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Deploying Reports, Models, and Shared Data Sources to a SharePoint Site

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To deploy reports, report models, shared data sources, and resources to a SharePoint library, you can either publish the content using the Reporting Services authoring tools (Report Designer, Report Builder, and Model Designer) or you can upload the content by using SharePoint site actions.

SharePoint sites use different Web addresses than a Reporting Services report server in native mode. A SharePoint site Web hierarchy includes the SharePoint Web application, a top-level site, optional subsites, and libraries. You must know how to create a URL address that specifies the SharePoint server as well as the location in the SharePoint site hierarchy where you want to publish a report or related items. When you use Report Designer, Report Builder, or Model Designer to publish reports and related files to a library, the files are validated before they are added. If you upload reports and related files by using the **Upload** action on a SharePoint library, no validation check occurs. You will not know whether the file is valid until you access the report by managing, editing, or running it.

In addition, references in a report definition to shared data sources, subreports, and resources such as Web-based images must all be fully qualified URLs to a SharePoint library.

[Site Hierarchy](#)

When you configure a report server to run in SharePoint integrated mode, the SharePoint Web hierarchy is used to address items that are processed and managed on a report server.

The following elements of the Web hierarchy can be used to access and secure report server content. Other objects such as lists and pages are not used to access report server content and therefore are not described in the following table.

Object	Description
SharePoint Web application	A SharePoint Web application can be installed as a stand-alone server or under a farm that contains a collection of virtual servers. A Web application has a URL (for example, <code>http://servername</code>) and can contain multiple sites.
Site	A site is either a parent site for a Web application or a sub-site.
SharePoint library	A library contains documents or folders. A library or folder in a library is the only site object that can store reports, report models, shared data

	sources, and external images.
Item	Report server items that you can reference in a URL include a report definition for a report or subreport, a report model, a shared data source, or an external image.

[☐ URL Syntax and Rules](#)

Each report server item in a library is identified by a fully qualified URL that includes a protocol prefix, server name, site, library, file name, and file name extension for the file type.

URL for a SharePoint Server

You must use a URL to the SharePoint server when you deploy a Report Server or Report Model project from Business Intelligence Development Studio to the report server.

To find the name of the server to use, open a browser and locate the SharePoint library where you want to publish a report. The server name appears immediately after the protocol prefix, for example, `http://servername`.

Using the Reporting Services URL proxy endpoint is not supported. A proxy endpoint includes a port number, for example, `http://servername:8080/reportserver`.

URL for a SharePoint Server Site or Subsite

When you deploy a report or report data source, you must use a URL to a SharePoint site and subsite, if there is one. In the URL, the site name appears immediately after the server name., for example, `http://servername/site` or `http://servername/site/subsite`.

On a Microsoft Office SharePoint Server 2007 Web application, the site and subsite frequently correspond to the tabs on the main site. To find the site name or subsite name, click **Home**, and then **All Site Content**. Scroll to the bottom and look for **Sites and Workspaces**. The list of sites appears in this section.

URL for a SharePoint Library

When you deploy a report or related item to a SharePoint library, you must use a URL to the SharePoint library. The URL to use for a library differs depending on the version of SharePoint you are using.

On Microsoft Windows SharePoint Services 3.0, the library appears after the server name, for example, `http://servername/Shared Documents`.

On Office SharePoint Server 2007, the library appears after the site and subsite. For example, `http://servername/site/Documents`.

To find the path information for a new SharePoint library or for an unfamiliar site, open a browser and locate the SharePoint library where you want to publish your reports. If the library is empty, upload any file. Right-click the file and select **Properties** to open

the **Properties** window. The address of the file contains the URL values that you need for a publish operation.

Fully qualified URLs for Items on a SharePoint Site

Items that are stored in a SharePoint library are always addressed through a fully qualified URL that starts with the Web application (`http://server`) as the root node, and concludes with the name of the file that you are referencing.

File names in the URL must include a file name extension.

You cannot use relative URLs for dependent items in reports that you publish to a SharePoint site. For example, you cannot use a relative URL to reference a shared data source, report model, or subreport. You must always specify the fully qualified URL to a SharePoint library for each item. There is no way to predict where a dependent file might be located as there is no predefined hierarchy to the sites that you can use to parse a URL format.

When you publish or upload a report that contains dependent items, you must set the references to the dependent items after the report is published. References that worked correctly in Preview mode in Report Designer are not guaranteed to work after the report is published. For more information, see [Publishing from an Authoring Tool to a SharePoint Library](#) in this topic.

URLs for External Images

A report definition can include an image file that is stored as an external file. You can reference that file in the report definition by setting a fully qualified URL to the image file. It can be stored on a SharePoint site or on a remote computer.

Regardless of the report server mode, references to an external image file in a report must be a fully qualified URL. Also, referencing an external image file typically requires that you configure the unattended report processing account.

Reserved Names on SharePoint Sites

If you are creating or constructing a URL to an item that is located on a SharePoint site, know that the words **Personal** and **Sites** are both reserved names under the default site.

☐ [Examples of URLs](#)

When publishing items to a SharePoint library, you must specify fully qualified URLs to the target library. A fully qualified SharePoint URL includes the SharePoint Web application, site, library, folder (optional), file, and file name extension. The following examples provide several illustrations of the syntax you should use.

Target	Example URL
A SharePoint server.	<code>http://TestServer</code>

A SharePoint server site or subsite.	http://TestServer/toplevelsite/subsite
The Company Sales sample report in Shared Documents on a Windows SharePoint Services deployment.	http://TestServer/TestSite/Shared Documents/CompanySales.rdl
The Company Sales sample report in Documents on a Office SharePoint Server instance.	http://TestServer/TestSite/Documents/Doc/CompanySales.rdl
The Company Sales sample report in Report Center on an Office SharePoint Server instance.	http://TestServer/TestSite/Reports/Doc/CompanySales.rdl

☐ [Publishing from an Authoring Tool to a SharePoint Library](#)

If you upgraded Report Designer, Model Designer, or Report Builder to SQL Server 2005 Service Pack 2 (SP2), you can publish items from the authoring tool to a SharePoint library. SP2 adds support for SharePoint URLs in the project property pages. Earlier versions of the authoring tools do not support SharePoint URLs as valid locations.

When you use Report Designer, Report Builder, or Model Designer to publish reports and related files to a library, the files are validated before they are added. If you upload reports and related files by using the **Upload** action on a SharePoint library, no validation check occurs. You will not know whether the file is valid until you access the report by managing, editing, or running it.

Shared Data Sources

When you publish a shared data source from a report authoring tool, you set the project property TargetDataSourceFolder. The target data source folder must be a URL to a SharePoint library. Unlike in Reporting Services native mode, you cannot specify a relative folder; relative paths are not valid. If a folder in the Document Library path does not exist, one will be created.

When you publish a shared data source (.rds) file to a SharePoint site, this changes the data source file to an .rsds file name extension. The .rsds file cannot be saved locally from a SharePoint site and imported into an existing Reporting Services project. Shared data sources with file name extensions .rds and .rsds are not interchangeable.

Shared Data Sources from Report Designer

If you are publishing shared data sources from a Report Designer project, you can either use a URL that specifies the target library or you can leave the property blank. Unlike in

Reporting Services native mode, you cannot specify a relative folder; relative paths are not valid. If a folder in the Document Library path does not exist, one will be created. If you leave the target data source folder blank, the data source will be published in the target report folder.

Shared Data Sources from Model Designer

If you are publishing shared data sources (either .rds files or .smdl files) from a Model Designer project, you must use a URL that specifies the target library. You cannot specify a relative folder; relative paths are not valid. If a folder in the Document Library path does not exist, one will be created. Both your model (.smdl) and your shared data source (.rds) are published to this folder, for example, <http://servername/site/Documents/Data Sources>.

File Names

File names in a URL for report items must include a file name extension. The file name extension determines the file type. When you publish report items from a report authoring tool, the file name extension is included automatically. If you upload a report item to a SharePoint library, you must include a file name extension.

If you do not specify a file name extension for items that you publish to a SharePoint site, the **rsInvalidDataSourceReference** error will occur. File names may not include characters that are not recognized as valid file name characters by SharePoint applications. Do not include the following characters: # % & * : < > ? / { | }.

If your report definition includes references to subreports, the fully qualified URL for the subreport must be specified. You cannot specify a relative folder; relative paths are not valid.

Setting References to Dependent Items

For reports that have been created by using Report Builder, the report definition includes references to the report model and the model data source that was used to build the report. These are specified in the report definition file. If you add this report to a Report Server project in Report Designer to make changes, and then publish it to a SharePoint library, you must open the report on the SharePoint library and rebind the data source reference. You only must rebind the data source when you first publish the report. The report server cannot determine from the report definition whether the data source is an .rds file or an .smdl file. For more information, see [How to: Bind a Report or Model to a Shared Data Source](http://msdn2.microsoft.com/en-us/library/bb283149.aspx) [<http://msdn2.microsoft.com/en-us/library/bb283149.aspx>] .

[Publishing Pre-SP2 Items to a SharePoint Site](#)

To publish report definitions, report models, and shared data sources that you created in pre-SP2 versions of the authoring tools, you must open or create a project in the SP2 version of the tool and then publish the files.

An alternative is to upload the files directly from the file system to a SharePoint library, and then run the report to verify that it works. You must set references to any dependent items before running the report.

☐ [Differences between Uploading and Publishing](#)

When you use Report Designer, Report Builder, or Model Designer to publish reports and related files to a library, the files are validated before they are added. If you upload reports and related files by using the **Upload** action on a SharePoint library, no validation check occurs. You will not know whether the file is valid until you access the report by managing, editing, or running it.

☐ [Updating a Published Item](#)

After you have published or uploaded an item to a SharePoint library, you should check the item out of the library before updating it. While the report is checked out to you, you will be the only user who has permission to make changes to the report. When you are finished, check it back in.

If you upload or publish a report without checking the document out first (for example, by uploading an item that has the same name as an existing item), the report server will check it out for you, add the updated report as a new version of the existing item, and then check the document back in.

☐ [External Images as Resources](#)

A report server that runs in native mode supports the concept of a resource, which is defined as any file that is stored and secured on the report server, but is not processed by the report server. In native mode, it can be any type of file.

When a report server runs in SharePoint integrated mode, the concept of a resource has a narrower definition. The report server retains the concept of a resource for storing reports that reference an external image. This applies if the report is a snapshot or a copy that is kept for internal use.

☐ [See Also](#)

Tasks

[How to: Publish a Report to a SharePoint Library from Report Designer \(SharePoint Integrated Mode\)](#) [<http://msdn2.microsoft.com/en-us/library/bb283155.aspx>]

[How to: Publish a Shared Data Source to a SharePoint Library from Report Designer \(SharePoint Integrated Mode\)](#) [<http://msdn2.microsoft.com/en-us/library/bb326285.aspx>]

Concepts

[Viewing and Managing Report Server Items from a SharePoint Site](#) [<http://msdn2.microsoft.com/en-us/library/bb326347.aspx>]

Other Resources

[Project Property Pages \(General Tab, Report Designer\)](http://msdn2.microsoft.com/en-us/library/ms178319.aspx) [<http://msdn2.microsoft.com/en-us/library/ms178319.aspx>]

Help and Information

[Getting SQL Server 2005 Assistance](http://msdn2.microsoft.com/en-us/library/ms166016.aspx) [<http://msdn2.microsoft.com/en-us/library/ms166016.aspx>]

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