Requirements for Creating Custom Reports	5
Report Architecture and Structure	9
Report Designer	13
Report Builder	51
Load Custom Reports into PM Compass.....	53
Upgrade Custom Reports Created with Microsoft SQL Server Reporting Services 2010.....	58
Customize Formatted Workflow Reports	62
Apply Role Security to Custom Reports.....	64
Get Report Information for Failed Reports.....	65
Troubleshooting Reports.....	66
Appendix A: Custom Report Properties	74
Appendix B: If You Need Assistance	77

Overview

The standard reports that are provided with the Deltek PM Compass software are designed to meet most of your business needs. In addition, you can use Microsoft SQL Server® Reporting Services (SSRS) and its report-writing tools to create PM Compass custom reports.

With SQL Server Report Builder or SQL Server Data Tools - Microsoft Reporting Services Projects for Visual Studio, you can create custom reports using the PM Compass report templates.

Note: In this guide, **SQL Server Data Tools - Microsoft Reporting Services Projects for Visual Studio** is referred to as **Report Designer**.

This guide provides information for the following tasks that are necessary to create, deliver, and generate PM Compass custom reports.

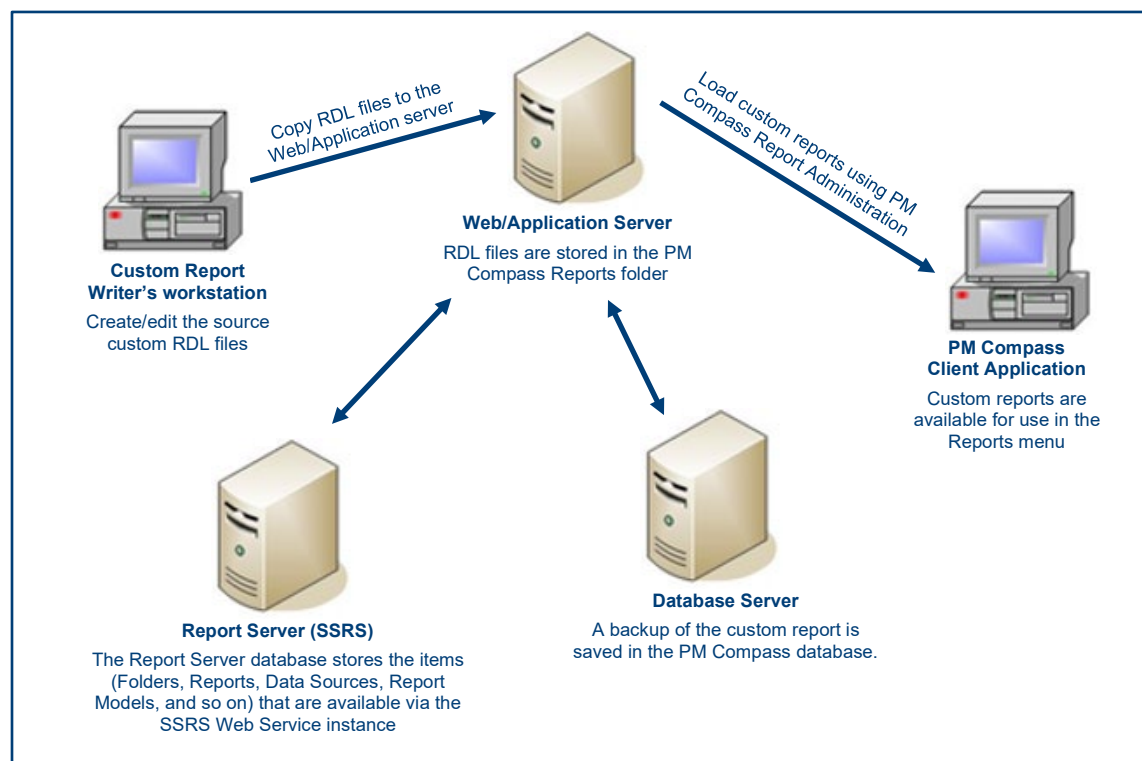
Note: Specific instructions on how to create and design PM Compass custom reports is beyond the scope of this guide.

Task	Description
1	Decide which report-writing tool to use to create custom reports.
2	Install the required SSRS software.
3	Give users who create custom reports access to SSRS and its report-writing tools.
4	Load the PM Compass report templates on the workstations of users who will create custom reports with SSDT Report Designer.
5	Access the PM Compass report templates in Report Designer to create custom reports. Create a custom report from a copy of a PM Compass standard report in Report Designer.
6	Save custom reports to the appropriate folder on your application server.
7	Load custom reports into PM Compass via PM Compass Report Administration.
8	In PM Compass Role Security Configuration, set up access rights to give certain PM Compass users the ability to generate and print specific custom reports from the PM Compass Reports menu.
9	Use the PM Compass Reports menu to select a custom report, choose options, generate the report, and preview and print it.

Create Custom Reports and Make them Available to Users

This section outlines the steps to create custom reports and how to make them available to users.

Recommended Process



Step	Process	Related Topics
1	Custom Report Writer's Workstation	Use SSDT Report Designer to create/edit the source custom RDL files then copy the report RDL files to the Web/Application server. Create a Custom Report from a PM Compass Standard Report : Steps 1 – 12
2	Web/Application server	Store the files in the PM Compass Custom Reports folder (default location: C:\Program Files\Deltek\PMCompass\Reports\Custom). Step 13: Copy the Report to the Web/Application Server

Step	Process	Related Topics
3	PM Compass Client Application Import the report into PM Compass. You have two options. Warning: The option that you choose affects how you are able to import reports. Review step 14 for additional information. Save the custom reports in the Application Server's Custom folder using the PM Compass Report Administration » Load Reports tab with the Type field set to Custom. The default location is C:\Program Files\Deltek\PMCompass\Reports\Custom. You should use this option so that you can manage the file and folder structure of your custom reports on each server. You will need to repeat this process on each Web/Application server. Directly upload the custom report from your workstation without copying them to the Application Server using the PM Compass Report Administration » Custom Reports tab. This option is recommended if you do not have access or rights to copy files to the Application Server or if you plan to store the reports in a central location.	Step 14: Import the Report into PM Compass
4	PM Compass Client Application After the report is imported into PM Compass, the only users who can see the report are members of the SYSADMIN group. For other users to see the report, you need to grant them access.	Step 15: Grant Users Access to the Report using Access Control in PM Compass Reporting

What Happens Next?

Area	Description
PM Compass Database Server	When you upload the custom report in PM Compass, a copy of the custom report is saved in the FW_CustomFile database table as a backup. You can download the backup copy of the custom report using the PM Compass Report Administration » Custom Reports tab .

Area	Description
Report Server (SSRS)	When you import the reports into PM Compass, the process uploads the XML schema from the Custom Report RDL files on the Web/Application server into SQL Server Reporting Services (SSRS). The custom report RDL schema is inserted into the Report Server database. The Report Server database stores the items (Folders, Reports, Data Sources, Report Models, and so on) that are available via the SSRS Web Service instance.
PM Compass Client Application	The custom reports are added to the PM Compass Reports menu and are available for use. At report runtime, the PM Compass reporting framework: ▪ Changes the data source to always connect to the currently logged in database. ▪ Always processes the report based on the custom properties in the existing RDL, and so on. After a report is processed, you can view it using SSRS Report Manager. The report appears as a virtual folder directory containing the user name and path to the report's RDL in SSRS. You can download a backup copy of the custom report using the PM Compass Report Administration » Custom Reports tab.

Note: For more information, see the following sections in this guide:

- [“Report Architecture and Structure”](#)
- [“PM Compass Application Server Location for Custom Reports \(RDL Files\)”](#)
- [“Load Custom Reports Into PM Compass”](#)

Process for Accessing Report Builder from within PM Compass

Process	
PM Compass Application	Add Report Builder to the PM Compass menu.
PM Compass Client Application	The custom reports are available by accessing Report Builder via the PM Compass Report Builder menu option. After a report is processed, you can view it using SSRS Report Manager. The report appears as a virtual folder directory containing the user name and path to the report's RDL in SSRS.

Attention: For more information, see [“Report Builder”](#) in this guide.

Software Requirements for Creating Custom Reports

The following are the Microsoft SQL Server Reporting Services (SSRS) report-writing tools that are supported for creating PM Compass custom reports:

- SQL Server Data Tools - Microsoft Reporting Services Projects for Visual Studio 2019
- SQL Server Data Tools - Microsoft Reporting Services Projects for Visual Studio 2022

Note: There is no SSDT standalone installer for Visual Studio 2022 and Visual Studio 2019. To modify the installed Visual Studio workloads to include SSDT, use the Visual Studio Installer.

- SQL Server 2016 Report Builder

These report-writing tools automatically update the report file to utilize the Report Definition Language (RDL) 2016 schema. Use SQL Server 2016 Report Builder to upgrade a custom report from the 2010 version to the 2016 version.

Attention: For more information, see [“Upgrade Custom Reports Using SQL Server 2016 Report Builder”](#) in this guide.

To determine if a custom report was created with a supported report-writing tool and has the supported RDL schema, open an .RDL file for the custom report and look at the header lines.

If the report has the supported RDL 2016 schema, it will include **2016** in the path.

- `<Report xmlns:rd="https://schemas.microsoft.com/SQLServer/reporting/reportdesigner" xmlns="http://schemas.microsoft.com/sqlserver/reporting/2016/01/reportdefinition">`

Attention: For more information on report definition support by Reporting Services components, see [“Plan for report design and report deployment - SQL Server Reporting Services \(SSRS\)”](#) in this guide.

Install these report-writing tools on the machines from which you will create or edit PM Compass custom reports. These machines are typically workstations instead of PM Compass web servers.

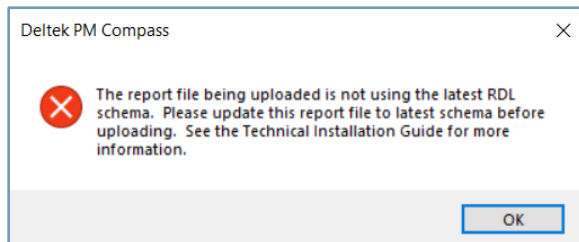
Only the users who create custom reports need Report Builder or Report Designer installed on their machines. PM Compass users who only need to open, generate, and print custom reports, but not create them, do not need to install these report-writing tools.

To support the ability to open, generate, and print custom PM Compass reports, the PM Compass database and report servers must have one of the supported or compatible versions of Microsoft SQL Server installed. These include:

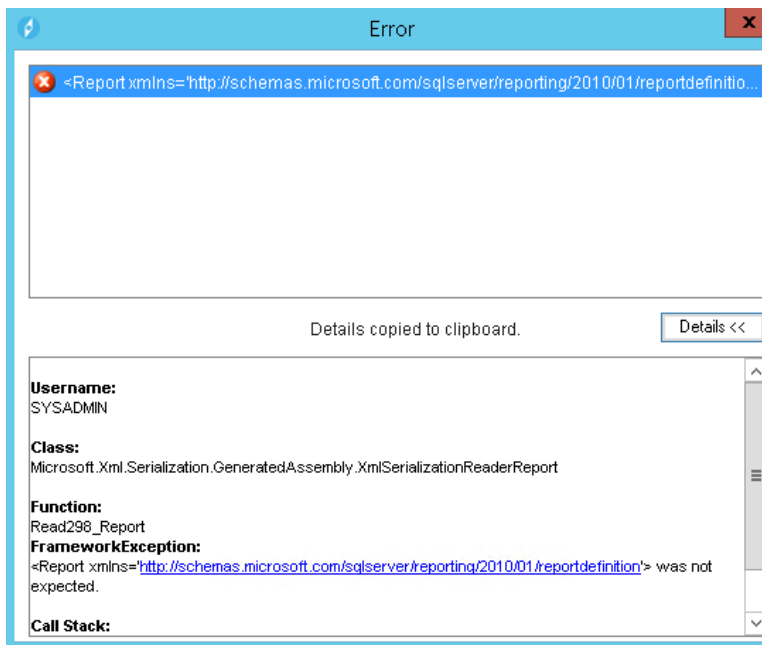
- SQL Server 2016
- SQL Server 2017
- SQL Server 2019

Note: For a full list of Microsoft SQL Server releases (R), service packs (SP), and cumulative updates (CU) that are supported or compatible with PM Compass, see the *Deltek Product Support Compatibility Matrix*. You can download this PDF document from the Deltek Support Center site: <https://support.deltek.com>.

If you try to load a report into PM Compass that was created with an unsupported SSRS report-writing tool version, PM Compass displays the following error message:



If you try to run a report in PM Compass from an SSRS Report Server that is based on the 2010 RDL schema, PM Compass displays the following error message:



Note: This error occurs when the Report's RDL schema in SSRS is using the RDL 2010 schema, but PM Compass 8.4 Cumulative Update 08 requires the RDL 2016 schema. For more information on this error, see [“Error Encountered When Loading a Custom Report that was Created with an Unsupported SSRS Report-Writing Tool Version”](#) in this guide or refer to KB Article # 116101 in the Knowledge Center of the Deltek Support Center.

Supported Writing Tools and Installation Information

Writing Tool	Installation Information
SQL Server Data Tools - Microsoft Reporting Services Projects for Visual Studio 2019	There is no SSDT standalone installer for Visual Studio 2022 and Visual Studio 2019. To modify the installed Visual Studio workloads to include SSDT, use the Visual Studio Installer. For more information, see the following Microsoft link: https://learn.microsoft.com/en-us/sql/ssdt/download-sql-server-data-tools-ssdt?view=sql-server-ver16.
SQL Server Data Tools - Microsoft Reporting Services Projects for Visual Studio 2022	
SQL Server 2016 Report Builder	For more information, see the following Microsoft links: https://learn.microsoft.com/en-us/sql/reporting-services/install-windows/install-report-builder?view=sql-server-ver16 https://www.microsoft.com/en-us/download/details.aspx?id=53613

Which Tool Should I Use to Create PM Compass Custom Reports?

The tool that you use to create a custom report depends on your reporting needs and report-writing skill level. The following table provides information to help you determine which reporting tool you should use to create custom reports.

Important: You cannot use Report Builder to create a custom report from a PM Compass standard report. Although a previously run standard report may open in Report Builder, if you edit it and try to load it into PM Compass, the report may fail.

Skill Requirements and Reporting Capabilities	SQL Server Report Builder	SSDT Report Designer
Skill Requirements		
Report-writing tool skill level	Basic	Advanced
Relational database structure knowledge required	No	Yes
Reporting Capabilities		
Create ad hoc reports	Yes	No
Create table, matrix, and chart reports	Yes	Yes

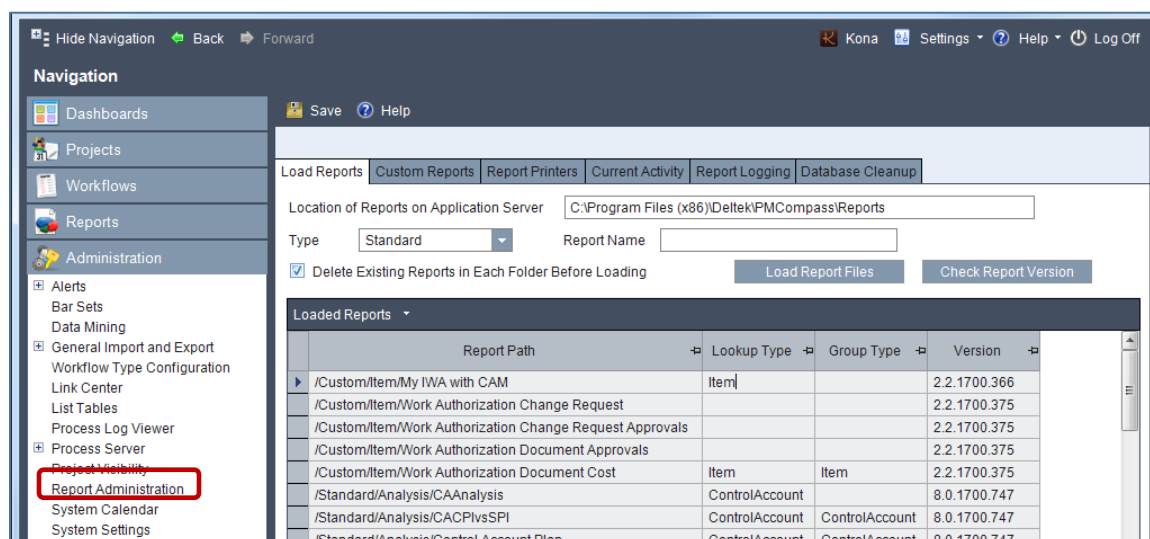
Skill Requirements and Reporting Capabilities	SQL Server Report Builder	SSDT Report Designer
Apply grouping and formulas in reports	Yes (at design time only)	Yes
Apply sorting	Yes	Yes
Apply filtering	No	Yes
Apply advanced reporting features, including complex queries, advanced charting, parameters, drill downs, sub-reports, and so on	No	Yes
Combine tables, lists, and charts in the same report	No	Yes
Include a Sorting/Grouping tab or Columns tab in the Report Options dialog box in PM Compass Reports for custom reports	No	Yes, if you modify special tags in SQL statements.
Create a custom report Options dialog box to display in PM Compass Reports for a custom report	No	No
Deploy custom reports outside of PM Compass	No	No

This section covers .rdl files, folder structures, reports on the PM Compass server, and subreports.

RDL stands for Report Definition Language which is an XML schema that defines a report.

Example of an RDL File

The PM Compass **Location of Reports on Application Server** field on the Load Reports tab (**PM Compass » Administration » Report Administration**) shows you where the reports are stored on the Web/Application server. For example: **C:\Program Files(x86)\Deltek\PMCompass\Reports**.



The Reports folder on the Web/Application server includes the following folders:

- Custom: Copy your completed custom report RDL files to this folder. The custom folder should contain the following sub-folders:
 - Analysis (displayed as Cost Analysis in PM Compass)
 - Item
 - Progress
 - Schedule
- Standard: This folder contains the PM Compass standard report RDL files. They are organized into the following sub-folders:
 - Analysis (displayed as Cost Analysis in PM Compass)
 - Item
 - Progress
 - Schedule
- Template: This folder contains the PM Compass report template RDL files.

Report Name and RDL File Mapping

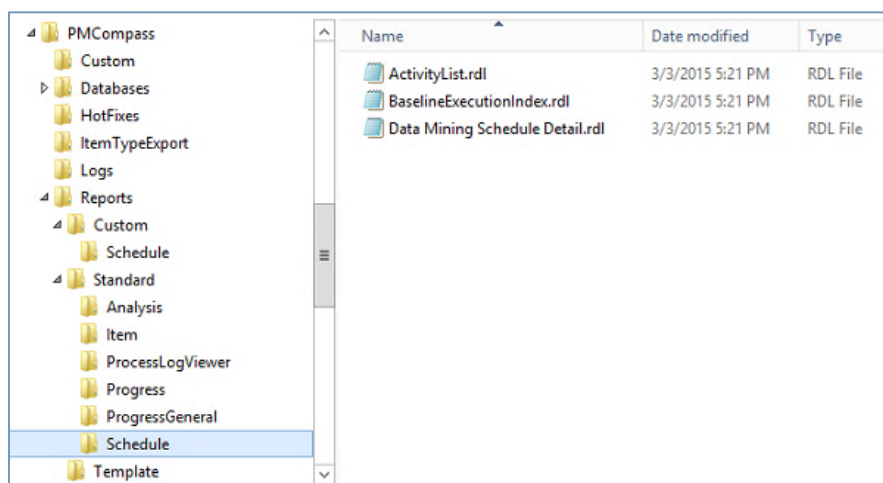
There is a one-to-one mapping between the standard report name in PM Compass (Report Name column) and the RDL file on the Web/Application server. For example, the PM Compass Data Mining Schedule Detail report is from the **Data Mining Schedule Detail.rdl** and the PM Compass Control Account Analysis report is from the **CAAnalysis.rdl** file.

There are two exceptions — the **TimePhasedGraph.rdl** and the **ActivityList.rdl** correspond to multiple PM Compass reports:

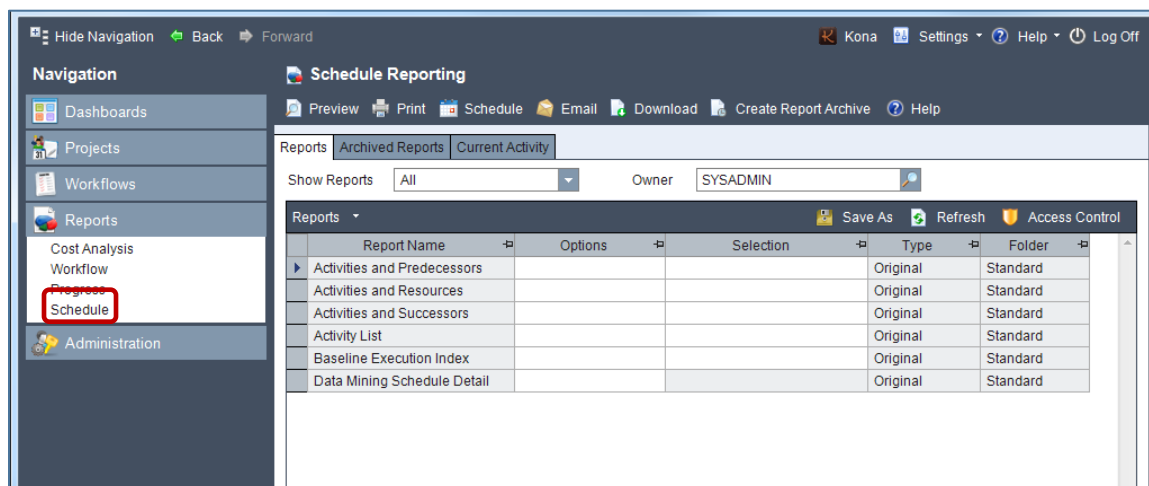
- **TimePhasedGraph.rdl**: The following graph reports use the **TimePhasedGraph.rdl** file:
 - Cost and Schedule Performance Index
 - Cost vs. Schedule Performance Index
 - Cost/Schedule Variance

- Cost/Schedule Variance Percent
- Performance Curve
- Earned Value Histogram
- **ActivityList.rdl**: The following reports use the **ActivityList.rdl** file:
 - Activity List
 - Activities and Resources
 - Activities and Predecessors
 - Activities and Successors

The following is an example of the Web/Application server file structure. Note the **ActivityList.rdl** file that is used for multiple reports in the PM Compass Schedule reports folder.



The following is an example of the Schedule reports list in PM Compass. The Folder column shows where the report RDL file is on the Web/Application server and SSRS.



Subreports

Some of the standard reports have subreports. When you create a custom report, you need to check whether the standard report that you base your custom report on, has subreports. You do this by viewing the report .rdl file. The value in each **<ReportName>** tag represents a subreport .rdl file. The value plus an .rdl extension is the name of the .rdl file (subreport) that is located on the Web Server in the same folder as the parent report.

For example: When viewing the .rdl file for the PM Compass report named Initial Work Authorization, the subreport is **<ReportName>Work Authorization Document Cost</ReportName>** and its .rdl filename is **Work Authorization Document Cost.rdl**, located in the Items folder on the Web Server.

```
<Subreport Name="WAD_CostDetail">
  <Style>
    <Border>
      <Style>None</Style>
    </Border>
  </Style>
  <Top>2.6in</Top>
  <Height>0.16in</Height>
  <Width>7.04166in</Width>
  <ZIndex>22</ZIndex>
  <Visibility>
    <Hidden>=iif(String.IsNullOrEmpty(Fields!DetailsGrid.Value), true, false)</Hidden>
  </Visibility>
  <ReportName>Work Authorization Document Cost</ReportName>
  <Parameters>
    <Parameter Name="ParmDetailsGrid">
      <Value>=Fields!DetailsGrid.Value</Value>
    </Parameter>
  </Parameters>
</Subreport>
```

If your parent report includes subreports, you need to copy the .rdl subreport files from the Web Server to the machine where you are creating your custom report (into the same folder as the parent report) and reimport them with your custom report.

Attention: For an example of creating a custom report that has subreports, see [“Create a Custom Initial Work Authorization Report that Includes the Control Account Manager Field”](#) in this guide.

Report Designer

Use SQL Server Data Tools – Microsoft Reporting Services Projects for Visual Studio to create both simple and complicated reports. It is a full-featured, advanced report-writing tool. You can create tabular, matrix, chart, and free-form reports. You can create complex queries, advanced charts, parameters, drill downs, and sub-reports. You can create expressions to specify report data.

To create custom reports with Report Designer, you must install the supported Report Designer locally on a report writer's workstation (with the appropriate licensing).

For users to access the SSRS report server to create custom reports, you must grant them the following SSRS permissions:

- At the server level, users must be system users.
- At the folder level, users must be granted browser and Report Builder access.

Important: Users who have access to your SSRS report server to create custom reports in Report Designer can access all fields in your PM Compass database. PM Compass role security does not apply when accessing the PM Compass database to create custom reports.

Non-Domain Clients

SSRS requires Windows Integrated Authentication. For non-domain clients (clients that do not run Active Directory or have a Windows domain), you must complete the following tasks:

- Create a local account in the SSRS report server for each user who creates custom reports.
- Grant the necessary reporting services permissions as described above.

Report Designer and PM Compass Report Templates

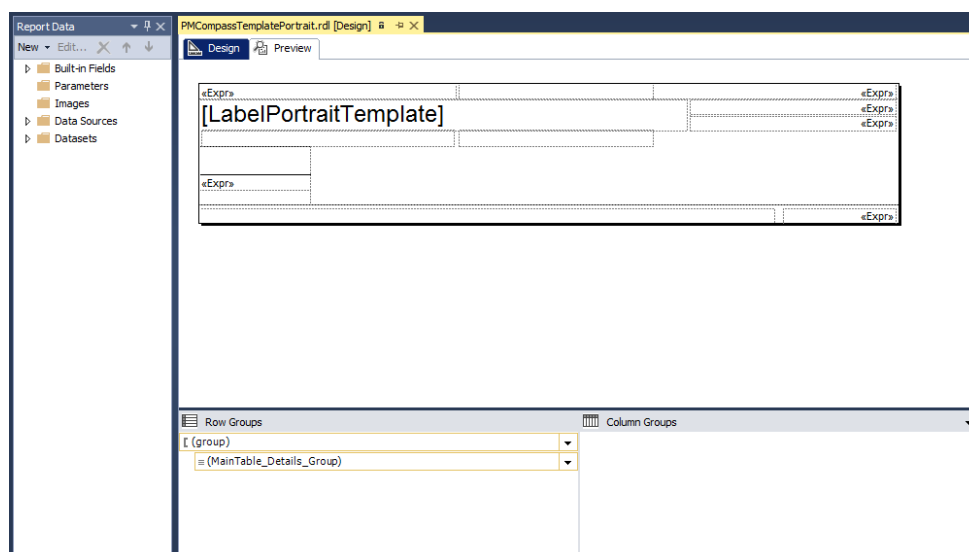
PM Compass comes with report templates that you can use to create custom reports in Report Designer. The templates provide formatting for custom reports that is similar to the formatting of PM Compass standard reports.

You can copy the template files to the workstations of users who will be creating custom reports. When users launch Report Designer, the PM Compass templates display in the list of templates. Users can also create custom reports with Report Designer by using the PM Compass report templates located directly on your SQL Server Reporting Services report server (without copying the template files to a workstation).

The template files for custom reports are as follows:

- **PMCompassTemplateLandscape.rdl:** Use this for column selection reports that must be printed using the landscape orientation. Report properties are set for this so you do not need to modify them.
- **PMCompassTemplatePortrait.rdl:** Use this template to create column selection reports.
- **PMCompassTemplateSubReport.rdl:** Use this template only to create a subreport. PM Compass invoices are good examples of reports that use subreports. Each section of a single invoice (report) is created by using subreports.

The example below shows the **PMCompassTemplatePortrait.rdl** file when you open it in Report Designer.



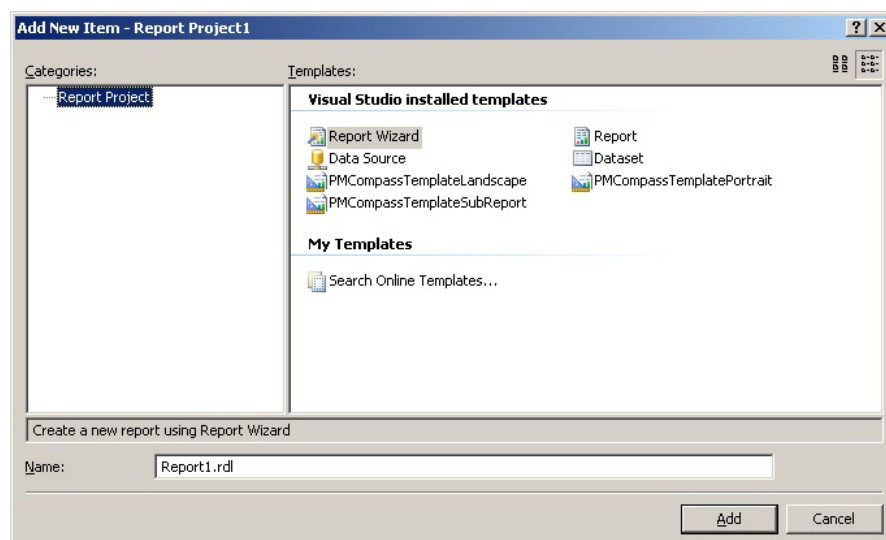
When you install PM Compass, the template files are installed on your PM Compass application server in the following location: **C:\Program Files\Deltek\PMCompass\Reports**.

Load Report Templates onto a Workstation

To create a custom report on the workstation of a user who writes reports with Report Designer, copy the .rdl template files to the following location on the user's workstation:

C:\Program Files\Microsoft Visual Studio
12.0\Common7\IDE\PrivateAssemblies\ProjectItems\ReportProject

When you launch Report Designer and select Business Intelligence Projects, the PM Compass templates display in the list of templates.



There are two ways to copy the templates to a user's workstation:

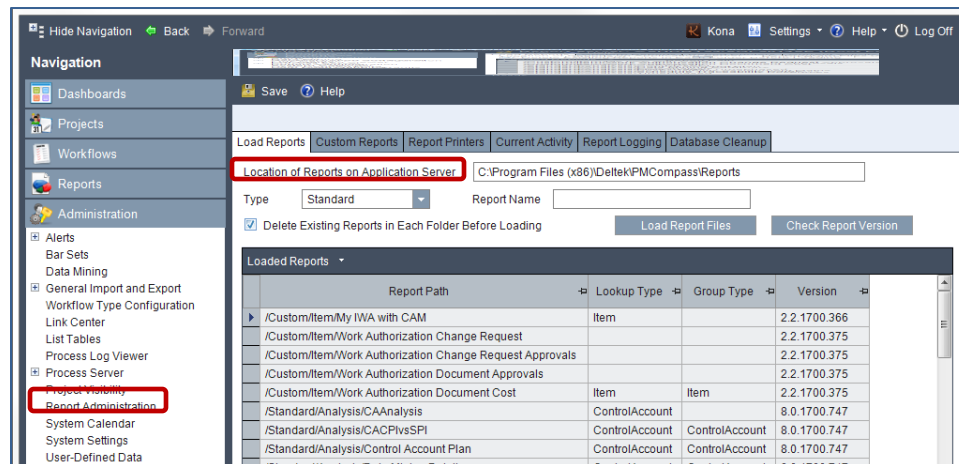
- **Allow users access to the templates folder:** To allow users access to the Templates folder on your PM Compass application server, make the Templates folder shared and accessible so that report-writing users can copy the .rdl template files to their workstations.
- **Load the templates onto the SSRS Report Server:** Load the .rdl templates files to your SSRS report server from the PM Compass application server using the PM Compass Report Administration utility. When you use this utility, the .rdl template files are loaded onto your SSRS report server in **C:\Program Files\Deltek\PMCompass\Reports\Custom**. You can then share the Custom folder so report-writing users can access it and copy the template files to their workstations.

Note: PM Compass users cannot access any reports while the Report Administration utility is running.

To load the .rdl template files from your PM Compass application server to your SSRS report server:

1. In PM Compass, on the Navigation menu, click **Administration » Report Administration**.

On the Load Reports tab, the **Location of Reports on Application Server** field displays the path to the PM Compass report location: **C:\Program Files\Deltek\PMCompass\Reports**.



2. In the **Type** field, select **Standard**.
3. If you select the **Delete Existing Reports in Each Folder Before Loading** option, PM Compass deletes all reports of the type that you selected that are currently loaded before loading new ones.

If you do not select this option, PM Compass loads new reports of the selected type, but does not delete reports currently loaded on the report server. However, if a report currently exists, PM Compass replaces it with the new report.

4. Click **Load Report Files**.

The report templates are loaded onto the SSRS Report Server into the **C:\Program Files\Deltek\PMCompass\Reports\Custom** folder and also display in the Loaded Reports grid on the Load Reports tab.

When complete, a message specifies the number of records that were loaded.

Create a Custom Report using the PM Compass Report Templates

After the PM Compass reports templates are loaded onto a workstation, when you launch Report Designer and select Business Intelligence Projects, a list of Business Intelligence Development Studio templates is available from which you can create new reports.

Note: You cannot use the PM Compass report templates with the Report Designer Reports Wizard.

To create a custom report using the PM Compass report templates:

1. Create a solution and report server project.
2. Create a shared data source.
3. Select a PM Compass template and begin creating a custom report.

Step 1: Create a Solution and Report Server Project

Follow this procedure to create a solution and report server project in Visual Studio.

To create a solution and report server project:

1. On your workstation, click **Start » All Programs » Microsoft SQL Server <version> » SQL Server Data Tools for Visual Studio <version>**.
2. Click **File » New » Project**.
3. Select **Business Intelligence Projects**.
4. In the **Templates** section of the New Project dialog box, click **Report Server Project** to highlight it.
5. In the **Name** field, enter a name for the report server project. For example, you could name it **PMCompassCustomReport**.

A report server project contains the following:

- A data source (information about a connection to a data source for your report).
 - Any custom reports that you create with the data source.
6. In the **Location** field, enter the path on your workstation where you want to store the report server project.
 7. In the **Solution Name** field, enter a name for the solution in which this report server project will be contained. Solutions can contain multiple projects.
 8. Click **OK**.
 9. Click **View » Solution Explorer**.

In the **Solution Explorer** pane, you should now see the solution that you just created.

Step 2: Create the Shared Data Source

Follow this procedure to create a shared data source using the PM Compass data source.

To create the shared data source:

1. In Visual Studio Report Designer, click **View » Solution Explorer**.

2. In the **Solution Explorer** pane, below your project, right-click **Shared Data Sources**, and click **Add New Data Source**.
3. On the General tab of the Shared Data Source dialog box, in the **Name** field, enter **DefaultDataSource**, which is the name of the PM Compass data source.

Note: All of the Deltek report templates look at the data source called DefaultDataSource. If you name it something else, you will get an error when you select the Data tab of the Design window. If you get the error, click **OK**, and then modify the dataset to use your connection instead. You must do this for each dataset.

Also, when you rename an existing data source, if you previously used the data source for a report, the report will be broken and you will need to edit the report query to reference the new data source name.

4. In the **Type** field, click the down arrow and select **Microsoft SQL Server**.
5. Click the **Edit** button beside the **Connection string** text box to open the Connection Properties dialog box where you can create the connection string to your PM Compass database.
 - a. Select the server on which your PM Compass database resides.

Note: Deltek recommends that you use Windows authentication to log on to the server. This prevents users from accessing information via Report Designer that they should not access. If you use SQL authentication and save the password, the password is saved as plain text and can be seen with Notepad.

- b. Enter the PM Compass database name to which you need to connect.
 - c. Click **OK**.
6. On the Credentials tab of the Shared Data Source dialog box, enter the credential information for the data source, and click **OK**.

In the **Solution Explorer** pane, you should now see **DefaultDataSource.rds** in the Shared Data Sources folder within the solution.

7. On the Microsoft Visual Studio toolbar, click **File » Save All**.

Save your solution often to prevent losing modifications if Report Designer terminates.

Step 3: Select a PM Compass Template and Create a Custom Report

Follow this procedure to create a custom report using a PM Compass template.

To select a PM Compass template and start to create a custom report:

1. In Visual Studio Report Designer, click **View » Solution Explorer**.
2. In the **Solution Explorer** pane, right-click the **Reports** folder, and click **Add » New Item**.
In the Add New dialog box, the PM Compass report templates display.
3. Click a report template to open it and use it to create a custom PM Compass report.

Note: Specific instructions on how to create and design PM Compass custom reports is beyond the scope of this guide. For detailed information on how to design a PM Compass report with Report Designer, contact Deltek Customer Success.

4. After you create a custom report and it is ready for others to use, you must save the report .rdl file to your PM Compass application server so that it can be loaded into PM Compass.

Note: Deltek does not support the deployment of reports to the SSRS report server directly from within the Report Designer software. Instead, you use the PM Compass Report Administration utility to load custom reports.

For more information, see [Load Custom Report into PM Compass](#) and [Using Report Templates](#) in this guide.

Create a Custom Report from a PM Compass Standard Report

If the content of a standard report is similar or close to what you need, you may want to start with a copy of a standard report .rdl file and then modify it in Report Designer to suit your needs.

Note: You need SQL Server Data Tools - Microsoft Reporting Services Projects for Visual Studio for this task. Since the PM Compass reports are complex reports with many custom properties, you cannot use Report Builder to create a custom report from a PM Compass standard report.

To step through an example of adding a field to a report, see [“Hands-On Example: Create a Custom Initial Work Authorization Report that Includes the Control Account Manager Field”](#) in this guide.

Before working through these steps, Deltek strongly recommends that you read [“Report Architecture and Structure”](#) in this guide to understand more about .rdl files, folder structures, reports on the PM Compass server, and subreports.

High-Level Overview of the Steps

The following are the steps needed for creating a custom report based on a PM Compass standard report. Each step is described in detail in the next sections.

- **Step 1:** Create the report .rdl file.
- **Step 2:** Save the subreport .rdl files (if applicable).
- **Step 3:** Edit the report XML code.
- **Step 4:** Create a project in Visual Studio.
- **Step 5:** Add the .rdl file to the project.
- **Step 6:** Add fields and labels and edit properties.
- **Step 7:** Change the report name that displays on the printed report.
- **Step 8:** Change the report name that displays in PM Compass.
- **Step 9:** Verify **DefaultDataSource**.

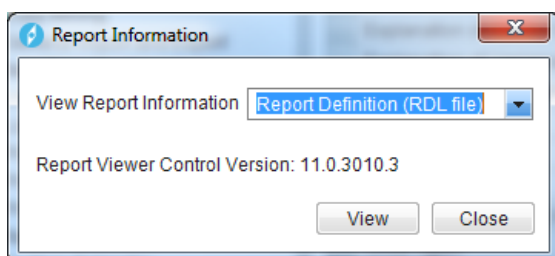
- **Step 10:** Add the new field to the report dataset query.
- **Step 11:** Assign the field to the text box.
- **Step 12:** Save the project.
- **Step 13:** Copy the report to the Web/Application server.
- **Step 14:** Import the report into PM Compass.
- **Step 15:** Grant users access to the report using Access Control in PM Compass reporting.
- **Step 16:** (Optional) Link the report to the workflow type (if applicable).
- **Step 17:** Preview/run the report.

Step 1: Create the Report .rdl File

Follow this procedure to create the report .rdl file and save it to a folder on your local machine.

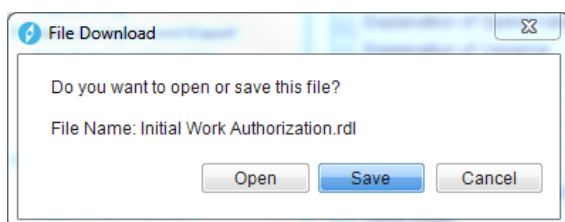
To create the rdl file:

1. In PM Compass, on the Navigation menu, click **Reports » <Report Category>**.
2. On the Reports tab, select the report.
3. Delete any selection in the Selection column.
4. On the report form toolbar, click  **Preview**.
5. On the report preview screen toolbar, click .
6. In the Report Information dialog box, in the **View Report Information** field, select **Report Definition (RDL file)** and click **View**.



The **Report Definition (RDL File)** option provides you with the exact .rdl file that is used to load the report instance as it is rendered on the report server. When you preview this .rdl file within Report Designer, it looks exactly like the one in the PM Compass Reporting preview window.

7. In the File Download dialog box, click **Save** then use the Save As dialog box to save the .rdl file to a folder on your local machine.



Note: Make sure that the **File name** field includes the name AND the .rdl extension. For example, **Custom IWA.rdl**.

When you save the .rdl file, give it the name that you want it to have within the BI project. Do not give it the same file name as the PM Compass standard report that you used to create it.

Step 2: Save the Subreport .rdl Files

If the report has subreports, save the subreport .rdl files from the PM Compass Web Server to the same folder on your local machine. You need to do this so that the subreports are imported back into PM Compass with the custom report that you create.

Save the Initial Work Authorization subreport .rdl files from the PM Compass Web Server to the same folder on your local machine. You need to do this so that the subreports are imported back into PM Compass with the custom report that you create.

To save the subreport.rdl files:

1. In Notepad, open the .rdl file that you saved in *Step 1: Create the Report .rdl File* and search for the **<ReportName>** tag.
2. For each occurrence of this tag, note the name of the subreport.
For example, there are two occurrences for the Initial Work Authorization report:
 - **<ReportName>Work Authorization Document Cost</ReportName>**
 - **<ReportName>Work Authorization Document Approvals</ReportName>**
3. Close Notepad.
4. Copy the subreport .rdl files (for example, **Work Authorization Document Cost.rdl** and **Work Authorization Document Approvals.rdl**) from the Reports Standard » <Report Category folder> on the PM Compass Web server to the same folder where you saved the .rdl file in *Step 1: Create the Report .rdl File*.

The default location on the PM Compass server is <C:\Program Files\Deltek\PMCompass\Reports\Standard\<report category folder>>).

Step 3: Edit the Report XML Code

The XML section of a standard PM Compass report's .rdl file contains custom properties for reports that are used to:

- Load the custom report using the PM Compass Report Administration utility.
- Control PM Compass report options.

When you start with a standard PM Compass report to create a custom report, you must modify some of the XML code in the report's .rdl file to remove and replace items that are no longer appropriate for your custom report. If you do not make these modifications, your custom report may not function properly. You must make these modifications before you save a custom report to the application server and load it into PM Compass.

- **WHERE clause:** The WHERE clause reflects the path of the report and the filename and allows the report to filter those workflows whose workflow type is assigned to this report.

- **UseColumnSelection:** This property determines whether the Column tab displays in the Report Options dialog box in PM Compass Reports.
- **OptionForm:** This property controls the display of the report Options dialog box in PM Compass Reports for the custom report.
- **GroupingType:** This property controls whether or not the Sorting/Grouping tab displays in the Report Options dialog box in PM Compass Reports.
- **'group' Prefix Column Alias:** The report .rdl file may contain predefined column aliases that contain the 'group' prefix. They should be renamed because PM Compass treats them as reserved keywords.

Note: Not all reports include the Report Options dialog box and the Sorting/Grouping tab. The report that you are customizing may not include either of these in which case, you will not need to follow the OptionForm and GroupingType steps.

For additional custom property options and information, see ["Appendix A: Custom Report Properties"](#) in this guide.

In Notepad, open the .rdl file that you saved in *Step 1: Create the Report .rdl File* and follow the steps below to edit the relevant information. After you are done, save and close Notepad.

WHERE clause

Edit the report WHERE clause so that it reflects the correct path of the report and the filename and allows the report to filter those workflows whose workflow type is assigned to this report.

1. Search for **Where** and locate the **WHERE CAM_ITEMType.IsSystem** clause. For example:

```
WHERE CAM_ITEMType.IsSystem = 'N' AND CAM_ItemType.ReportPath =
N'/Standard/Item/Work Authorization Document'
```

2. Change the WHERE clause to:

```
WHERE CAM_ITEMType.IsSystem = 'N' AND CAM_ItemType.ReportPath =
N'/Custom/Item/My IWA Report'
```

Where **Item** is the category folder and **My IWA Report** is the new file name of the custom report.

UseColumnSelection

The UseColumnSelection custom property determines whether the Column tab displays in the Report Options dialog box in PM Compass Reports. This tab allows you to select the columns for a report before you generate it. For custom report that you create from a standard PM Compass report, change the **UseColumnSelection** from **Y(es)** to **N(o)**.

Example:

The original XML code in the Workflow List report, where the value is set to Yes:

```
<CustomProperty>
  <Name>UseColumnSelection</Name>
  <Value>Y</Value>
</CustomProperty>
```

Modify the original XML code as follows:

```
<CustomProperty>
```

```
<Name>UseColumnSelection</Name>
<Value>N</Value>
</CustomProperty>
```

OptionForm

The OptionForm custom property controls the display of the Report Options dialog box in PM Compass Reports for the custom report. If you want the Report Options dialog box to display, you must replace the standard report's OptionForm value with the following PM Compass default report value:

```
<Value>Deltek.PMCompass.Report.Client.MakoReportDialog</Value>
```

For example, the original XML code in the standard Workflow List report is as follows:

```
<CustomProperty>
  <Name>OptionForm</Name>
  <Value>Deltek.PMCompass.ReportingProject.Client.dlgRepOpt_ItemList</Value>
</CustomProperty>
```

Modified the XML code as follows:

```
<CustomProperty>
  <Name>OptionForm</Name>
  <Value>Deltek.PMCompass.Report.Client.MakoReportDialog</Value>
</CustomProperty>
```

GroupingType

The GroupingType custom property controls whether or not the Sorting/Grouping tab displays on the report Options dialog box in PM Compass Reports. For a custom report that you create from a standard PM Compass report, you must delete this property.

Delete the following from the original XML code (this example uses the Workflow List report):

```
<CustomProperty>
  <Name>GroupingType</Name>
  <Value>Item</Value>
</CustomProperty>
```

'group' Prefix Column Alias

Search for the report query and replace all column aliases with 'group' prefix. For example:

```
WHERE SELECT NVL( NVL( AssignedUser.First_Name || N' ' ||
AssignedUser.Last_Name, AssignedUser.Usr_id), '') As group1, NVL(
CAM_CFGItemCategory.Description, '') As group2 FROM CAM_ItemData
```

Change to any column alias such as

```
WHERE SELECT NVL( NVL( AssignedUser.First_Name || N' ' ||
AssignedUser.Last_Name, AssignedUser.Usr_id), '') As userName, NVL(
CAM_CFGItemCategory.Description, '') As desc FROM CAM_ItemData
```

Be sure to update the column names that references in the rdl file to the original column alias as well and not just in the SQL query. For example:

```
<Field Name="group1">
    <DataField>group1</DataField>
</Field>
<Field Name="group2">
    <DataField>group2</DataField>
</Field>
```

Modify to

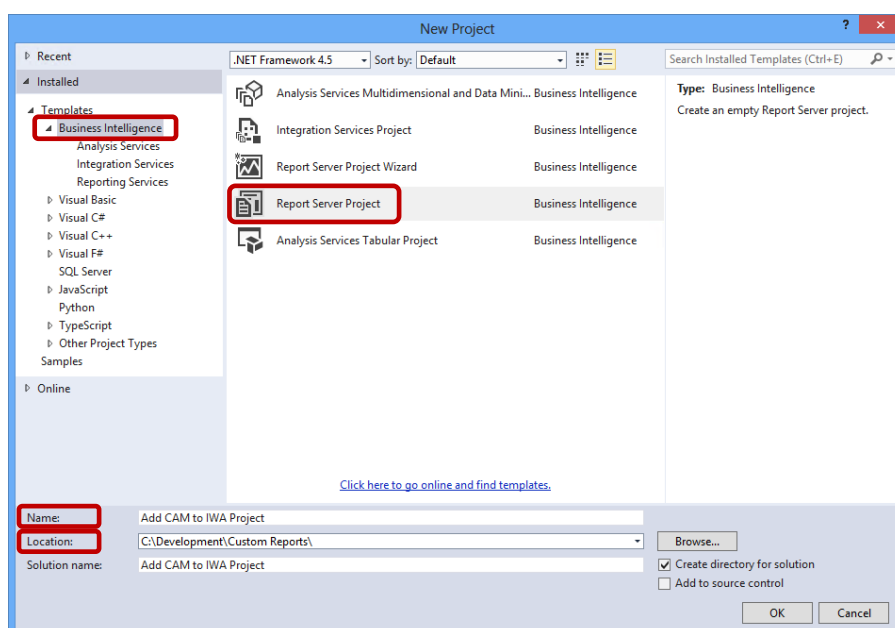
```
<Field Name="userName">
    <DataField>userName</DataField>
</Field>
<Field Name="desc">
    <DataField>desc</DataField>
</Field>
```

Step 4: Create a Project in Visual Studio

Follow this procedure to create a new project in Visual Studio.

To create a project in Visual Studio:

1. In Visual Studio Report Designer, click **File » New » Project**.
2. In the New Project dialog box:
 - a. In the left pane, select **Templates » Business Intelligence**.
 - b. In the center pane, select **Report Server Project**.
 - c. In the **Name** field, enter a name for the Report Designer project.
 - d. In the **Location** field, select the location where you want the project to reside.
 - e. Click **OK**.

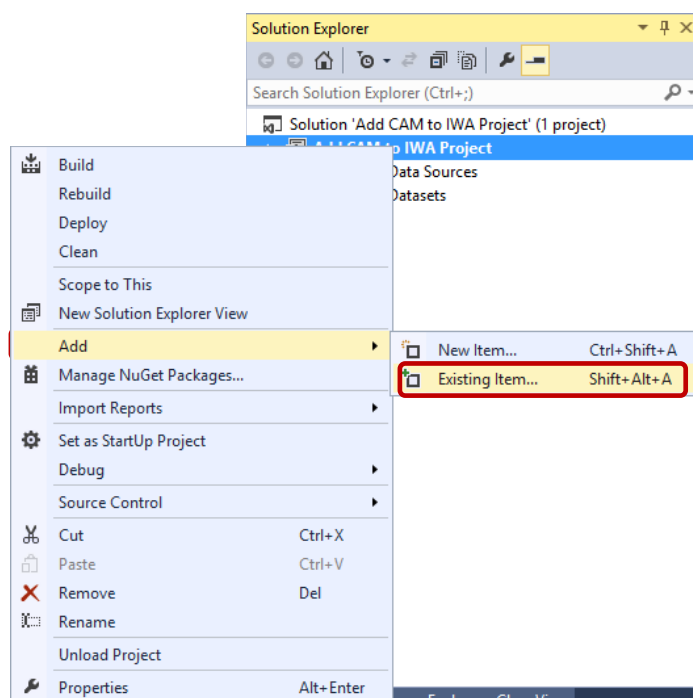


Step 5: Add the .rdl File to the Project

Follow this procedure to add the .rdl file to the project you created.

To add the .rdl file to the project:

1. In the Solution Explorer pane (on the right side of the Visual Studio window), right-click the new project you created and click **Add » Existing Item**.

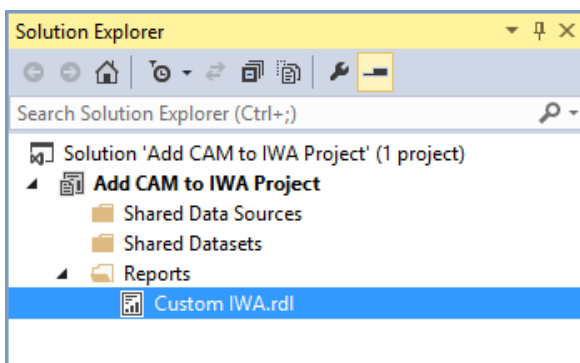


- In the Open dialog box, select the .rdl file that you saved in *Step 1: Create the Report .rdl File* and click **Add**.

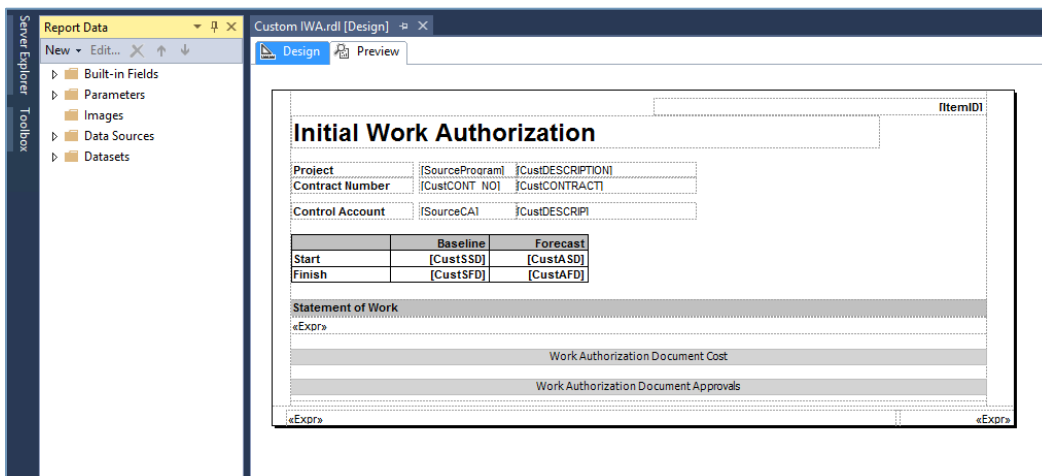
A Reports folder that includes the custom .rdl file is added to the Solution Explorer pane.

Note: If your .rdl file does not display, confirm that you saved it with the .rdl file extension in *Step 1: Create the Report .rdl File*.

- In the Solution Explorer pane, expand the Reports folder and double-click the .rdl file to open it.



Your display should look similar to the following:

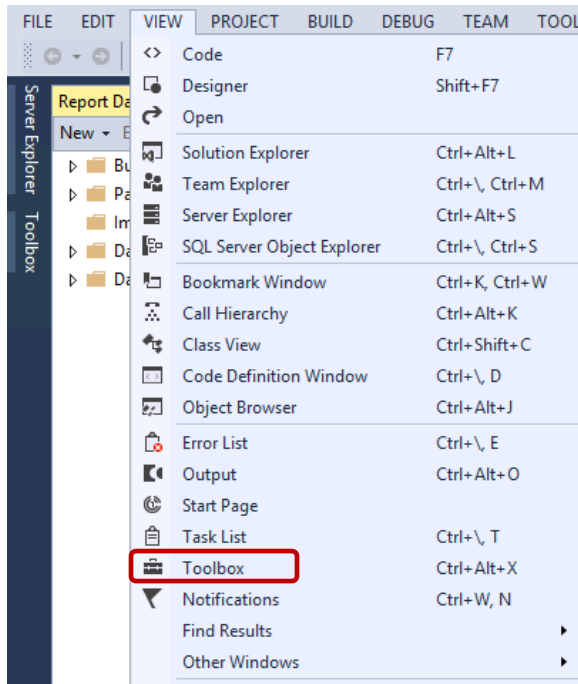


Step 6: Add Fields and Labels and Edit Properties

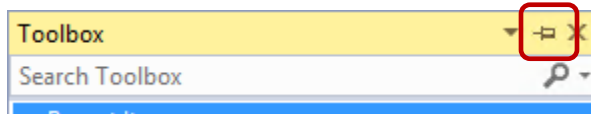
Open the .rdl file and add the fields and labels that you need to the form; edit properties as needed.

To add fields and labels and edit properties:

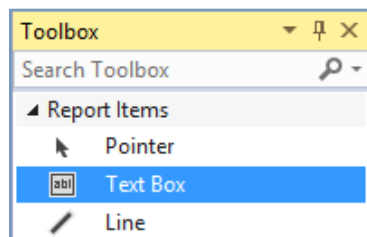
1. Click **View » Toolbox** to display the Toolbox pane.



2. (Optional) Click the Toolbox pin to keep the Toolbox menu on the screen.



3. Drag and drop text boxes (one at a time) from the Toolbox pane to the form and place them wherever you want the field to display. For every field that you add, you need one text box for the field label and one that will contain the field value.



Initial Work Authorization

Project [SourceProgram] [CustDESCRIPTION]

Contract Number [CustCONT NO] [CustCONTRACT]

Control Account [SourceCA] [CustDESCRIP]

	Baseline	Forecast
Start	[CustSSD]	[CustASD]
Finish	[CustSFD]	[CustAFD]

Statement of Work

«Expr»

- Click on each text box and use the Properties pane on the right side of the window (beneath the Solution Explorer pane) to make any needed changes to the font, position (height and width) and so on.
- Click inside the label text box and type the field label name. For example, **Control Account Manager**.

Initial Work Authorization

Project [SourceProgram] [CustDESCRIPTION]

Contract Number [CustCONT NO] [CustCONTRACT]

Control Account [SourceCA] [CustDESCRIP] Control Account Manager

	Baseline	Forecast
Start	[CustSSD]	[CustASD]
Finish	[CustSFD]	[CustAFD]

Statement of Work

«Expr»

Step 7: Change the Report Name that Displays on the Printed Report

Highlight the report name and edit it to reflect the name of your custom report. This is the name that displays when you print the report.

Note: This step changes what you see on the printed report. It does not change what displays in PM Compass Reports » <report category folder>. You change the Report » <report category folder> display name in the next step.

My Custom IWA

ItemID1

Project

[SourceProgram]

[CustDESCRIPTION]

Control Account Manager

Contract Number

[CustCONT NO]

[CustCONTRACT]

Control Account

[SourceCA]

[CustDESCRIP]

	Baseline	Forecast
Start	[CustSSD]	[CustASD]
Finish	[CustSFD]	[CustAFD]

Statement of Work

«Expr»

Work Authorization Document Cost

Work Authorization Document Approvals

«Expr»

«Expr»

Step 8: Change the Report Name that Displays in PM Compass

Edit the **ReportType** and **ReportNameDefault** values. This changes what you see in PM Compass » Reports.

To change the report name that displays in PM Compass:

1. Click anywhere outside of the report so that the Properties pane displays the report properties.
2. In the **Other » CustomProperties** row, click .

Properties

Report

Other

AutoRefresh

0

ConsumeContainerWhitesp

True

CustomProperties

InitialPageName

3. In the Custom Properties dialog box, in the **ReportType** row, leave a space after the existing value and add **CustomItem**.

The screenshot shows the 'Custom Properties' dialog box with the 'General' tab selected. The 'Change custom properties' section contains a table with the following properties:

Name	Value
ReportType	Work Authorization Document CustomItem
ResourceFileName	Work Authorization Document
ReportVersion	2.2.1700.375
LookupType	Item
GroupingType	
AutoGroupQuery	N
ReportBO	Deltek.PMCompass.ReportingItem.Server.WorkAu
HelpFile	Reports_Items_Initial_Work_Authorization_Overvie
UseColumnSelection	N

The 'ReportType' row is highlighted, and the value 'CustomItem' is being added to the end of the existing value 'Work Authorization Document'.

4. In the Custom Properties dialog box, in the **ReportNameDefault** row, edit the report name to reflect the name of your custom report.

This is the name that displays in PM Compass Reports » <report category folder>. If you do not change it, the standard and custom reports will display with the same name and you won't be able to tell which one is the custom report.

The screenshot shows the 'Custom Properties' dialog box with the 'General' tab selected. The 'Change custom properties' section contains a table with the following properties:

Name	Value
HelpFile	Reports_Items_Initial_Work_Authorization_Overvie
UseColumnSelection	N
UseAutoGrouping	Y
AllowUserDefinedFields	N
AllowCalcFields	N
Modules	
ReportNameDefault	My Custom IWA
AllowSubReportSearch	Y

The 'ReportNameDefault' row is highlighted, and the value 'My Custom IWA' is entered in the value field.

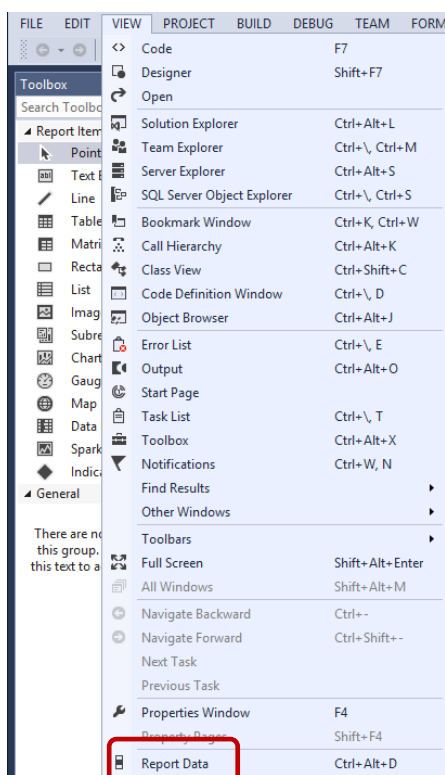
5. Click **OK**.

Step 9: Verify DefaultDataSource

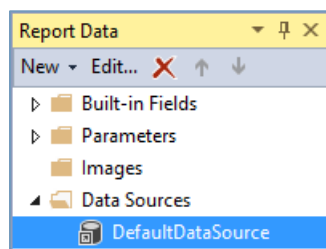
Verify that the shared **DefaultDataSource** is set for the query.

To verify **DefaultDataSource**:

1. Click on the report to select it.
2. Click **View » Report Data**.



3. In the Report Data pane, in the **Data Sources** folder, double-click **DefaultDataSource**.



Note: If you do not see the **DefaultDataSource**, see [“Create the Shared Data Source”](#) for steps to create it.

4. In the Data Source Properties dialog box, click **Edit** next to **Use shared data source reference**.
5. In the Connection Properties dialog box, click **Test Connection**.

If a message shows that the data source was not found, Report Designer cannot connect to a valid data source for the selected dataset. You must fix the data source to point to the shared data source. Use the fields in the Connection Properties dialog box to edit the default data source settings and click **Text Connection** to confirm that the connection is correct.

To fix the data source to point to the shared data source in your project, complete the following steps:

- a. After you get the data source error message, on the Data tab, click  next to the dataset name to open the Dataset dialog box.
- b. In the Data source field, select the data source used in your BI project. This usually has **(shared)** as part of the name.
- c. Click **OK**.

The data source should now be correct, and you can work on the report design.

Note: If the above steps do not resolve your issue, you can remove the data source and add a new one. For steps to create a new data source, see [Create a Shared Data Source](#).

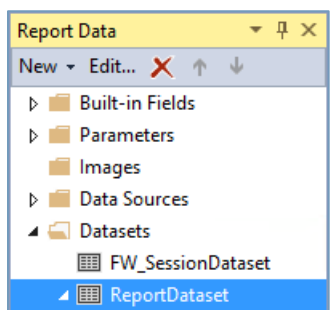
6. Close the Connection Properties and Data Source Properties dialog boxes.

Step 10: Add the New Field(s) to the Report Dataset Query

Use the Dataset Properties dialog box to add new fields to the report query.

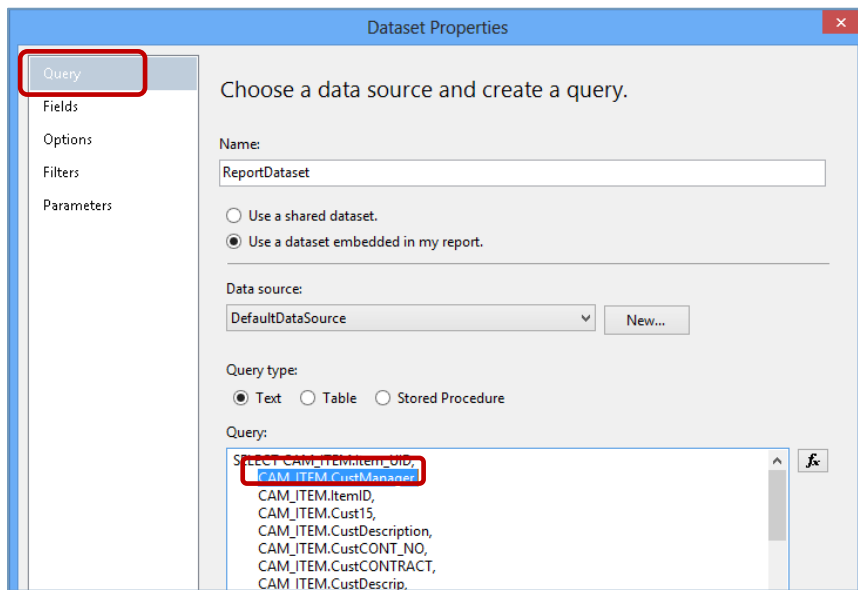
To add new fields to the report dataset query:

1. In the Report Data pane, in the **Datasets** folder, double-click **ReportDataset**.

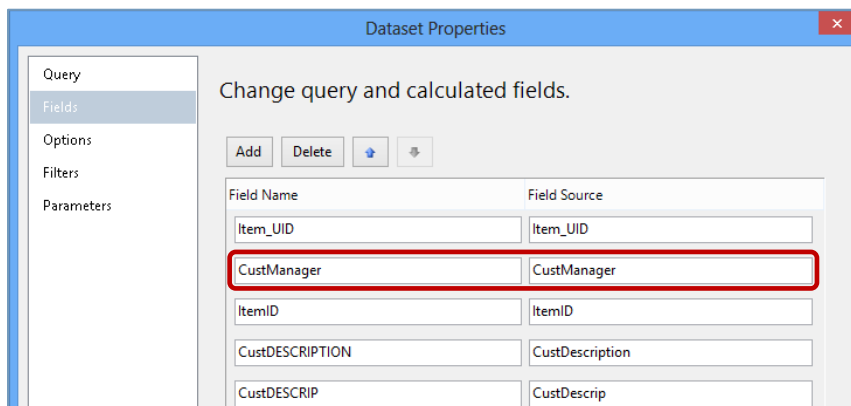


2. In the Dataset Properties dialog box, select **Query**.
3. In the **Query** box:
 - a. After the first line, for example, **CAM_ITEM.Item_UID**, click **ENTER** to add a new line.
 - b. In the new line, enter the field name, for example, **CAM_Item.CustManager**, (including the comma).

The first part of the field name (for example, **CAM_Item**) is the name of the view. If the field you are adding to the report is on a workflow form, then your field name will start with **CAM_Item**. You can see the last part of the field (for example, **CustManager**) in the PM Compass Form Designer by selecting the field and looking at the Properties.



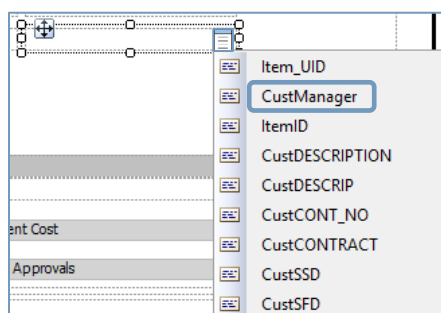
4. If you are adding more than one field, repeat step 3 for each additional field.
5. Click **Refresh Fields**.
6. Click **Fields** to view the Fields pane. The new field is listed as the second field.



7. Click **OK**.

Step 11: Assign the Field to the Text Box

Click the text box that is going to contain the value and click the small icon on the right side of the text box to display a field list and select the field from the list.



Step 12: Save the project

To save the project, click **File » Save All**.

Step 13: Copy the Report to the Web/Application Server

Copy the custom report file and all subreports to the PM Compass **Reports » Custom » <report category>** folder on the Web/Application server.

To copy the report to the web or application server:

1. Navigate to the location where you saved the custom report in *Step 1: Create the Report .rdl File*.
2. Copy the custom report file and the subreports (if applicable) to the PM Compass **Reports » Custom » <report category>** folder on the Web/Application server. The default location on the PM Compass server is <C:\Program Files\Deltek\PMCompass\Reports\Custom\<report category folder>>. You may need to create the folder if it does not already exist.

Attention: For more information, see [Load Custom Reports into PM Compass](#) in this guide.

Step 14: Import the Report into PM Compass

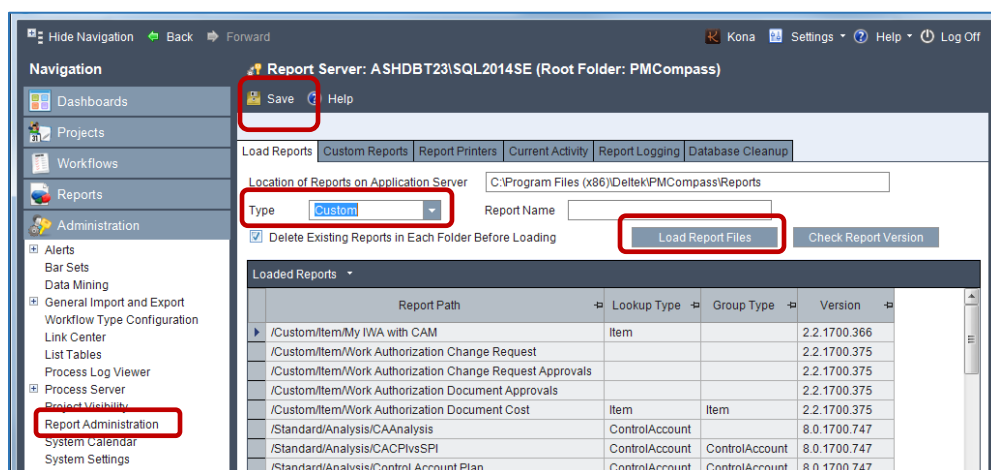
There are two different ways to load report .rdl (report definition language) files.

- **Load Reports Tab:** Use this tab if your standard and custom report .rdl files are all in the default folder on the Application Server.
 - The standard reports are always in the default folders on the Application Server (PMCompass\Reports\Standard).
 - The custom reports should all have been uploaded to the Custom folder on the Application Server (PMCompass\Reports\Custom) per the [Step 13: Copy the Report to the Web/Application Server](#) topic.

Custom Reports Tab: Use this tab if your report .rdl files are located elsewhere, for example, on your local machine or a network share. When uploading or removing a report, changes will not take effect until you click the **Save** button on the Custom Reports tab toolbar. After you upload a report, you must refresh the Report Administration view so that the report displays. The report will be displayed on both the Custom Reports and Load Reports tabs. If you want to update the report and you do not know where the original .rdl file is located, you can download the .rdl file from this tab, edit it, and re-upload it.

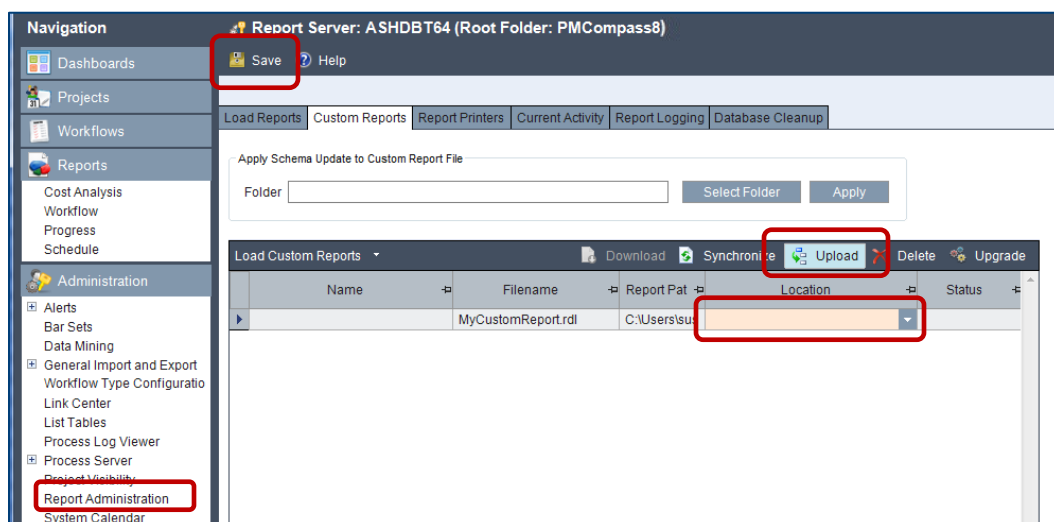
Load Reports Using the Load Reports Tab

1. In PM Compass, navigate to **Administration » Report Administration**.
2. On the Load Reports tab:
 - a. In the **Type** field, select **Custom**.
 - b. Click **Load Report Files**.
3. Click **Save**.



Load Reports Using the Custom Reports Tab

1. In PM Compass, navigate to **Administration » Report Administration**.
2. On the Custom Reports tab:
 - a. Click **Upload**.
 - b. Navigate to and select the custom report you want to load.
 - c. In the Location column, select the report category (Navigation » Reports » <category>) where you want the custom report to display in PM Compass. To display the report in the:
 - Cost Analysis report list, select **Analysis**.
 - Workflow report list, select **Item**.
 - Progress report list, select **Progress**.
 - Schedule report list, select **Schedule**.
3. Click **Save**.



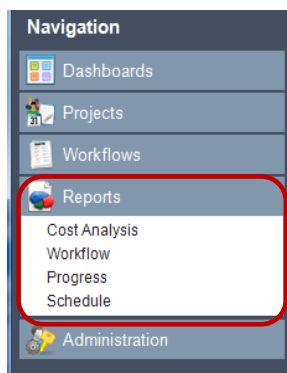
Note: The Load Reports tab displays all standard and custom reports that have been loaded. To see the new custom report on the Load Reports tab grid, you need to refresh the view by clicking **Administration » Report Administration**.

Step 15: Grant users access to the report using Access Control in PM Compass reporting

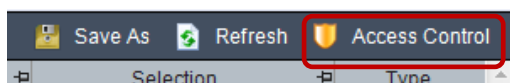
After the report is imported into PM Compass, the only users who can see the report are members of the SYSADMIN group. For other users to see the report, you need to grant them access.

To grant user access:

1. In PM Compass, navigate to **Reports**.



2. Select the report category.
3. Select the custom report.
4. Click **Access Control** on the grid toolbar.



5. Click **Insert Users** or **Insert Groups**.
6. In the Search dialog box, search for and select the users or groups to which you want to grant access.
7. Click **Select**.
8. In the Access Control dialog box, click **Save**.

Step 16: (Optional) Link the Report to the Workflow Type

If you are creating a custom workflow report, you can link the custom report to the workflow type so that it runs when the user clicks Print on the workflow form.

To link the report to the workflow type:

1. In PM Compass, navigate to **Administration » Workflow Type Configuration**.
2. Display the workflow type to which you want to link the custom report.
3. On the General tab, in the **Specify Report to Run** field, select the custom report.

The screenshot shows the 'Workflow Type Configuration' window in PM Compass. The left sidebar has 'Administration' expanded, and 'Workflow Type Configuration' is selected. The main window is titled 'My IWA Item Type' and has several tabs: 'General', 'Workflow Steps', 'Tabs on Form', 'Fields on Form', 'Cost Details on Form', 'Change Details on Form', and 'Access Control'. The 'General' tab is active. It contains sections for 'Identify Workflow' (with 'Category' set to 'Work Authorization' and 'Workflow ID Prefix' set to 'WA'), 'Workflow Type' (set to 'Initial Work Authorization'), and 'Title for System-Generated Workflows'. Below these are 'Workflow Options' with checkboxes for 'Show Workflow on Menu', 'Make Workflow Inactive', and 'Allow Workflow to Be Deleted if Workflow is Not In-Progress'. There are also fields for 'Default Due Date' (set to 20) and 'Relationship to Other Workflows'. At the bottom, the 'Specify Report to Run' field is highlighted with a red box, and 'My Custom IWA' is selected in the dropdown menu. The 'Workflow Source Information Update Method' is set to 'Manual Update'.

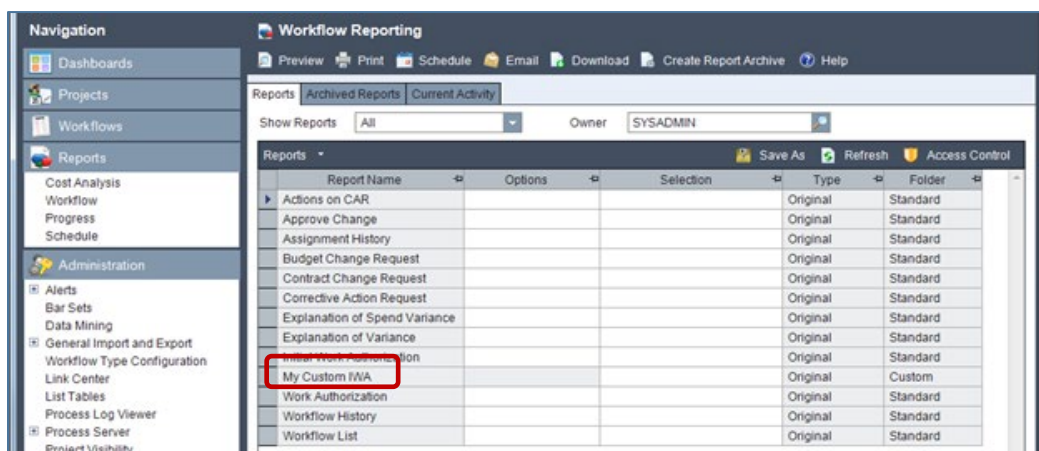
4. Click **Save**.

Step 17: Preview/Run the Report

From PM Compass Reports, click **Preview** to run the custom report.

To preview or run the report:

1. Navigate to **Reports » <report category>**.



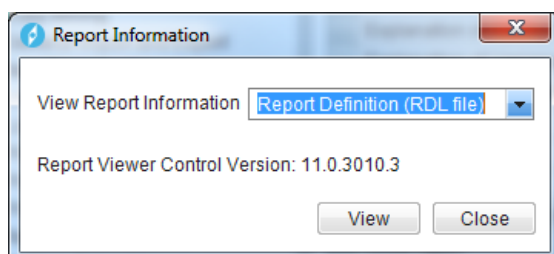
2. Click in your custom report Selection cell and click  to display the Workflow Search dialog box.
3. Select the workflow(s) that you want in the report and click **Apply**.
4. Click **Preview** to run the report.

Hands-On Example: Create a Custom Initial Work Authorization Report that Includes the Control Account Manager Field

These steps would typically be used after you have added the **Control Account Manager (CAM)** field to a workflow form and you now want to create a custom Initial Work Authorization report that includes this field.

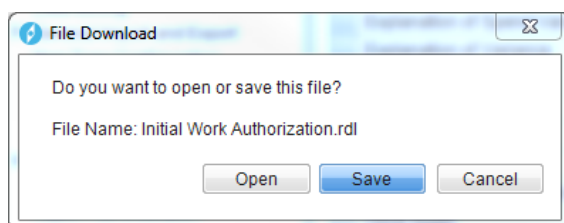
To create a custom Initial Work Authorization report that includes the Control Account Manager field:

1. Create the Initial Work Authorization report .rdl file and save it to a folder on your local machine.
 - a. In PM Compass, on the Navigation menu, click **Reports » Workflow**.
 - b. In Workflow Reporting, on the Reports tab, select the **Initial Work Authorization** report.
 - c. Delete any selection in the Initial Work Authorization Selection column.
 - d. On the report form toolbar, click .
 - e. On the report preview screen toolbar, click .
 - f. In the Report Information dialog box, in the **View Report Information** field, select **Report Definition (RDL file)** and click **View**.



The **Report Definition (RDL File)** option provides you with the exact .rdl file that is used to load the report instance as it is rendered on the report server. When you preview this .rdl file within Report Designer, it looks exactly like the one in the PM Compass Reporting preview window.

- g. In the File Download dialog box, click **Save** then use the Save As dialog box to save the .rdl file to a folder on your local machine.



Note: Make sure that the **File name** field includes the name AND the .rdl extension.

For example, **Custom IWA.rdl**. When you save the .rdl file, give it the name that you want it to have within the BI project. Do not give it the same file name as the PM Compass standard report that you used to create it.

2. Save the Initial Work Authorization subreport .rdl files from the PM Compass Web Server to the same folder on your local machine. You need to do this so that the subreports are imported back into PM Compass with the custom report that you create.
 - f. In Notepad, open the .rdl file that you saved in step 1 and search for the **<ReportName>** tag.
 - g. For each occurrence of this tag, note the name of the subreport.
There are two occurrences for the Initial Work Authorization report:
 - **<ReportName>Work Authorization Document Cost</ReportName>**
 - **<ReportName>Work Authorization Document Approvals</ReportName>**
 - h. Close Notepad.
 - i. Copy the subreport .rdl files (**Work Authorization Document Cost.rdl** and **Work Authorization Document Approvals.rdl**) from the Reports Standard » Item folder on the PM Compass Web server to the same folder where you saved the .rdl file in step 1.

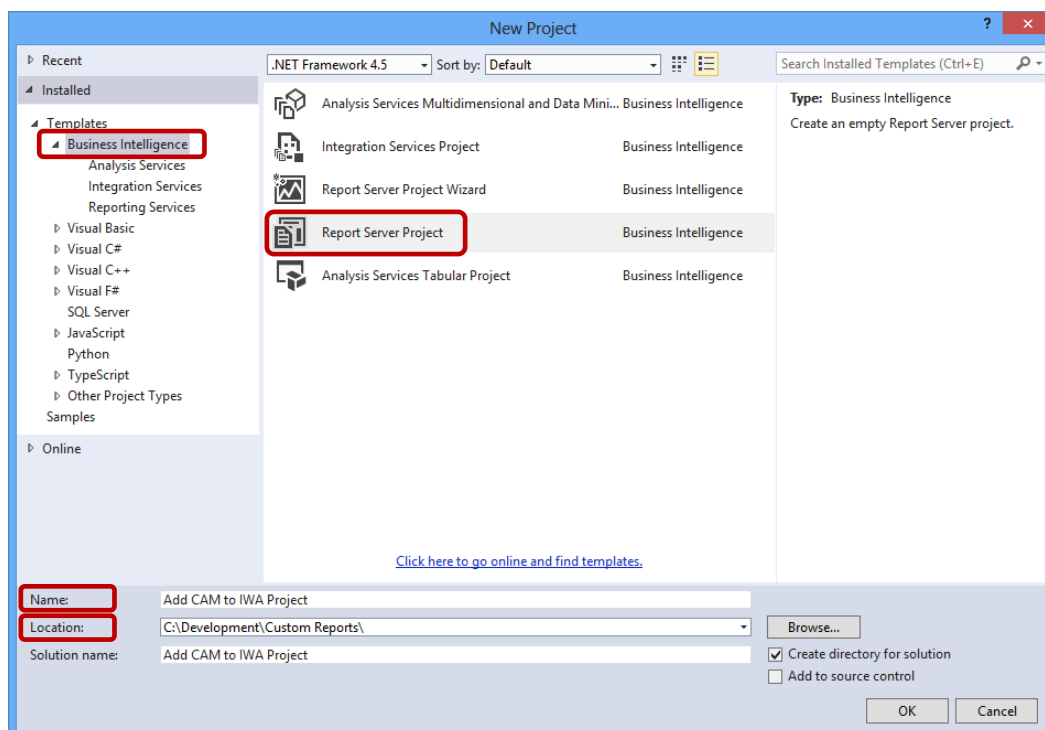
The default location on the PM Compass server is <C:\Program Files\Delttek\PMCompass\Reports\Standard\Item>.

3. Edit the report WHERE clause so that it reflects the correct path of the report and the filename and allows the report to filter those items whose item type is assigned to this report.
 - a. In Notepad, open the .rdl file that you saved in step 1.
 - b. Search for **Where** and locate the following clause:

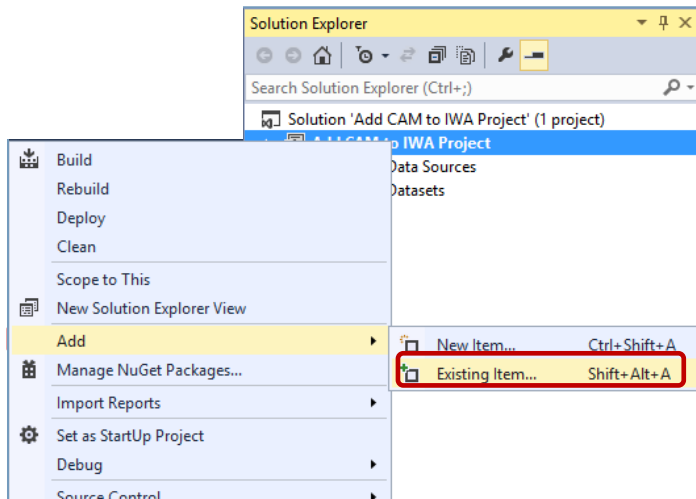

```
WHERE CAM_ITEMType.IsSystem = 'N' AND CAM_ItemType.ReportPath =
N'/Standard/Item/Work Authorization Document'
```
 - c. Change the WHERE clause to:


```
WHERE CAM_ITEMType.IsSystem = 'N' AND CAM_ItemType.ReportPath =
N'/Custom/Item/My IWA Report' /***EXTEND WHERE CLAUSE***/
```

Where **My IWA Report** is the new file name of the custom report.
 - d. Save and close Notepad.
4. In Visual Studio Report Designer, click **File » New » Project**.
5. In the New Project dialog box:
 - a. In the left pane, select **Templates » Business Intelligence**.
 - b. In the center pane, select **Report Server Project**.
 - c. In the **Name** field, enter a name for the Report Designer project.
 - d. In the **Location** field, select the location where you want the project to reside.
 - e. Click **OK**.



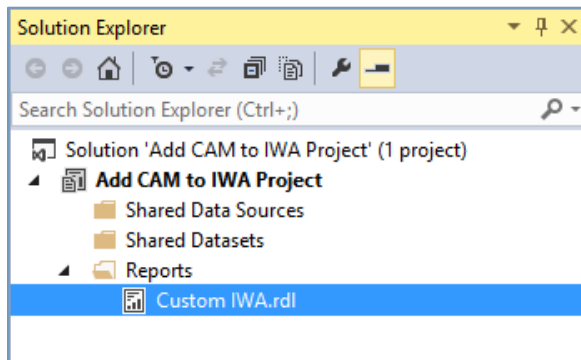
6. In the Solution Explorer pane (on the right side of the Visual Studio window), right-click on the new project that you created and click **Add » Existing Item**.



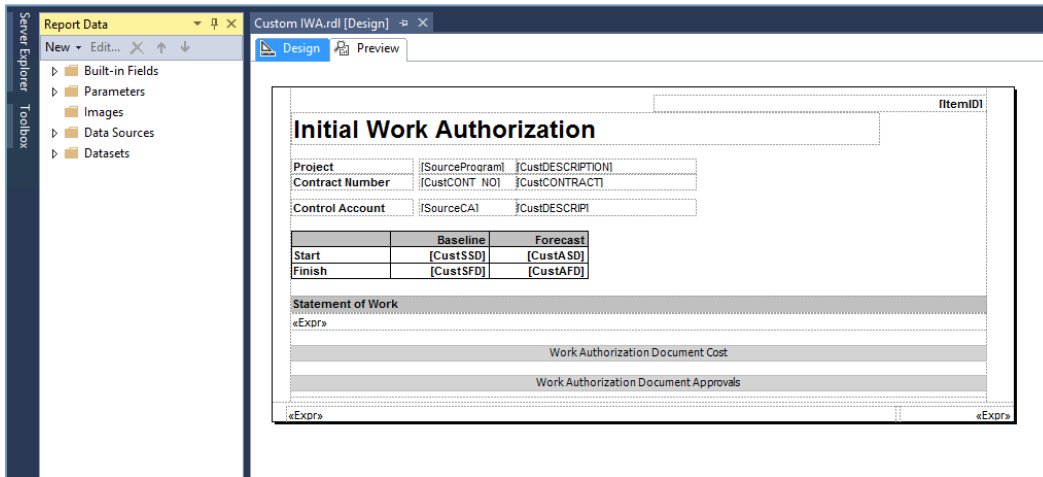
7. In the Open dialog box, select the .rdl file that you saved in step 1 and click **Add**.
A Reports folder that includes the custom .rdl file is added to the Solution Explorer pane.

Note: If your .rdl file does not display, confirm that you saved it with the .rdl file extension in step 1.

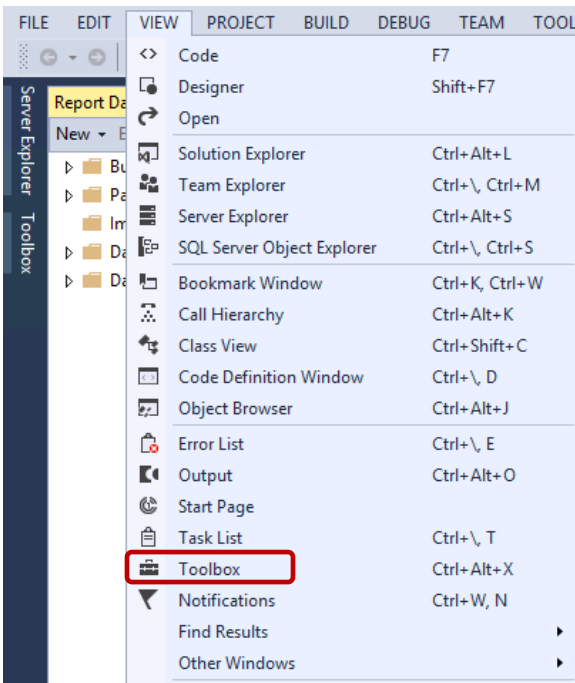
8. In the Solution Explorer pane, expand the Reports folder and double-click the .rdl file to open it.



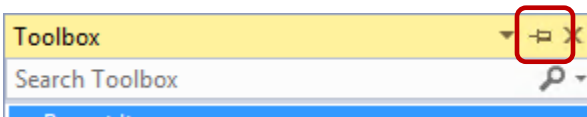
Your display should look similar to the following:



9. Click **View » Toolbox** to display the Toolbox pane.



10. (Optional) Click the Toolbox pin to keep the Toolbox menu on the screen.



11. Drag and drop two text boxes (one at a time) from the Toolbox pane to the Initial Work Authorization form and place them wherever you want the field to display. One will be the field label and one will contain the field value.

The screenshot shows the 'Toolbox' pane on the left with 'Text Box' selected. The main report area displays the 'Initial Work Authorization' form. The form contains several fields with data sources in brackets, such as [SourceProgram], [CustDESCRIPTION], [CustCONT NO], [CustCONTRACT], [SourceCA], and [CustDESCRIP]. There are also tables for 'Baseline' and 'Forecast' data. Two empty text boxes are highlighted with a red rectangle, indicating where the user should place the field labels and values.

12. Click on the text box that will be the field label and use the Properties pane on the right side of the window (beneath the Solution Explorer pane) to make the following changes:

- **Font**

- **Font Size = 8pt**
- **Font Weight = Bold**

The screenshot shows the 'Font' properties pane. The settings are: Color: Black, Font: Arial, 8pt, Default, Bold, Def., FontFamily: Arial, FontSize: 8pt, FontStyle: Default, FontWeight: Bold, and TextDecoration: Default.

- **Position**

- **Height = 0.16in**
- **Width = Any width that you want**

The screenshot shows the 'Position' properties pane. The settings are: Location: 4.16664in, 0.71336in, Size: 1.51042in, 0.16in, Width: 1.51042in, and Height: 0.16in.

13. Click on the text box that will contain the value and use the Properties pane to make the following changes:

- **Font**

- **Font Size = 8pt**
- **Font Weight = Normal**

- **Position**
 - **Height = 0.16in**
 - **Width = Any width that you want**

14. Click inside the label text box and type **Control Account Manager**.

The screenshot shows a report titled "Initial Work Authorization". It contains several fields and a table. A red box highlights the "Control Account Manager" label. The fields are:

Project	[SourceProgram]	[CustDESCRIPTION]
Contract Number	[CustCONT NO]	[CustCONTRACT]
Control Account	[SourceCA]	[CustDESCRIP]

Below the fields is a table with two columns: "Baseline" and "Forecast".

	Baseline	Forecast
Start	[CustSSD]	[CustASD]
Finish	[CustSFD]	[CustAFD]

Below the table is a section titled "Statement of Work" with a sub-label "«Expr»".

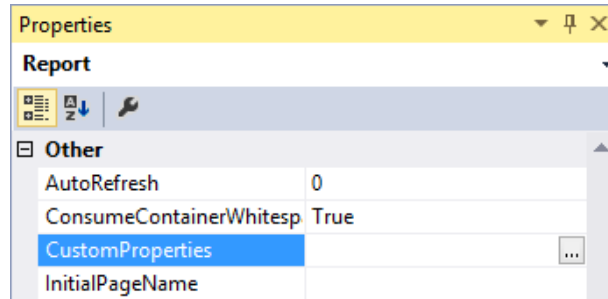
15. Highlight the report name (**Initial Work Authorization**) and edit it to reflect the name of your custom report. This is the name that displays when you print the report.

Note: This changes what you see on the printed report. It does not change what displays in PM Compass Reports » Workflows. You change the Report » Workflows display name in the next step.

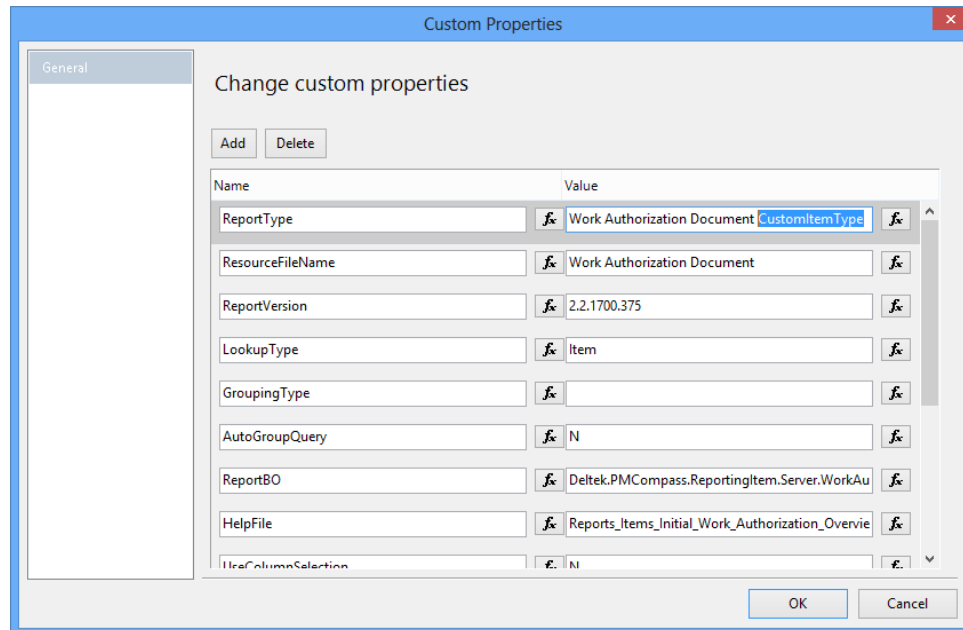
The screenshot shows the same report structure as before, but the title has been changed to "My Custom IWA". A red box highlights the new title. The fields and table are the same as in the previous screenshot.

16. Edit the **ReportType** and **ReportNameDefault** values.

- a. Click anywhere outside of the report so that the Properties pane displays the report properties.
- b. In the **Other » CustomProperties** row, click .



- c. In the Custom Properties dialog box, in the **ReportType** row, leave a space after the existing value, **Work Authorization Document**, and add **CustomItemTypes**.



- d. In the Custom Properties dialog box, in the **ReportNameDefault** row, edit the report name to reflect the name of your custom report.

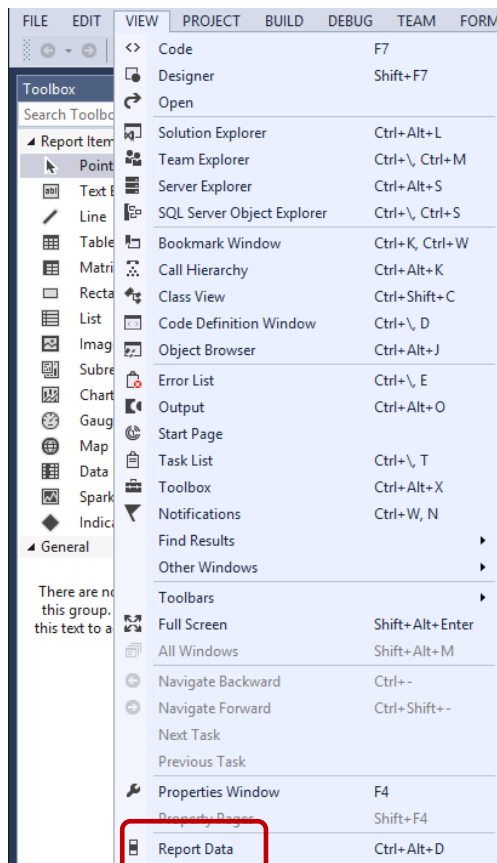
This is the name that displays in **PM Compass Reports » Workflows**. If you do not change it, two reports named **Initial Work Authorization** will be displayed and you will not be able to tell which one is the custom report.

Name	Value
HelpFile	Reports_Items_Initial_Work_Authorization_Overvie
UseColumnSelection	N
UseAutoGrouping	Y
AllowUserDefinedFields	N
AllowCalcFields	N
Modules	
ReportNameDefault	My Custom IWA
AllowSubReportSearch	Y

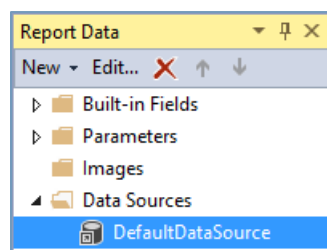
- e. Click **OK**.

17. Verify that the data source is set for the query.

- a. Click on the report to select it.
- b. Click **View » Report Data**.



- c. In the Report Data pane, in the **Data Sources** folder, double-click **DefaultDataSource**.



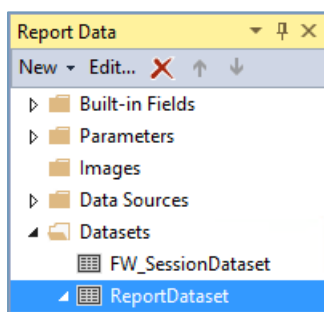
Note: If you do not see the **DefaultDataSource**, see [“Create the Shared Data Source”](#) for steps to create it.

- d. In the Data Source Properties dialog box, click **Edit** next to **Use shared data source reference**.
- e. In the Connection Properties dialog box, click **Test Connection**.

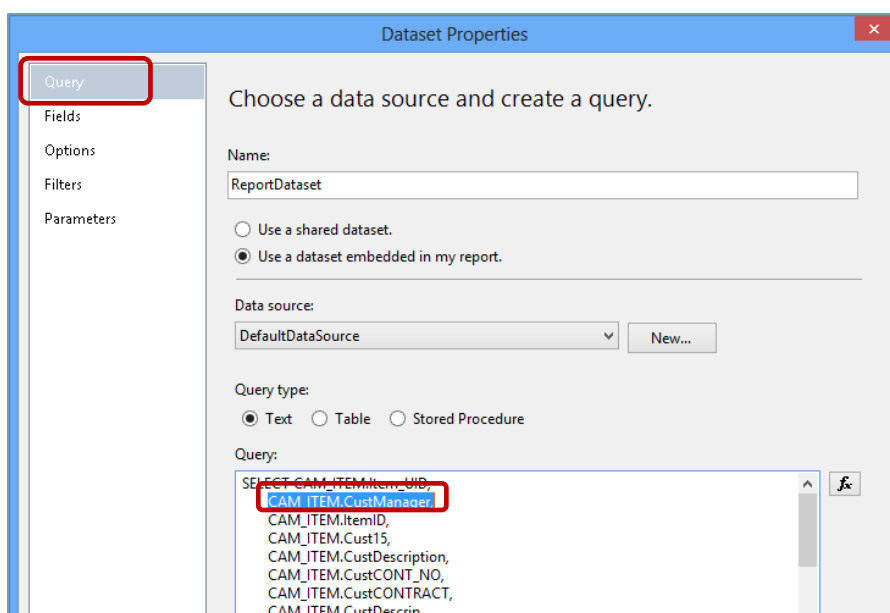
If a message shows that the data source was not found, Report Designer cannot connect to a valid data source for the selected dataset. You must fix the data source to point to the shared data source. Use the fields in the Connection Properties dialog box to edit the default data source settings and click **Text Connection** to confirm that the connection is correct.

Note: For steps to create a new data source, see [Create a Shared Data Source](#).

- f. Close the Connection Properties and Data Source Properties dialog boxes.
18. In the Report Data pane, in the **Datasets** folder, double-click **ReportDataset**.

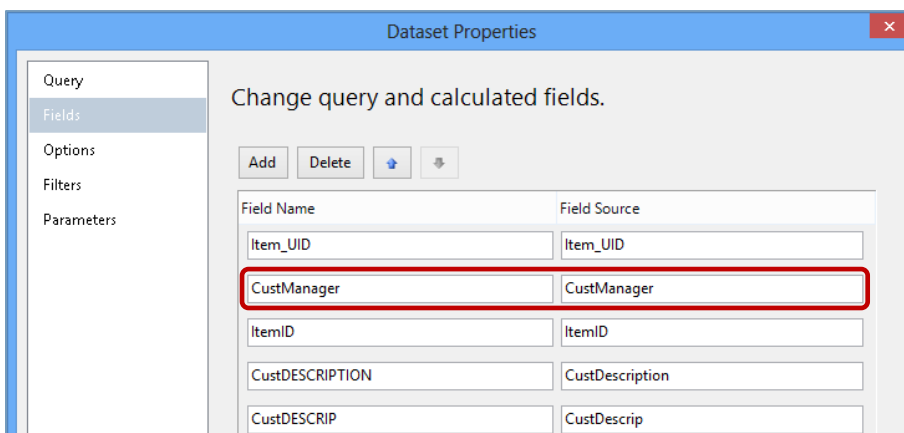


19. In the Dataset Properties dialog box, select **Query**.
20. In the **Query** box:
 - a. After **CAM_ITEM.Item_UID**, click **ENTER** to add a new line.
 - b. In the new line, enter **CAM_Item.CustManager**, (including the comma).

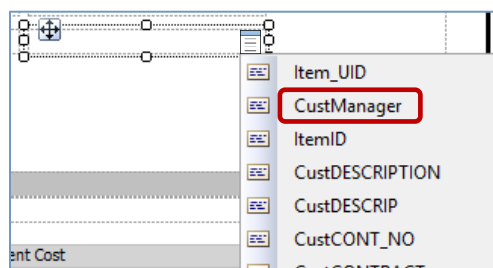


21. Click **Refresh Fields**.

22. Click **Fields** to view the Fields pane. The new **CustManager** field is listed as the second field.



23. Click **OK**.
24. Click on the text box that is going to contain the value and click the small icon on the right side of the text box to display a field list.
 - a. Select **CustManager** from the list.



25. Click **File » Save All** to save the project.
26. Copy the custom report file and the subreports to the PM Compass **Reports » Custom » Item** folder on the Web/Application server.
 - a. Navigate to the location where you saved the custom report (in step 1).
 - b. Copy the custom report file and the subreports to the PM Compass Reports » Custom » Item folder on the server. The default location on the PM Compass server is <C:\Program Files\Deltek\PMCompass\Reports\Custom\Item>. You may need to create the Item folder if it does not already exist.

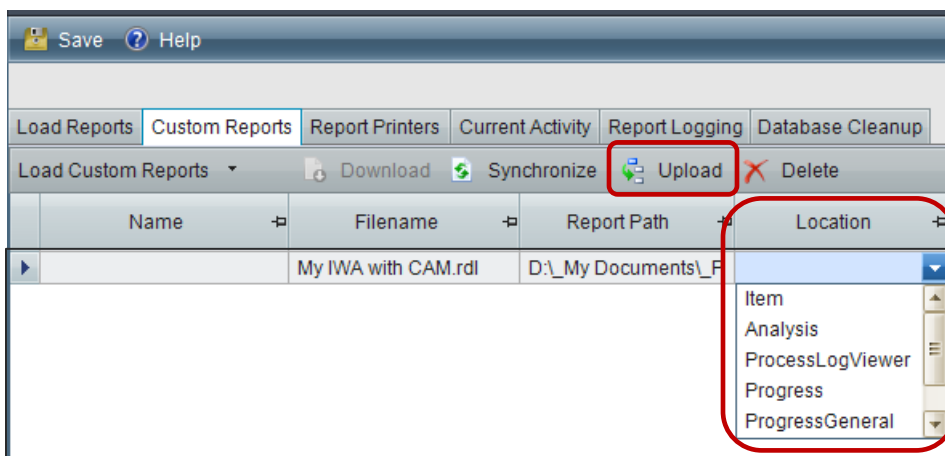
Attention: For more information, see [“Load Custom Reports into PM Compass”](#) in this guide.

27. Import the custom report file and all subreports back into PM Compass. You can use the Custom Report tab, or you can use the Load Reports tab if you have access to the PM Compass Application Server.
 - a. In PM Compass, navigate to **Administration » Report Administration**.
 - b. Upload the reports using the Custom Reports tab or the Load Reports tab.
 - **Upload reports using the Custom Reports tab:**

- i. On the Custom Reports tab grid toolbar, click **Upload**.
- ii. Select the custom reports and subreport files you want to upload.
- iii. In the Location column, select the location.

Note: Subreports must have the same location as the main report.

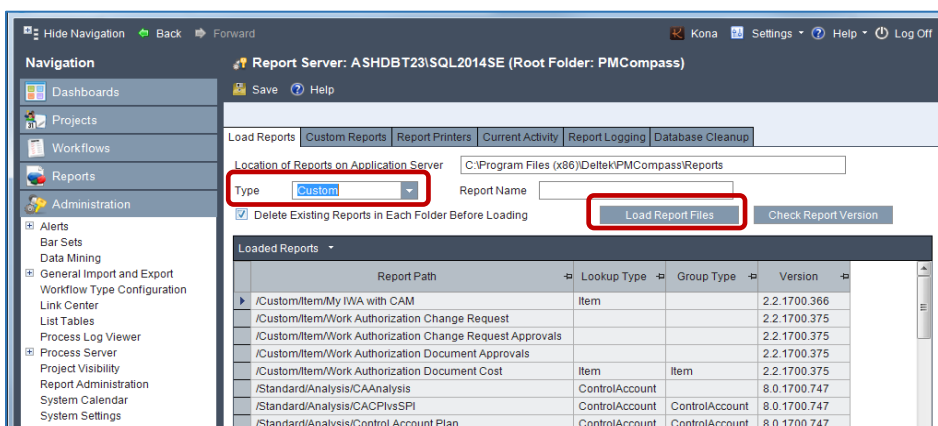
- iv. Click **Save**.



■ **Upload reports using the Load Reports tab:**

If you have access to the PM Compass Application Server, you can upload the reports using the Load Reports tab.

- i. On the Load Reports tab, select **Custom** in the **Type** field.
- ii. Click **Load Report Files**.



28. Link the custom report to the workflow type.
 - a. In PM Compass, navigate to **Administration » Workflow Type Configuration**.
 - b. Display the workflow type to which you want to link the custom report.
 - c. On the General tab, in the **Specify Report to Run** field, select the custom report.

The screenshot shows the 'My IWA Item Type' configuration window. The 'General' tab is selected. The 'Specify Report to Run' field is highlighted with a red box, showing 'My Custom IWA' selected from a dropdown menu. Other fields include 'Category' (Work Authorization), 'Workflow ID Prefix' (WA), and 'Workflow Type' (Initial Work Authorization).

- d. Click **Save**.
29. Navigate to **Reports » Workflow**.

The screenshot shows the 'Workflow Reporting' window. The 'Reports' tab is selected. The 'Initial Work Authorization' report is highlighted with a red box in the 'Report Name' column. The table lists various reports with columns for Report Name, Options, Selection, Type, and Folder.

Report Name	Options	Selection	Type	Folder
Actions on CAR			Original	Standard
Approve Change			Original	Standard
Assignment History			Original	Standard
Budget Change Request			Original	Standard
Contract Change Request			Original	Standard
Corrective Action Request			Original	Standard
Explanation of Spend Variance			Original	Standard
Explanation of Variance			Original	Standard
Initial Work Authorization			Original	Standard
My Custom IWA			Original	Custom
Work Authorization			Original	Standard
Workflow History			Original	Standard
Workflow List			Original	Standard

30. Click in your custom report Selection cell and click  to display the Workflow Search dialog box.
31. Select the workflow(s) that you want in the report and click **Apply**.
32. Click **Preview** to run the report.

Report Builder

Report Builder is a web application that is installed on your SSRS report server. Microsoft defines Report Builder as “a report authoring environment for business users who prefer to work in the Microsoft Office environment. When you design a report, you specify where to get the data, which data to get, and how to display the data. When you run the report, the report processor takes all the information you have specified, retrieves the data, and combines it with the report layout to generate the report.”

The Report Builder downloads to users’ workstations when they open it. Use Report Builder to:

- Create tables, matrix, and chart reports.
- Filter, group, and sort report data.
- Add formulas and parameters to your reports.

Report Builder Limitations

- Deltek does not recommend using Report Builder to create a custom report from a PM Compass standard report. Although a previously run Standard Report may open in Report Builder, if you edit it and try to load it into PM Compass, you may get different results due to the custom properties that the reporting framework processes.
- If you want to create a simple report based on a PM Compass standard report (by saving a standard report as a new report), you must remove all custom attributes since the reporting framework always processes the custom attributes at runtime. If you edit the report and reload it into PM Compass without removing the custom attributes, you may get different results.

Report Builder natively does not handle custom properties well. For example, reporting periods and other custom attributes are standard in all default PM Compass reports and templates. If you need to add custom properties to your report, Deltek recommends using SSDT Report Designer.

Attention: For more information about Report Builder, see <https://technet.microsoft.com/en-us/library/dd220460.aspx>.

Configure Report Builder Access

To allow users to access the SSRS report server to create custom reports, you must grant them the following SSRS permissions (using SSRS Report Manager):

- At the server level, users must be system users.
- At the folder level, users must be granted browser and Report Builder access.

Non-Domain Clients

SSRS requires Windows Integrated Authentication. For non-domain clients (clients that do not run Active Directory or have a Windows domain), you must complete the following tasks:

- Create a local account in the SSRS report server for each user who creates custom reports.
- Grant the necessary reporting services permissions as described above.

To configure Report Builder access:

1. To launch Report Manager on your SSRS report server, launch Reporting Services Configuration Manager.
2. Click **Web Portal URL** to launch Report Manager.
3. On the Reporting Services Home screen, click the gear icon at the top right corner and select **Site Settings**.
4. On the Site Settings screen, click **Security**.
5. Click **+ Add group or user**.
6. In the **Group or user name** field, enter the group or user name.
7. Check **System User** which allows them to use Report Builder.
8. Click **OK**.
9. Click **Home** in the top right corner.
10. Click **Folder Settings**.
11. Click **New Role Assignment**.
12. Check **Browser** and **Report Builder**.
13. Click **OK**.

How to Start Report Builder

You can start Report Builder from your workstation using one of the following:

- Using SSRS Report Manager.
- Using the Start Menu (only available if the stand-alone version is installed).

Note: Deltak only supports SSRS native mode. SharePoint Integrated Mode is not supported with PM Compass.

Attention: For more information about how users can start Report Builder, see [https://technet.microsoft.com/en-us/library/ms159221\(v=sql.120\).aspx](https://technet.microsoft.com/en-us/library/ms159221(v=sql.120).aspx).

Load Custom Reports into PM Compass

You use the Report Administration utility to upload custom reports with .RDL file extensions into PM Compass. In the utility, there are two ways to upload custom reports, depending on where the reports are currently located:

- On the Load Reports tab in Report Administration, you upload custom reports from the PM Compass application server into PM Compass. Using this method, you must place the .RDL files in the folders on the application server that match the corresponding PM Compass Reporting submenus from which you want users to access the reports.
- On the Custom Reports tab in Report Administration, you upload custom reports from any location on a workstation into PM Compass.

When you use either of these upload methods, the custom reports are copied to your PM Compass report server and added to a submenu under the Reporting menu in the PM Compass Navigation pane.

PM Compass Application Server Location for Custom Reports

If you are uploading custom report files into PM Compass from your PM Compass application server, you must place the report .RDL files in the folders on the application server that match the corresponding PM Compass Reporting submenus from which you want users to access the reports. Then you perform the file upload on the Load Reports tab in PM Compass Report Administration.

You must set up folders for the custom reports on your application server under the Custom folder in: **C:\Program Files\Deltek\PMCompass\Reports\Custom**.

Set up the following folders in the Custom folder exactly as they appear in this list:

- Cost Analysis
- Item
- Progress
- Schedule

Note: When you create a custom report and place it into a folder, make sure that the folder structure containing the report and RDL files in your Custom folder mirrors the location where that type of report is located in the Standard Reports folder.

Deltek does not support the deployment of reports into SSRS or the PM Compass report server directly from within the Report Designer software. When a custom report is ready to distribute to other PM Compass users, you copy the report to your PM Compass report server and load the report into SSRS and the PM Compass Report menu with the PM Compass' Report Administration utility.

Example

You create a custom report that has employee data, and you want the report to display from the Item submenu under PM Compass Reports.

You must put the .RDL report file in the following folder before you complete the upload steps on the Load Reports tab in the Report Administration utility:

C:\Program Files (x86)\Deltek\PM Compass\Reports\Custom\Item

When you upload the report to PM Compass using the Report Administration utility, the report is copied to your PM Compass report server and is displayed in PM Compass in **Reports » Item**.

Upload Custom Reports from Your PM Compass Application Server into PM Compass

After you create a PM Compass custom report and save the .rdl file to the correct location on your PM Compass application server, a system administrator uses the PM Compass Report Administration utility to copy the report into SSRS and make it available in PM Compass Reports.

Note: While the Report Administration utility is running, PM Compass users cannot access any reports.

To load custom reports into SSRS and PM Compass:

1. In PM Compass, on the Navigation menu, click **Administration » Report Administration**.

On the Load Reports tab, the **Location of Reports on Application Server** field displays the path to the PM Compass report location: **C:\Program Files\Deltek\PMCompass\Reports**.

Report Path	Lookup Type	Group Type	Version
/Custom/Item/My IWA with CAM	Item		2.2.1700.366

2. In the **Type** field, select **Custom**.
3. In the **Report Name** field, enter the name of the custom report (without the .rdl file extension) that you want to load into PM Compass.

If you leave the **Report Name** field blank, all custom reports are deployed and loaded.

4. If you select the **Delete Existing Reports in Each Folder Before Loading** option, PM Compass deletes all reports of the type that you selected that are currently loaded before loading new ones.

If you do not select this option, PM Compass loads new reports of the selected type, but does not delete reports currently loaded on the report server. However, if a report currently exists, PM Compass replaces it with the new report.

5. Click **Load Report Files**.
6. Click **Yes** on the message box that warns you that loading reports prevents users from running reports for a few minutes.
7. When complete, a message specifies the number of records that were loaded. Click **OK**.

The custom report is now displayed on a submenu of the PM Compass Reports menu. The submenu is determined by the folder to which you saved the custom report on your application server.

Upload Custom Reports from a Workstation into PM Compass

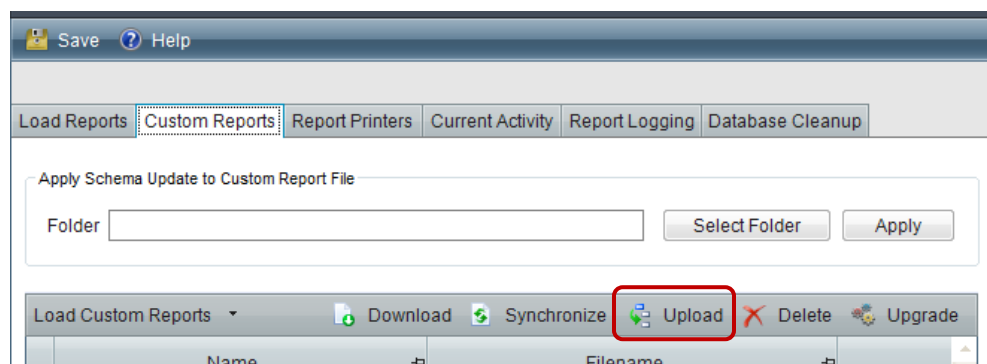
If you have custom reports (.RDL files) saved on a workstation, follow the instructions in this section to upload them into PM Compass. During the upload process, custom reports are copied to your PM Compass report server and PM Compass database. They are also added to a submenu under the Reports menu in the PM Compass Navigation pane.

A copy of the report file on the report server is used when the report is accessed in PM Compass by users.

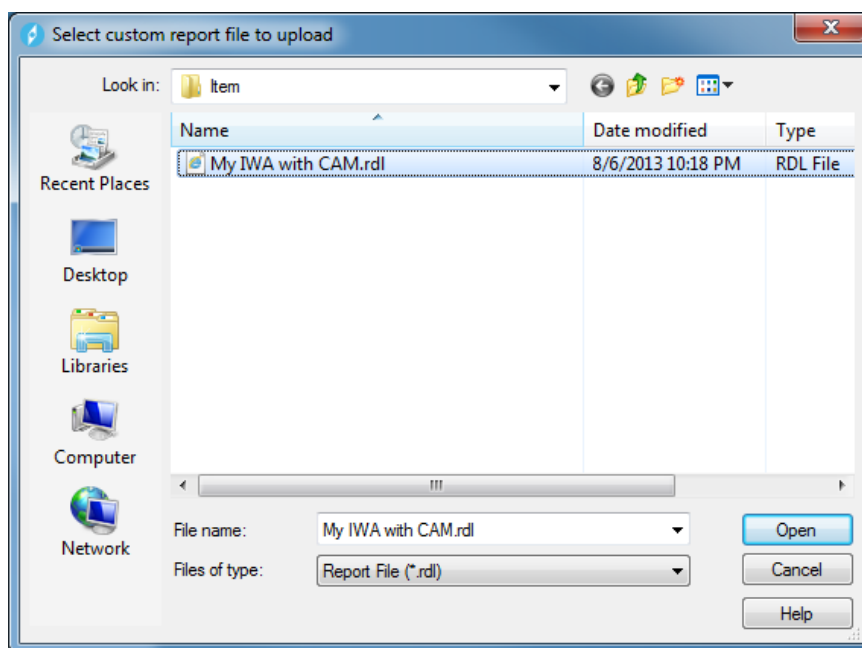
The copy of the report file in the PM Compass database serves as a backup copy that you can download in the event that you need a copy, and you cannot find the original file on your workstation.

To upload a custom report from a workstation into PM Compass:

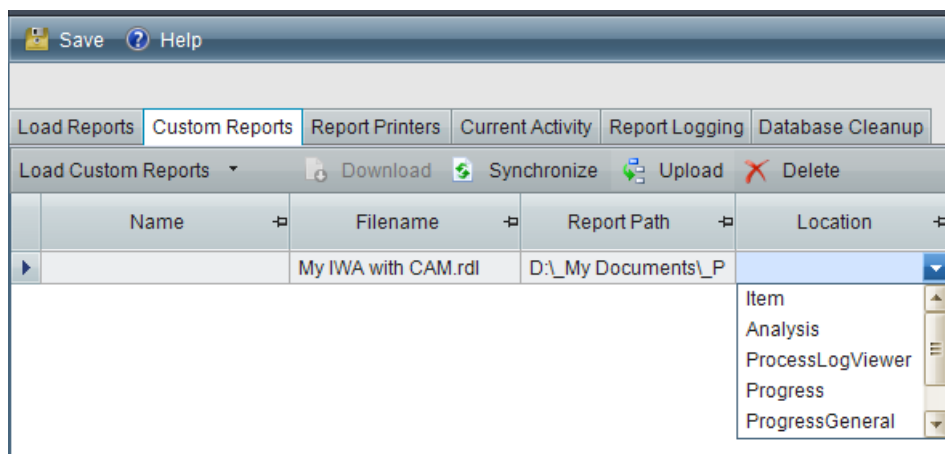
1. From the PM Compass Navigation menu, click **Utilities » Report Administration**.
2. On the Report Administration form, click the Custom Reports tab.
3. On the Load Custom Reports grid toolbar, click  **Upload**.



4. In the Select custom report file to upload dialog box, select an .RDL file to upload and click **Open**.



5. In the Load Custom Reports grid on the Custom Reports tab, click the **Location** field, and from the drop-down list, select the PM Compass Reports submenu from which you want users to select the report.



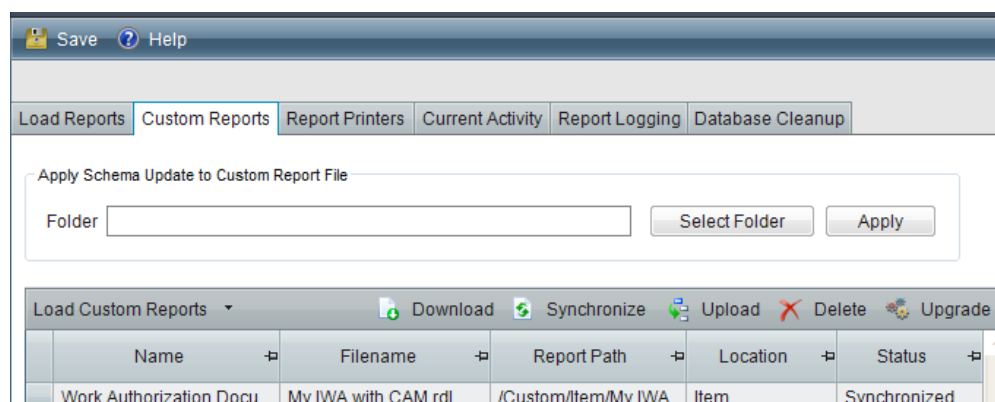
6. In the grid, add more reports to upload as needed by repeating the steps above.
If a custom report has subreports, you must add each subreport individually in the grid.
7. Click **Save**.

The custom reports are uploaded to your report server and PM Compass database when you click **Save**.

You will not see a status bar, and it may take a few minutes to upload.

8. When the reports have finished uploading, a message displays, letting you know how many reports are uploaded. Click **OK**.

In the Load Custom Reports grid, the name of the report now displays in the **Name** field. The **Status** field displays **Synchronized**, meaning that the report was successfully uploaded from the local machine to the report server and the PM Compass database; matching copies exist on the report server and in the PM Compass database.



9. Log out and log back into PM Compass to see the custom reports added to the submenus under the Reporting menu.

The custom reports are also displayed in the **Report Name** drop-down list in **Configuration » General » Custom Report Options** where you can add parameters to them. Parameters are described in the next section.

Status of a Custom Report

The following are the possible statuses that a custom report can have in the **Status** field in the Load Custom Reports grid on the Custom Reports tab:

- **Synchronized:** This status displays after you successfully upload a custom report using the **Upload** option on the Load Custom reports grid toolbar. It signifies that the custom report was uploaded successfully to your report server and the PM Compass database.
- **Missing in Report Server:** This status signifies that the custom report is uploaded to the PM Compass database (as a backup copy), but it no longer exists on the report server. This could happen if you manually deleted the report on the report server or if you migrated to a new report server. Because there is a backup copy saved in the PM Compass database, you can click the **Synchronize** option on the Load Custom Reports grid menu to re-upload a copy of the backup report in the PM Compass database to the report server.

Missing in Database: This status signifies that a custom report is uploaded to the report server, but it does not have a backup copy saved in the PM Compass database. This can occur if you are upgrading to a new PM Compass version, and you have already uploaded custom reports to the report server in earlier PM Compass versions—before the custom report status feature was implemented in the software. In this scenario, to upload a copy of the report to the PM Compass database and change the status of the report to **Synchronized**, you must delete the report from your report server and upload it again using the **Upload** option on the Load Custom reports grid toolbar on the Custom Reports tab.

Upgrade Custom Reports Created with Microsoft SQL Server Reporting Services 2010

Overview

Custom reports that you created with Microsoft SQL Server Reporting Services 2010 have RDL 2010 schema that are no longer supported in PM Compass. You must upgrade these custom reports to change the schema to RDL 2016 before you can use them in PM Compass 8.x and later versions. You must use SSDT 2019 or 2022 Report Designer, SQL Server 2016 Report Builder, or the PM Compass Report Administration utility to upgrade the reports to the supported RDL 2010 schema.

Other PM Compass 8.x framework changes that are applied within the report business objects may affect your custom reports after you upgrade, causing them to not work properly. If a custom report does not work properly after you upgrade, Deltek recommends that you recreate the custom report using PM Compass and SSDT 2019 or 2022 Report Designer or SQL Server 2016 Report Builder.

The upgrade path that you use depends on your situation.

Upgrade Path	Description
Upgrade Custom Reports Using SSDT 2019 or 2022 Report Designer	Use this option for PM Compass custom reports that you created with BIDS 2010 that need to be upgraded to the RDL 2016 schema.
Upgrade Custom Reports Using SQL Server 2016 Report Builder	Use this option for PM Compass custom reports that you created with Report Builder version 3.0. This option allows you to update a report's RDL file directly.
Upgrade Custom Reports Saved in the PM Compass Database Using Report Administrator	Use this option to upgrade custom reports with the RDL 2010 schema that are already saved in your PM Compass database to the RDL 2016 schema that PM Compass 8.x supports.

Upgrade Custom Reports Using SSDT 2019 or 2022 Report Designer

These instructions apply for PM Compass custom reports that you created with BIDS 2010 that need to be upgraded to the RDL 2016 schema. For these upgrade instructions, start by opening or creating a report project (instead of opening the report RDL files).

Custom Reports that Already Have a Report Project

If a custom report already has a reporting project, use the following instructions to upgrade the report.

To upgrade PM Compass custom reports using SQL Server Data Tool Report Designer to be compatible with PM Compass 8.x:

1. Use Report Designer to open an existing PM Compass custom report project.
2. Complete the wizard that starts automatically. It guides you through upgrading the report project.

3. Open a custom report in Report Designer.
4. In the Report Property pane, enter a placeholder value in **InitialPageName** property.
5. Save the report.
6. Remove the placeholder value in the **InitialPageName** property and save the report again.
7. Repeat step 3–6 for each custom report in the report project.
8. Upload the custom reports to PM Compass using the PM Compass Report Administration utility.

Attention: See [Load Custom Reports into PM Compass](#) for steps.

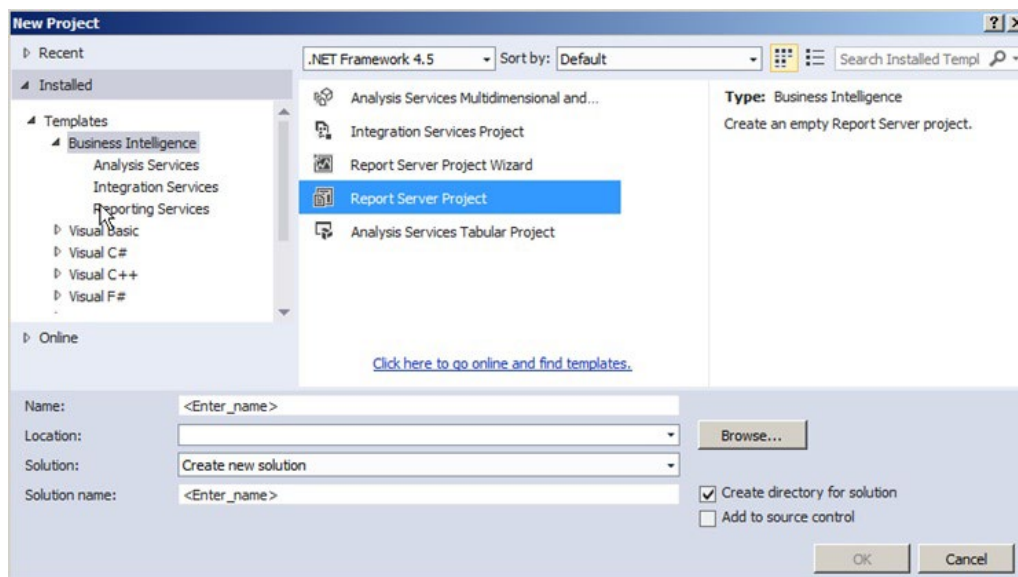
If a report does not run properly, you may need to recreate it with SSDT Report Designer.

Custom Reports that Do Not Have a Reporting Project

If a custom report does not have a reporting project, you create a reporting project before you upgrade the report.

To create a reporting project and upgrade PM Compass custom reports to be compatible with PM Compass 8.x using SQL Server Data Tool Report Designer:

1. Open SQL Server Data Tools for Visual Studio <version>.
2. On the File menu, click **New » Project**.
3. In the Project types pane of the New Project dialog box, select **Business Intelligence Projects**.
4. In the Templates pane, select **Report Server Project**.



5. In the **Name** field, enter a name for the report project.
Enter a name related to the type of reports you will add to this project. For example, for billing reports, you could name the project "Billing."
6. In the **Location** field, enter the location where the reports will be stored.

Deltek recommends that you store reports in *<your PM Compass installation path>\Reports\Custom*.

Example: **C:\Program Files (x86)\Deltek\PM Compass\Reports\Custom**

7. In the New Project dialog box, click **OK**.
8. Add the RDL file for existing custom reports to the report project:
 - a. In the Solution Explorer pane, right-click the Reports folder, and click **Add » Existing Item**.
 - b. In the Add Existing Item dialog box, navigate to an existing RDL file to add it to the report project.
 - c. Modify the **InitialPageName** property of the report and add a placeholder value.
 - d. Save the report file.
When you save it, the schema of the RDL file is changed from RDL 2008 to RDL 2010.
 - e. Remove the placeholder value in **InitialPageName** property and save the report again.
 - f. Repeat these steps to add RDL files for other custom reports to the report project.
9. Open a custom report in Report Designer.
10. Save the report.
11. Repeat step 9 and 10 for each custom report.
12. Upload the reports to PM Compass using the PM Compass Report Administration utility.

Attention: See [Load Custom Reports into PM Compass](#) for steps.

If a report does not run properly, you may need to recreate it with SSDT Report Designer.

Upgrade Custom Reports Using SQL Server 2016 Report Builder

These instructions apply for PM Compass custom reports that you created with Report Builder version 3.0. With these instructions, you can update a report's RDL file directly.

To upgrade PM Compass custom reports to the RDL 2016 schema using SQL Server 2016 Report Builder:

1. Use SQL Server 2016 Report Builder to open a custom report RDL file.
2. Save the report file.
Saving it changes the schema of the RDL file from RDL 2010 to RDL 2016.
3. Upload the report to PM Compass using the PM Compass Report Administration utility.

Attention: See [Load Custom Reports into PM Compass](#) for steps.

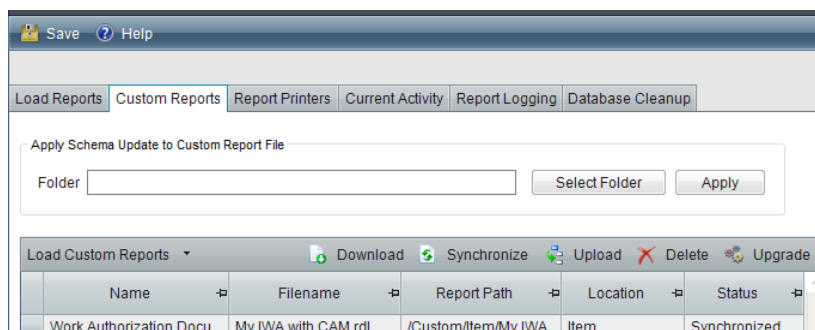
If a report does not run properly, you may need to recreate it with SQL Server 2016 Report Builder.

Upgrade Custom Reports Saved in the PM Compass Database Using Report Administrator

Use these instructions to upgrade custom reports with the RDL 2010 schema that are already saved in your PM Compass database to the RDL 2016 schema that PM Compass 8.x supports.

To upgrade custom reports that are saved in your PM Compass database with the RDL 2010 schema to the RDL 2016 schema:

1. From the PM Compass Navigation menu, click **Administration » Report Administration**.
2. On the Report Administration form, click the Custom Reports tab. The custom reports that are saved in the PM Compass database display in the grid.



3. On the Custom Reports tab, click the **Upgrade** option on the toolbar of the Load Custom Reports grid.
 - The **Upgrade** option only displays if you have a saved custom report in the PM Compass database.
 - If all your existing custom reports already use the latest RDL 2010 schema, you see the following message: "All existing custom reports stored in your database are already using the latest schema."
4. Click **Yes** when the following message displays: "This will upgrade all existing custom reports currently stored in your database to the latest schema. Would you like to continue?" This starts the upgrade.
 - During the upgrade, PM Compass backs up the custom reports that are saved in the PM Compass application server's Report\Backup folder.
 - When the upgrade finishes, the following message displays: "All custom reports have been successfully upgraded to the latest schema."
5. After the upgrade finishes, check the **RDLProcessing.log** log file that is saved in the PM Compass application server's Report\Backup\<database name> folder.

The file contains the status for each processed RDL file and will identify any errors.

Customize Formatted Workflow Reports

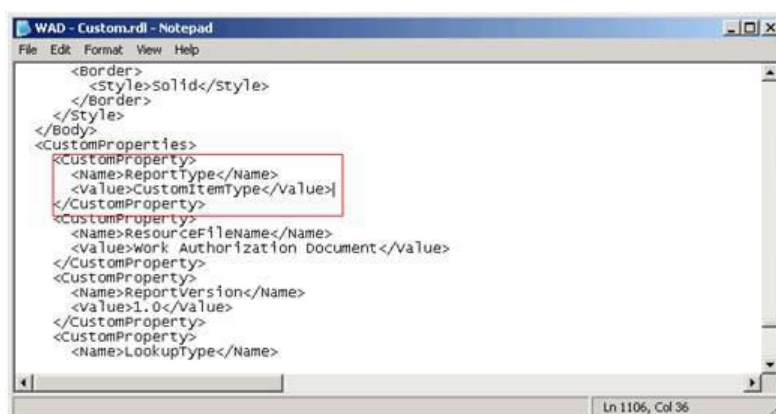
You can customize a formatted workflow report after you upload and assign it to a specific workflow type.

To customize formatted reports:

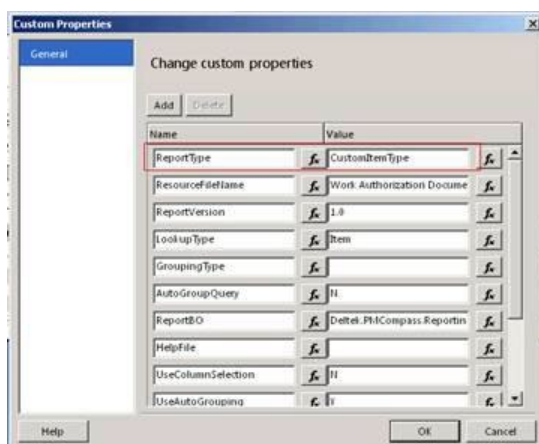
1. Copy the .rdl files into the appropriate Custom folders and subfolders. For example, copy both the **Work Authorization Document Approvals.rdl** and the **Work Authorization Documents Cost.rdl** to the Reports\Custom\Item folder.
2. On the custom report .rdl file, change the **ReportType** custom property to **CustomItemType**. The selection lookup will now only display the workflows with which the workflow type is associated.

You can change the custom property in one of the following ways:

- Using Notepad (recommended option).



- Using Report Builder.



Make the following changes:

The original code for WAD – Custom.rdl is:

```
WHERE CAM ItemType.IsSystem = 'N' AND CAM ItemType.ReportPath =
/*N*/'/Standard/Item/Work Authorization Document'
```

Modify the original code as follows:

```
WHERE CAM_ITEMType.IsSystem = 'N' AND CAM_ItemType.ReportPath =  
/*N*/'/Custom/Item/WAD - Custom'
```

Note: **WAD – Custom** is the new file name of the custom report.

3. Change the **ReportNameDefault** custom property by repeating step 2. This will be displayed on the report grid and in the report drop-down list on Item Type Configuration.

Apply Role Security to Custom Reports

After a custom report is created and loaded into the PM Compass software, a system administrator applies PM Compass role security to allow only certain users to have access to the custom report on the PM Compass Reports menu.

The Access Control feature in Reports is used to secure important reports and share reports with other users. If you are the owner of the report or a member of the SYSADMIN group, you can:

Save a report using a new name, but do not copy the access control list (ACL).

- Share a report with other users by providing them access.
- Delete a report.

If you are not a member of the SYSADMIN group, you can change the Access Control if:

- You have access rights to the **Access Control** button based on your primary role.
- You are the owner of the report.

Save a Report

By default, only the owner can view a saved report. To allow other users to view the report, the owner must provide the needed access. The read-only flag ensures that only you (as the owner) or a member of the SYSADMIN group can change the saved settings.

Selecting a value in the **Options** column or **Selection** column in an existing row in the **Reports** grid saves settings for you (as the logged on user). You can remove these settings in one of two ways:

- Click the **Refresh** button in the grid.

Another user with access copies the report.

To save the settings, copy the report to make it a personal report.

Delete a Report

You can only delete a report if:

- You are the owner of a personal report (no ACL).
- Your primary role indicates that you can delete and have full access to the report by being a member of the SYSADMIN group or being a member or user on a row that is not marked read-only in ACL.

PM Compass filters the list of reports in the **Reports** grid with only those reports to which you have read access, whether by ownership or by inclusion in the ACL.

Access Control

Access Control allows you, either as the owner of an entity or a member of the SYSADMIN group, to define access rights that individual users or groups have to Deltek PM Compass features.

Attention: For more information, see [Security » Access Control](#) in the PM Compass Online Help.

Get Report Information for Failed Reports

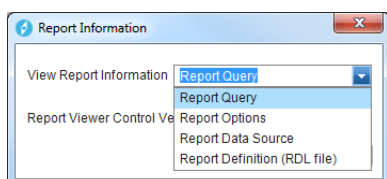
Use the **Get Report Information** icon on a previewed PM Compass standard report to create an .rdl file with which to create a custom report. You can also use this tool to obtain information about custom reports in general or acquire information about a report if the report fails in PM Compass.

If a report fails when you preview it in PM Compass:

1. On the toolbar of the report preview screen, click the  **Get Report Information** icon.

Attention: For steps to get to the report preview screen, see [“Create a Custom Report from a PM Compass Standard Report in Report Designer”](#) in this guide.

2. In the Report Information dialog box, select one of the options that you need to produce the report query, the report options (XML String), and the report .rdl file (and also an XML file), and click **View**.



The available options are as follows:

- **Report Query:** This returns the query that was executed by the report. Because the query is returned in XML format, it can be copied and pasted directly into Microsoft SQL Server Management Studio Query window or onto the Report Designer Data tab where it can be executed. Since the Report Designer Data Tab and Microsoft SQL Server Management Studio do not execute XML SQL directly, you need to make a few edits. It does not matter if you edit the query in your favorite XML editor or save it to a file.

In either case, you will see something that resembles the following when you view the query information:

```
<Query><![CDATA[SET TRANSACTION ISOLATION LEVEL READ UNCOMMITTED ...]]></Query>
```

To run this query within Microsoft SQL Server Management Studio, you must modify the XML to resemble the following:

```
SET TRANSACTION ISOLATION LEVEL READ UNCOMMITTED
```

After you complete this modification, the query will execute without issue.

Report Options: This returns the options selected on the PM Compass report Options dialog box when the report was rendered. The options are returned in XML format. This XML cannot be placed within the RDL Code.

- **Report Data Source:** The report data source information is built using a combination of the connection information (credentials for accessing data) and the data source (the database) used in the report.
- **Report Definition (RDL File):** This provides you with the exact .rdl file that was used to load the report instance as it was rendered on the SSRS report server. When you preview this .rdl file within Report Designer, it looks exactly like the one in the PM Compass Reports preview window.

Troubleshooting Reports

The reporting framework used by PM Compass takes an existing standard or custom report and runs a pre-process on that report to generate a new report on the fly. The system performs this process each time you run a report. This allows PM Compass to manipulate many aspects of the report to perform various functions, such as update the structure of the report, adjust the **Where** clause that interfaces with the Lookup control, apply access controls on the given report for a particular user, and apply standardized formatting for the report, which determines many of the options on the layout page.

Attention: For custom property options and information, see [“Appendix A: Custom Report Properties”](#) in this guide.

Other Users Unable to See the Custom Report

After the report is imported into PM Compass, the only users who can see the report are members of the SYSADMIN group. For other users to see the report, you need to grant them access.

Attention: For steps, see [“Step 15: Grant users access to the report using Access Control in PM Compass reporting”](#) in this guide.

Time Phased Report Does not Display the Correct Numbers

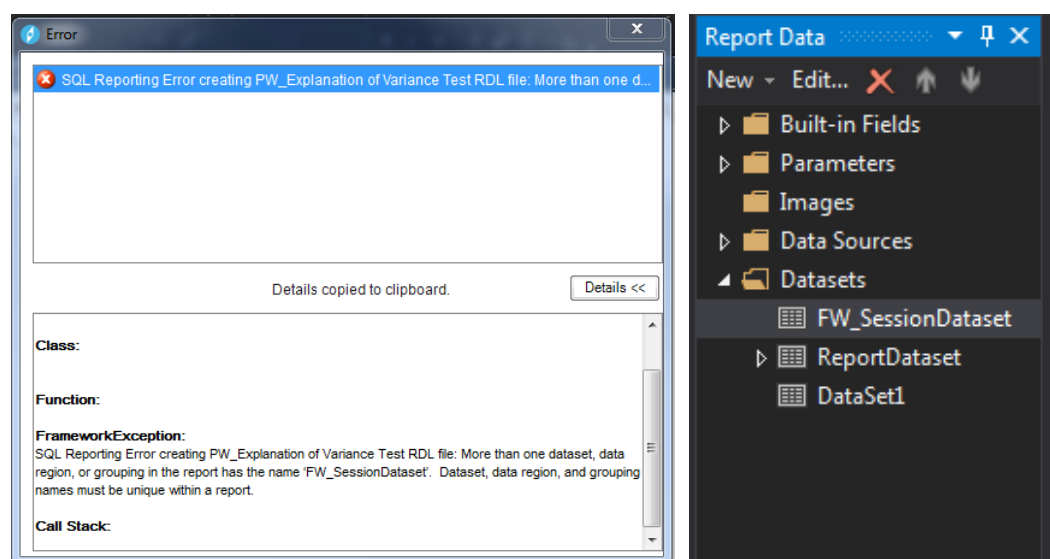
If the Time Phased report is not displaying the correct numbers, it may be because the rate file on the source class is not the same as the rate file in the template project. If you look at the process log, you should see the rate file used in the calculations.

The template project, set in the **Select Template Project used for Class Settings** field on the Change Details on Form tab in Workflow Type Configuration, is used to define the rate file. When a change class is created, the details of the class come from the template project.

For example, if you change the hours for a resource in a period on the Costs tab, when you switch to total cost, the entire work package time phased costs will no longer match the source class. To solve this problem, you must access the project information in Cobra for the template project and change the rate file for the class set in the field **Create a New Class: Copy Settings from Class** which can be seen on the Change Details on Form tab of Workflow Type Configuration.

Dataset, Data Region, and Grouping Names Error

If the following error displays: “More than one dataset, data region, or grouping in the report has the name ‘FW_SessionDataset’”. Dataset, data region, and grouping names must be unique within a report,” you must delete the **FW_SessionDataset** dataset in the custom report.



Loading Issues in Report Administration

Some companies create many matrix-style reports using the SQLRS report wizard. When they use the report wizard, it uses Tablix Corner cells in the tablix report for any column on the report in the top left of the matrix that is not part of either row or column grouping for the report. When there is more than one Tablix Corner cell on a tablix for the report, the report will not load.

This was not working because PM Compass has not yet been updated to reflect a change that Microsoft made to the default report rdl schema (the definition for the rdl used for all reports).

Workaround

Do not use the wizard, or alternatively, delete the default heading the wizard creates for the report and replace it with a new header to get rid of the Tablix Corner columns.

Report Failure when Run through PM Compass

Reports were loading to PM Compass through Report Administration but would fail when run. This was a bug with the framework that was failing when a matrix-style report had a column group (left to right group) that contained more than one column group row.

As part of the pre-process for Delttek's reporting framework, there was a walk through with the entire report, touching all textboxes to do things like adjusting formats for numbers and dates as well as applying other formatting. This is also done to support column selection for the standard reports. This was a case where the custom report layout was not being handled properly during the pre-process.

Solution

This was fixed on site and deployed to the development server. There were two fixes for this. One was to address the issue for a specific report, and the second change was a general change that generally skips the pre-process for a specific tablix. You can now set a custom property in the report designer for any tablix report control **SkipProcessing** and set it to **Y**. This allows you to bypass the framework for a given tablix report to essentially pass through without changing the report at runtime. You will get what you see in the report designer. This was added in case another variation of a custom report is not being handled.

Exporting to Excel

This is a common issue with many of the standard reports and can also be an issue with some custom reports. When exporting to Excel, you get what you see in the report. For many of the reports, to preserve space on the report when the report is grouped by something, usually a fully merged group header is used and in some cases the footer is merged as well.

Solution

To get the best possible translation for a SQL RS report to Excel, the best thing to do is to create a custom report where each report group column has its own column on the report. This is also the same thing you would do if you were to create it in Excel. By creating a custom report where cells are not merged to show text for headers and footers, the export to Excel should be clean.

Using Drilldown Reports

This is an issue about getting drilldown reports to work for some of the custom reports, and there had been general questions on how to approach drilldowns.

Solution

There are three ways to handle summary/detail within SQL RS reports:

- Use a Drill Through Report.
- Use the Toggle Option for Expand/Collapse.
- Use a subreport.

Each of these types of reports has its own advantages and disadvantages which are detailed below.

Drill Through

This will allow you to click on something from one report and run a completely new report. When you have a case where the amount of data on a given report is too large to get in a single query (or set of queries) and you do not want to take the hit of running a giant query to get all the details for a report, a drill through report is the way to go. Also, a drill through report will open a new report viewer window, which works well when trying to go from summary to detail on a dashboard without having to do too much scrolling. It is also possible to parameterize the drill through report using an expression to turn off the drilldown capability based on other data in the report. One downside is you cannot print and get all the details for the report since all data is not on one report.

You can set the Action property for any textbox to set up a drill through report. All you need to do is pick the drill through report and set up parameters to pass info from the main report to the subreport.

Note: It is important to make sure that something is passed for every parameter in the drill through report; otherwise, the report will fail.

Since there is a whole pre-process framework, for PM Compass this means that when a drill through report is set up, a new report will be created on the fly for the drill through report much in the same way the main report was built. One downside is the report will not work in the report designer, but it will work once it is deployed to PM Compass. To suppress the drill through report from showing up in the report list with all the main reports, you need to set the **ReportType** custom property value to **Hidden**.

Toggle Option

This is a feature that can be used in a single report to hide certain data by toggling parts of the report after running it. It is the same thing as running a full report with detail and just collapsing different groups. There is a **Toggle** option that you can set for a report group. The toggle can be hidden by default or can be initially set based on an expression. You can quickly snap open a detail section of the report with a single click on the report using the +/- box. You can also produce creative ways to expand all groups using other report parameters. If you use the +/- expression, you could set all groups to be expanded if a report parameter were set, allowing you to print a report fully expanded. When exporting to PDF or printing, you will get what you see in the viewer by default. The major downside with using the toggle option is that you must get all the data in one query and that can cause the report to run slower than using a drill through report. Also, you are limited to the same layout for the report. If you need a different report layout to show the details, a drill through report is better.

Subreports

A subreport can be used to show one report inside another. The best way to use a subreport is to merge all cells in a single tablix row and then drop a subreport into the expanded rectangle for that row. Subreports work well when you have a master/detail relationship on a report and need a different format or a completely different type of report to show within the main report. The good thing about a subreport is that it allows you to keep the reports simple. Each report is responsible for getting its own data and the layouts can be completely independent. The challenge with employing a subreport lies in its subpar performance. Multiple reports need to be loaded at runtime for the main report and each subreport has to use its own query to get data. Nesting subreports in a grouped tablix is slow. In general, it is not recommended to use subreports and any report that contains lots of data. They are mostly reserved for form-based reports where sections of a report can be reused in other reports.

Applying Lookups and Access Control

To use lookups from PM Compass in a custom report, there are a few things that need to be set in the custom report.

Solution

There are several custom properties that can be set to sync custom reports into PM Compass. To use one of the lookups, you need to add a custom property **LookupType** to the main report's custom properties and set it to the lookup you want for the report.

Here is a list of lookup types that are commonly used and available:

- Project
- Control Account
- Work Package
- Workflow
- Activity
- User

After the custom property is set and the report is loaded, the lookup column will be white in the report list. The custom report query must be updated to use the WHERE clause built by the lookup control.

This can be done by adding either tag to the report:

```
/**WHERE CLAUSE**/
```

or

```
/**EXTEND WHERE CLAUSE**/
```

These are just comments, so they will not impact the query in the designer. The only difference between the two is that `/**EXTEND WHERE CLAUSE**/` will put AND on the front of the lookup where the clause to “extend where clause” that is already in the report.

You also need to make sure that your report has the correct table in it or the WHERE clause passed by the lookup will fail. So, if the report uses a **ControlAccount** lookup, it needs to have CAWP in the FROM clause. If it uses a **Project** lookup, it needs to have CAM_PROGRAM in the FROM clause.

If a report uses one of the lookups, it will also apply access control to the report.

Using Report Templates

Deltak ships a few basic report types with PM Compass:

- Portrait
- Landscape
- Subreports

If you copy these reports to a specific directory on the developer machine and restart Report Designer, these templates will show up as options in Report Designer when adding new reports. Any report can be added as a template, so if you create a standard report then want to reuse it in some fashion, you could create your own templates and reuse them.

You need a .bat file that copies report to the correct template folder on the developer machine. The main thing you get with the templates is the boiler plate report used for all the standard reports. Many of the options that you get in the report dialog box for things like report name and all the options on the Layout tab (period options, font, footer message, color options, and so on) should work if you start with the template. This is because the framework relies on certain naming conventions for things when the report is being processed prior to running.

The other thing you get with the template is all the custom properties that are used for standard reports are already set up—Lookup Type, Option Type, and Report Name, and so on were removed. Also, all the comment tags supported in queries are in the default query for the report. A single SharedDataSource is used for all the reports that is outside the main report project. This means you can set up a single shared data source and reuse that data source on all your report projects.

Attention: For more information, see [“PM Compass Report Templates”](#) in this guide.

Set Up Dashpart Reports for Best Performance

When creating a dashpart report, you have the option to **Always Rebuild** the report. If you select this check box, it means that every time a dashboard is loaded, the report query will get re-run.

Solution

For best performance, leave the **Always Rebuild** check box cleared. If this option is cleared, the dashboard will look to see if there are currently any archived reports for the given dashpart and display that report when the dashboard is loaded.

This means that you can schedule reports to run in off hours using the process server scheduler. When the dashboard is opened in the morning, the data will be ready for the report.

Running Standard Reports to Create Custom Reports in the Designer

There was an issue where all report queries were failing when trying to run standard reports. This was due to missing synonyms on the DTEK data tables.

Solution

Whenever you run a report in PM Compass, click  on the toolbar of the report to export the query, report options, or Report Definition (RDL File). This means that you can take one of the standard reports and use it as a starting point for a custom report.

Attention: For more information, see [“Create a Custom Report from a PM Compass Standard Report in Report Designer”](#) in this guide.

Add Charts and Other Reporting Controls

Many of the flip chart type reports use the same report layout with different selection criteria or grouping. Also, many of the reports are multi-project reports.

Solution

You can create a table and include a chart in the actual report table. Many of the standard reports for PM Compass do this. The best way to accomplish this is by completing the following steps:

1. Set up a table with a report group.
2. Add a second report group footer or header.
3. Merge the cells for that row.
4. Add a rectangle to the merged row.
5. Drop a chart on the rectangle.

When setting up expressions for chart data/series/categories, the sum expressions for the chart will adhere to the current group for the table. The chart will use the same dataset as the part table. This means that the report query data will be collected once and then used to render the table with the chart. Also, if the group for the table on this report is set up with a page break, it will render the report with one chart per page based on the group, allowing you to flip from chart to chart in a single report.

Another example is a report with six boxes, each containing a table for a particular group. The best approach for this report is to set up six different tablix reports. Next, set up one additional tablix that would be used as a grand total of the other boxes. Then set up filtering for each tablix to only show data for that code.

All seven tablix controls will use the same dataset, which just gets reused for each tablix. When possible, always try to reuse datasets in each report. You can also create multiple datasets in a single report and apply them to each tablix individually. This can be useful when trying to show several types of data in a single report.

Tip: The basic processing for a report is to first run all datasets, and then render report controls with the resulting data. When snapshots are used (archiving in PM Compass), the datasets are all cached and the report is only rendered.

Pass Parameters from PM Compass to Custom Reports

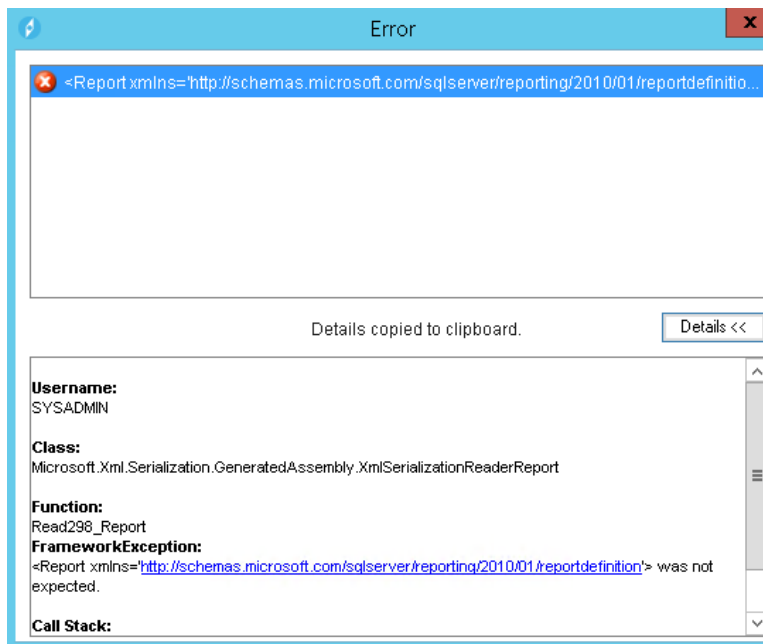
This is still unresolved as of this release.

This functionality does not exist in PM Compass yet, but it may be included in a future release. It does exist in some of Deltek's other products; it just needs to be ported over to PM Compass.

After this is in place, PM Compass users will be able to set up parameters that can be passed from PM Compass and create favorites that contain specific report options. Setting up specific types for parameters will make it easier for the end user to quickly set parameters like the data popup. You can also add datasets to reports that contain lists of codes and labels that can then be applied to report parameters to allow users to use dropdowns for parameters instead of having to type in parameters directly. Parameters are used in many of the PM Compass reports like Time Phase and the various Time Phase graph reports.

Error Encountered When Loading a Custom Report that was Created with an Unsupported SSRS Tool Version

If you try to run a report in PM Compass from an SSRS Report Server that is based on the 2010 RDL schema, PM Compass displays the following error message:



This error occurs when the report's RDL schema in SSRS is using the RDL 2010 schema, but PM Compass 8.4 Cumulative Update (CU) 08 requires the RDL 2016 schema. For PM Compass standard reports, this issue can occur if PM Compass 8.4 CU 08 was installed and the option to automatically reload reports was not selected during installation, or if an error occurred during the report reload process, preventing the updated RDLs from being uploaded. For custom reports, the

error can occur if the RDL schema has not yet been updated to the new 2016 RDL schema and uploaded into SSRS.

Solution

If the report is a PM Compass standard report, reload the report using the PM Compass Report Administration utility so that the 2016 RDL schema report files shipped with PM Compass 8.4 Cumulative Update 08 or later are uploaded into the SSRS Report Server database.

If the report is a custom report, follow the steps in this guide to:

1. Open the custom report with an updated supported report-writing tool.
2. Save the report so that the report is converted to the 2016 RDL schema.
3. Load the report into the SSRS Report Server database.

Appendix A: Custom Report Properties

The XML section of a standard PM Compass report's .rdl file contains custom properties for reports that are used to:

- Load the custom report using the PM Compass Report Administration utility.
- Control PM Compass report options.

When you start with a standard PM Compass report to create a custom report, you must modify some of the XML code in the report's .rdl file to remove and replace items that are no longer appropriate for your custom report. If you do not make these modifications, your custom report may not function properly. You must make these modifications before you save a custom report to the application server and load it into PM Compass.

The table below lists the PM Compass report .rdl custom properties.

Property	Description
OptionForm	This controls the display of the report Options dialog box in PM Compass Reports for the custom report. If you want the report Options dialog box to display, you must replace the standard report OptionForm value with the following PM Compass default report value: OptionForm = "Delttek.PMCompass.Report.Client.MakoReportDialog" without the double quotes.
ReportBO	PM Compass standard reports use this custom property. It is not valid for custom reports and you must delete it to prevent errors.
ResourceFileName	When PM Compass loads the standard reports, the resource file is used to change report labels to the appropriate culture. Your custom report already has its labels converted to a specific culture; therefore, you must delete this custom property.
ReportType	This is the identity of the report. It is not a required custom property and you may delete it.
LookupType	This controls whether or not the Selection column is enabled for the custom report. Here is the list of lookup types: ▪ Project ▪ Control Account ▪ Work Package ▪ Item ▪ Activity After you set the custom property and the report is loaded, the lookup column is enabled in the report list. You must update the custom report query to make use of the WHERE clause that is built by the lookup control. You can do this by adding either of the following tags to the report: ▪ /**WHERE CLAUSE**/

Property	Description
	▪ /**EXTEND WHERE CLAUSE**/ These tags are only comments and do not impact the query in the designer. The only difference between the two is that /**EXTEND WHERE CLAUSE**/ adds an AND to the front of the lookup WHERE clause to extend the WHERE clause that is already in the report. For example: <pre>SELECT PROGRAM FROM PROGRAM /**WHERE CLAUSE**/</pre> This becomes: <pre>SELECT PROGRAM FROM PROGRAM WHERE PROGRAM = 'SHIP'</pre> If your query already has an existing Where Clause, you can use the Extend Where Clause. For example: <pre>SELECT PROGRAM FROM PROGRAM WHERE ISMASTER = 0 /**EXTEND WHERE CLAUSE**/</pre> This becomes: <pre>SELECT PROGRAM FROM PROGRAM WHERE ISMASTER = 0 AND PROGRAM = 'SHIP'</pre>
GroupingType	This controls whether or not the Sorting/Grouping tab displays in the Report Options dialog box in PM Compass Reports. For custom reports that you create from a standard PM Compass report, you can delete this custom property.
UseColumnSelection	This determines whether the Column tab displays in the Report Options dialog box in PM Compass Reports. This tab allows you to select the columns for a report before you generate it. For custom reports that you create from a standard PM Compass report, change the UseColumnSelection from Y(es) to N(o) .
ReportVersion	This displays the version of the report. You may leave it in or remove it from your custom report.
AutoGroupQuery	This is used for PM Compass standard reports and must be deleted in custom reports.
AllowUserDefinedFields	This is used with the PM Compass Report dialog box to add user defined fields in the Column selection. You must delete it for custom reports.

Property	Description
AllowCalcFields	This is used with the PM Compass Report dialog box to allow calculated fields in the Column selection. You must delete it in custom reports.
UseAutoGrouping	This is used for PM Compass standard reports and must be deleted in custom reports.
HelpFile	This is used for PM Compass standard reports and must be deleted in custom reports.

Appendix B: If You Need Assistance

If you need assistance installing, implementing, or using PM Compass, Deltek makes a wealth of information and expertise readily available to you.

Customer Services

Deltek has always maintained close relationships with client firms, helping with their problems, listening to their needs, and getting to know their individual business environments. A full range of customer services has grown out of this close contact, including the following:

- Extensive self-support options through the Deltek Support Center
- Phone and email support from Deltek Customer Success analysts
- Technical services
- Consulting services
- Custom programming
- Classroom, on-site, and web-based training

Attention: Find out more about these and other services from the Deltek Support Center.

Deltek Support Center

The Deltek Support Center is a support website for Deltek customers who purchase an Ongoing Support Plan (OSP).

The following are some of the many options that the Deltek Support Center provides:

- Search for product documentation, such as release notes, install guides, technical information, online help topics, and white papers
- Ask questions, exchange ideas, and share knowledge with other Deltek customers through the Deltek Support Center Community
- Access Cloud-specific documents and forums
- Download the latest versions of your Deltek products
- Search Deltek's knowledge base
- Submit a support case and check on its progress
- Transfer requested files to a Deltek Customer Success analyst
- Subscribe to Deltek communications about your products and services
- Receive alerts of new Deltek releases and hot fixes
- Initiate a Chat to submit a question to a Deltek Customer Success analyst online

Attention: For more information regarding Deltek Support Center, refer to the online help available from the website.

Access Deltek Support Center

To access the Deltek Support Center:

1. Go to <https://deltek.custhelp.com>.
2. Enter your Deltek Support Center **Username** and **Password**.
3. Click **Login**.

Note: If you forget your username or password, you can click the **Need Help?** button on the login screen for help.

About Deltek

Better software means better projects. Deltek delivers software and information solutions that enable superior levels of project intelligence, management, and collaboration. Our industry-focused expertise makes your projects successful and helps you achieve performance that maximizes productivity and revenue. www.deltek.com