

# SBI201: Creating Report Subscriptions in Microsoft SQL Server 2008 Reporting Services

Paul Litwin

Fred Hutchinson Cancer Research Center /  
Deep Training

[paul@deeptesting.com](mailto:paul@deeptesting.com)

[twitter.com/plitwin](https://twitter.com/plitwin)

SQL Server  
CONNECTIONS

# Paul Litwin

- **Developer**

- Focus: ASP.NET, ASP, C#, SQL Server, Reporting Services
- MCSD
- Microsoft MVP
- Programmer Manager with Fred Hutchinson Cancer Research Center (Seattle)

- **Co-Founder and Senior Trainer**

- Deep Training
  - [www.deeptraining.com](http://www.deeptraining.com)

- **Conference Chair/Speaker**

- Chair, Microsoft ASP.NET Connections
- Member INETA Speakers Bureau

- **Author of over a dozen books & courses, including...**

- *AppDev SQL Server 2005 & 2008 Reporting Services Courses*
- *ASP.NET for Developers*
- *Access Cookbook*
- *Access 2002 Desktop/Enterprise Dev Handbook*

# Updated Slides & Samples Download

- You can download them from:
  - [www.deeptraining.com/litwin](http://www.deeptraining.com/litwin)

# OpenSpaces at DevConnections

- Free-form “sessions”
- Come to present, discuss, or listen
- Anyone can lead a session
  
- Palazzo A from 7:30-9:30
- Free Beer & Pizza
- Sponsored by Microsoft MVP Program

# Agenda

- **What are Report Subscriptions?**
- Creating Standard Subscriptions
- Creating Data-Driven Subscriptions
- ASP.NET Report Subscription Application

# Creating Subscriptions

- **SSRS report subscriptions**
  - **Standard subscription:** A user elects to have a report run and delivered to them on a set schedule using a specified rendering format
  - **Data-driven subscription:** as its name implies, this type of subscription is driven by a database query. The query defines the delivery, rendering, and parameter values for each recipient of the report

# Parts of a Subscription

- A subscription is made up of...
  - A report that can be run unattended
  - A delivery method
    - E-mail delivery
    - File-share delivery
  - Delivery settings
  - A rendering format
  - Schedule for delivering subscription
  - Parameters to use when running the report

# Agenda

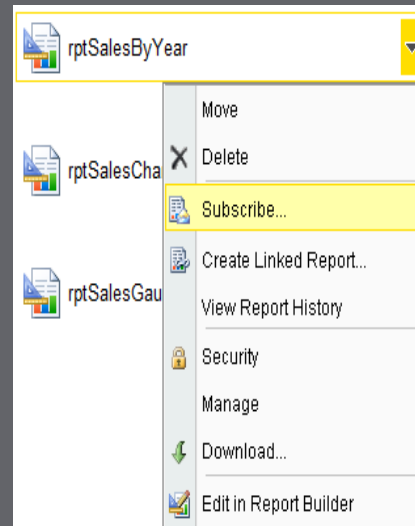
- What are Report Subscriptions?
- **Creating Standard Subscriptions**
- Creating Data-Driven Subscriptions
- ASP.NET Report Subscription Application

# Creating a Standard Subscription

- Users can use the Report Subscriptions page to setup and maintain a subscription to a report
- SSRS 2008: Click on the Subscriptions link along the top of page from Report Properties page



- SSRS 2008 R2: Click on down-arrow to right of report and select Subscribe (or Manage)



# Creating a Standard Subscription

- Any user who has rights to view a report (members of Browser group and higher) can setup a subscription to the report

# Demo: Creating a Standard Report Subscription

SQL Server Reporting Services  
Subscription: rptSalesByYearAndQtr Search

---

### Report Delivery Options

Specify options for report delivery.

Delivered by:

File Name:

Add a file extension when the file is created

Path:

Render Format:

Credentials used to access the file share:

User Name:

Password:

Overwrite options:

- Overwrite an existing file with a newer version
- Do not overwrite the file if a previous version exists
- Increment file names as newer versions are added

### Subscription Processing Options

Specify options for subscription processing.

Run the subscription:

When the scheduled report run is complete.   
At 9:05 PM on 3/28/2011

On a shared schedule:   
At 5:00 AM every Mon, Tue, Wed, Thu, Fri of every week, starting 5/28/2010

# Subscriptions and Parameters

- If the report has parameters, Subscription Properties page includes an additional section, Report Parameter Values section, at bottom of page where you can set parameter values

# Demo: Creating a Subscription for Report with Parameters

# Maintaining Subscriptions

- After you have created a subscription, you will want to return to **My Subscriptions** page to view recent subscription execution history and note if any execution errors occurred

My Subscriptions - Report Manager - Windows Internet Explorer

http://localhost/Reports/Pages/Subscriptions.aspx?ViewMode=Lis

Home | My Subscriptions | Site Settings | Help

SQL Server Reporting Services

## My Subscriptions

Delete

Report	Description	Folder	Trigger	Last Run	Status
Edit rptSalesChart	Send e-mail to paul@litwinconsulting.com	/ReportSubs	Timed Subscription	5/10/2010 10:51 PM	Failure sending mail: The message could not be sent to the SMTP server. The transport error code was 0x800ccc15. The server response was not available
Edit rptSalesChartPolar	Save in \\cds-plitwin\ReportDropBox as rptSalesChartPolar	/ReportSubs	Timed Subscription	5/10/2010 10:57 PM	The file "rptSalesChartPolar.pdf" has been saved to the "\\cds-plitwin\ReportDropBox" file share.

Done Local intranet | Protected Mode: Off 100%

# Demo: My Subscriptions Page

# Where do Subscriptions Live?

- ReportServer Database
  - Subscriptions and Users tables
- SQL Server Agent Jobs
  - One job per subscription

# Agenda

- What are Report Subscriptions?
- Creating Standard Subscriptions
- **Creating Data-Driven Subscriptions**
- ASP.NET Report Subscription Application

# Creating Data-driven Subscriptions

- **Pre-requisites**

- Enterprise edition of SQL Server
- User must be in Content Manager role

- **Data-driven subscription consist of**

- **A query that returns one row for each recipient of the subscription:** This query needs to follow a certain schema that is dependent on delivery method chosen
- **Data-driven subscription settings for a report:** These settings are created by clicking on **New Data-driven Subscription** link on Report Subscriptions page

# Creating the Data-driven Query

- The exact data you need to supply in a data-driven query depends on several factors
  - Which delivery method you will be using. You can choose from one of the following
    - Windows File Share
    - E-Mail
    - Null Delivery Provider
  - Report parameters. Each parameter will need to be supplied in order for the report to be delivered
  - Which, if any of delivery method-specific settings or parameters will be supplied statically

# File Share Data-Driven Subscription Query

- Fields needed in query
  - FileName
  - FileExtn
  - Path
  - Render\_Format
  - UserName
  - Password
  - WriteMode

# Email Data-driven Subscription Query

- Fields needed in query
  - TO
  - CC
  - BCC
  - ReplyTo
  - IncludeReport
  - RenderFormat
  - Priority
  - Subject
  - Comment
  - IncludeLink

# Null Delivery Data-driven Subscription Query

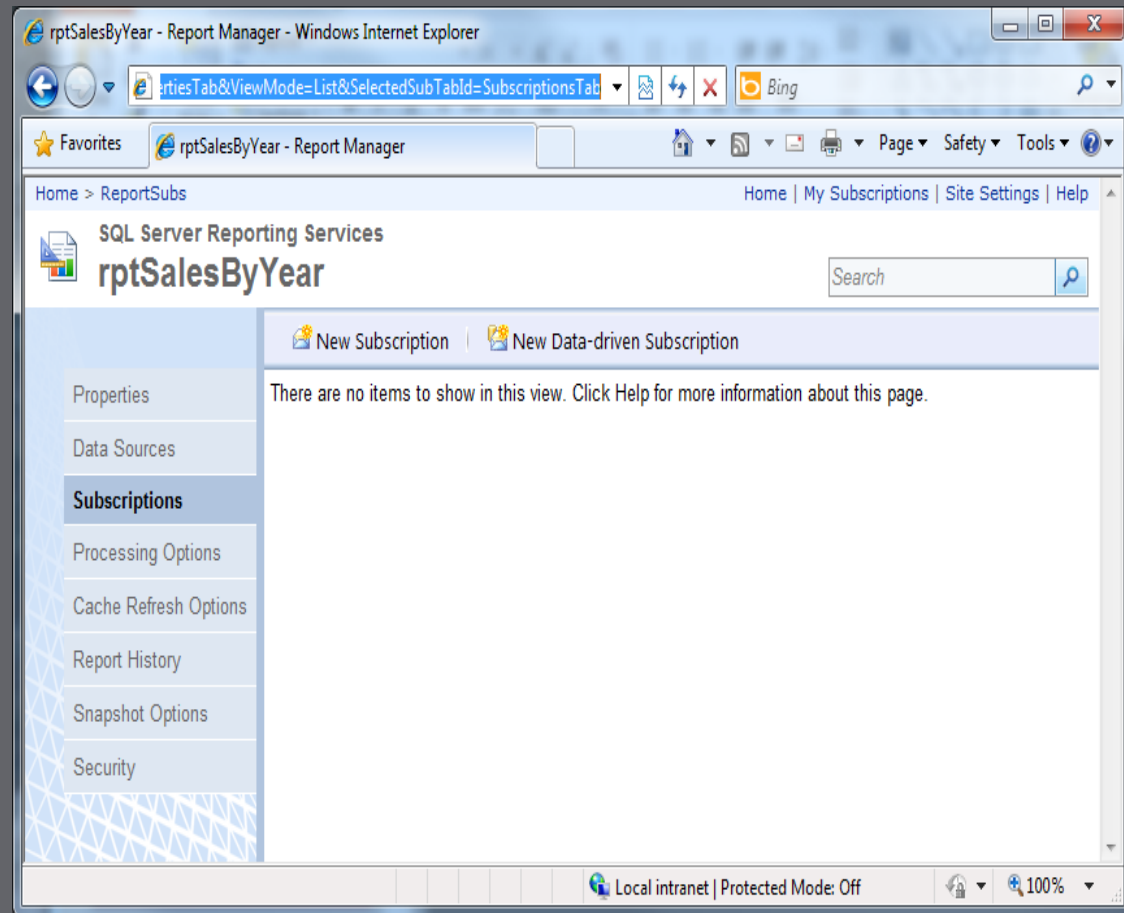
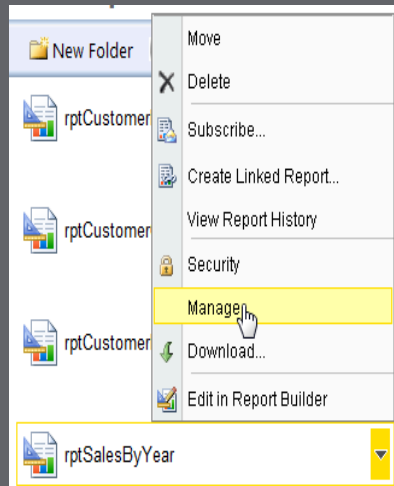
- Reporting Services includes an additional delivery method with odd name **Null Delivery Provider**
- The Null Delivery Provider doesn't actually deliver report anywhere
- You can use this special delivery method to preload Reporting Services cache with cached reports
- Query supplying subscription should return a row for each unique combination of query parameters

**R2 Alternative: Create Cache Refresh Plan  
Under Manage|Cache Refresh Options**

# Data-driven Subscription Queries

- **When are they run?**
  - Every time the scheduled subscription is executed
  - This means that the subscription will change if the data returned by the subscription changes

# Creating Data-Driven Subscriptions



# Demo: Creating Data-Driven Subscriptions

# Agenda

- What are Report Subscriptions?
- Creating Standard Subscriptions
- Creating Data-Driven Subscriptions
- **ASP.NET Report Subscription Application**

# ASP.NET Report Subscription Application

- Uses SSRS Web Service to create report subscriptions
- Alternative to letting users use Report Manager
- Subset of functionality of Report Manager

# Demo: The ReportSubscription ASP.NET App

# Updated Slides & Samples Download

- You can download them from:
  - [www.deeptraining.com/litwin](http://www.deeptraining.com/litwin)

# OpenSpaces at DevConnections

- Free-form “sessions”
- Come to present, discuss, or listen
- Anyone can lead a session
  
- Palazzo A from 7:30-9:30
- Free Beer & Pizza
- Sponsored by Microsoft MVP Program

# Your Feedback is Important

Please fill out a session evaluation form  
drop it off at the conference registration  
desk.

Thank you!