Deltek

Deltek Vantagepoint 7.0

Custom Reports and Microsoft SQL Server® Reporting Services

April 15, 2024

Contents

Overview

Standard reports that are provided with Deltek Vantagepoint are designed to meet most of your business needs. In addition, you can create custom reports using Microsoft SQL Server® Reporting Service's SQL Server Data Tool (SSDT) — Report Designer. This report writing tool is also known as Visual Studio 2017 (SSDT).

This guide applies if you use the Vantagepoint cloud or on-premises product.

What's New

Vantagepoint 7.0

We have added the **Synchronize Custom Reports during Vantagepoint Migration** section in **Appendix A: Custom Reports and Migrating from Vision to Vantagepoint On-Premises**.

What This Guide Covers

This guide provides information for the following steps, which you must complete to create, deliver, and generate Vantagepoint custom reports:

Step	Description
1	Install Visual Studio 2017 (SSDT) or a later version on the machines (usually workstations) from which you will create or edit Vantagepoint custom reports.
2	Do either one of the following to create custom reports: ▪ Load the Vantagepoint report templates on the workstation of users who will create custom reports. Access the Vantagepoint report templates in Visual Studio 2017 (SSDT) or later to create custom reports. ▪ Create a custom report from a copy of a Vantagepoint standard report in Visual Studio 2017 (SSDT) or later.
3	Load custom reports into Vantagepoint using the Vantagepoint Report Administration utility.
4	Set up parameters for a custom report in **Settings » General » Custom Report Options** in the desktop application. Parameters allow users to filter report content before they generate a report.
5	In Vantagepoint Role Security Settings, apply role security to give the appropriate Vantagepoint users the ability to access the custom reports and print or preview those reports from the Vantagepoint Reporting menu.

Appendix A provides instructions for upgrading custom reports when you migrate from Deltek Vision to the Vantagepoint on-premises product. This information also applies for upgrading from Vision any custom reports that you will use to generate invoices in Vantagepoint.

Specific instructions on how to create and design Vantagepoint custom reports are beyond the scope of this document. Assistance with creating custom reports is not covered by your Deltek Ongoing Support

Plan (OSP). If your firm requires custom reports, contact VantagepointConsulting@Deltek.com for information about the custom report services that they provide.

Updates to This Guide

Guides are revised regularly to provide the most up-to-date technical information and instructions. Visit the Deltek Support Center at https://support.deltek.com, to download the most recent copy.

Adding Custom Notes to This Guide

If you would like to add custom notes to this guide that are specific to your company, Adobe® Reader® X provides this ability. If you do not already use Adobe Reader X, you can download it here free from Adobe.

To add a custom note using Adobe Reader X, complete the following steps:

1. On the Reader toolbar, click **Comment** at the far right.

2. In the **Annotations** pane that displays, click 💬 **Sticky Note**. The cursor changes to match the button.

3. Position the cursor at the location in the guide where you want the note to appear and click. A note icon is inserted at the location and a text box pops up.

4. Enter your information in the text box.

5. Continue adding notes as needed.

6. Save the document.

> **Note:** Deltek recommends that you save the document to a slightly different filename to keep the original from being overwritten.

When reading the document, cursor over a note icon to see the information. Double-click a note icon to edit the information.

Supported Report Writing Tool

The following versions of the Microsoft SQL Server® Reporting Services (SSRS) report writing tool are supported for creating Vantagepoint custom reports:

- Visual Studio 2017 (SQL Server Data Tools) or later
- Report Builder 15.0

RDL 2016 Schema

Use Visual Studio 2017 (SSDT), Visual Studio 2019 (SSDT), or Visual Studio 2022 (SSDT) to produce a report file with the (Report Definition Language) RDL 2016 Schema that Vantagepoint requires.

If you try to load a custom report into Vantagepoint that was created with an unsupported version of SSDT Report Designer, or an unsupported SSRS report writing tool, you will receive a "SQL Report Error loading report" error message.

To determine whether or not a custom report was created with a supported report writing tool and has the supported RDL schema, open an .rdl file for a custom report, and look at the header lines. If the report has the supported RDL 2016 Schema, it will have **2016** in the path. The RDL files are not supported in Vantagepoint 6.5 if the header lines display these years in the path: **2008**, **2010**, **2012**, or **2014**.

The following are header line examples:

- The header line in an .rdl report file that is created with Visual Studio 2017 (SSDT) or later is:

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

> **Note:** To support the ability to open, generate, and print custom Vantagepoint reports, the Vantagepoint database and report servers must have one of the supported or compatible versions of Microsoft SQL Server installed. For a full list of Microsoft SQL Server releases (R), service packs (SP), and cumulative updates (CU) that are supported or compatible with Vantagepoint, see the *Deltek Product Support Compatibility Matrix*. You can download this PDF document at the Deltek Support Center: Deltek Support Center.

Installing Visual Studio 2017 (SSDT) or Later

Install one of the above-mentioned Visual Studio versions on the machines (with the appropriate licensing) from which you will create or edit Vantagepoint custom reports. These machines are typically workstations, rather than Vantagepoint web servers.

1. When you use the following Microsoft link to download the installer:

   https://docs.microsoft.com/en-us/sql/ssdt/download-sql-server-data-tools-ssdt?view=sql-server-ver15#ssdt-for-visual-studio-2017

   This page displays instructions for installing SSDT for Visual Studio 2022:
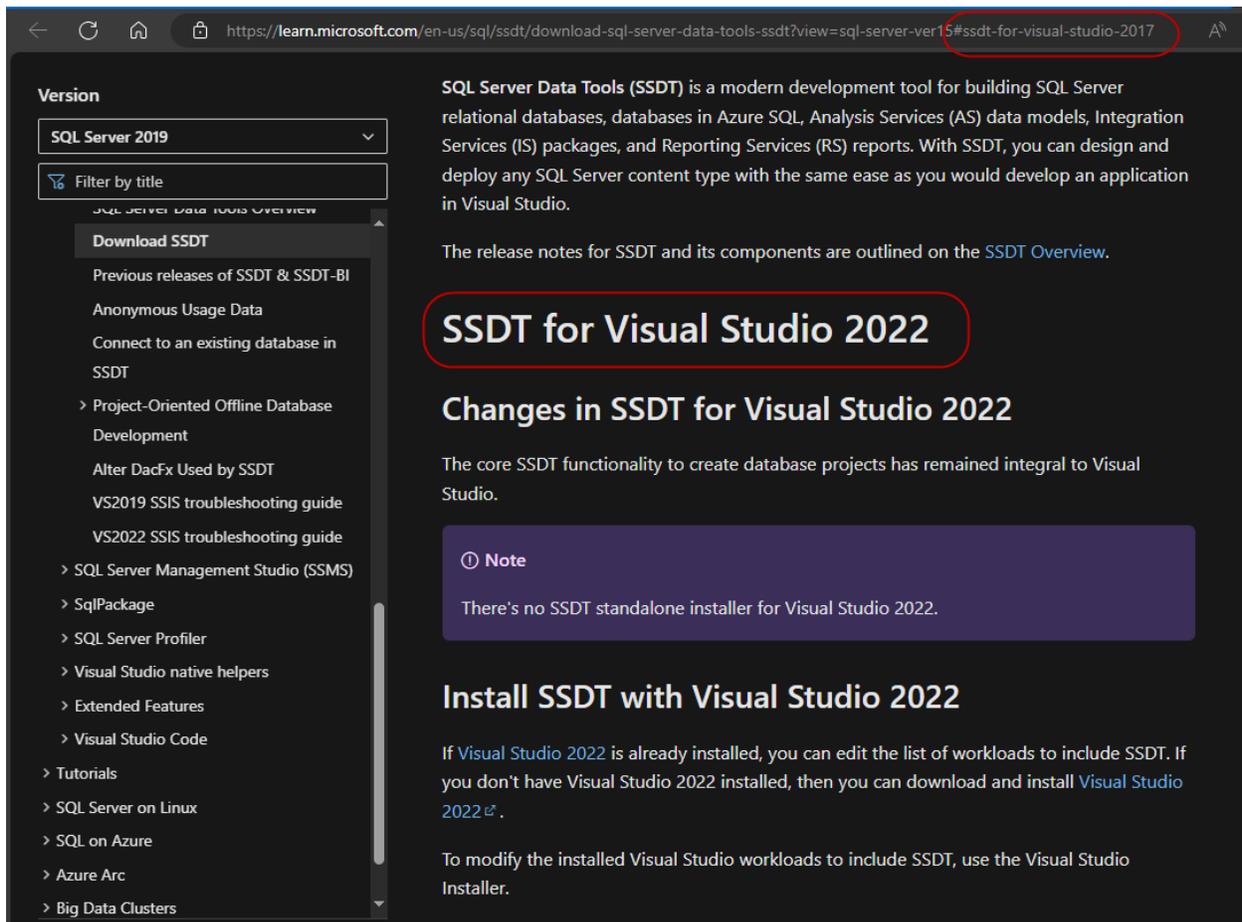
   IMPORTANT: When you complete the installation of Visual Studio 2017 (SSDT) or a later version, you must download and install the **Microsoft Reporting Services Projects** extension.

2. Launch Visual Studio 2017 (SSDT) or later.

3. On the **Extensions** menu, click **Manage Extensions.**

4. In the Folders pane of the Source Control Explorer dialog, select the **tfs.deltek.com\Deltek** folder.
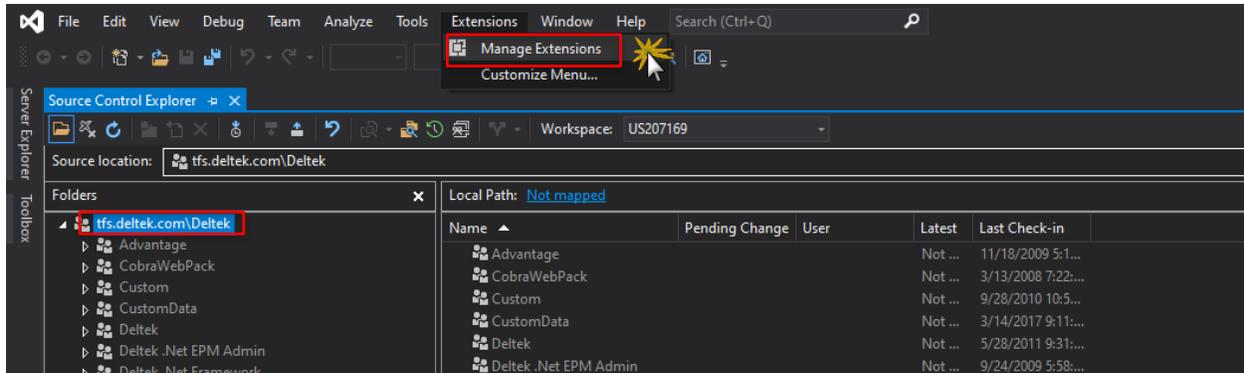
5. In the Search field at the top right, enter "reporting services".

6. Download and install **Microsoft Reporting Services Projects**.
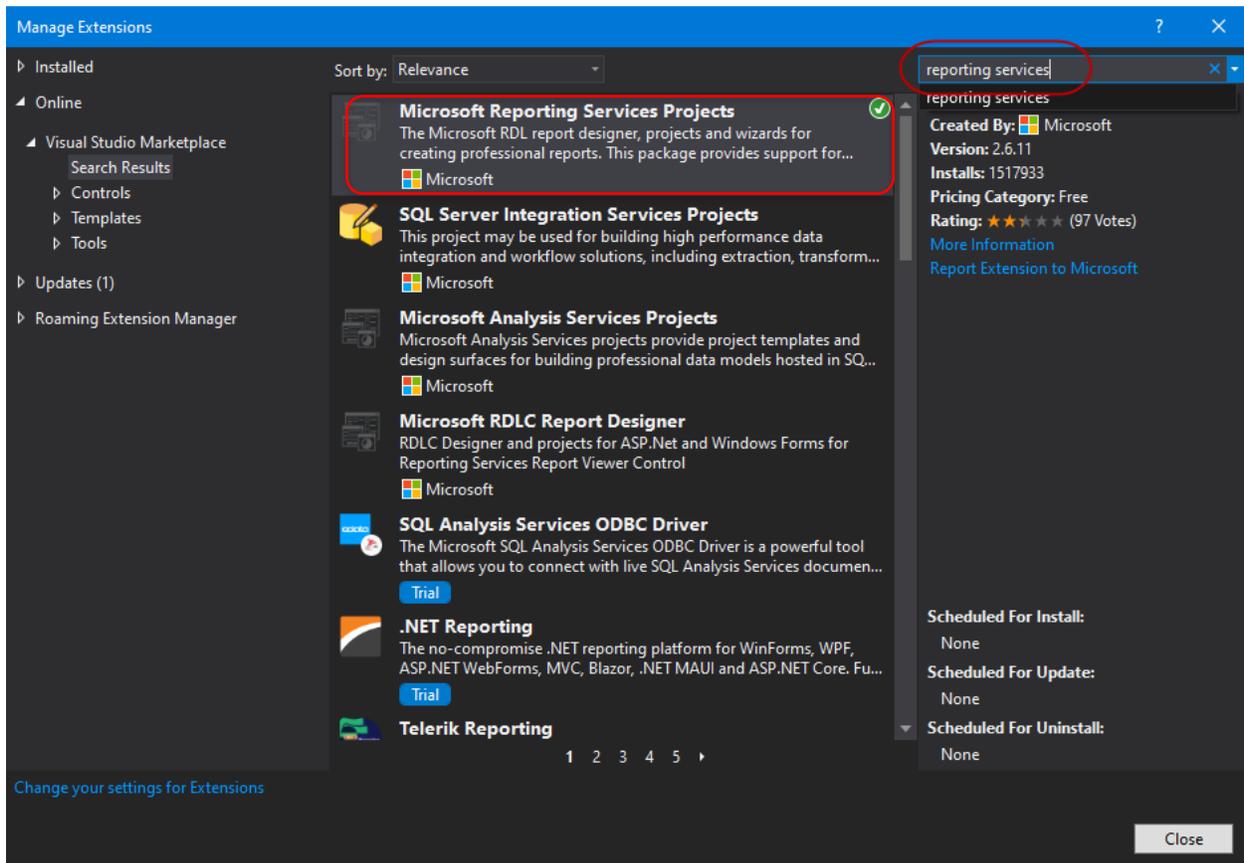
During the installation, select the **Install tools for SQL Server Reporting Services** checkbox.

> **Note:** For a full list of Microsoft SQL Server releases (R), service packs (SP), and cumulative updates (CU) that are supported or compatible with Vantagepoint, see the *Deltek Product Support Compatibility Matrix*. You can download this PDF document at the Deltek Support Center.
>
> Deltek can also arrange for implementation services support from your Deltek consultant.
>
> If you have any additional questions, contact Deltek Customer Care at 877.457.7765.

Using Visual Studio 2017 (SSDT) Report Designer or later

Visual Studio 2017 (SSDT), Visual Studio 2019 (SSDT), or Visual Studio 2022 (SSDT) is a full-featured, advanced report writing tool that enables you to create both simple and complex reports.

Reporting Capabilities of Visual Studio 2017 (SSDT) Report Designer or later

You can do the following with Visual Studio 2017 (SSDT) Report Designer or later versions:

- Create table, matrix, chart, and free form reports
- Apply grouping and formulas in reports
- Apply sorting
- Apply filtering
- Apply advanced reporting features, including complex queries, advanced charting, parameters, drill downs, sub-reports, and so on
- Create expressions to specify report data
- Combine tables, lists, and charts in the same report
- Include Vantagepoint user-defined fields in reports
- Access the full Vantagepoint database with the reporting tool
- Include a Sorting/Grouping tab or Columns tab in Vantagepoint Reporting for custom reports (if you modify special tags in SQL statements)

You cannot do the following:

- Create ad hoc reports
- Launch the report writing application within Vantagepoint
- Create a custom report Options dialog box to display in Vantagepoint Reporting for a custom report
- Deploy custom reports outside of Vantagepoint

Give Report Writing Users Access to the SSRS Report Server

To allow report writing users access to the SSRS report server, you must give them the following SSRS permissions:

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

> **Attention:** Users who have access to your SSRS report server to create custom reports in SSDT-BI Report Designer can access all fields in your Vantagepoint database. Vantagepoint role security does not apply when accessing the Vantagepoint database to create custom reports.

Non-Domain Clients

SSRS requires Windows Integrated Authentication. Non-domain clients (clients who do not run Active Directory or have a Windows domain) must do the following:

- Create a local account on the SSRS report server for each user who creates custom reports.

- Grant the necessary reporting services permissions (see the previous section) to those who create custom reports.

Create a Custom Report Using Vantagepoint Report Templates

Vantagepoint comes with report templates that you can use to create custom reports using any one of these versions of Visual Studio: 2017, 2019, or 2022 (SSDT). The templates provide formatting for custom reports similar to the formatting of Vantagepoint standard reports.

Report Template Files

The template files for custom reports are:

- **DVPTemplateAudit.rdl** — Use this template to create audit trail summary reports. Hub audit reports, such as Firm Audit and Vendor Audit, are examples of this type of report.

- **DVPTemplateAuditDetail.rdl** — Use this template to create audit trail detail reports. Hub audit detail reports, such as Firm Audit Detail and Vendor Audit Detail, are examples of this type of report.

- **DVPTemplateCustomReport.rdl** — Use this template to create a custom report without any pre-defined layout.

- **DVPTemplateLandscape.rdl** — Use this template 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.

- **DVPTemplatePortrait.rdl** — Use this template to create column selection reports.

- **DVPTemplatePostingLog.rdl** — Use this template to create posting log reports.

- **DVPTemplateSubReport.rdl** — Use this only to create a sub-report. Vantagepoint billing invoices are examples of reports that use sub-reports. Each section of a single billing invoice (report) is created by using sub-reports.

- **DVPTemplateTransactionList.rdl** — Use this template to create transaction list reports.

Example: This is an example of a DVPTemplatePortrait.rdl file when you open it in Report Designer:
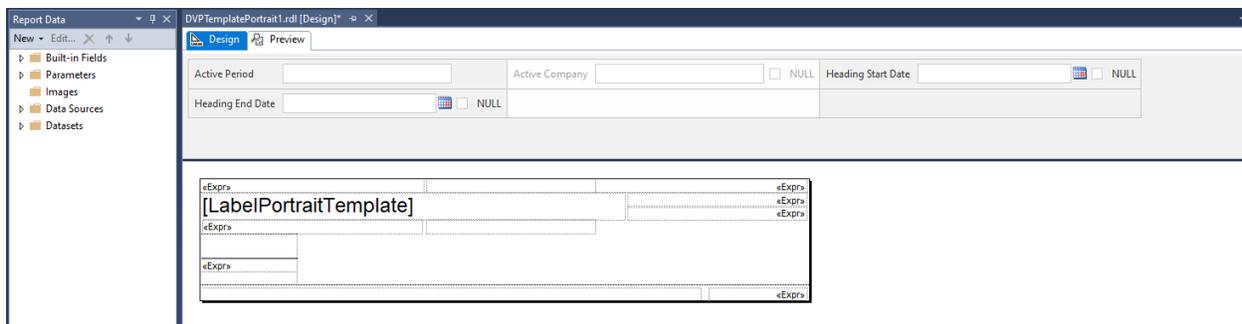
Load the Vantagepoint Report Templates on a Workstation

To use the Vantagepoint report templates to create a custom report from a workstation, you first must load the report template .rdl files on the workstation.

To load the Vantagepoint report template files on a workstation that has Visual Studio 2017 (SSDT) or a later version installed:

1. Click https://dsm.deltek.com/DocumentationLists/DeltekVantagepoint70GA.html open the Deltek Vantagepoint 7.0 Documentation list at the Deltek Support Center.

2. In the list, click **Deltek Vantagepoint 7.0 Custom Report Template Files RDLs** to download the DeltekVantagepoint70CustomReportTemplateFilesRDLs.zip file with the report templates to the workstation.

3. On the workstation, right-click the.zip file and on the shortcut menu and select **Extract All** to extract the files to a folder on the workstation.

4. Copy the .rdl files from the unzipped file to the following location on the workstation C: drive:

   C:\Program Files (x86)\Microsoft Visual Studio\2017\SQL\Common7\IDE\ CommonExtensions \Microsoft\SSRS\ProjectItems\ReportProject

Access the Report Templates in Visual Studio 2017 (SSDT) or later

After you copy the .rdl template files to a workstation, when you launch Visual Studio 2017 (SSDT) or a later version and select Business Intelligence Projects, the Vantagepoint templates display in the list of templates as in the following screenshot.
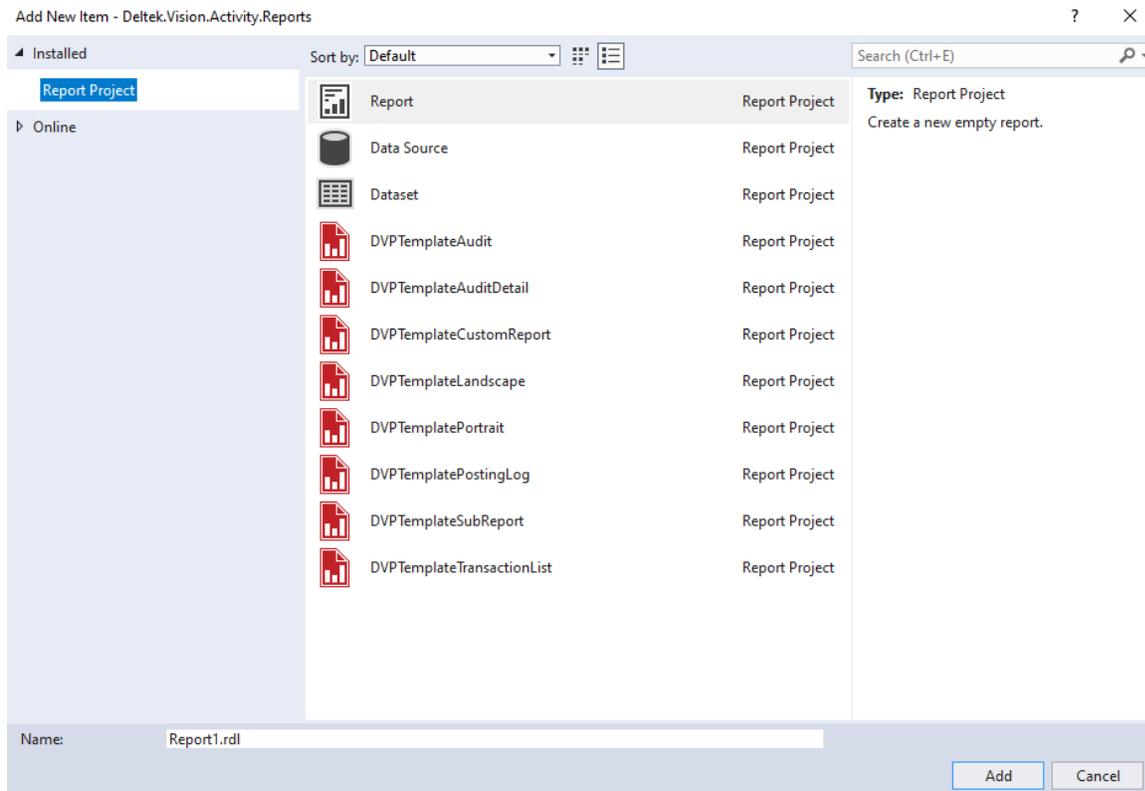
Note: You cannot use Vantagepoint report templates with the Visual Studio 2017 (SSDT) Report Designer Report Wizard.

To access the Vantagepoint report templates to create a custom report, you complete three procedures:

1. Create a solution and report server project.

2. Create the shared data source.

3. Select a Vantagepoint template and start to create a custom report.

To create a solution and report server project:

1. On your workstation, open one of the following Visual Studio versions by clicking:

   - **Start » Visual Studio 2017 (SSDT)**

   - **Start » Visual Studio 2019 (SSDT)**

   - **Start » Visual Studio 2022 (SSDT)**

2. Click **File » New » Project**.

3. In the Project Types pane of the New Project dialog box, select **Reporting Services**.

4. In the Templates pane, select **Report Server Project**.
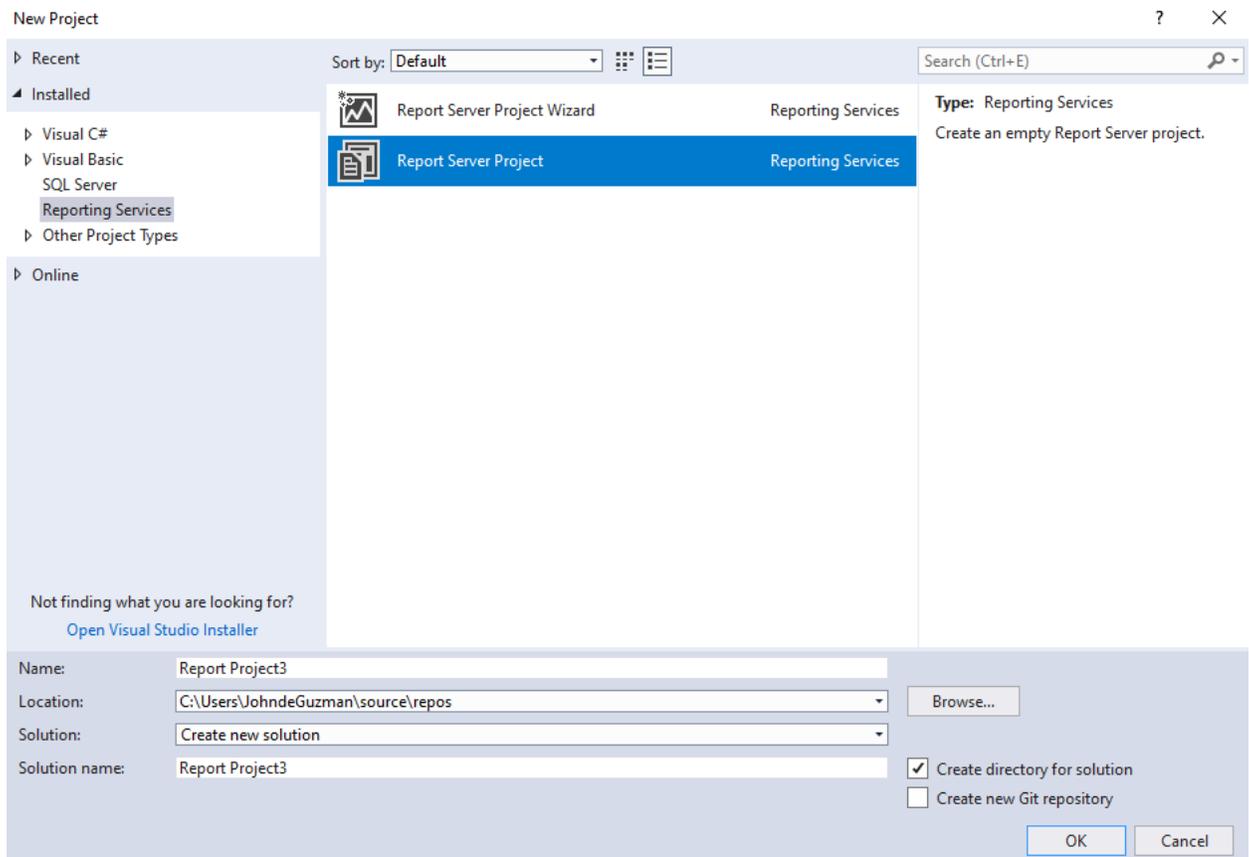
5. In the **Name** field, enter a name for the report server project, such as **DeltekCustomReports**.

   A report server project contains:

   - 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**.

    In the Solution Explorer pane, you now see the solution that you just created. To display the Solution Explorer pane, click **View » Solution Explorer**.

To create the shared data source:

1. In the Solution Explorer pane that is located below your solution, right-click **Shared Data Sources**, and click **Add New Data Source** on the shortcut menu.

2. On the General tab of the Shared Data Source dialog box, in the **Name** field, enter **DefaultDataSource**.

    This is the name of the Vantagepoint data source.

    > **Attention:** All of the Vantagepoint report templates look at the data source called **DefaultDataSource**. If you name it something else, you will receive an error when you select the Data tab of the Design window. When you receive 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 need to edit the report query to reference the new data source name.

3. In the **Type** field, select **Microsoft SQL Server**.

4. Click the **Edit** button beside the **Connection string** text box to open the Connection Properties dialog box, on which you can create the connection string to your Vantagepoint database.

    a) Select the server on which your Vantagepoint database resides.

        Deltek recommends that you use Windows authentication to log on to the server. This prevents users from accessing information via Visual Studio 2017 (SSDT) or later 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 Vantagepoint database name to connect to.

    c) Click **OK**.

5. On the Credentials tab of the Shared Data Source dialog box, enter the credential information for the data source and then click **OK**.

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

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

    Save your solution often to prevent losing modifications if Visual Studio 2017 (SSDT) Report Designer or a later version terminates.

To select a Vantagepoint template and start to create a custom report:

1. In the Solution Explorer pane, right-click the **Reports** folder, and click **Add » New Item** on the shortcut menu.

    On the Add New dialog box, you see the Vantagepoint report templates.

2. Click a report template to open it and create a custom report with it.

   Specific instructions on how to create and design Vantagepoint custom reports are beyond the scope of this document. You can contact VantagepointConsulting@Deltek.com for information about the custom report services that Deltek provides.

3. After you create a custom report and it is ready for others to use, load the report into Vantagepoint using the Report Administration utility in the Vantagepoint desktop application.

   Vantagepoint does **not** support the deployment of reports to the SSRS report server directly from within the Visual Studio 2017 (SSDT) Report Designer or later software versions. Instead, you use the Vantagepoint Report Administration utility to load custom reports.

   For more information, see: the "Load Custom Reports into Vantagepoint" section.

Multilingual Companies and Report Templates

You can create custom reports in multiple languages only if you purchase and activate the Vantagepoint Multilingual module.

If you have multilingual companies in your enterprise and you want the ability to generate a report in multiple languages from one report design, you must create custom reports with Vantagepoint report templates loaded locally on a workstation. When you create a custom report with the Vantagepoint report templates directly on your SSRS report server, the report can be generated only for the specific culture (language) from which you accessed the report template.

Create a Custom Report from a Vantagepoint Standard Report in Visual Studio 2017 (SSDT) or later

If the content of a standard report is similar or close to what you need in a custom report, you may want to start with a copy of a standard report definition (.rdl) file and then modify it in Visual Studio 2017 (SSDT) of Report Designer or later versions to suit your needs.

Open the Custom Report RDL File in Visual Studio 2017 (SSDT) Report Designer or later

After you create and save a custom report .rdl file from a standard report, open the custom report .rdl file in Visual Studio 2017 (SSDT) Report Designer or later versions.

To open the custom report .rdl in Visual Studio 2017 (SSDT) Report Designer or later versions:

1. Open a report project within Visual Studio 2017 (SSDT) Report Designer or later versions.

2. Select the option to add an existing item to the project and browse to where you saved the .rdl file to open it.

XML Code that You Must Modify

When you start with a standard Vantagepoint 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 not 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 use the Report Administration utility in the Vantagepoint desktop application to upload the report into Vantagepoint.

Report Name

When you create a custom report from a Vantagepoint standard report, the custom report design contains the name of the standard report that displays in Vantagepoint Reporting.

You must replace the standard report name with the custom report name on the Layout tab in Visual Studio 2017 (SSDT) or later versions.
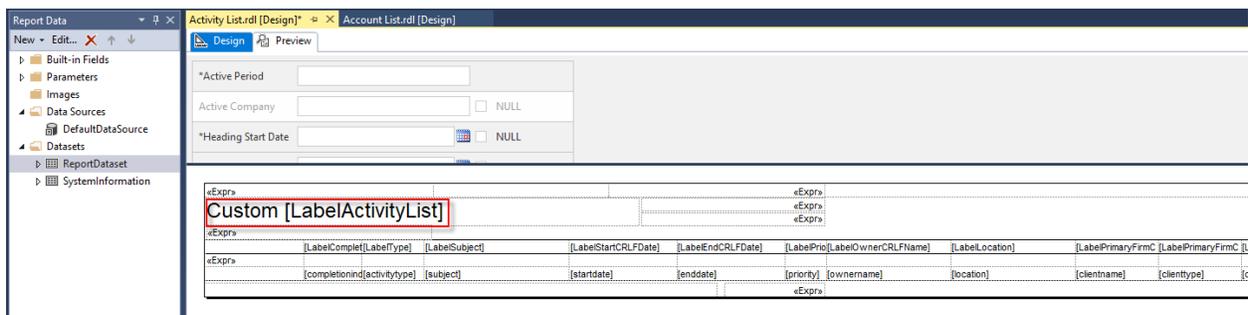
> **Attention:** If you do not replace the standard report name with a custom report name, both the standard and custom report display in Vantagepoint Reporting with the same report name.

Custom Properties

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

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

You **must** delete and modify some of the existing custom properties that no longer apply for a custom report. Your custom report will not function properly if you do not make these modifications.

You define custom properties between the <CustomProperties> and </CustomProperties> tags in the XML code of a report's .rdl file. You modify custom properties in a report on the Properties window of the report.

1. In the Properties list, navigate to **CustomProperties**.
2. Click the ▥ ellipsis button to open the Custom Properties dialog box.

The following sections of this guide identify the custom properties that you must delete or modify.

ReportBO

The ReportBO custom property is used for Vantagepoint standard reports. It is not valid for custom reports and must be deleted to prevent errors in Vantagepoint.

Delete the following section of the XML code (this example uses the standard Project List report):

    <CustomProperty>

        <Name>ReportBO</Name>

        <Value>Deltek.Vision.ReportingProject.Server.ProjectList</Value>

    </CustomProperty>

ResourceFileName

When Vantagepoint loads the standard reports, the resource file is used to change report labels to the appropriate culture. Because the custom report that you are working with already has its labels converted to a specific culture, you must delete this ResourceFileName tag.

Delete the following from the XML code (this example uses the standard Project List report):

    <CustomProperty>

        <Name>ResourceFileName</Name>

        <Value>Project List</Value>

    </CustomProperty>

OptionForm

The OptionForm custom property controls the display of the report Options dialog box in Vantagepoint Reporting 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 Vantagepoint default report value:

<Value>Deltek.Vision.Report.Client.VisionReportDialog</Value>

Example:

The original XML code in the standard Project List report:

<CustomProperty>

<Name>OptionForm</Name>

<Value>Deltek.Vision.ReportingProject.Client.dlgRepOpt_ProjectList</Value>

</CustomProperty>

Modify the XML code as follows:

<CustomProperty>

<Name>OptionForm</Name>

<Value>Deltek.Vision.Report.Client.VisionReportDialog</Value>

</CustomProperty>

> **Note:** For custom reports that are created with a standard Vantagepoint report, the report Options dialog box in Vantagepoint Reporting will display a Layout tab, and if you have added report parameters in Vantagepoint Custom Report Options Settings, a Custom Options tab.

GroupingType

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

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

<CustomProperty>

<Name>GroupingType</Name>

<Value>Project</Value>

</CustomProperty>

> **Note:** To add a Sorting/Grouping tab to the report Options dialog box, you must modify special tags in SQL statements. Instruction on how to do this is beyond the scope of this document.

UseColumnSelection

The UseColumnSelection custom property determines whether or not the Column tab displays on the report Options dialog box for a custom report in Vantagepoint Reporting. This tab enables you to select

the columns for a report before you generate it. For custom reports that you create from a standard Vantagepoint report, change the UseColumnSelection value from Y to N.

Example:

The original XML code in the Project List report, where the value is set to Y:

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

Modify the original XML code as follows:

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

> **Note:** To add a Columns tab to the report Options dialog box, you must modify special tags in SQL statements. Instruction on how to do this is beyond the scope of this document.

Parameters in Custom Reports

Parameters that you add to a report allow users to filter report content before they generate the report. For example, you could add a parameter to a report that enables you to enter a period start and end date so that you can include data for only certain periods on the report.

> **Recommendation:** Use Visual Studio 2017 (SSDT) Report Designer or later versions when adding parameters for a custom report.

To add the parameters to a report:

1. On the Report Data Pane, right click **Parameters » Add Parameter**.
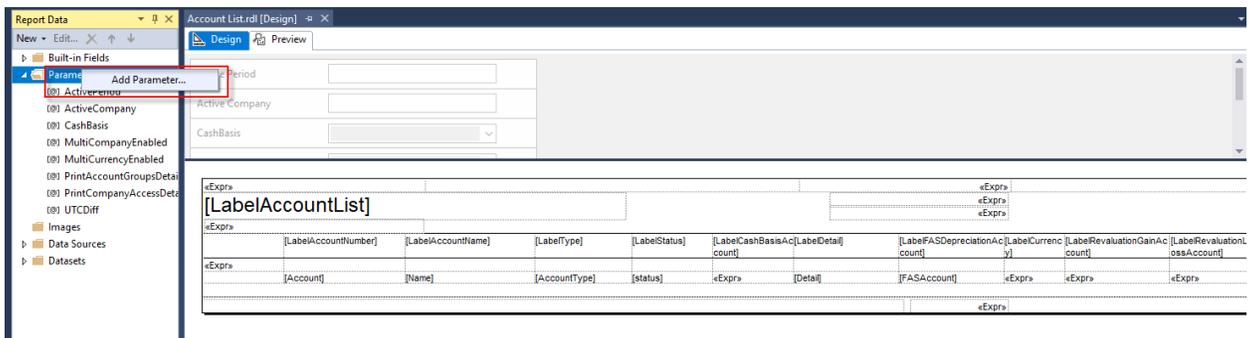
2. Configure the parameter to match your needs.
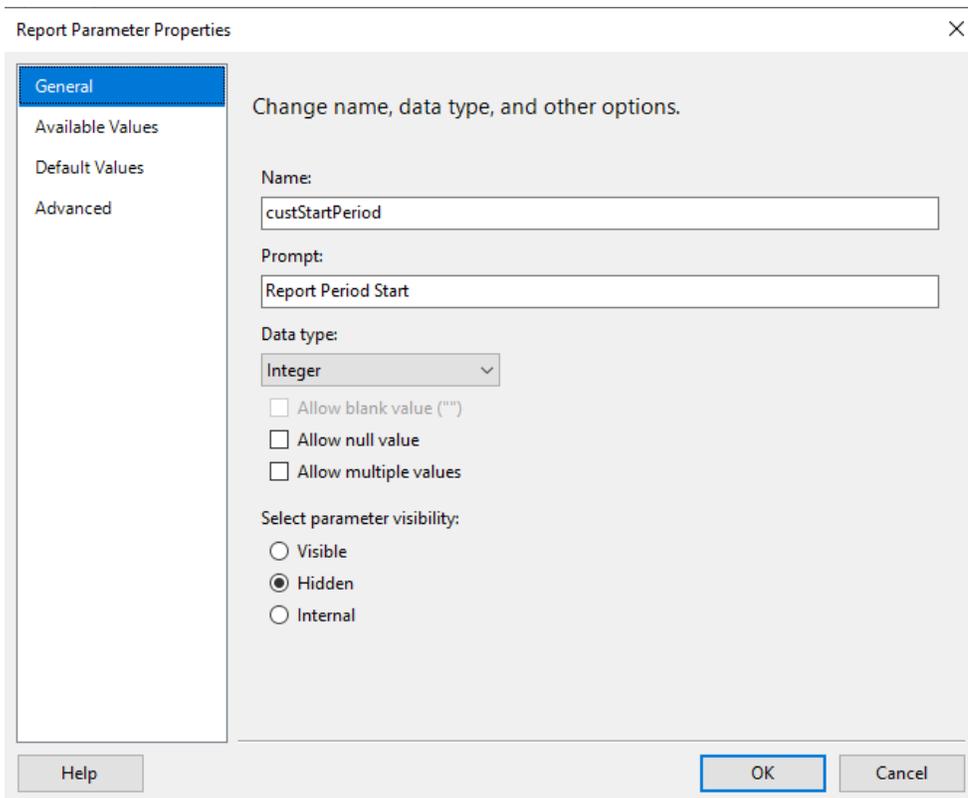
Parameters that you add to a custom report design in the .rdl file display as options on the Custom Options tab of the report's Options dialog box in Vantagepoint Reporting if you complete both of the following:

- In the custom report .rdl file, you must add the prefix "cust" to the parameter name so that it will work with Vantagepoint.

  The following example shows a parameter with the name custStartPeriod within the XML code of an .rdl file in Visual Studio 2017 (SSDT) or later versions.

```
<ReportParameter Name="custStartPeriod">
  <DataType>Integer</DataType>
  <DefaultValue>
    <Values>
      <Value>202107</Value>
    </Values>
  </DefaultValue>
  <Prompt>Report Period Start</Prompt>
  <Hidden>true</Hidden>
</ReportParameter>
</ReportParameters>
```

- After you deploy and load the custom report into the Vantagepoint desktop application with the Vantagepoint Report Administration utility, you add the report parameters to the report in **Settings » General » Custom Report Options**, in the Vantagepoint desktop application.

3. On the Navigation menu in the Vantagepoint desktop application, click **Settings » General » Custom Report Options**.

4. On the Report Custom Options form, select the custom report from the **Report Name** drop-down list.

   On the Options grid toolbar, click ⊞ **Insert** to add a parameter to a blank row in the grid.

5. In the **Option Label** field, enter the text that you want to display for the parameter on the Custom Options tab on the Report Options dialog box in Vantagepoint Reporting.

6. In the **Parameter Name** field, enter the name of the parameter as it is entered in the custom report .rdl file but without the prefix "cust."

7. In the **Data Type** field drop-down list, select the type, such as **Character**, **CheckBox**, **Date**, and so on, that matches the data that the parameter contains.

8. Complete the remaining fields in the grid as appropriate for your parameter data type.

9. When you finish, click 💾 **Save**.

To use the parameters before you generate a custom report:

1. On the Navigation pane of the Vantagepoint browser application, select **My Stuff > Reporting**.

2. On the Reporting form, select the **Reports** tab to display the list of reports.

3. Select the custom report you want to use.

4. On the custom report form, click the **Custom Options** tab to enter parameter options before you print or preview the report.
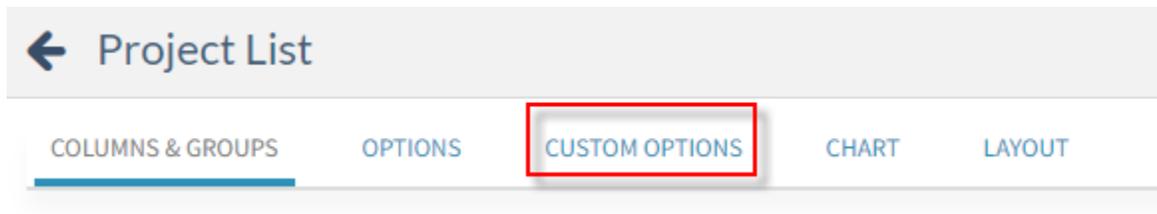
SkipProcessing Custom Property

You can set the SkipProcessing table-level custom property to **Y** to have the Vantagepoint framework bypass the processing of a tablix data region of a report at runtime. The tablix data region will display what you see in the report design. This custom property applies to reports that are created with Visual Studio 2017 (SSDT) or later. It can be helpful for troubleshooting problems with previewing reports.

Custom Reports for User-Defined Hubs

Report Type Custom Property

For any custom report that you create for a user-defined hub in Vantagepoint Browser application, you must add a report type custom property to the report design. This identifies the user-defined hub submenu under the Vantagepoint Reporting menu in which you want the custom report to display.

You must enter the value of the report type custom property as follows:

> <Value>UDIC_<specific user-defined hub ID>_<Report name></Value>

The specific user-defined hub is based on the singular name that you entered for the user-defined hub when you set up the new hub in **Settings » General » Screen Designer** of the browser application. It is the singular name, without any spaces between words if you have multiple words in the label. To see the singular name for a user-defined hub in **Settings » General » Screen Designer**, select a user-defined hub and then click ⚙ **Hub Preferences** to display the Hub Preferences dialog box. The last portion of the database table name that is specified on this dialog box also displays the singular name (with no spaces).

If you forget to add the report type custom property to a custom report, the report will not display in the Vantagepoint Reporting menu.

Example

You have a user-defined hub named Potential Hires.

When you created the user-defined hub, you entered Potential Hire as singular label for the user-defined hub (the database table name is UDIC_PotentialHire).

You created a custom report called Potential Hires for Sales (file name is PotentialHiresSales.rdl).

You enter the following report type custom property for the report:

> <CustomProperty>
>
> <Name>ReportType</Name>
>
> <Value>UDIC_PotentialHire_Potential Hires-Sales</Value>
>
> </CustomProperty>

After you upload this report into Vantagepoint using the Report Administration utility, the report displays in **Reporting » Potential Hires**.

Upload Custom Reports for User-Defined Hubs

When you upload a user-defined hub custom report into Vantagepoint using the Report Administration utility in the desktop application, you must set the **Location** field to **User Defined Hub** on the Custom Reports tab.

Custom Reports for the Vantagepoint Cloud Product

The information in this section applies if you use the Vantagepoint cloud product with the Flex Cloud option or the Custom Report Add-On.

> **Note:** The Vantagepoint cloud product without the Flex Cloud option or the Custom Report Add-On does not include the SSRS Report Builder component. If you want to develop and deploy custom reports, you must do so locally using SQL Server Data Tools for Visual Studio.

Syntax for Naming Custom Report.rdl Files

A different naming convention is required for the custom report .rdl file names for Vantagepoint production databases versus non-production databases. Non-production databases are sandbox or preview databases.

Use the following syntax to name custom reports for Vantagepoint production and non-production databases.

Reports for Production Databases

For production reports, use the following syntax to name the report .rdl file, where *XXXXX* is your 5-digit Vantagepoint client ID:

00000*XXXXX*_<*ReportName*>.rdl

Reports for Non-Production Databases

For non-production reports, use the following syntax to name the report .rdl file, where *XXXXX* is your 5-digit Vantagepoint client ID and <*databaseType*> is the type of database:

00000*XXXXX*_<*ReportName*>_<*databaseType*>.rdl

Examples of file names for non-production (sandbox or preview) databases:

- 00000*XXXXX*_<*ReportName*>_Sandbox.rdl
- 00000*XXXXX*_<*ReportName*>_Preview.rdl

If a custom report has sub-reports, you must upload each sub-report and name it using this syntax.

> **Warning:** If you do not follow this naming convention, it is possible that a custom report that is updated and tested in another database may overwrite the current report in your production database.

When you are ready to upload a non-production report to your production database, remove the appended **_<*databaseType*>.** Its removal indicates that the custom report is a production report.

Reporting Data Source

To maintain optimal performance, the Deltek Cloud environments leverage a read-only replica as the data source for reporting. Any custom reports that write back to the database require that the following parameter be set in the .rdl file, so the report does not use the read-only replica as the data source.

If any custom reports are writing back to the database, set a parameter in the .rdl file as follows:

- The custom property is **useTransactionDatabase**.
- Set the value to **Y** in the custom report .rdl file.

Report Backups

Be sure to retain backups of all your custom report .rdl files.

Deltek is not responsible for retaining the .rdl files. Use the **Download** button on the Custom Reports tab in **Utilities » Report Administration** in the desktop application to download an .rdl file from the database.

Load Custom Reports into Vantagepoint

Use the Report Administration utility in **Utilities** in the Vantagepoint desktop application to upload custom reports with .rdl file extensions to Vantagepoint. On the Custom Reports tab in Report Administration, you can upload custom reports from any location on a workstation into Vantagepoint. The custom reports are copied to your Vantagepoint report server, which are then added to a submenu under the Reporting menu on the Navigation pane in the Vantagepoint desktop application.

The instructions in this section apply if you use the Vantagepoint on-premises product or the cloud product with the Flex Cloud option or the Custom Report Add-On.

> **Attention:**
> - Vantagepoint does not support the deployment of reports to your Vantagepoint report server directly from within the Visual Studio 2017 (SSDT) Report Designer or later versions of the software.
> - For custom reports for the cloud product with the Flex Cloud option or the Custom Report Add-On: You must use the correct naming convention for the custom report .rdl file names for Vantagepoint production databases versus non-production databases. See the "Custom Reports for the Vantagepoint Cloud Product" section for more information.

Upload Custom Reports from a Workstation to Vantagepoint

If you have custom reports (.rdl files) saved on a workstation, follow these instructions to upload them to Vantagepoint.

During the upload process:

- The custom report files are copied to your:
    - Vantagepoint report server. These copies are accessed when users run the reports in Vantagepoint.
    - Vantagepoint database. These copies serve as backup copies that you can download if you need a report file and cannot find the original on your workstation.
- The custom reports are added to the Reporting application under My Stuff on the Vantagepoint Navigation menu.

If a report has multiple .rdl files (subreports), you must upload each subreport individually.

Prerequisites:

A system administrator must select the **Allow RDL files to be uploaded in Report Administration** check box on the General tab in the Weblink utility so the Custom Reports tab displays in the Report Administration utility.

For Cloud Users: Deltek Cloud Operations provides you with RDL file access, therefore, you do not need to access RDL files via the Weblink utility.

To upload a custom report from a workstation into Vantagepoint:

1. On the Navigation menu in the Vantagepoint desktop application, click **Utilities » Report Administration**.

2. On the Report Server form, click the **Custom Reports** tab.

3. On the Load Custom Reports grid toolbar, click **Upload**.

4. On the Select Custom Report File to Upload dialog box, select a custom report .rdl file to upload and then click **Open**.

   The report file is added to a row in the Load Custom Reports grid.

5. In the Load Custom Reports grid, click the **Location** field in the row for the custom report, and select the report type for the report, such as **Projects**, **Accounting**, **Payroll**. This groups the reports for easier selection in the Vantagepoint Reporting application.

   For custom reports for any user-defined hub, select **User Defined Hub**. See the previous "SkipProcessing Custom Property" section.

6. Repeat steps 3–5 above to upload each subreport that a custom report has or upload other custom reports. 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 and database servers and added to the Vantagepoint Reporting application. You will not see a status bar, and it may take a few minutes for the upload process to complete.

8. When the reports finish uploading, click **OK** on the dialog box that tells you that the custom reports were uploaded.

   In the Load Custom Reports grid, the name of the report now displays in the **Name** field. **Synchronized** displays in the **Status** field, meaning that the report was successfully uploaded from the local machine to the Vantagepoint report and database servers.

9. Log out and then log back in to Vantagepoint to see the custom reports added to the submenus under the Reporting menu in the desktop application.

   The custom reports are also displayed in the **Report Name** drop-down list in **Settings » General » Custom Report Options,** where you can add parameters to them. For parameter descriptions, see the "Parameters in Custom Reports" section.

Status of a Custom Report

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

- **Synchronized Status:** This status displays after you successfully upload a custom report using the **Upload** option on the Load Custom reports grid toolbar. It means that the custom report was uploaded successfully to your report server and the Vantagepoint database.

- **Missing in Report Server Status:** This status means that the custom report was uploaded to the Vantagepoint 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 Vantagepoint database, you can click the **Synchronize** option on the Load Custom Reports grid menu to re-upload a copy of the backup report from the Vantagepoint database to the report server.

- **Missing in Database Status:** This status means that a custom report is uploaded to the report server, but it does not have a backup copy saved in the Vantagepoint database. This could occur if you migrated to Vantagepoint from Vision and you previously uploaded custom reports to the report server in earlier Vision versions, before the custom report status feature was implemented. In this scenario, to upload a copy of the report to the Vantagepoint database and change the status of the

report to **Synchronized**: 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 of the Report Administration utility in the Vantagepoint desktop application.

Apply Role Security to Custom Reports

After a custom report is created and loaded into the Vantagepoint software, a Vantagepoint system administrator applies Vantagepoint role security to specify which security role(s) can access the custom report on the Vantagepoint Reporting menu.

To add a custom report to the list of reports that a role can access:

1. On the Navigation pane in the Vantagepoint browser application, select **Settings » Security » Roles**.

2. In the **Search** field on the Roles form, enter the role for which you want to give access to the custom report.

3. On the Access Rights tab, set the **Functional Area** option to **Reports**.

4. Click **+ Add/Remove**.

5. On the Reports dialog box, select the type of report in the **Report Type** field, such as Accounts Receivable, Project, and so on, for the custom report to which you are granting access.

6. In the **Custom Type** field, select **Custom**.

   The custom reports for the report type display in the **Available Reports** list.

7. Click the appropriate custom report in the **Available Reports** list and then click **Save** to add it to the **Reports for this Role** grid in the Roles form.

Changes to the role settings are saved automatically. After you make changes to role settings, have employees in any updated security role profiles log out and then log in again, to ensure that all appropriate access changes are applied.

Appendix A: Custom Reports and Migrating from Vision to Vantagepoint On-Premises

This information applies if you are migrating from the Deltek Vision product to the Deltek Vantagepoint on-premises product and you have custom reports that were created with Microsoft SQL Server Reporting Services 2005 or 2008. This information also applies for upgrading Vision custom reports that you use to generate custom invoices in Vantagepoint.

Vantagepoint Supports RDL 2016 Schema Only

Custom reports that use RDL 2008 and RDL 2010 schema are not supported in Vantagepoint. You must upgrade these custom reports to change to the RDL 2016 Schema before you can use them in Vantagepoint. You must use Visual Studio 2017 (SSDT) or later, Report Builder 15.0, or the Vantagepoint Report Administration utility to upgrade the reports to the supported RDL 2016 Schema. See the sections below for instructions.

Migrating from Vision 7.6

If you are migrating to Vantagepoint on-premises from Vision 7.6: After you upgrade the reports, you must update report queries to revise any database table names that were changed in Vantagepoint. Changed database table names are then identified in the Vantagepoint Database Table Name Changes that Affect Custom Reports section below.

If a Custom Report Does Not Work Properly

Other Vantagepoint framework changes that are applied within the report business objects may affect your custom reports after you migrate to Vantagepoint, causing them to not work properly. If a custom report does not work properly after you upgrade and update any renamed database tables, Deltek recommends that you recreate the custom report using Vantagepoint and Visual Studio 2017 (SSDT) or later or Report Builder 15.0.

Before You Create a Custom Report

Before you recreate a custom report with Visual Studio 2017 (SSDT) or later, or with Report Builder 15.0, consider the following questions:

- Do you still need the custom report?
- Are there standard reports in Vantagepoint that provide the information that you need?
- Is the custom report that you created based on a Vision standard report? If so, you can start with a standard Vantagepoint report and modify it in Visual Studio 2017 (SSDT) or later, or in Report Builder 15.0 to recreate your custom report.

> **Note:** If you need additional assistance with custom reports, contact Deltek Global Services.
>
> For general information about Deltek University classes, product training, and other learning opportunities, see https://www.deltek.com/en/support/deltek-university.

Synchronize Custom Reports during Vantagepoint Migration

As an option, you can synchronize custom reports between the transaction database and report server database with the SyncCustomReports switch. The SyncCustomReports switch is an additional setup switch, that you can configure when you install or migrate Vantagepoint. This is a command line version of the **Synchronize** button located on the Custom Reports tab in **Utilities » Report Administration** in the desktop application.

To synchronize custom reports through the command line, refer to the procedure in the **SyncCustomReports Switch** section in the Vantagepoint Installation and Maintenance guide.

Upgrade Custom Reports Using Visual Studio 2017 (SSDT) or later

These instructions apply for custom reports that need to be upgraded to the RDL 2016 Schema. For these upgrade instructions, you 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 custom reports using Visual Studio 2017 (SSDT) or later versions to be compatible with Vantagepoint:

1. Use Report Designer to open an existing custom report project.

2. To enable Report Designer to create a backup of the report project before upgrading, click **Yes** in response to this prompt:
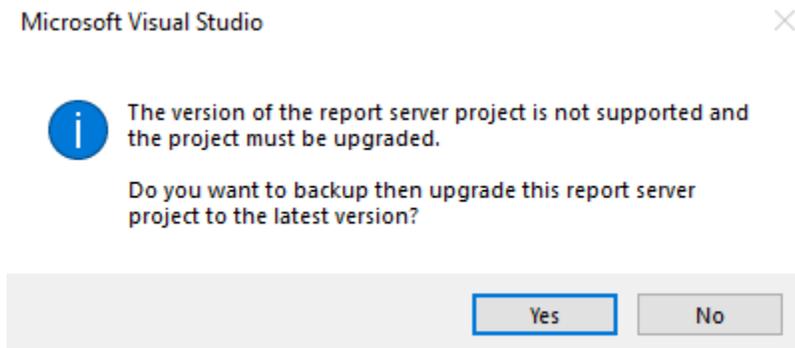
The report project will be automatically upgraded.

3. Open a custom report in Report Designer.

4. The following applies if you are migrating to Vantagepoint from a Vision 7.6 version: For any Vision database tables included in the report that have new names in Vantagepoint, replace the old names with the new names.

   For a list of affected tables and instructions, see the Vantagepoint Database Table Name Changes that Affect Custom Reports section in Appendix A.

5. Review the database changes for Vantagepoint and update your custom reports as needed.

You can access the Vantagepoint Data Dictionary in the Vantagepoint online help by clicking the **?** help icon. In the help Table of Contents pane, scroll to the bottom of the contents and click **Data Dictionary**. The data dictionary is also available from the Deltek Support Center website.

6. In the Report Property pane, enter a dummy value in **InitialPageName** property.

7. Save the report.

8. Remove the dummy value in the **InitialPageName** property and save the report again.

9. Repeat step 4–9 for each custom report in the report project.

10. Upload the custom reports to Vantagepoint using the Vantagepoint Report Administration utility, as described in the "Load Custom Reports into Vantagepoint" section.

    If a report does not run properly, you may need to recreate it with Visual Studio 2017 (SSDT) or a later version.

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 Vision custom reports to be compatible with Vantagepoint using Visual Studio 2017 (SSDT) or a later version:

1. Open Visual Studio 2017 (SSDT) or later.

2. On the File menu, click **New » Project**.

3. In the Project type pane of the New Project dialog box, select **Reporting Services**.

4. In the Templates pane, select **Report Server Project**.
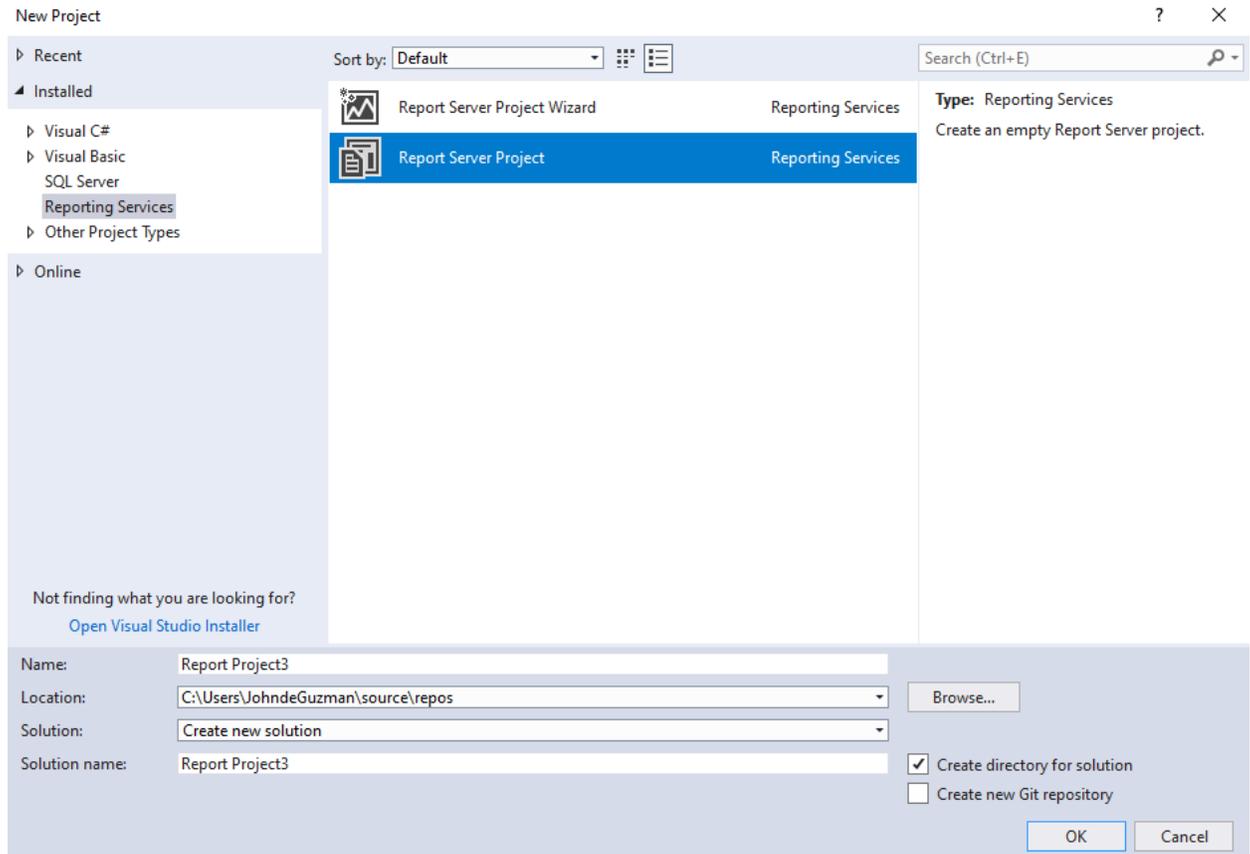
5. In the **Name** field, enter a name for the report project.

   Enter a name that is related to the type of report that 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 Vantagepoint installation path*>\Reports\Custom.

   Example: c:\Program Files\Deltek\Vantagepoint\Reports\Custom

7. On 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. On the Add Existing Item dialog box, navigate to an existing RDL file to add it to the report project.

      The schema of the RDL file is changed to RDL 2016.

   c. Modify the **InitialPageName** property of the report and add a dummy value.

   d. Save the report file.

   e. Remove the dummy 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. For any Vision database tables included in the report that have new names in Vantagepoint, replace the old names with the new names.

    This applies if you are migrating to Vantagepoint from Vision 7.6: For a list of affected tables and instructions, see the Vantagepoint Database Table Name Changes that Affect Custom Reports section in Appendix A.

11. Save the report.

12. Repeat steps 9 and 10 for each custom report.

13. Upload the reports to Vantagepoint using the Vantagepoint Report Administration utility as described in the "Load Custom Reports into Vantagepoint" section.

    If a report does not run properly, you may need to recreate it with Visual Studio 2017 (SSDT) or a later version, such as Visual Studio 2019 (SSDT) or Visual Studio 2022 (SSDT).

Upgrade Custom Reports Using Report Builder 15.0

These instructions apply for custom reports that you created with older versions of Report Builder that don't use the RDL 2016 Schema. With these instructions, you can update a report's RDL file directly.

To upgrade Vision custom reports to the RDL 2016 Schema using Report Builder 15.0:

1. Use Report Builder 15.0 to open a custom report RDL file.

2. Save the report file.

    Saving the file changes the schema to RDL 2016.

3. In Report Builder 15.0, for any Vantagepoint database tables included in the report that have new names in Vantagepoint, replace the old names with the new names.

    This applies if you are migrating to Vantagepoint from Vision 7.6: For a list of affected tables and instructions, see the Vantagepoint Database Table Name Changes that Affect Custom Reports section in Appendix A.

4. Save the report.

5. Upload the report to Vantagepoint using the Vantagepoint Report Administration utility as described in "Load Custom Reports into Vantagepoint" section.

    If a report does not run properly, you may need to recreate it with Report Builder 15.0.

# Upgrade Custom Reports Saved in the Vantagepoint Database Using Report Administrator

Use these instructions to upgrade custom reports in your database from the RDL 2010 Schema to the current **RDL 2016 Schema** that Vantagepoint supports.

> **Note:** These instructions apply only if the custom reports in your database have the RDL 2010 Schema.

This upgrade process opens all your custom reports, and for each report it upgrades the report schema, resaves the report in the Vantagepoint database, and uploads the report to the Vantagepoint report server.

To upgrade custom reports that are saved in your Vantagepoint database with the RDL 2010 Schema to the RDL 2016 Schema:

1. On the Navigation menu in the Vantagepoint desktop application, select **Utilities » Report Administration**.

2. On the Report Server form, click the **Custom Reports** tab.
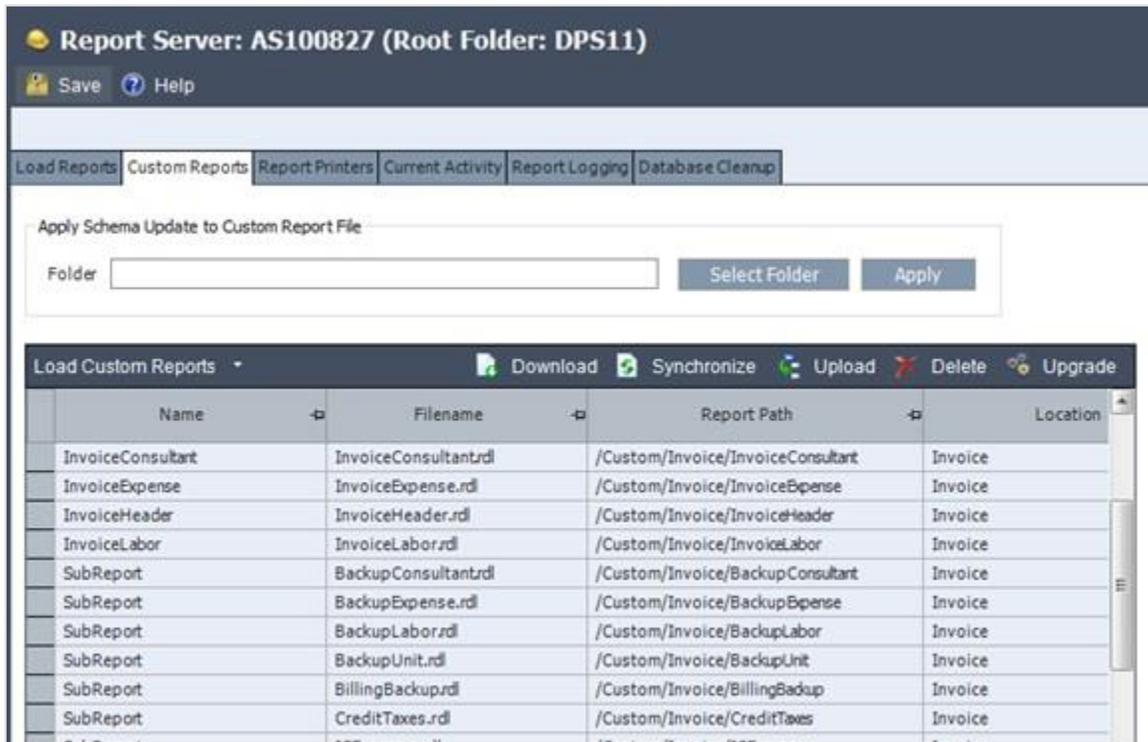
3. On the Custom Reports tab, click the **Upgrade** option on the toolbar of the Load Custom Reports grid.

   - The **Upgrade** option displays on the grid toolbar only if you have a saved custom report in the Vision database.

   - If all your existing custom reports already use the latest RDL 2016 Schema, you receive the following message: "All existing custom reports stored in your database are already using the latest schema."

4. Click **Yes** on the dialog box that says: "This will upgrade all existing custom reports currently stored in your database to the latest schema. Would you like to continue?"

   - The upgrade starts.

   - During the upgrade, Vision backs up the custom reports that are saved in the Vision application server's Report\Backup folder.

   - When the upgrade finishes, you receive the following message: "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 Vision application server's Report\Backup\<database name> folder.

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

> **Note:** Steps 4 and 5 apply to on-premises users only. For Vantagepoint Cloud users, please contact Deltek Support to get a copy of the backup or log files.

Upgrade Custom Reports Saved Locally Using Report Administrator

Use these instructions to upgrade Vantagepoint custom reports that are saved on a local machine to the RDL 2016 Schema that Vantagepoint supports. These instructions apply for custom reports that have **not** been saved in the Vision database. This process is useful if you are currently working on or developing custom reports that are still in the old schema and the reports have **not** been uploaded to the Vantagepoint database yet.

> **Note:** These instructions apply only if the custom reports on a local machine have the RDL 2010 Schema.

To upgrade custom reports on a local machine to the RDL 2016 Schema:

1. On the Navigation menu in the Vantagepoint desktop application, select **Utilities » Report Administration**.

2. On the Report Server form, click the **Custom Reports** tab.
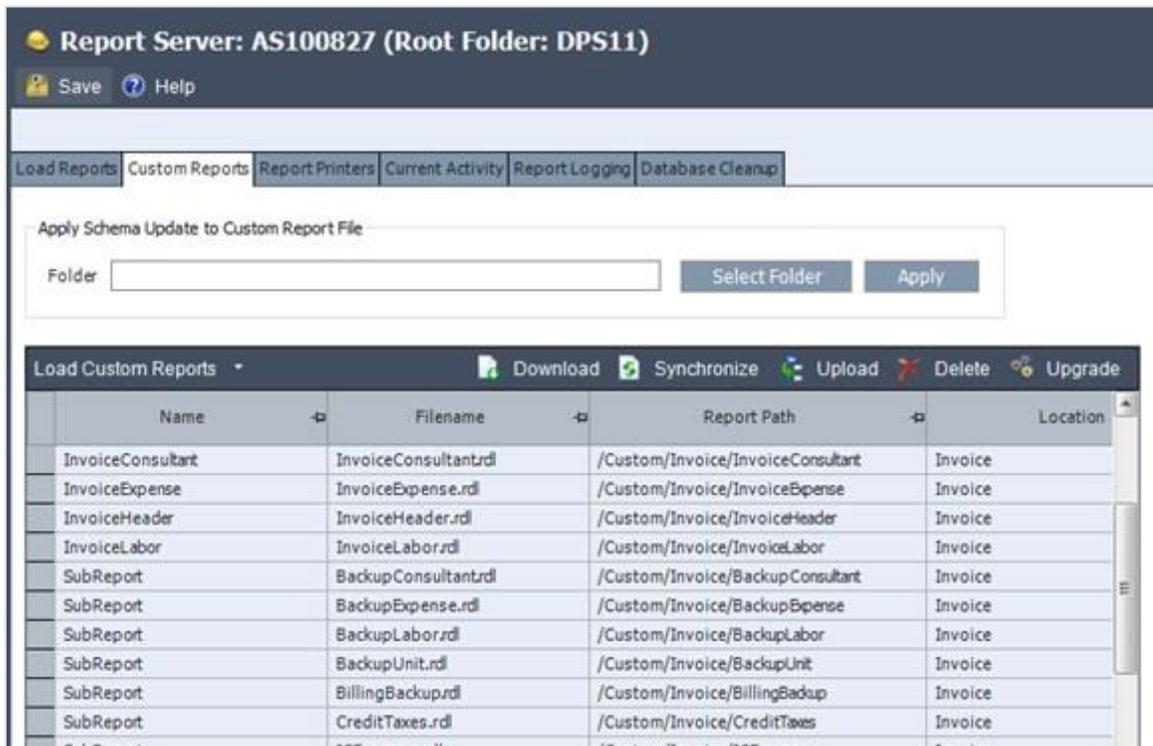
3. In the Apply Schema Update to Custom Report File section, click the **Select Folder** button.

4. In the Browse for Folder dialog box, scroll to and select the folder in which the custom reports are located, and click **OK** to close the dialog box.

5. Click the **Apply** button to update the reports.

6. Review the **RDLProccessing.log** file that is saved in the custom reports folder location.

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

Vantagepoint Database Table Name Changes that Affect Custom Reports

Vision 7.6 database tables used in reports that had a name change in Vantagepoint are listed below. If you are migrating to Vantagepoint on-premises from a Vision version that is earlier than 7.6, then after you upgrade your custom reports, you must replace the old table names with the new names in report queries that include the affected tables.

If you do not update the table names, you will receive errors when you run the reports.

Database table name updates can also occur as newer versions of Vantagepoint are released. Refer to the maintenance release notes and the data dictionary as new versions are released.

Vantagepoint Table Name Changes that Affect Custom Reports

Table Name in Vision 7.6	Table Name in Vantagepoint
Opportunity	PR

To change a table name in either Report Designer or Report Builder:

1. Open the report in either of the reporting tools.

2. On the Report Data pane, expand the **Datasets** folder.

3. Double-click **ReportDataset**.
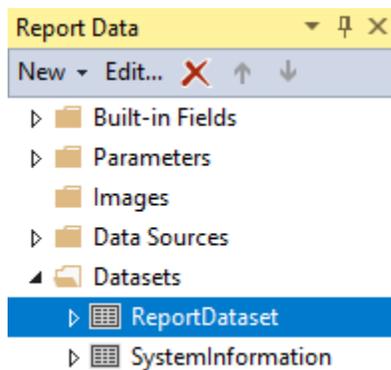
4. In the **Query** text box in the Dataset Properties window, find mention of the old table name, and replace it with the new table name.

> **Note:** To quickly determine whether the query contains an affected table, you can copy the contents from the **Query** text box into a word processor. Then use **Find** in the word processor to search for the table name.
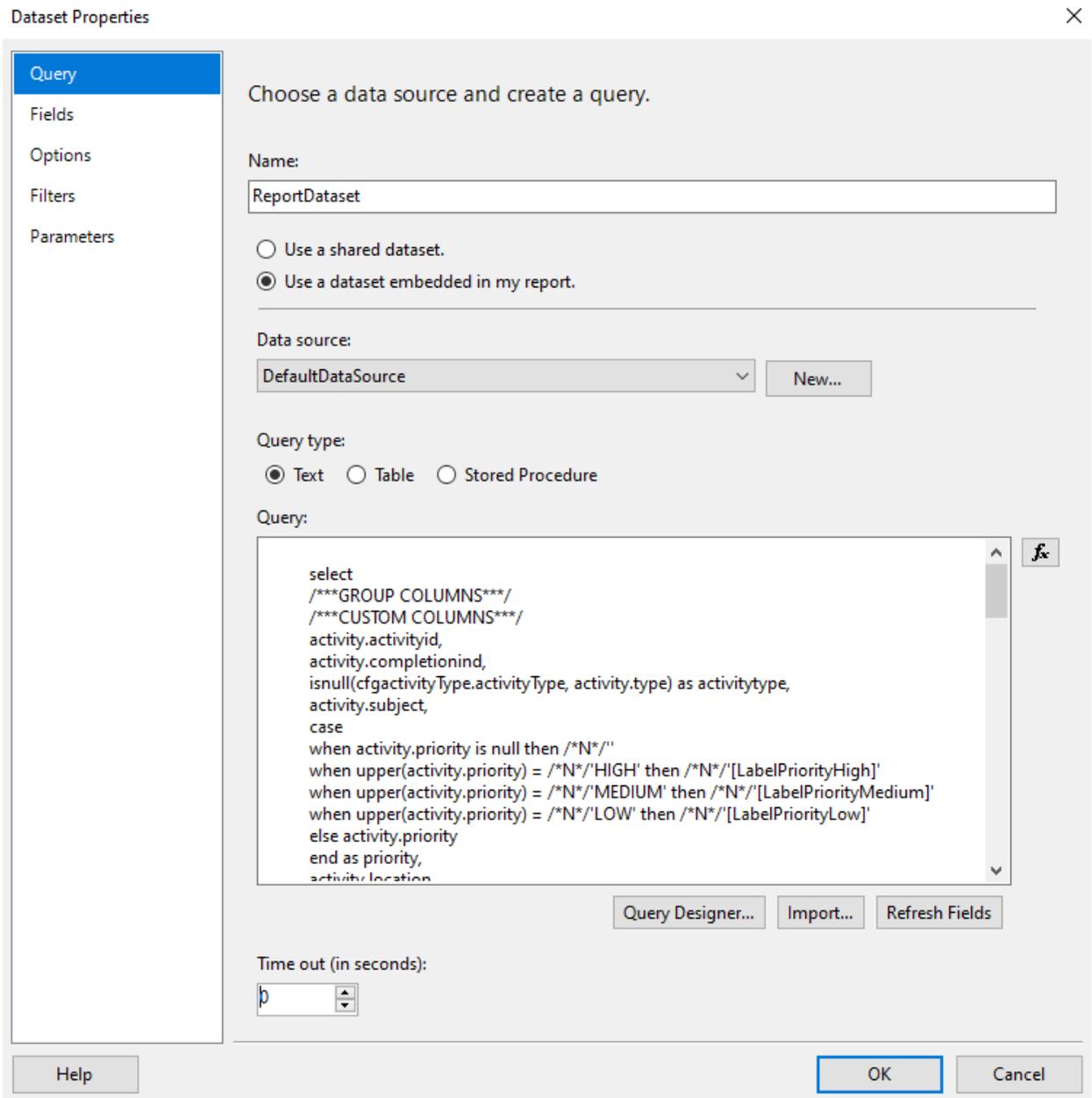
5. Click **OK**.

If you receive the following message, click **OK**. You do not need to refresh the field list; you are updating the table name only.
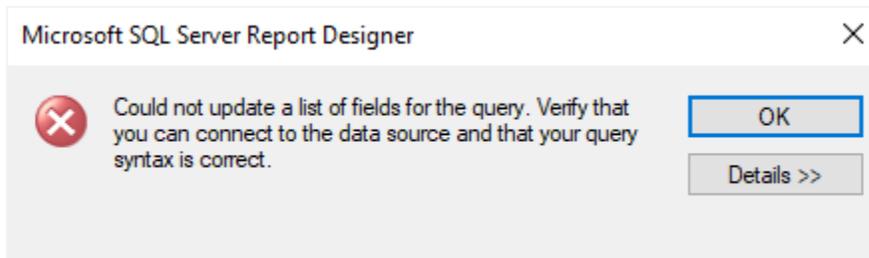
Custom Invoices Created with 2010 RDL Schema

Vantagepoint custom invoices are basically reports. Follow the instructions in the previous sections for upgrading custom reports that have 2010 RDL Schema. When you upgrade them, the schema of the report will be upgraded to the RDL 2016 Schema.

After you upgrade custom reports to the RDL 2016 Schema, review your custom invoice reports and their custom templates to make sure everything is working properly.

Appendix B: If You Need Assistance

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

Customer Services

For over 30 years, Deltek has 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 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 Web site 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 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 Customer Success analyst online

> **Attention:** For more information regarding Deltek Support Center, refer to the online help available from the Web site.

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

Deltek