PUG 2011 SSRS

Presented by Wes Osborn Central Library Consortium

http://bit.ly/pug2011wes



Outline

What is SSRS?

Installing Report Builder

Building your first report

Exploring SSRS features

Sharing Time



What is SSRS?

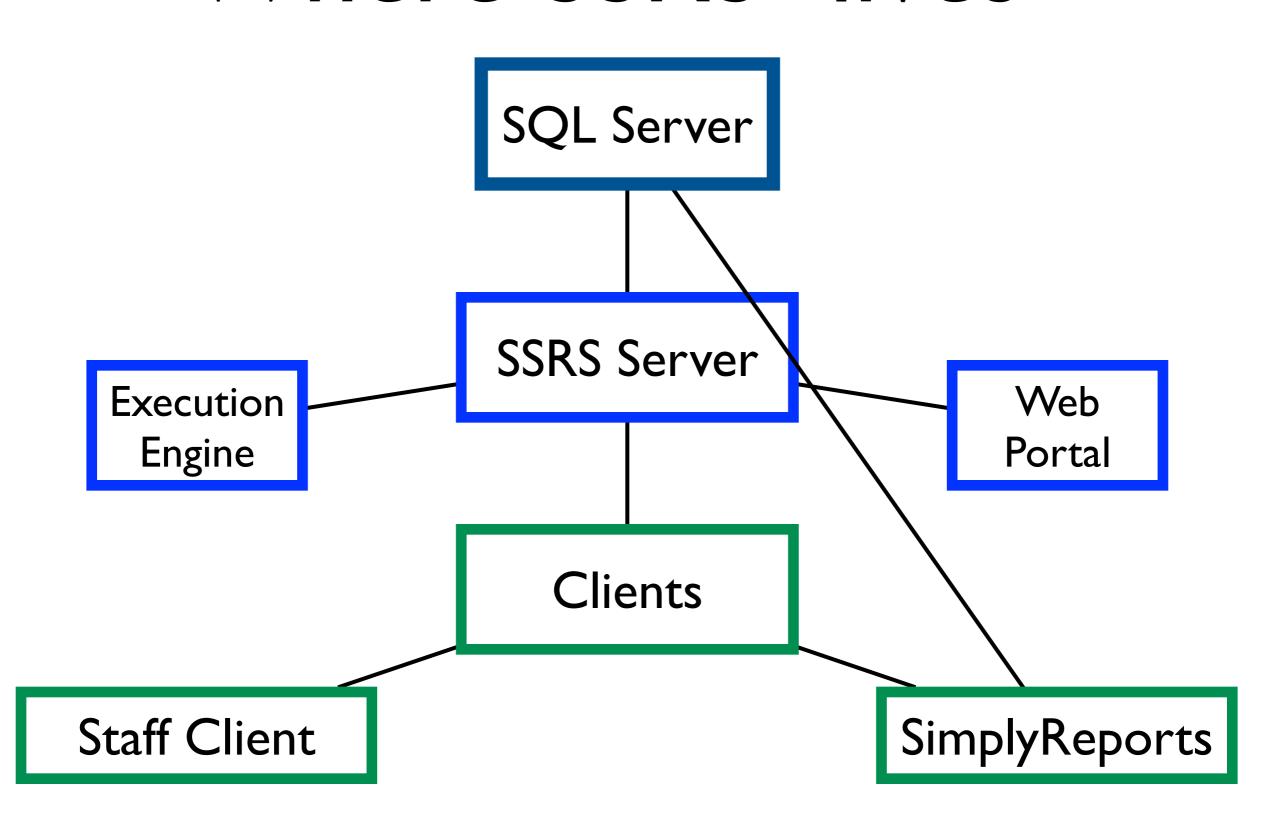
Part of SQL "Suite"

Formats output of SQL

Schedules Reports

SSRS Components

Where SSRS "lives"



What does SSRS "eat"

SQL

RDL File

XML

Where do RDL files hide?

On Report Server

C:\ProgramData\Polaris\4.0\Reports

In Report Server Database

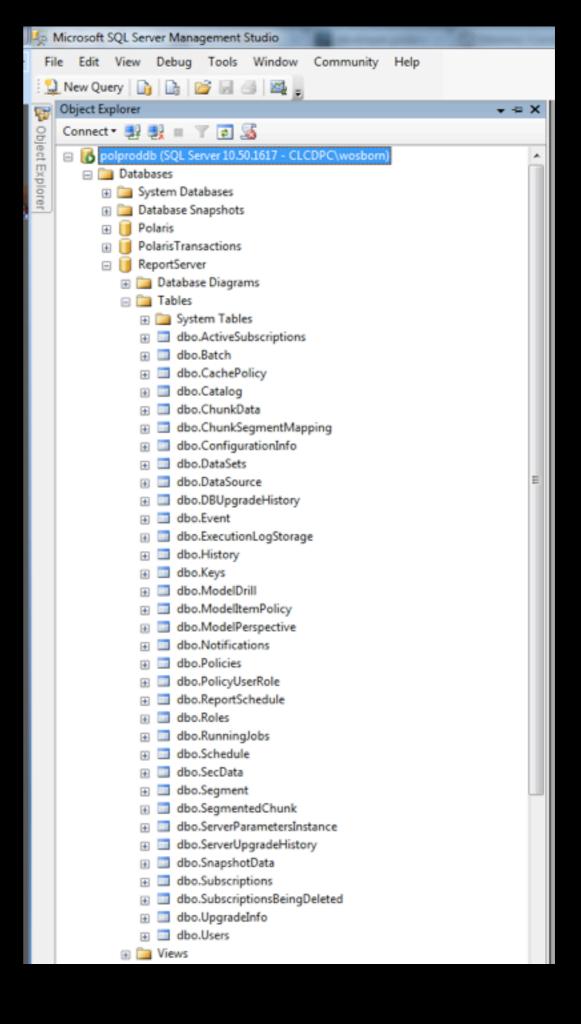
ReportServer.dbo.Catalog

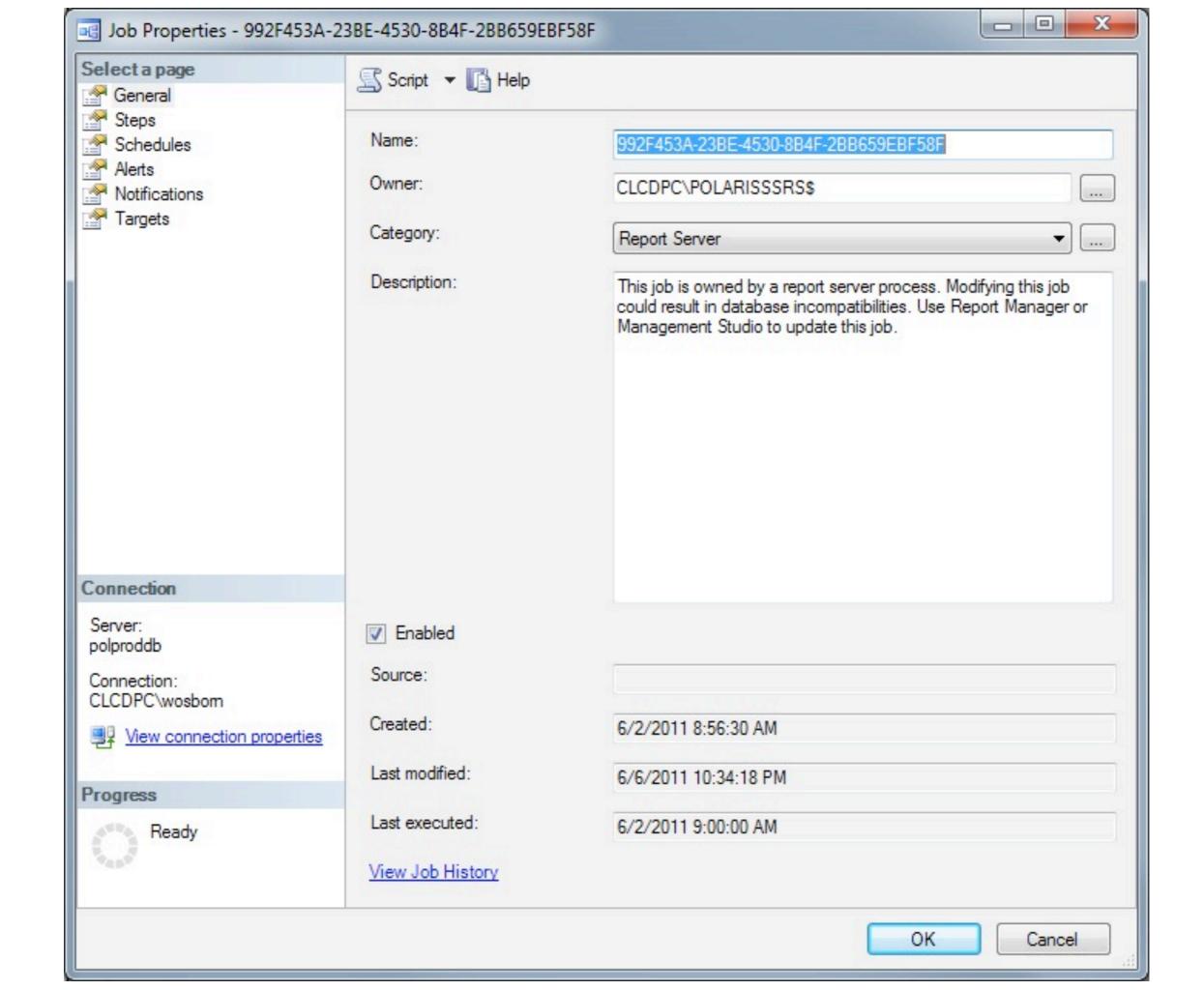
Speaking of the Report Server Database

Stores SSRS Settings

Can be on ANY SQL Server

Scheduled Reports get created as SQL Jobs





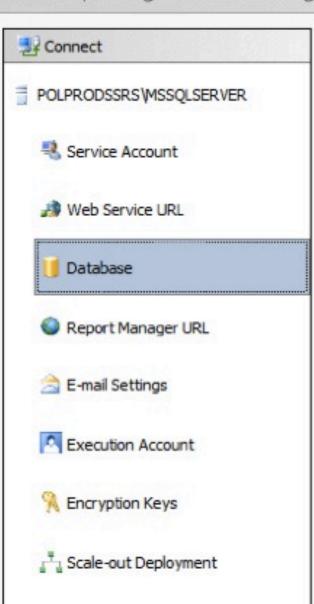
ReportServer Database



Configuring SSRS







Report Server Database Reporting Services stores all report server content and application data in a database. Use this page to create or change the report server database or update database connection credentials. Current Report Server Database

Click Change database to select a different database or create a new database in native or SharePoint integrated mode.

SQL Server Name: POLPRODDB
Database Name: ReportServer

Report Server Mode: Native

Change Database

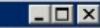
Current Report Server Database Credential

The following credentials are used by the report server to connect to the report server database. Use the options below to choose a different account or update a password.

Change Credentials

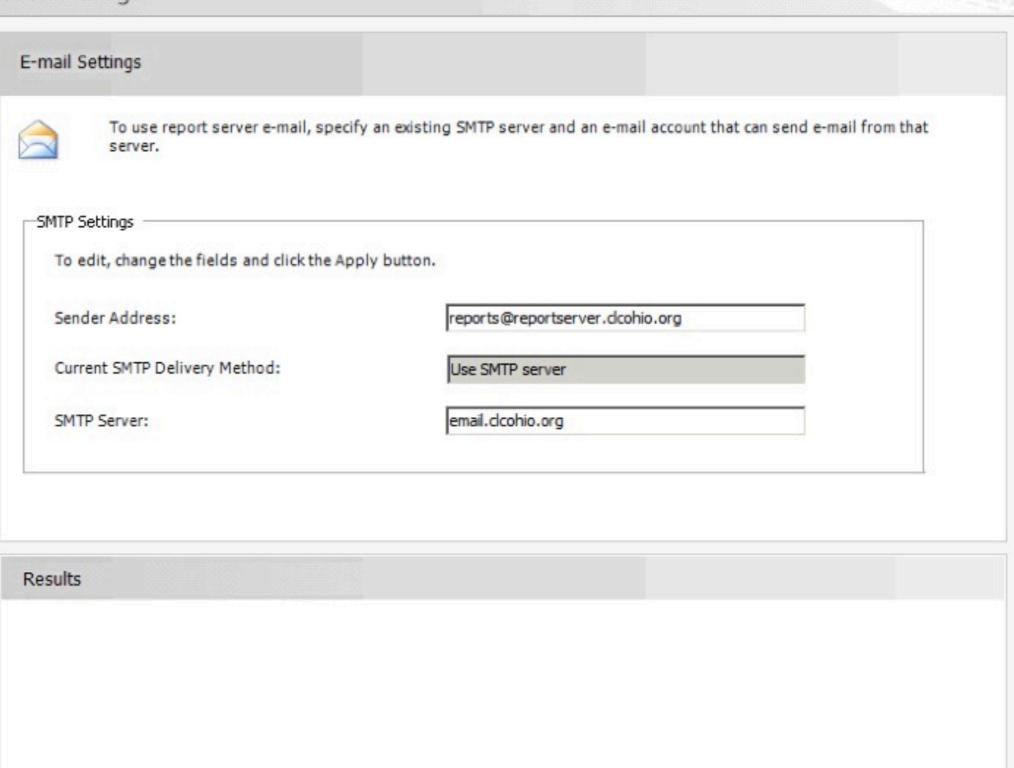
Results

Copy



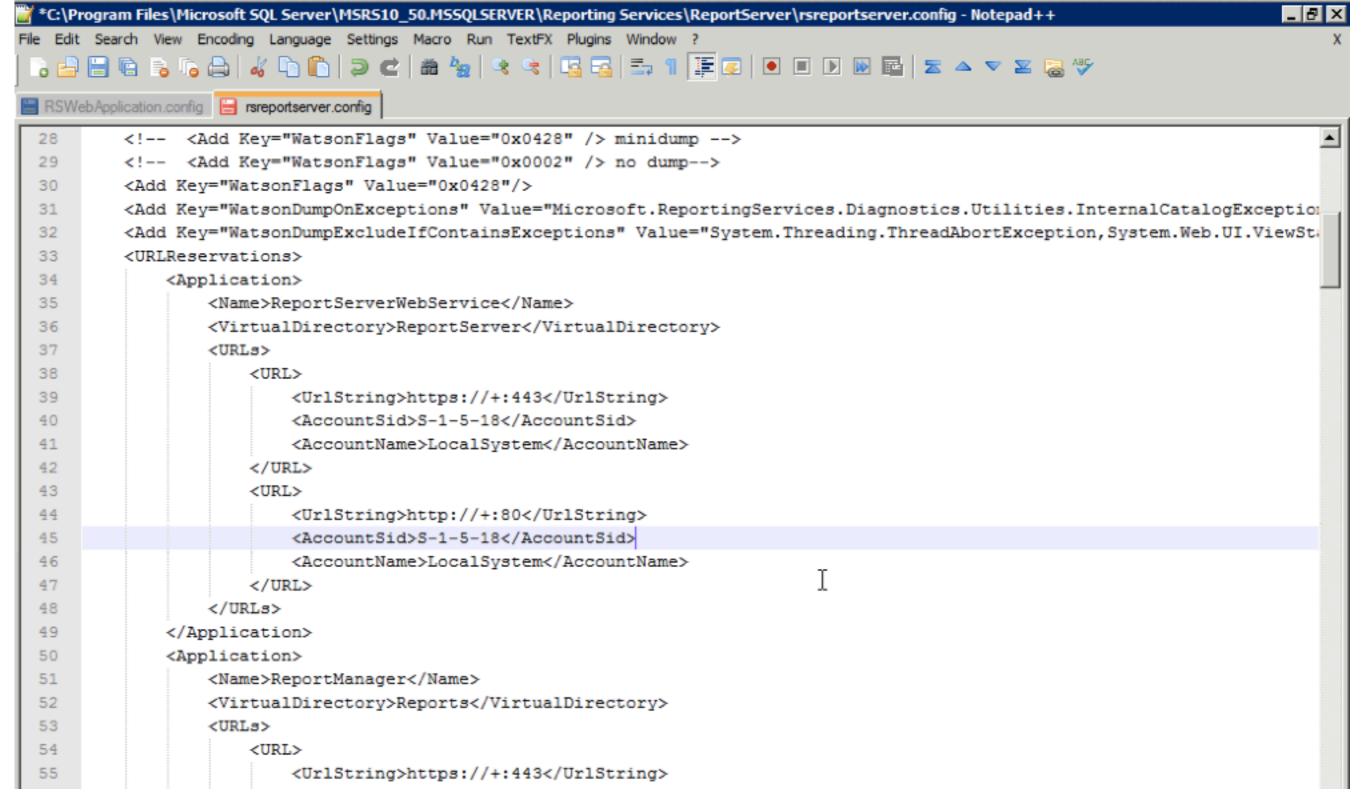








Copy



C:\Program Files\Microsoft SQL Server \MSRS10_50.MSSQLSERVER\Reporting Services \ReportServer\rsreportserver.config

Getting started

l'd really like a report that...

Microsoft SQL Server 2008 R2 Report Builder 3.0

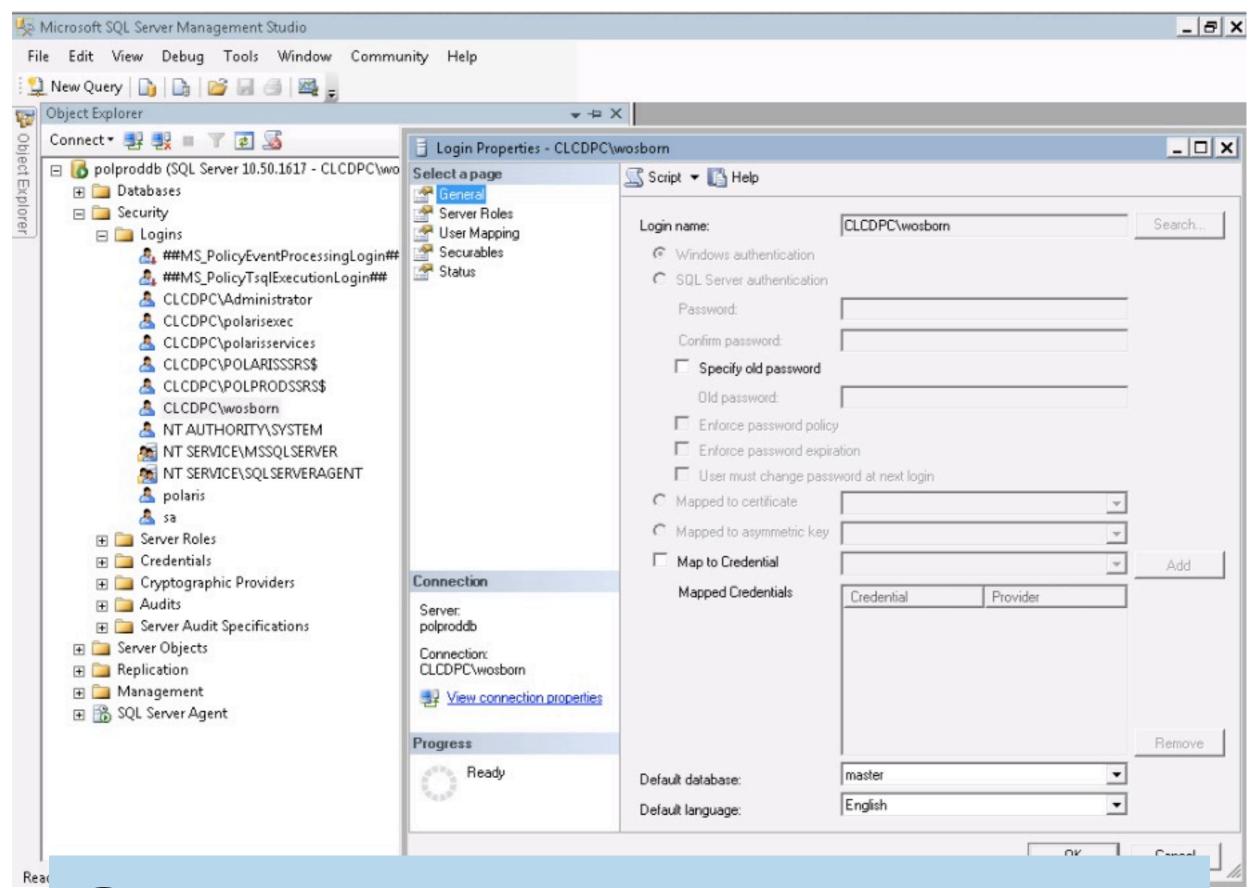
Quick links

- ↓ Overview
- ↓ Instructions

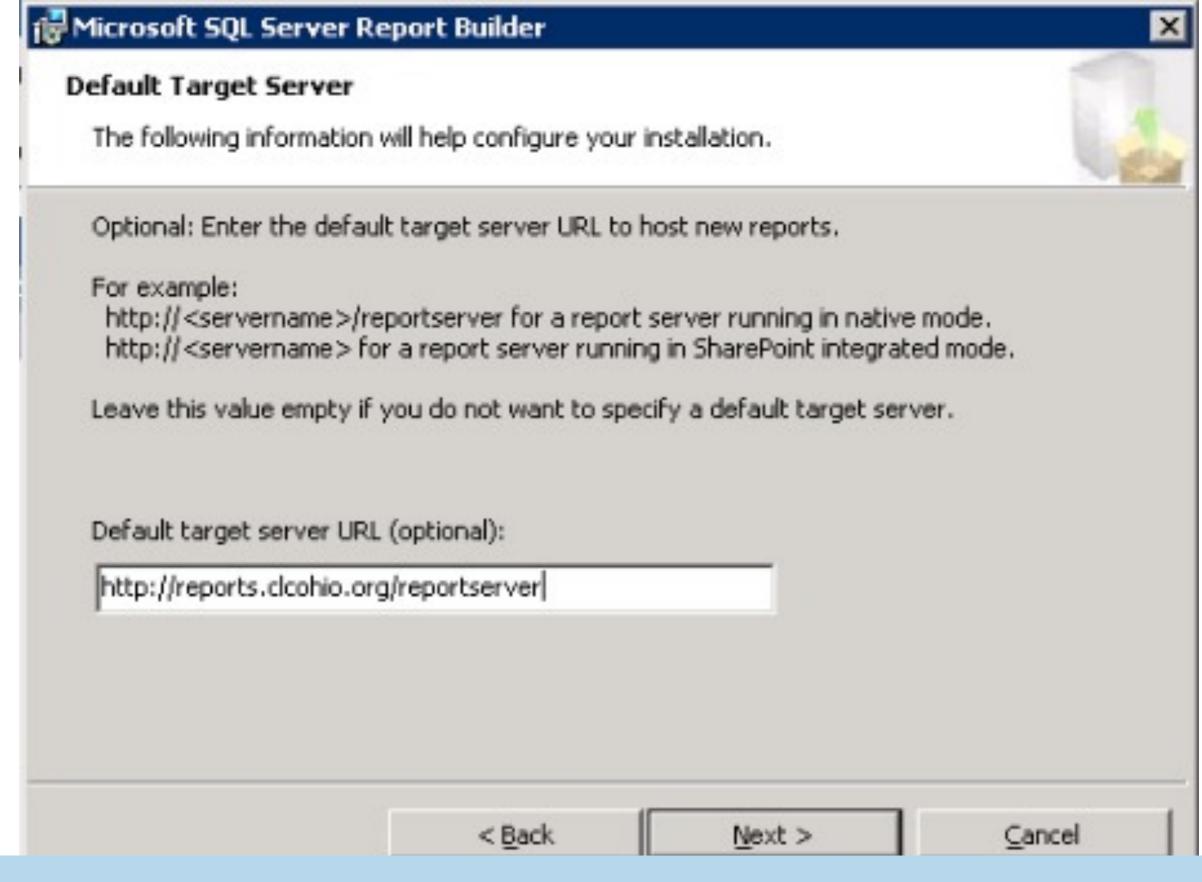
Microsoft SQL Server 2008 R2 Report Builder 3.0 provides an intuitive report authoring environment for business and power users. It supports the full capabilities of SQL Server 2008 R2 Reporting Services. The download provides a stand-alone installer for Report Builder 3.0.

Quick details	S		
Version: Change Language:	10.50.1600.1 English ‡	Date Published:	7/12/2010
iles in this down	load		
be liele is this seed			
ne links in this section of	orrespond to files available for thi	s download. Download the files a	appropriate for you.
File Name	orrespond to files available for thi	s download. Download the files a	appropriate for you.
			DOWNLOAD
File Name	adme.htm	Size	

Google: Report Builder 3.0



Create DB user account



Specify Report Server Host



New Report

Display data from various data sources in tables, charts, and other formats.



New Dataset

Share queried data among multiple reports.



Open

Open a saved report.



Recent

Open a recently used report.

Create a report from a wizard or from a blank report.



Table or Matrix Wizard

Guides you through choosing the data source connection, layout, and style for a table or matrix report.



Chart Wizard

Guides you through creating column, line, pie, bar, and area charts.



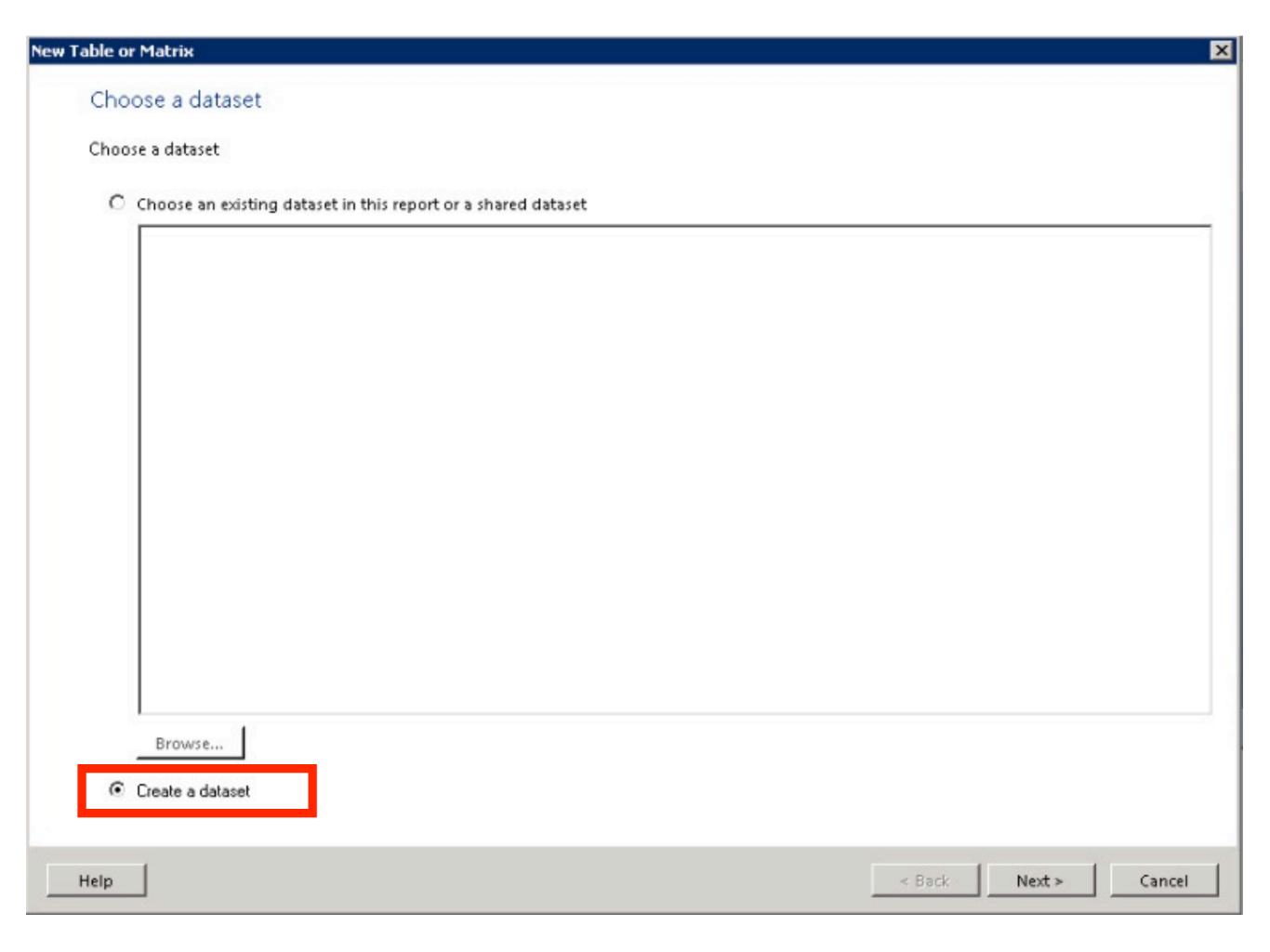
Map Wizard

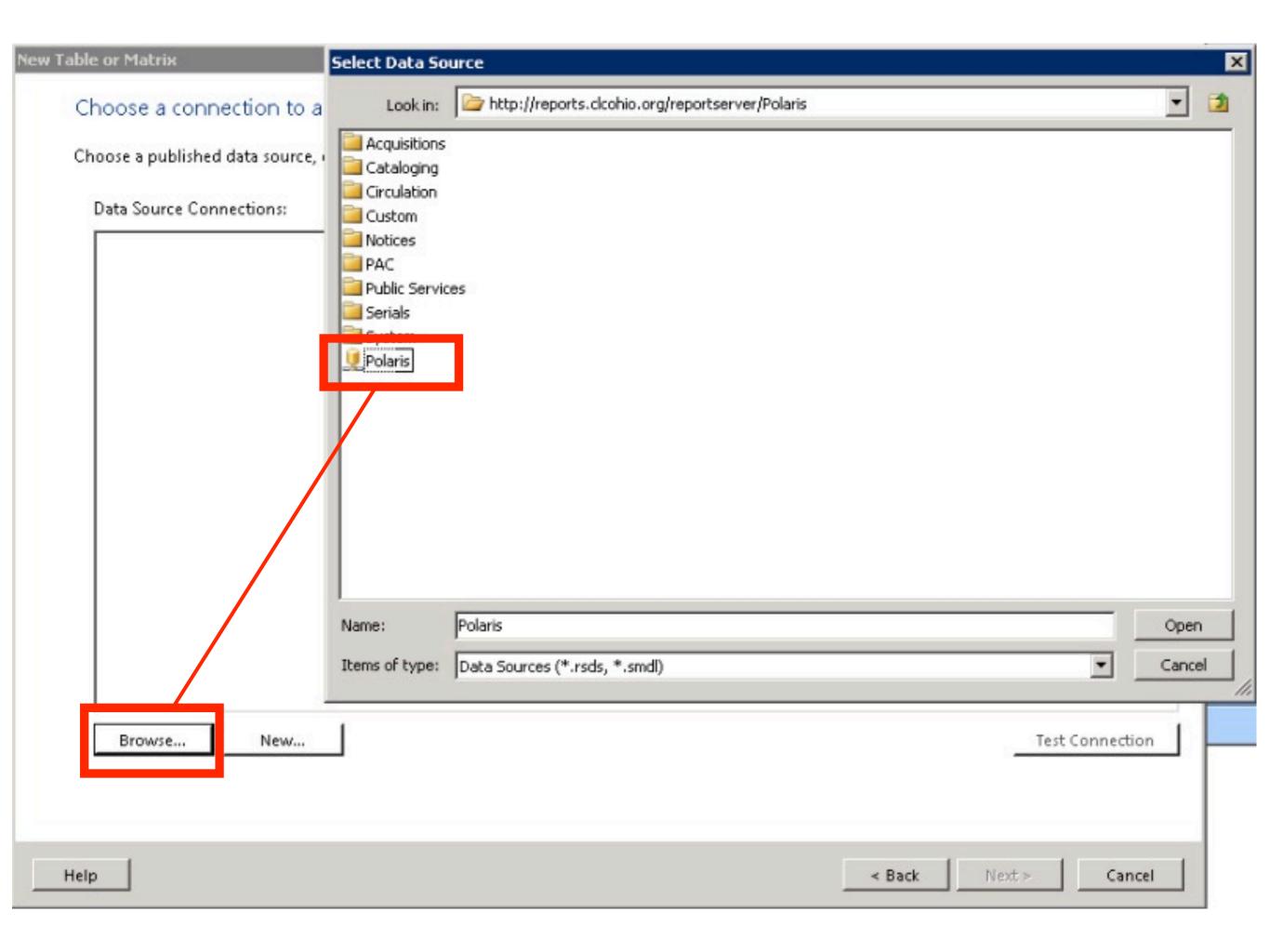
Displays report data against a geographical background.



Blank Report

Don't show this dialog box at startup.

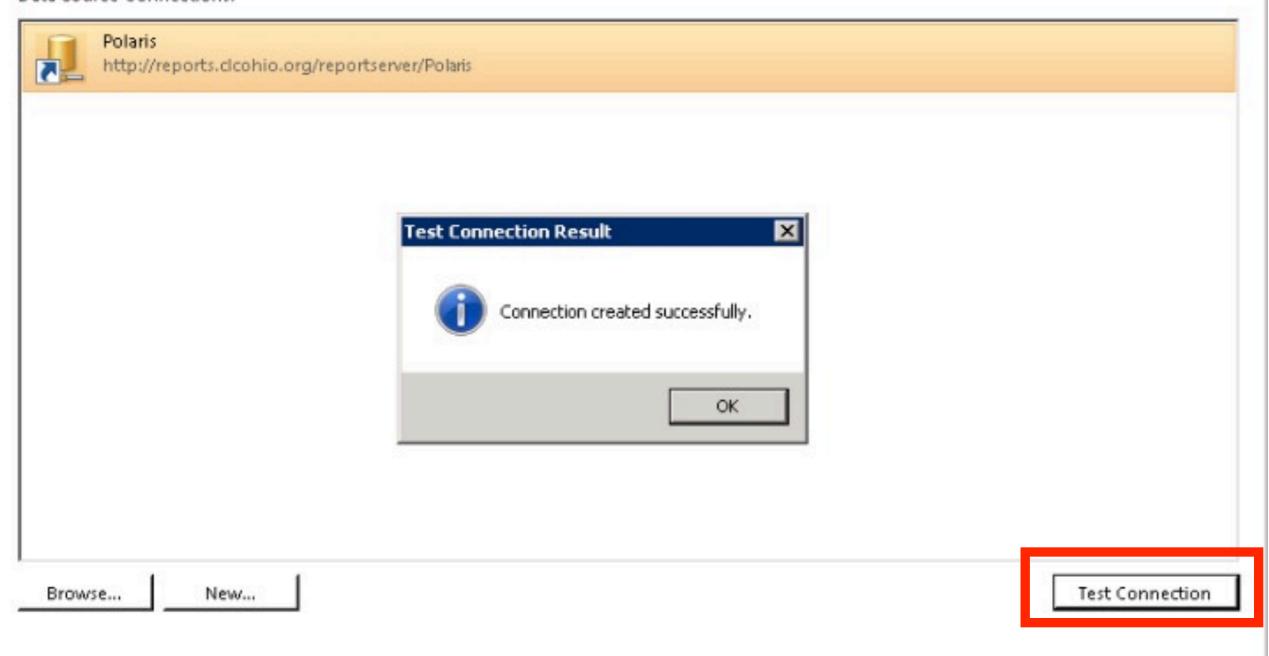




Choose a connection to a data source

Choose a published data source, or create a connection for use only in this report.

Data Source Connections:



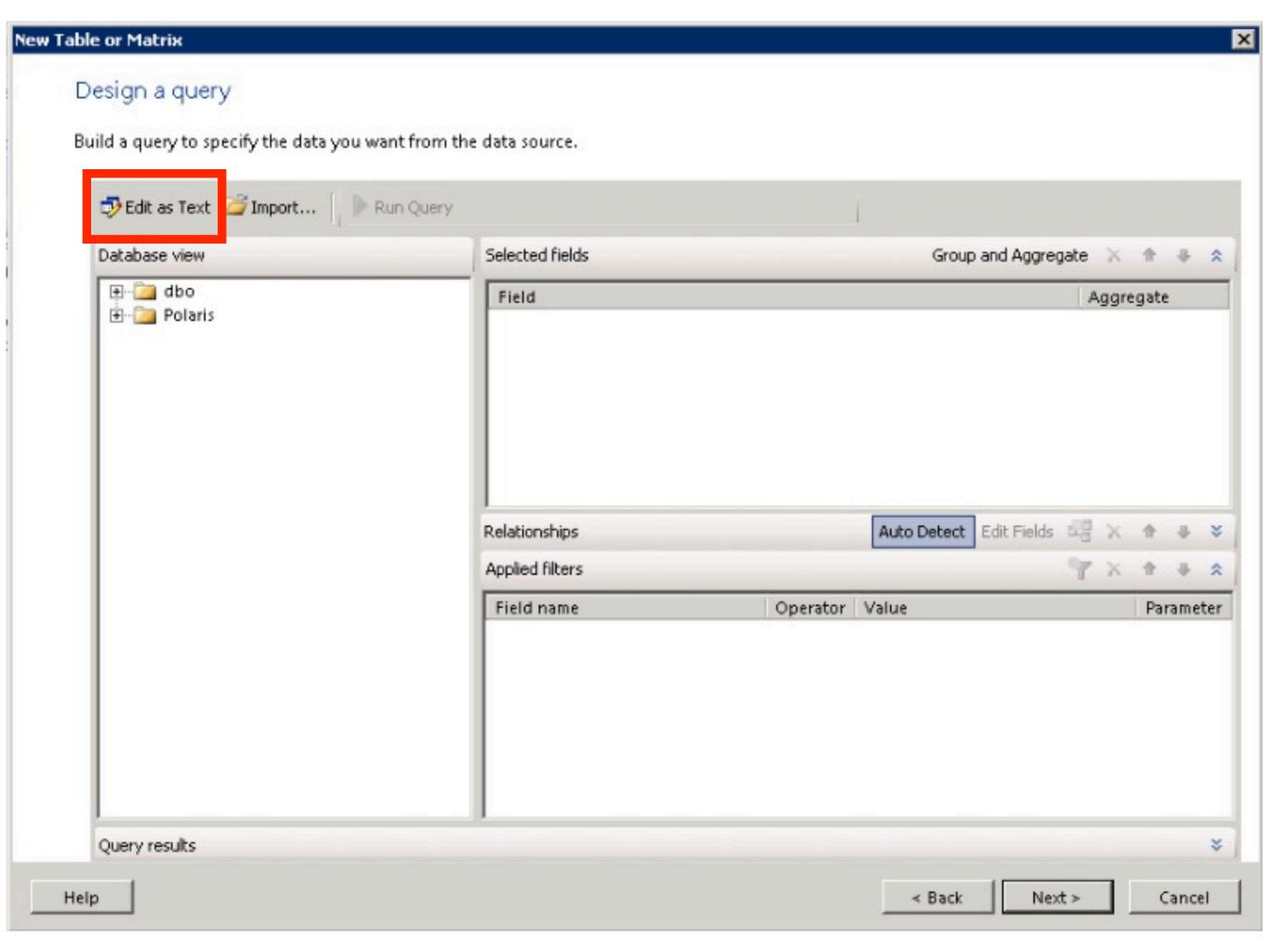
Help

< Back

Next >

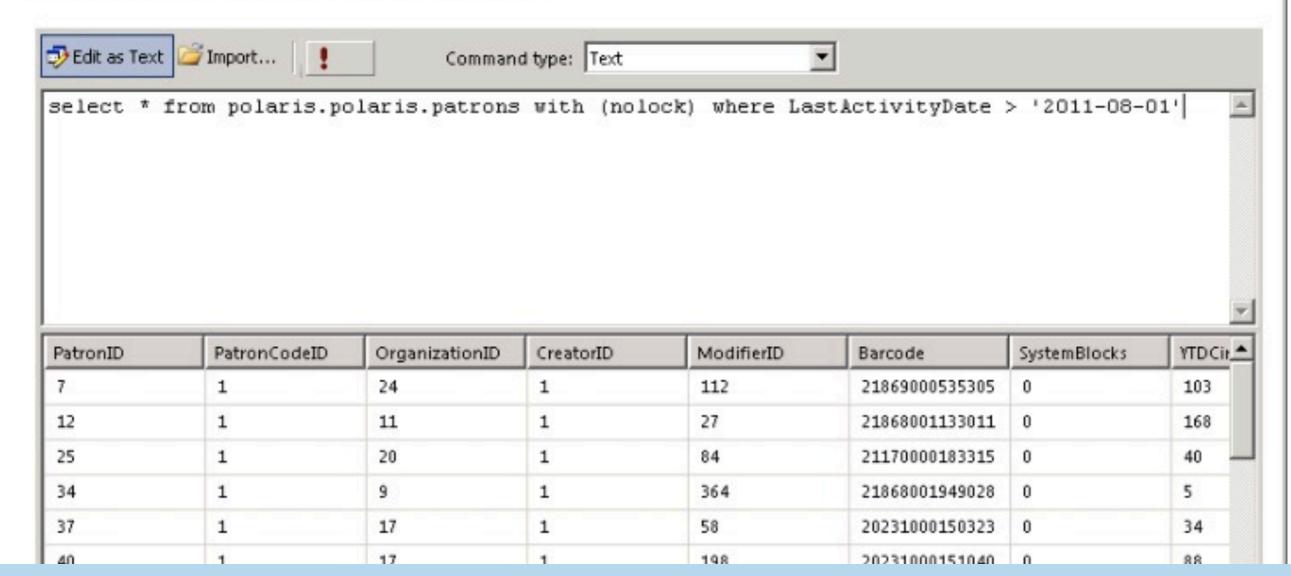
Cancel

Enter Data Source Credentials Connecting to data source 'Polaris'... Use the current Windows user Use the following: polaris User name: Password: Use as Windows credentials Save password with connection OK Cancel Help



Design a query

Build a query to specify the data you want from the data source.

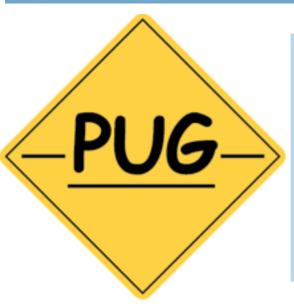


×

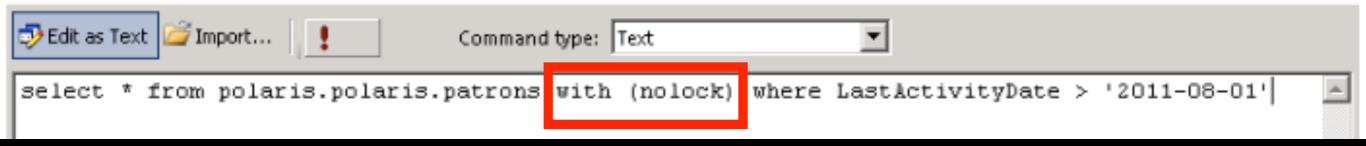
Patrons w/Activity after 8/1/11







File Sharing on the new PUG Website



with (nolock)



I HATE typing "with (nolock)"



Home Download	Documentation Changelog Support Forum Wiki
	Search

Hotstrings and Auto-replace

 Replace long strings with short hotkeys

Free

Easy to install

http://www.autohotkey.com/docs/Hotstrings.htm

AutoHotkey

```
wnl = with (nolock)
```

formsig = full formal signature

ssig = short signature

hdclose = closing helpdesk tickets

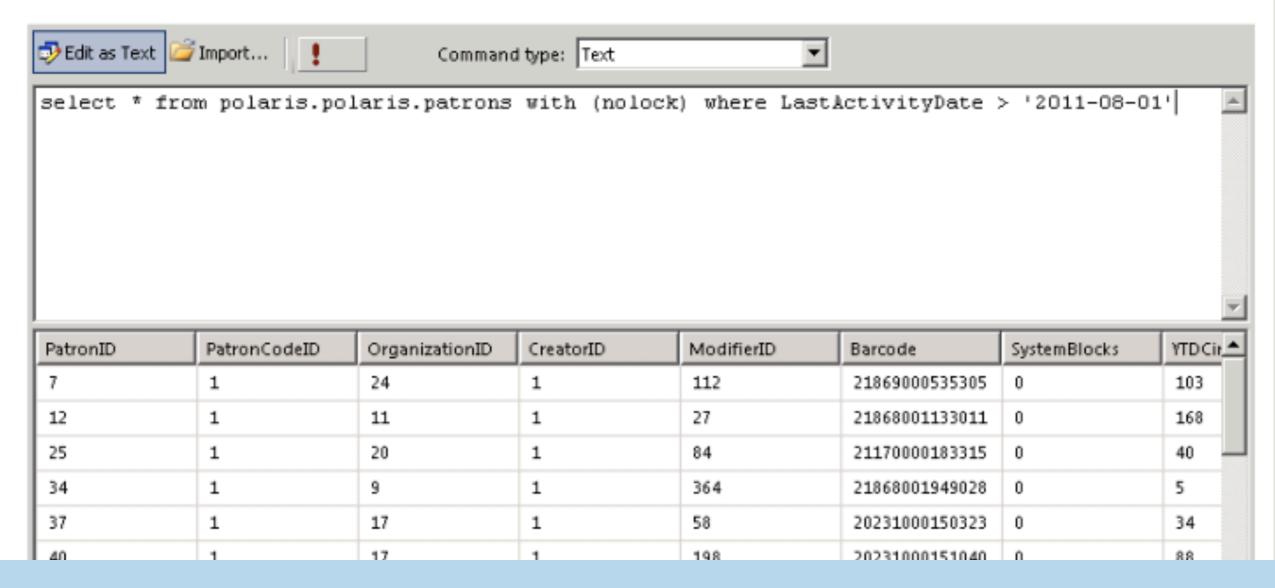
Polrais = Polaris

Back to our regular programming



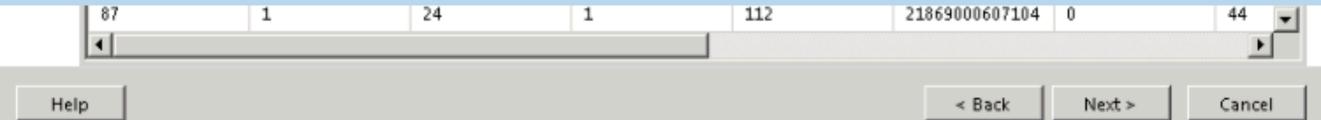
Design a query

Build a query to specify the data you want from the data source.



×

Patrons w/Activity after 8/1/1



Choose the layout

If you choose to show subtotals and grand totals, you can place them above or below the group. Stepped reports show hierarchical structure with indented groups in the same column.

Preview

Options:

Show subtotals and grand totals

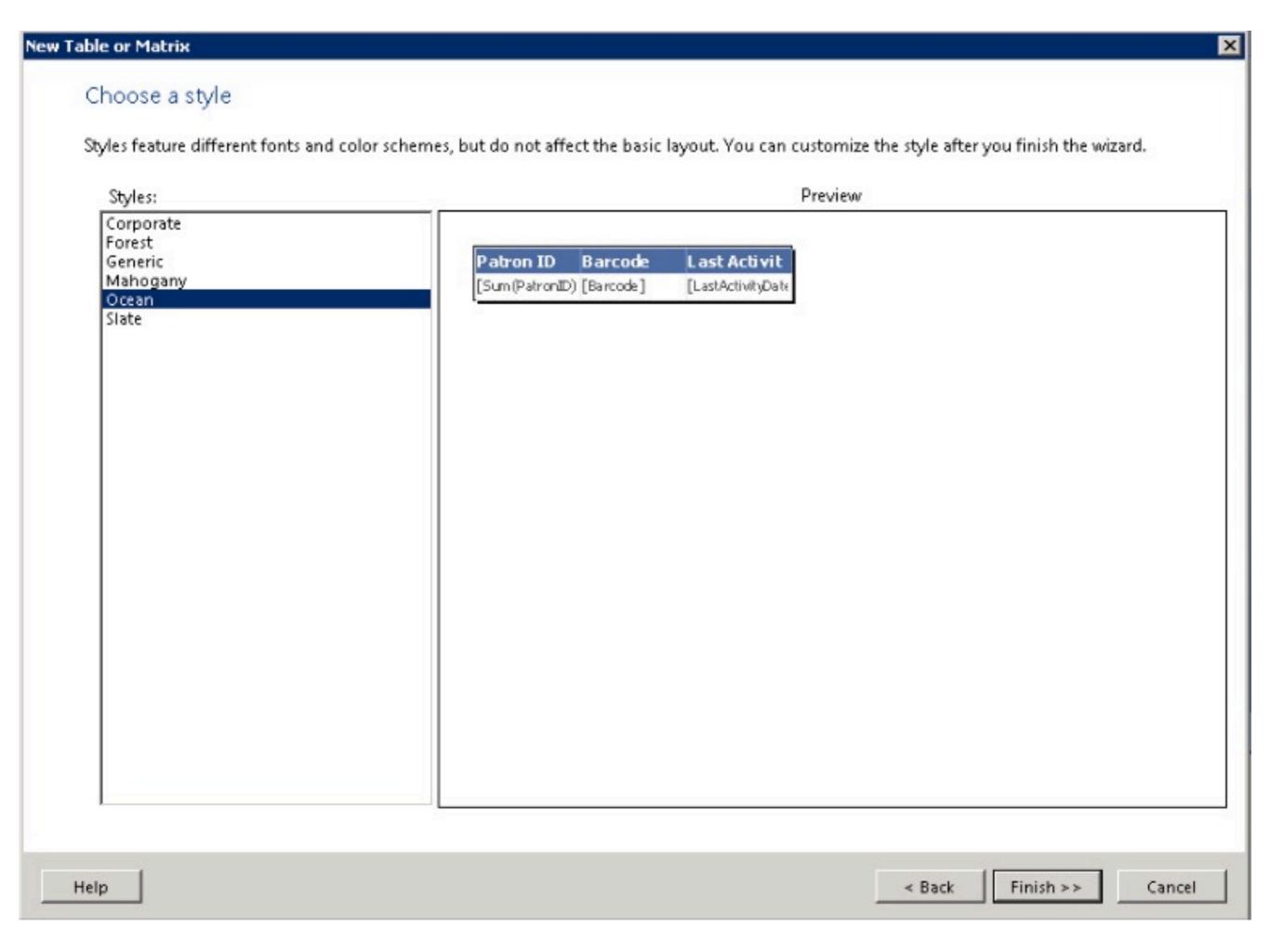
Blocked, subtotal below

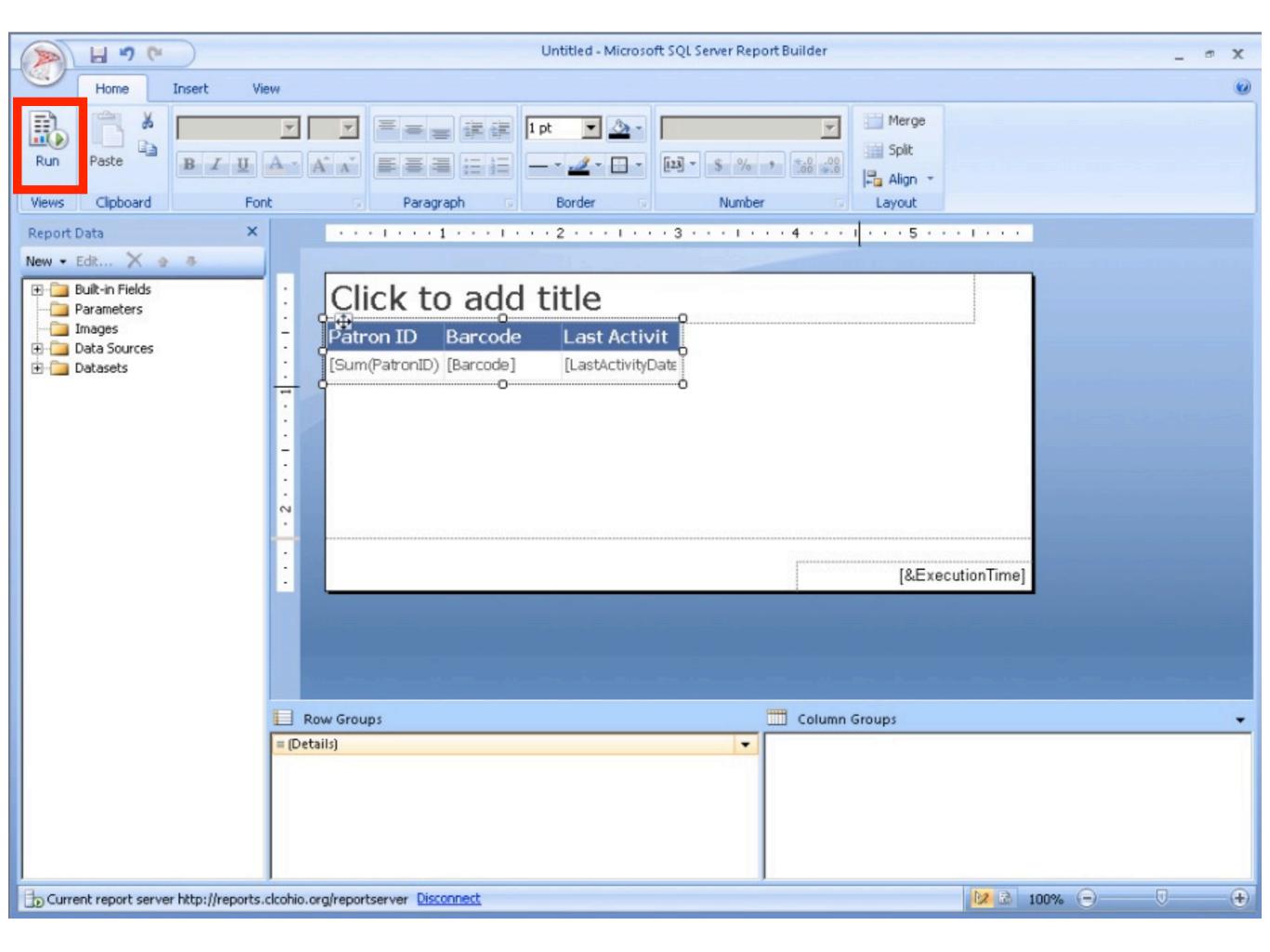
Blocked, subtotal above

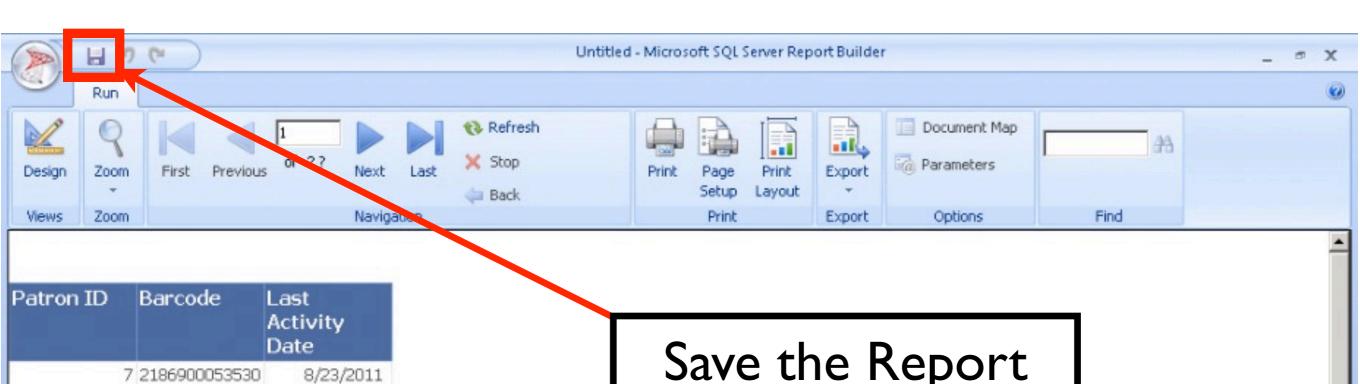
Stepped, subtotal above

Expand/collapse groups

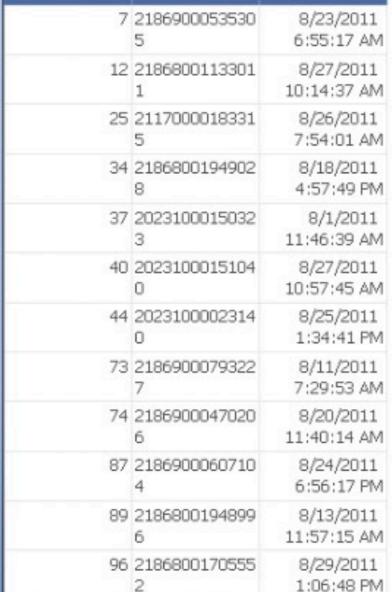




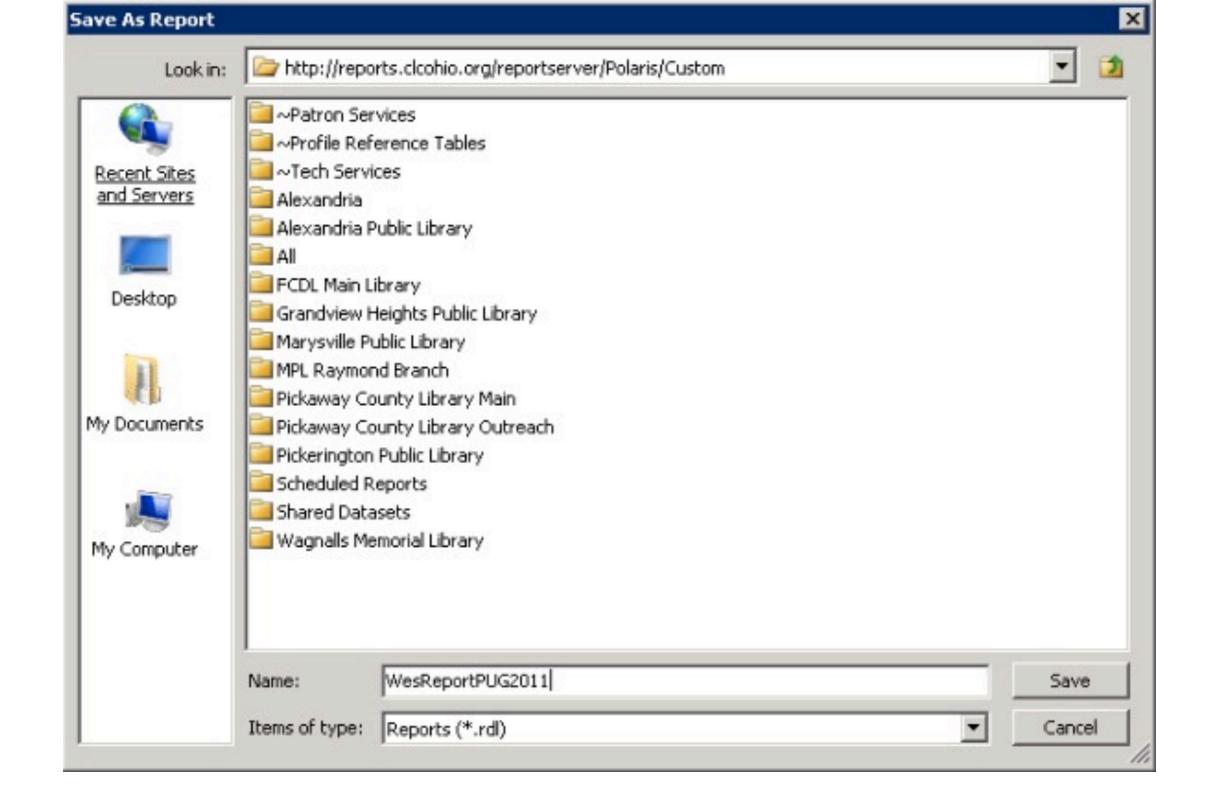




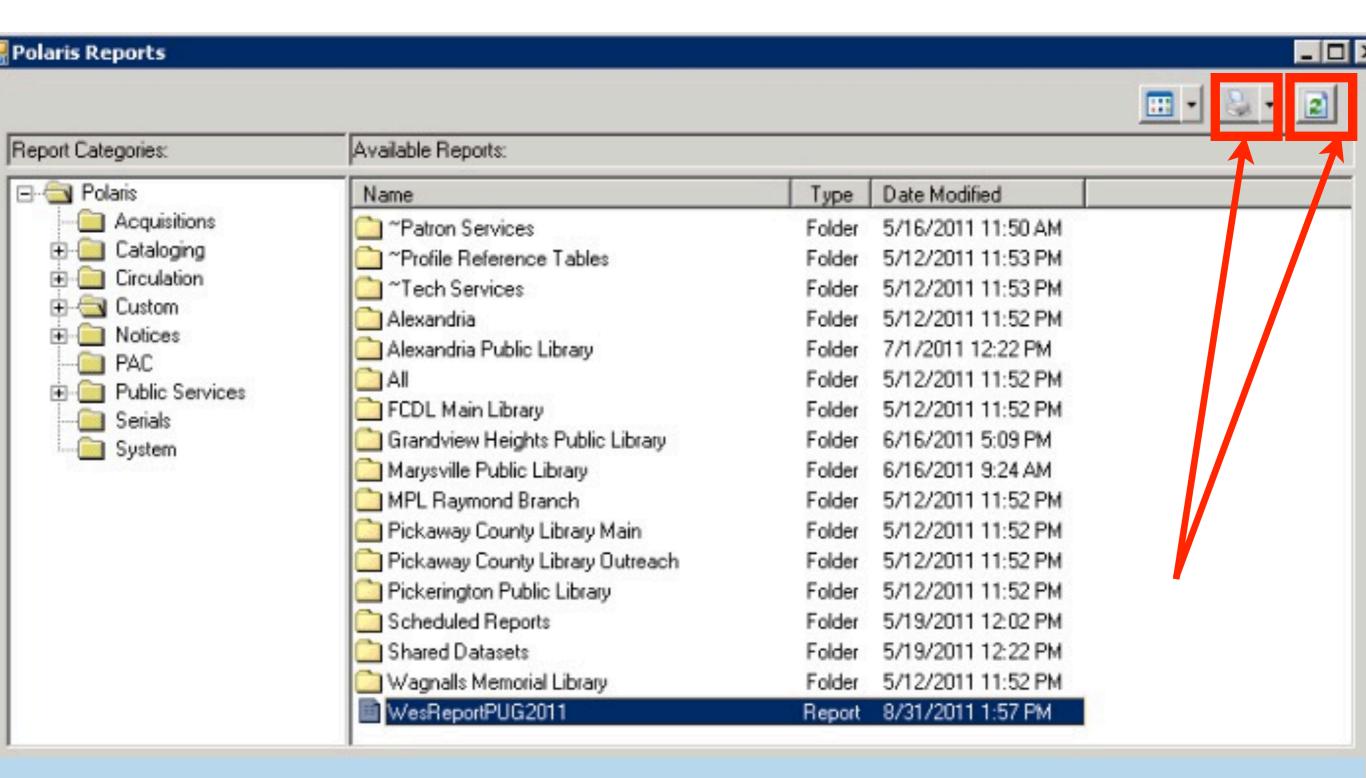
Save the Report 6:55:17 AM 8/27/2011 10:14:37 AM







Published directly to staff client



Output Selection & Refresh

SSRS Feature Tour

SSRS Features

Scannable Barcodes

Repeating header rows

Conditional formatting

Scheduling "Automatic" Reports

Separating data from design

Scannable Barcodes

Scannable Barcodes

Surprise! It's just another font!

Use Code39

Free

Easy to install/use

Most scanners can read







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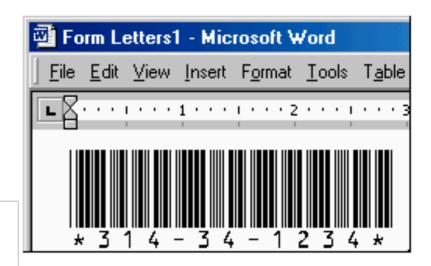
CONTACT US

Home > Barcode Fonts > Free Barcode Font Download

Free Barcode Font Download

This free barcode font can be used to generate medium-size Code 39 barcodes in TrueType or OpenType format, which can encode uppercase letters, numbers and some special symbols. This is a fully-functional freeware font, not a demo or evaluation.

Download the free Code 39 barcode font



http://www.idautomation.com/fonts/free/

Install it everywhere

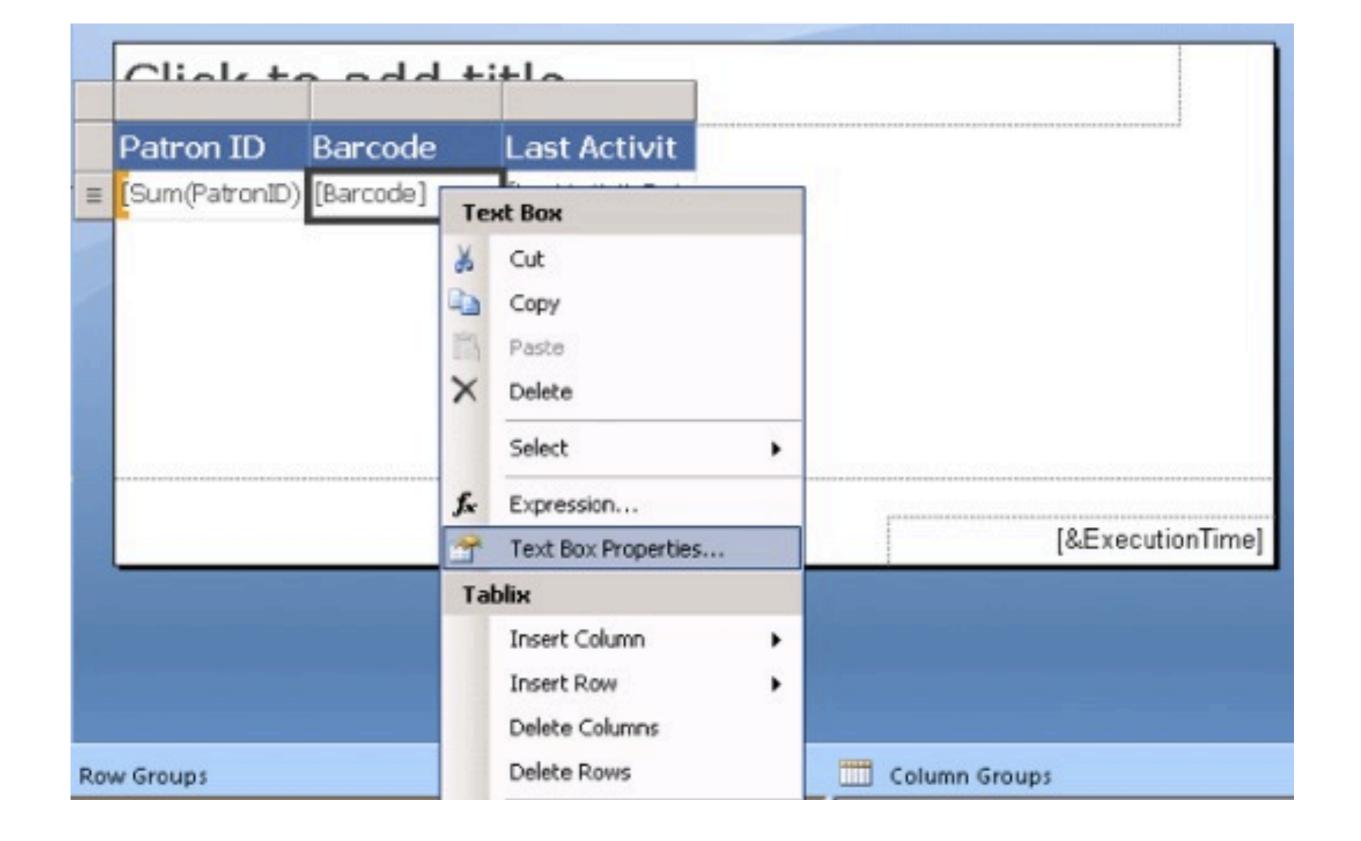
Report Server

Report Builder PC

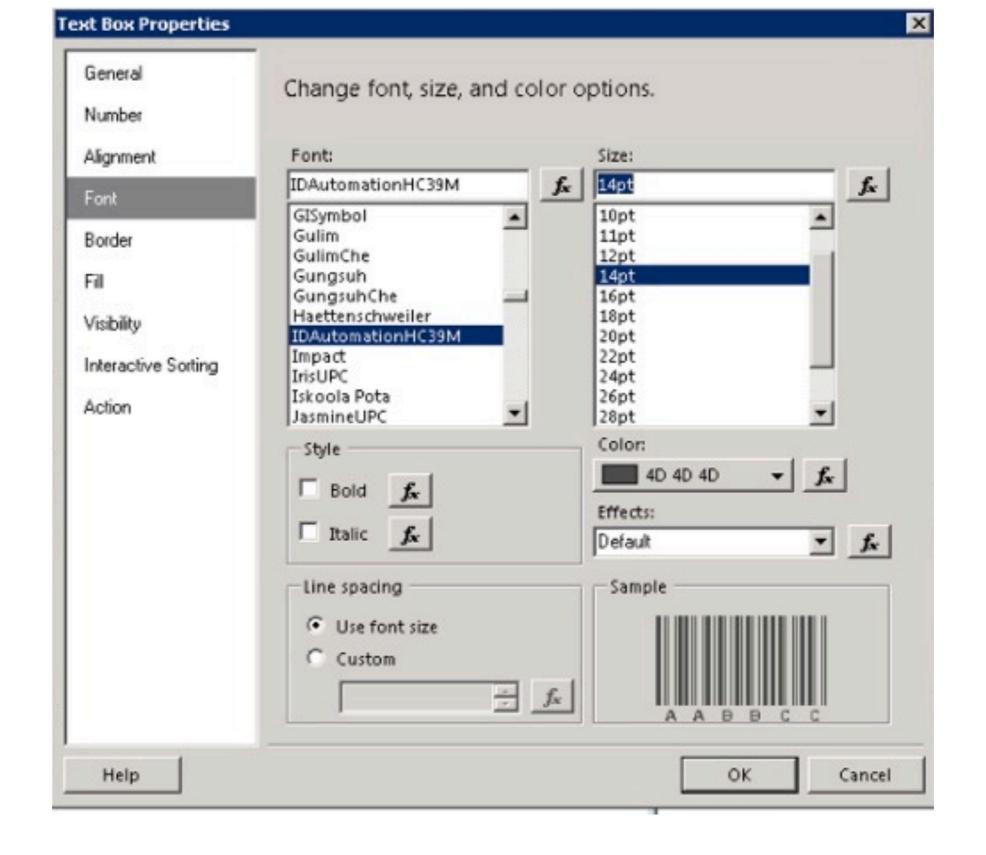
Polaris Staff Clients

Terminal Server

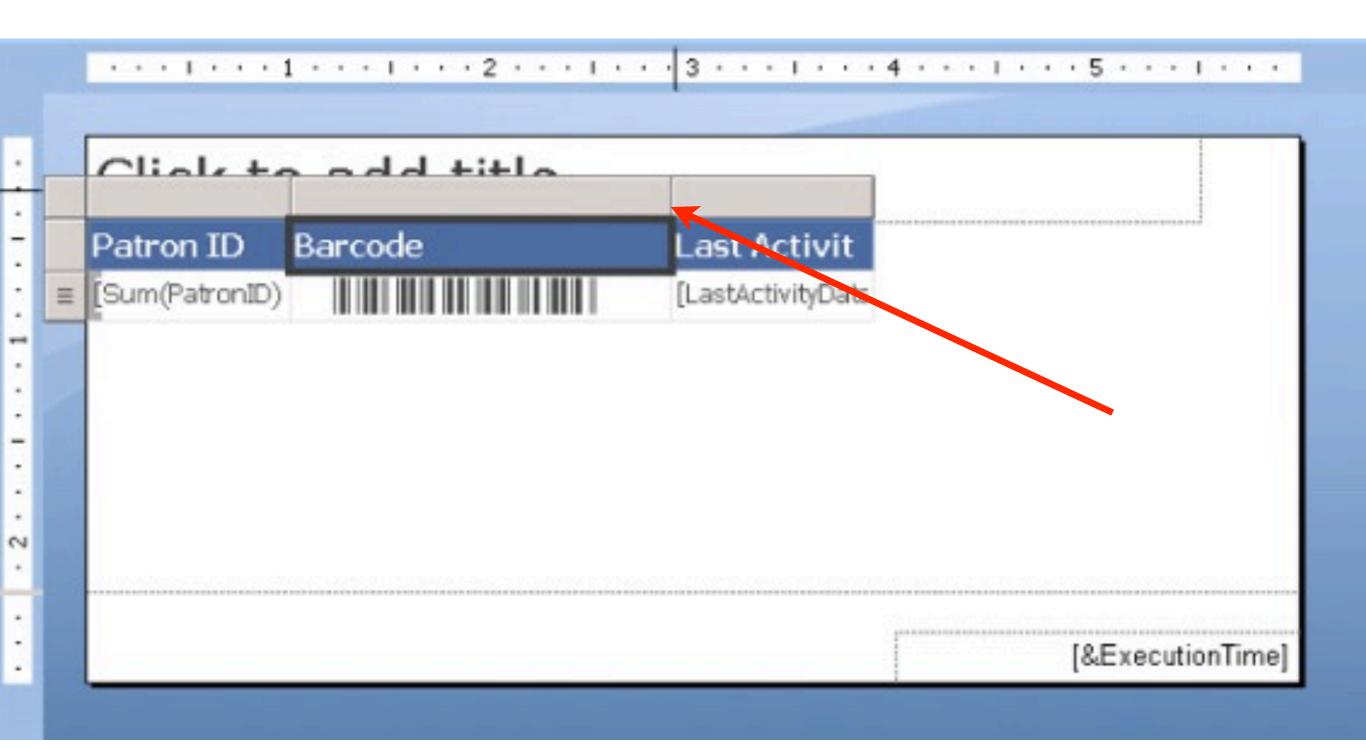




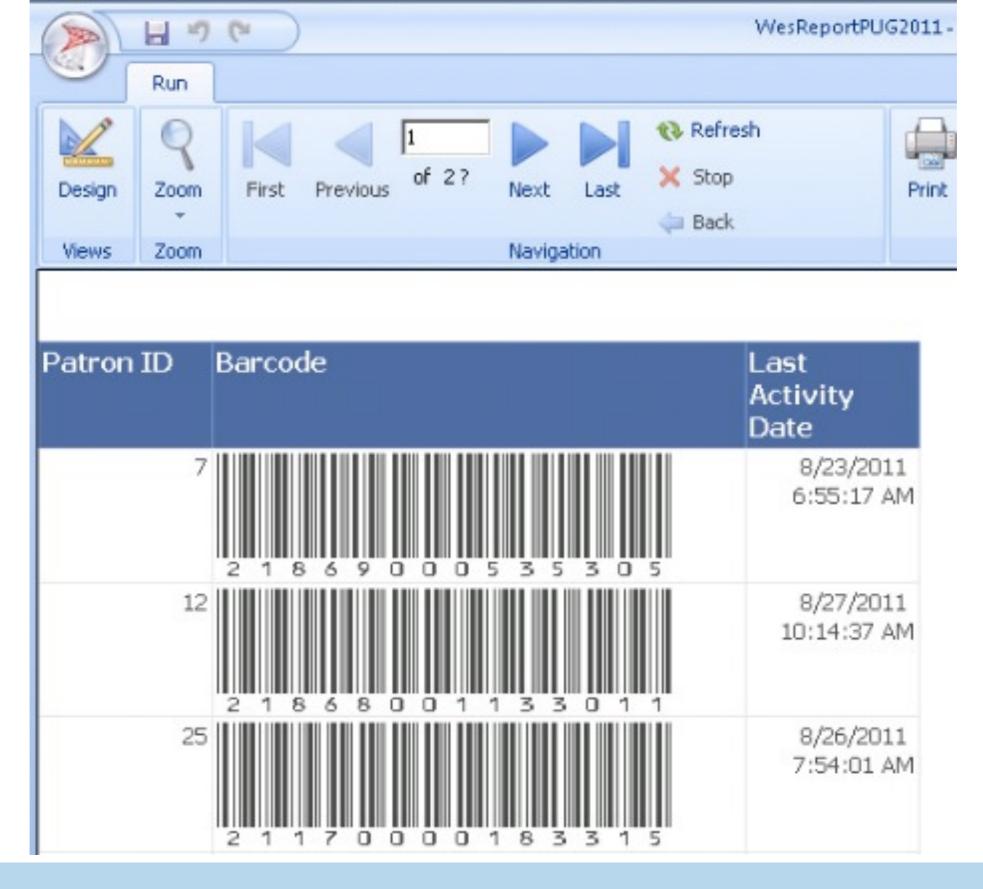
Change font Type



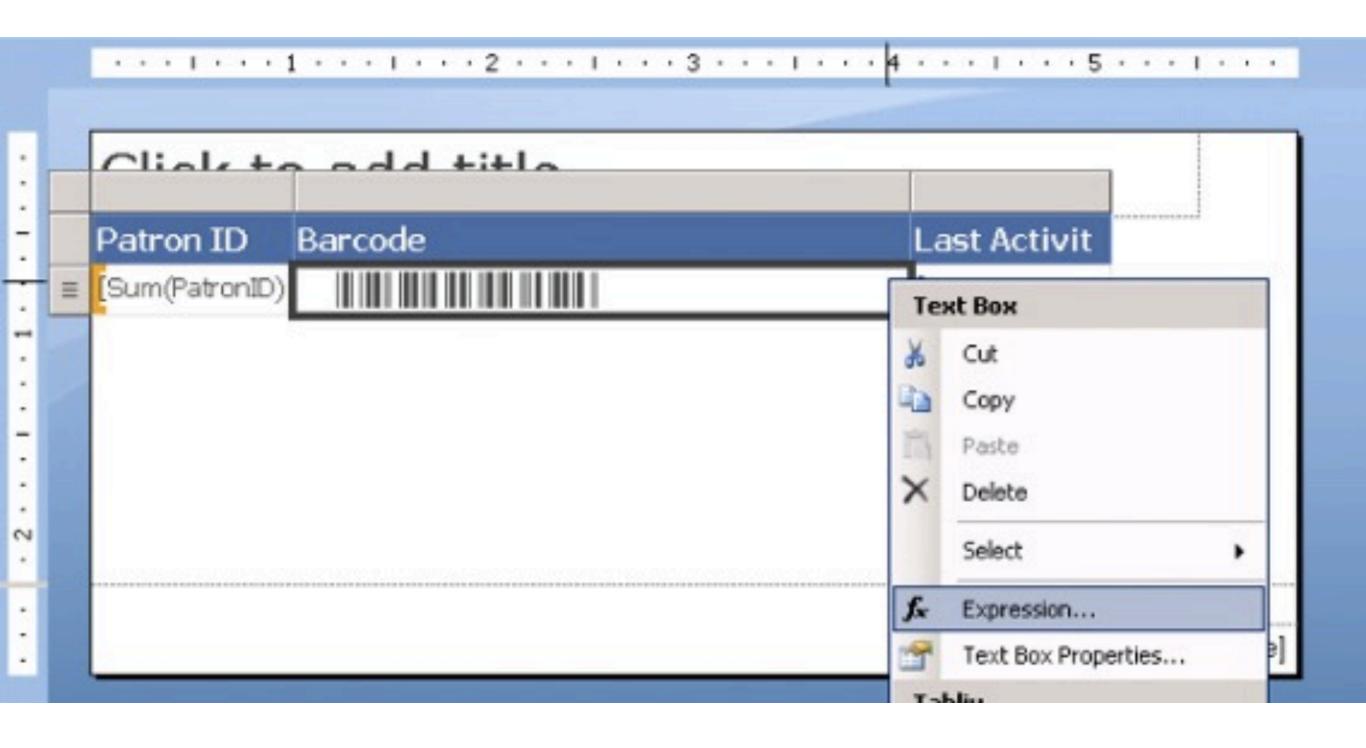
Select Font & Set Font Size



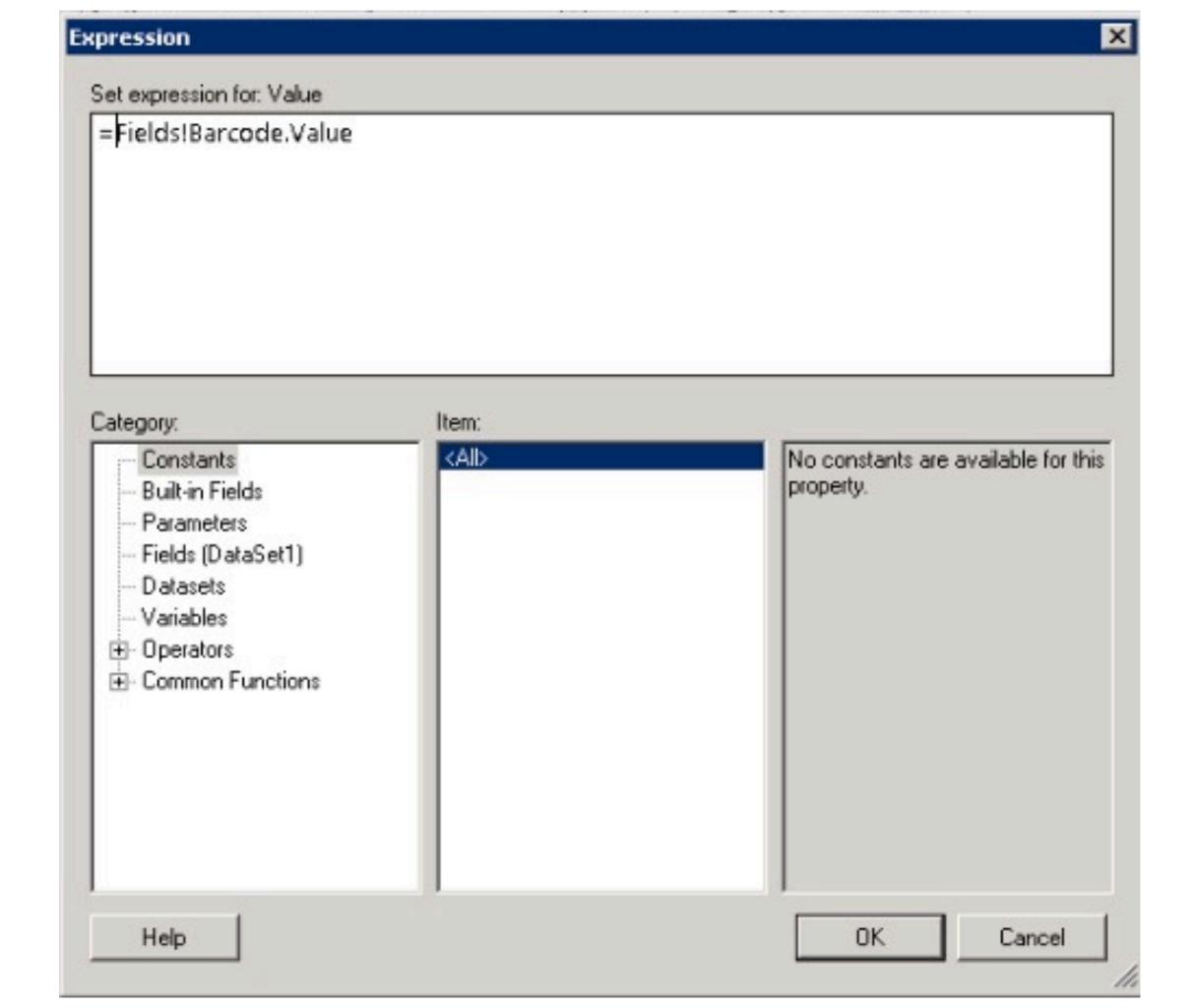
Enlarge Column Width

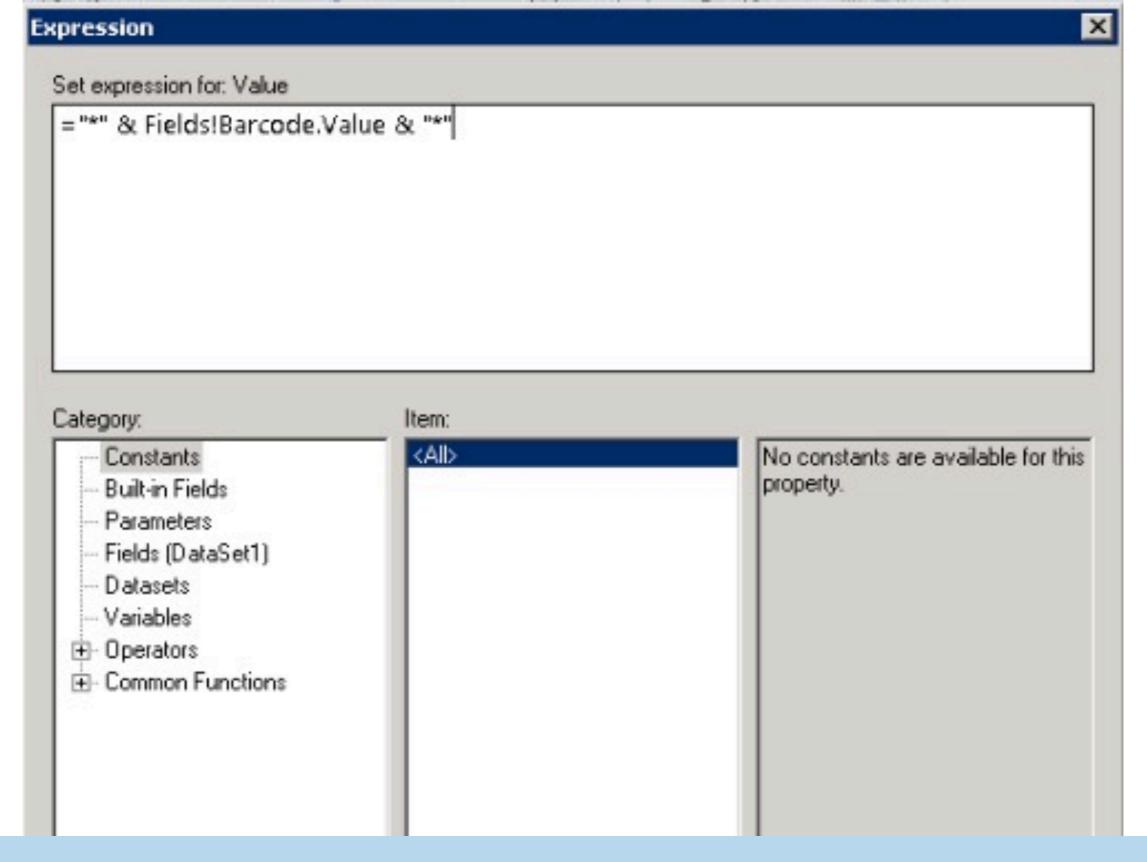


Barcode still NOT scannable



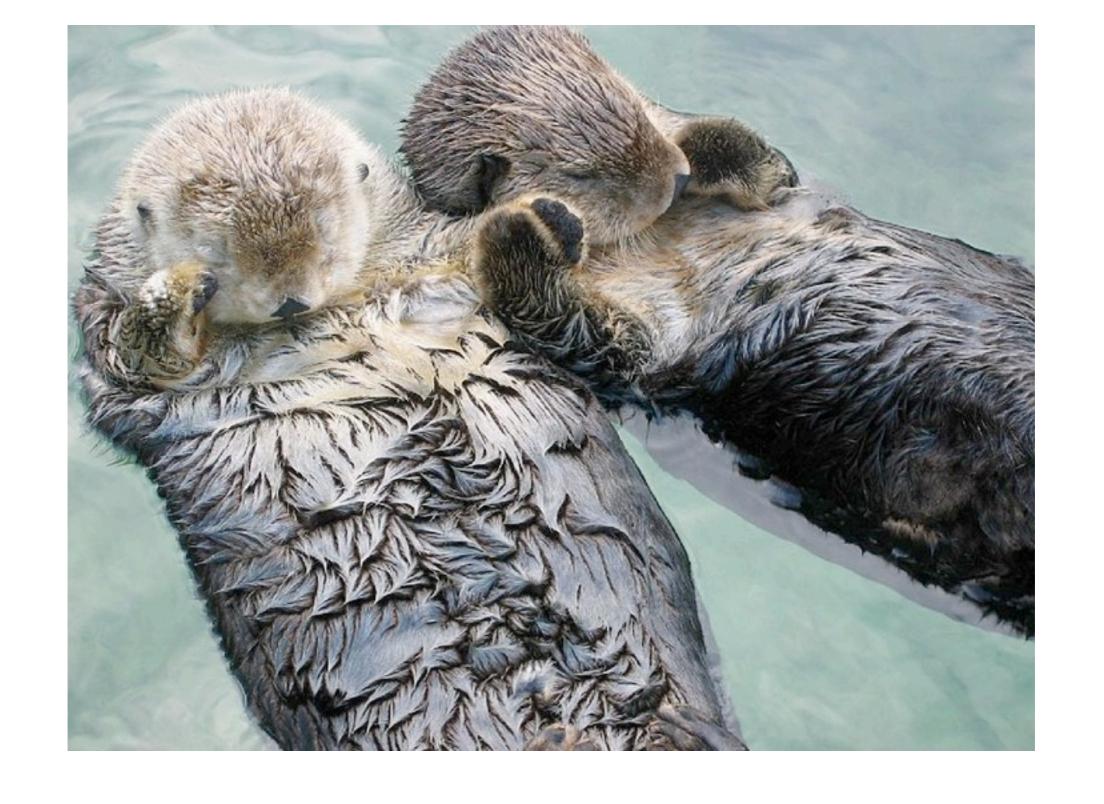
Editing field Expression



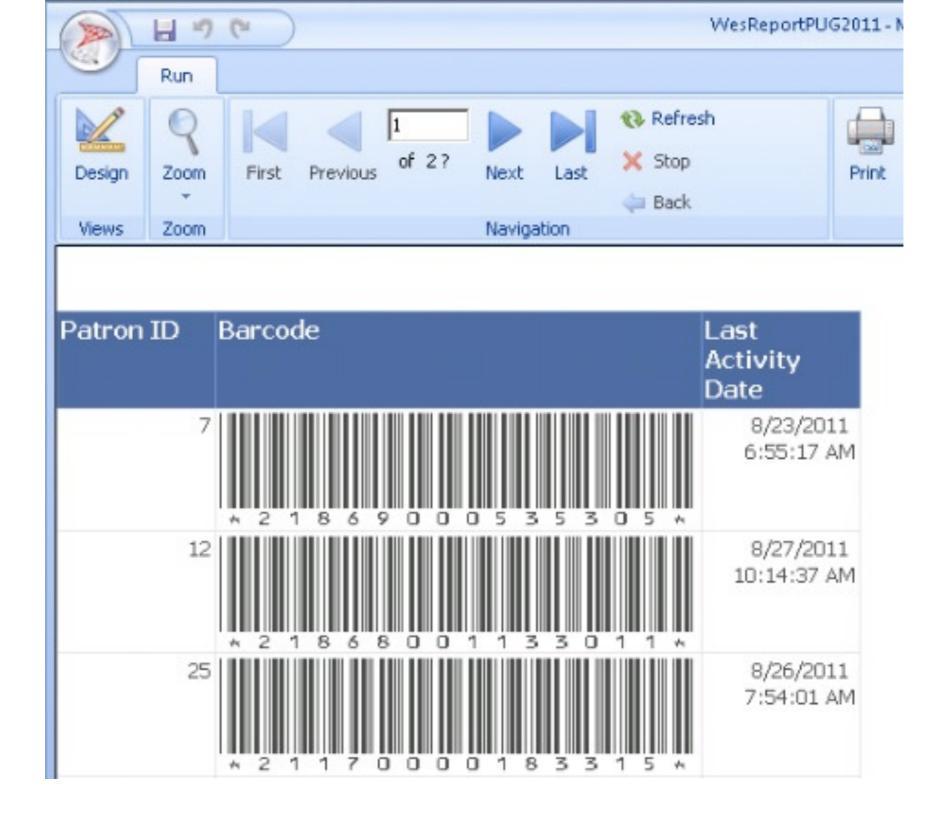


Concatenating with &



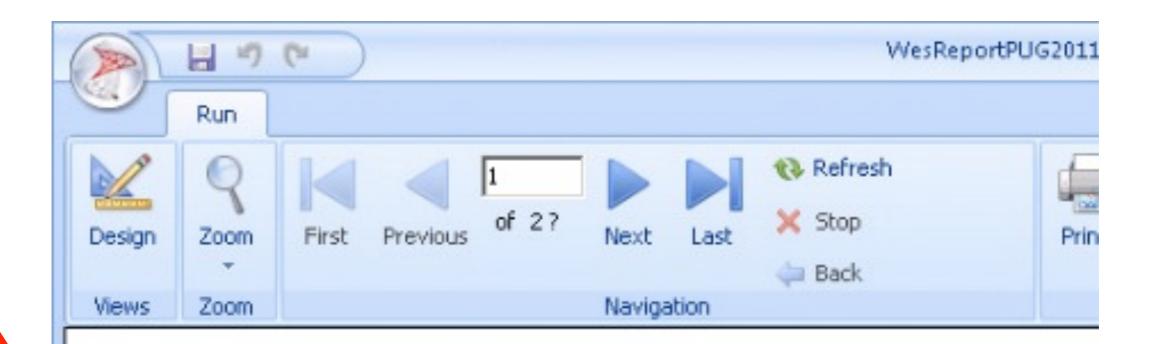


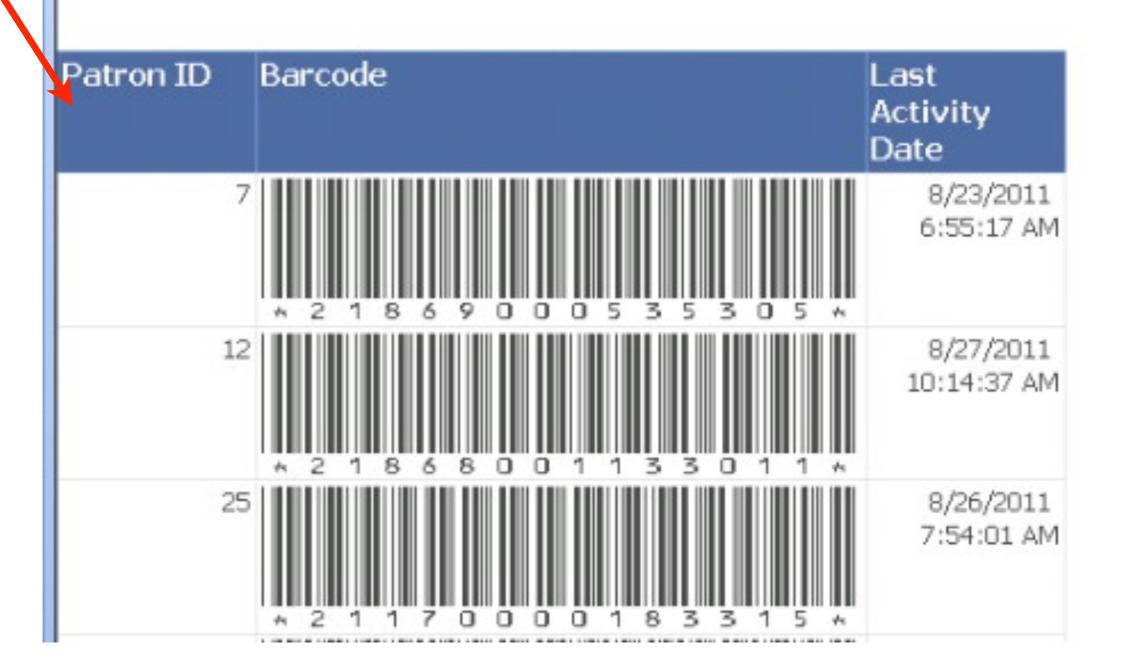
fx are your friends

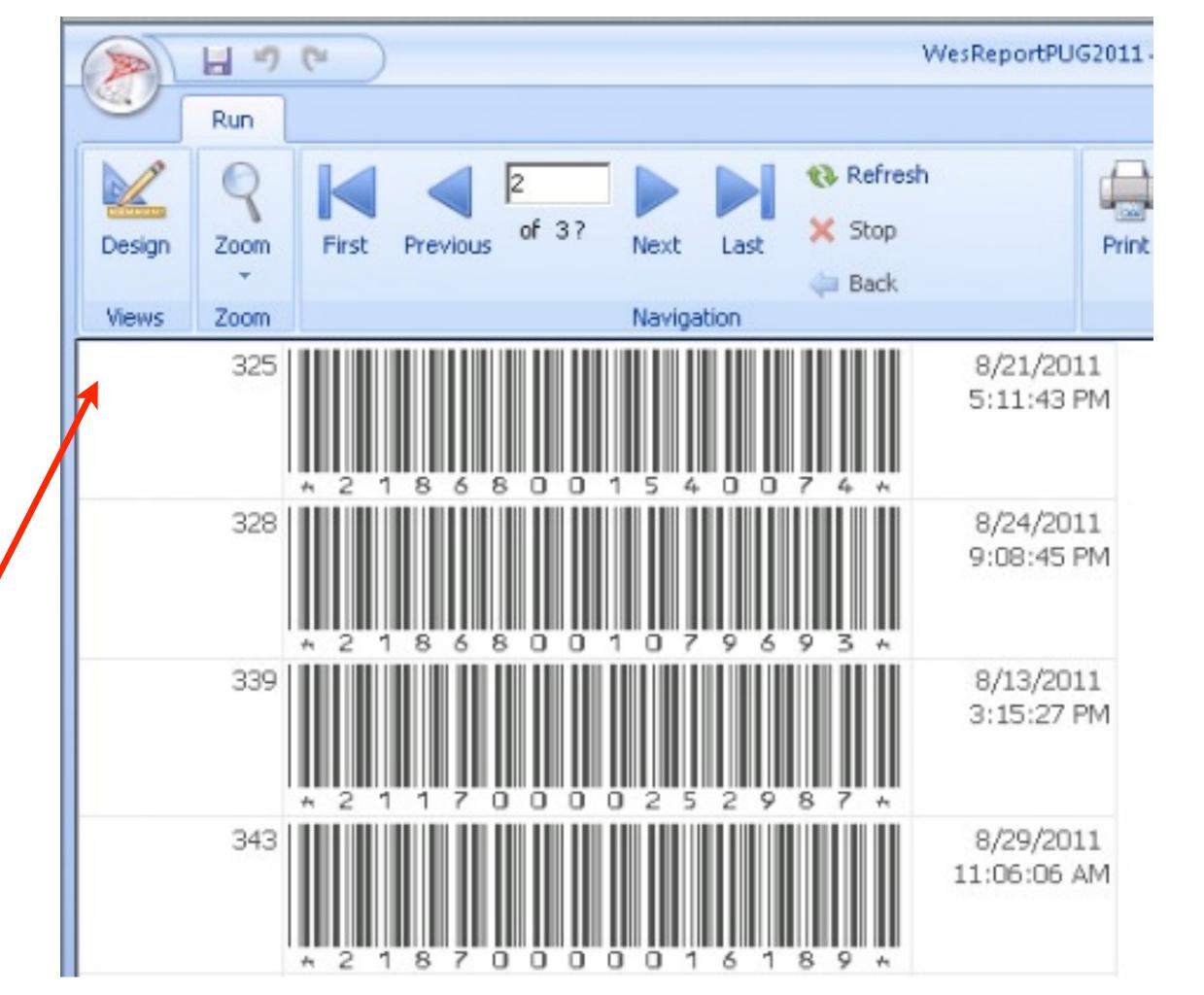


Barcode now scannable

Repeating Header Rows







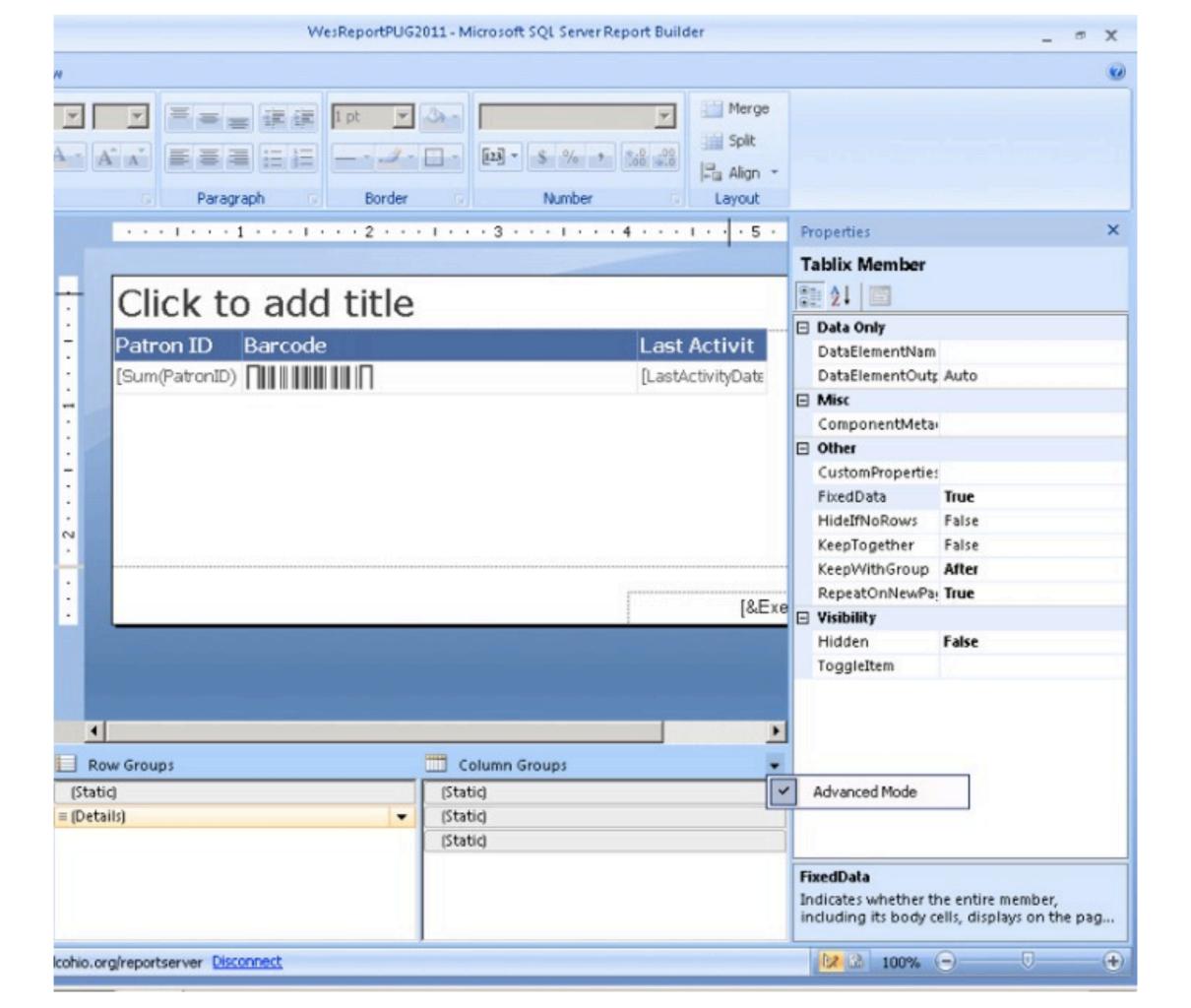
Google:

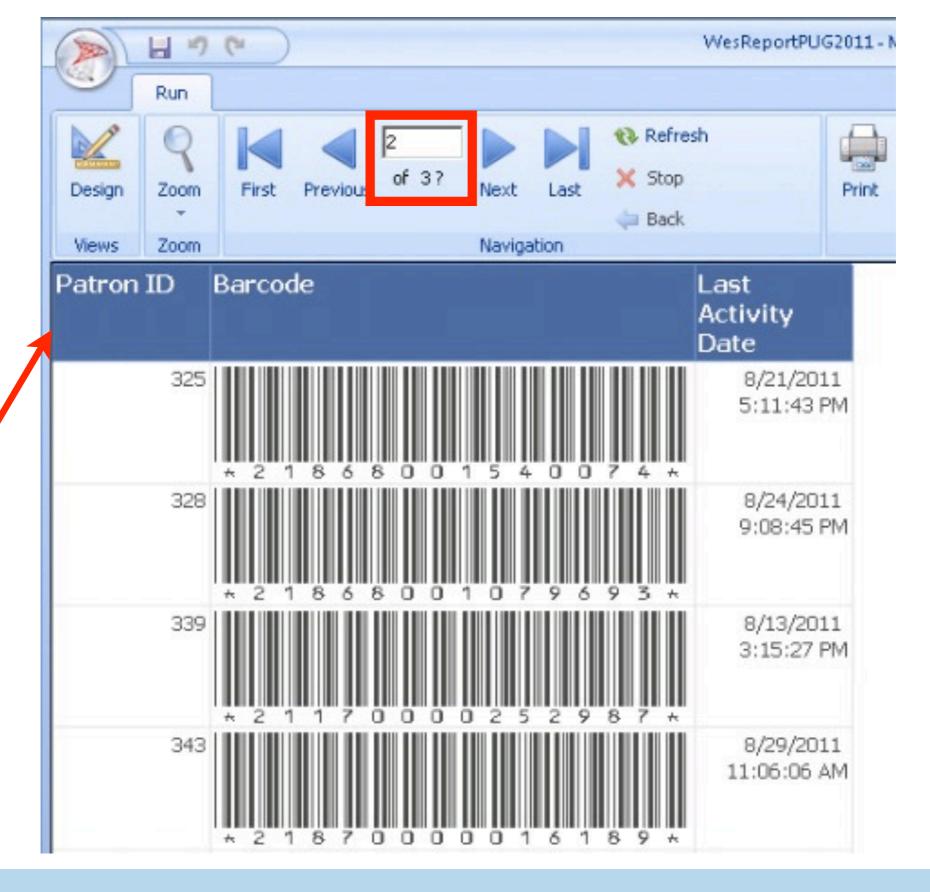
"Repeat Header / Keep Header Visible in Tables in RS 2008"

OR

http://bit.ly/qznwYN

Follow the convoluted but clearly written instructions





All pages now have headers!

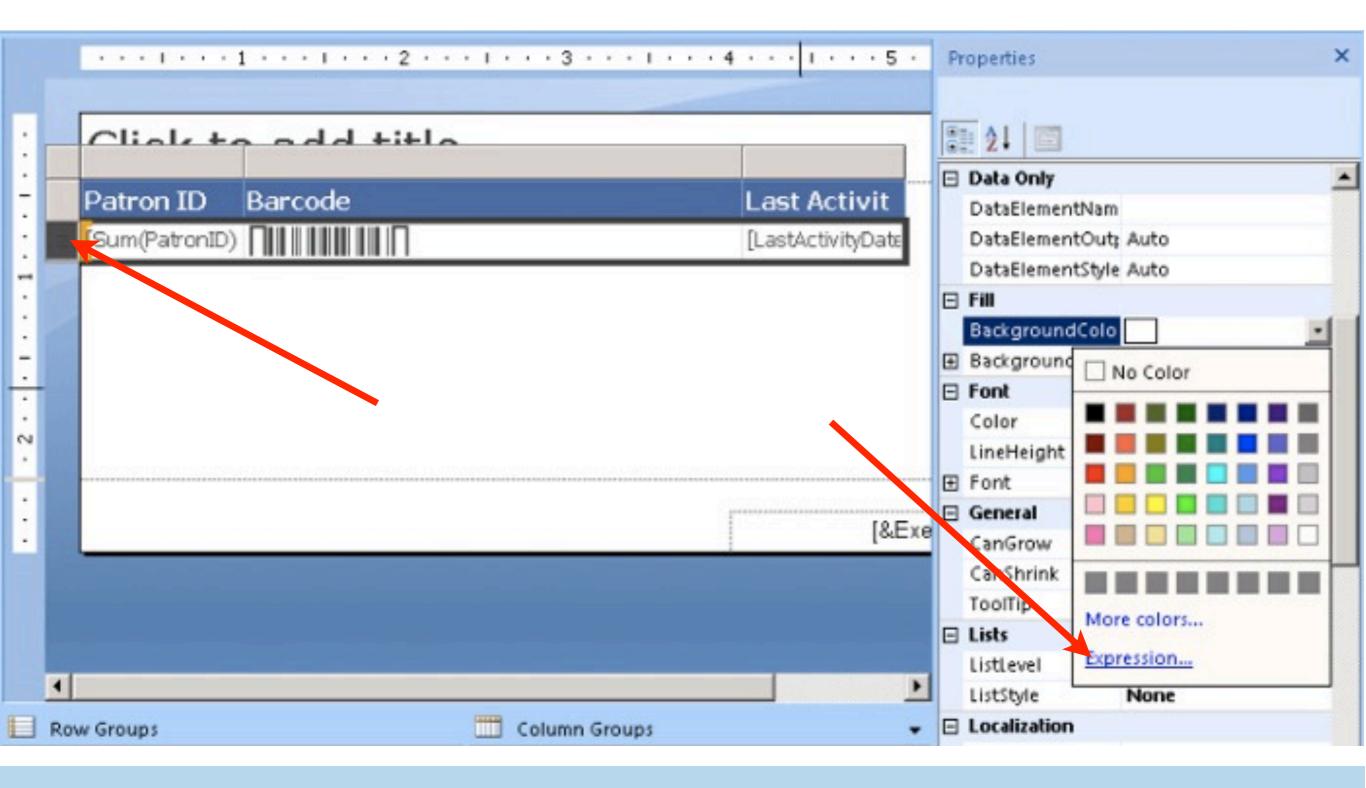
Conditional formatting

Conditional Formatting

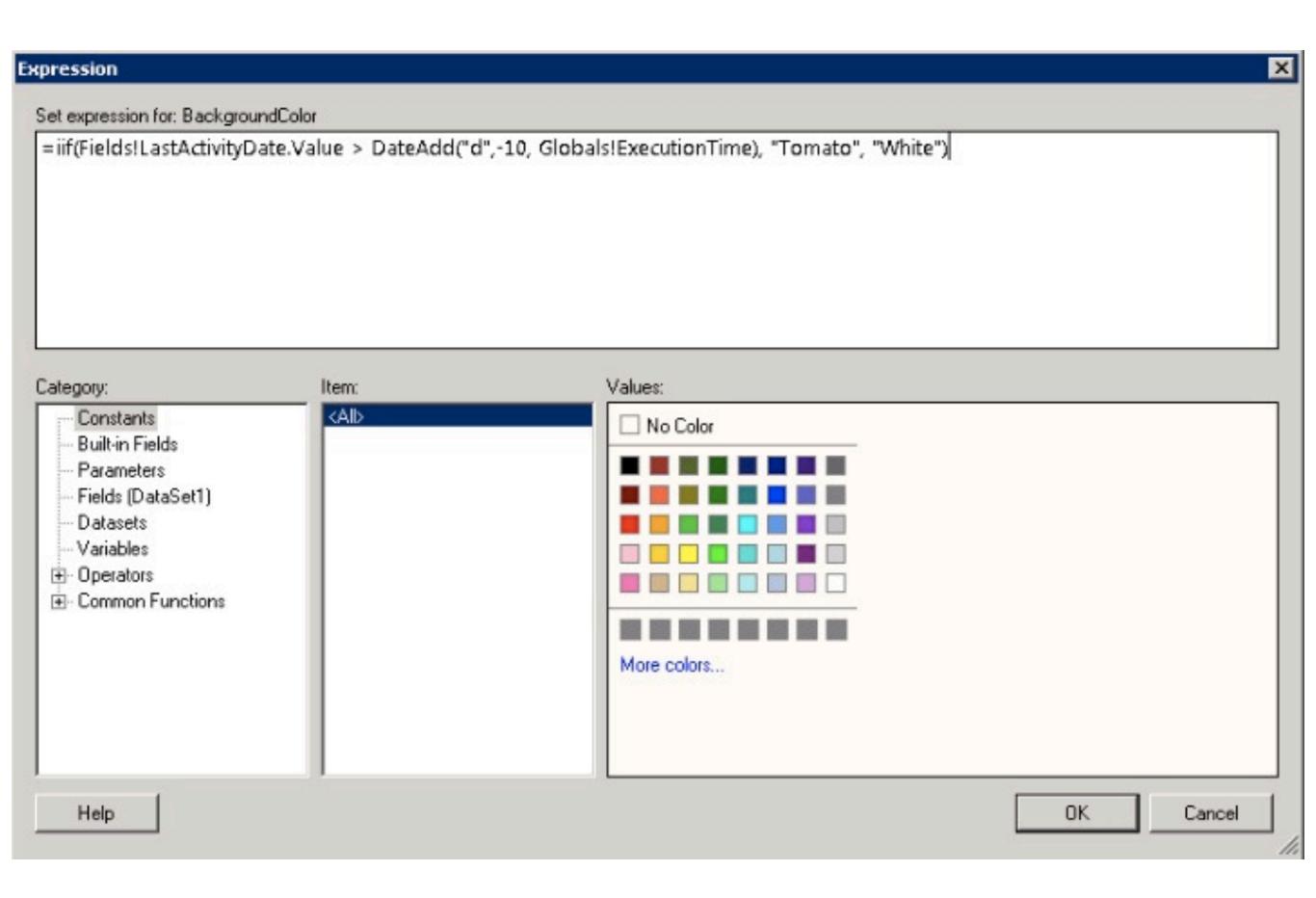
Activity within the past 10 days

Color the row background red

Otherwise leave it white

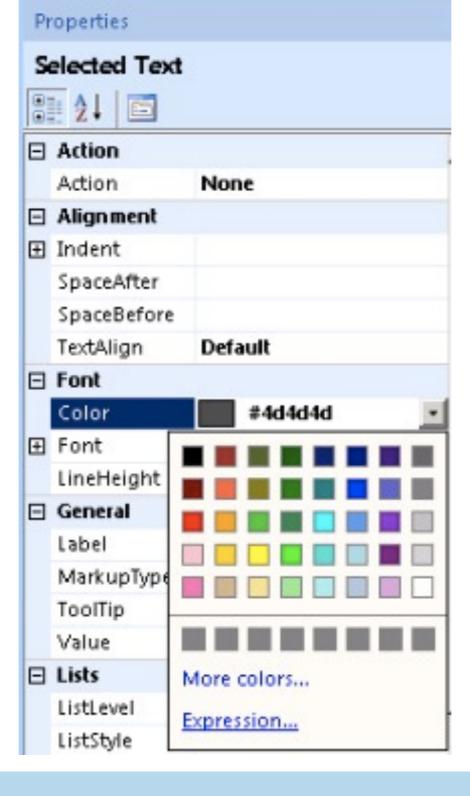


Set Row Background Color to an Expression

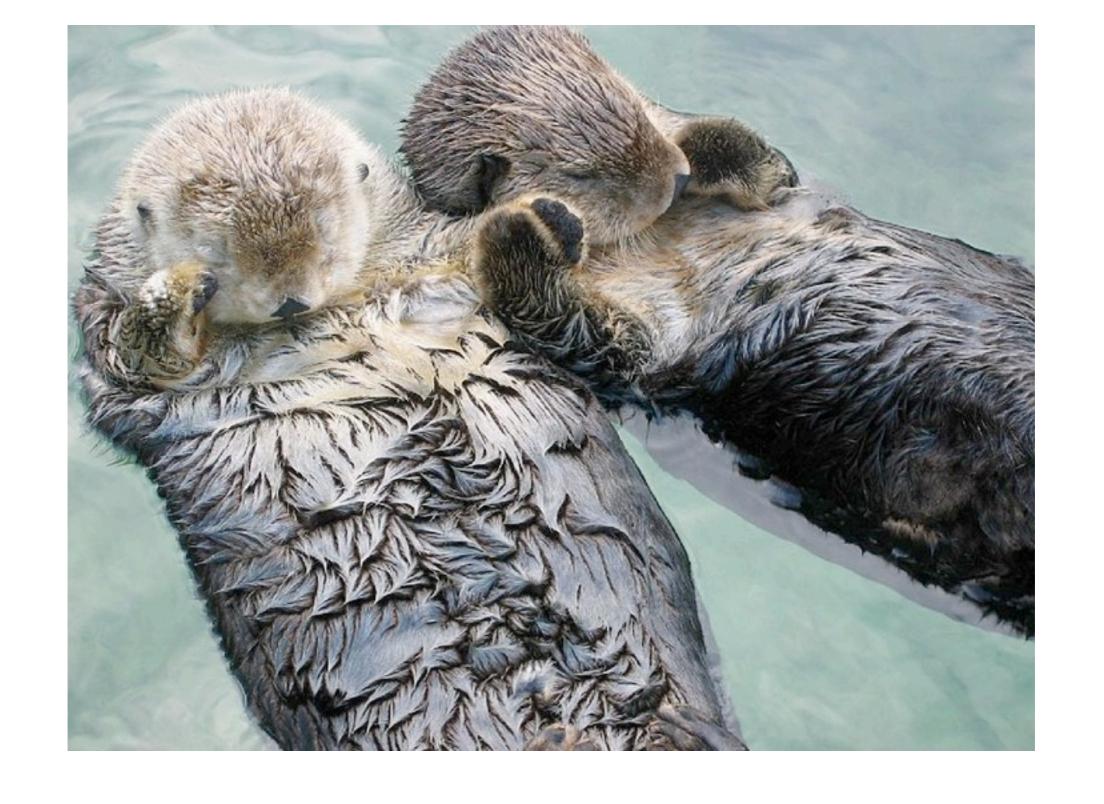








Any formatting can be conditional



fx are your friends

Scheduling "Automatic" Reports

Automatic Reporting

Creating Report Parameters

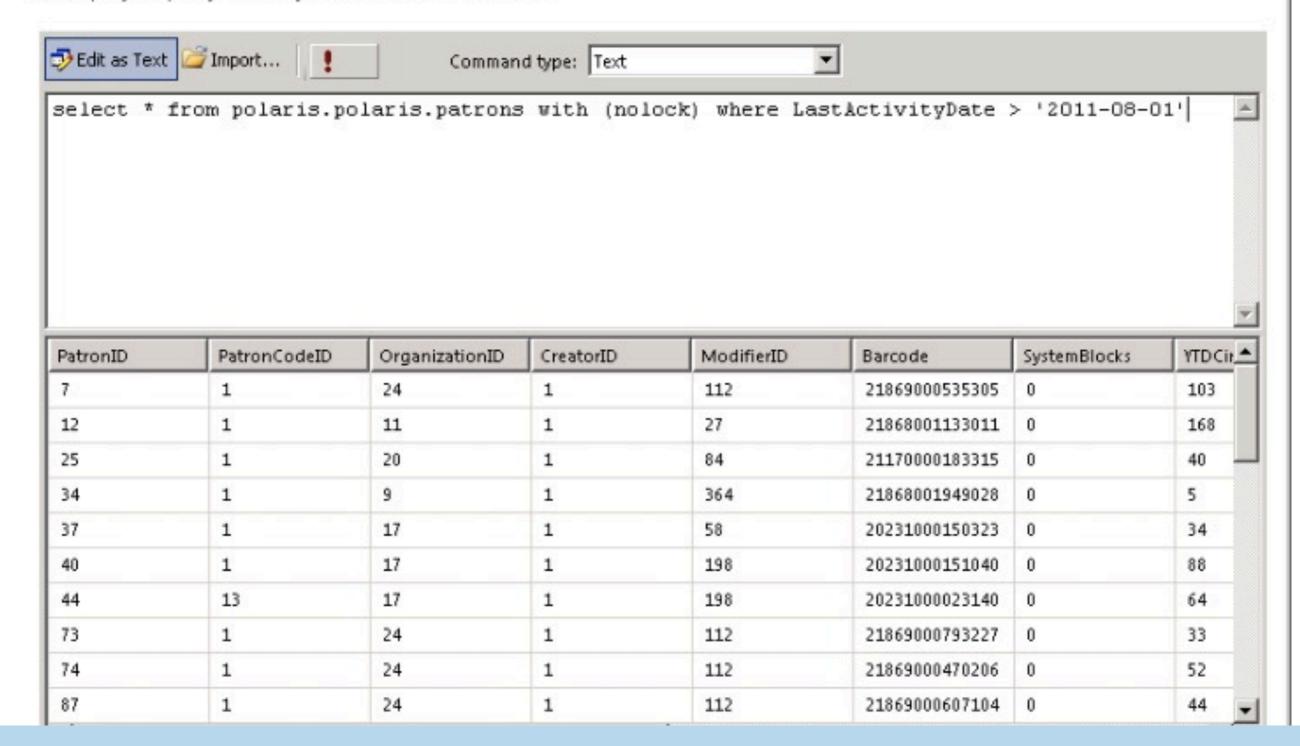
Automatically Filling in Parameters

Scheduling Reports to run

Creating Report Parameters

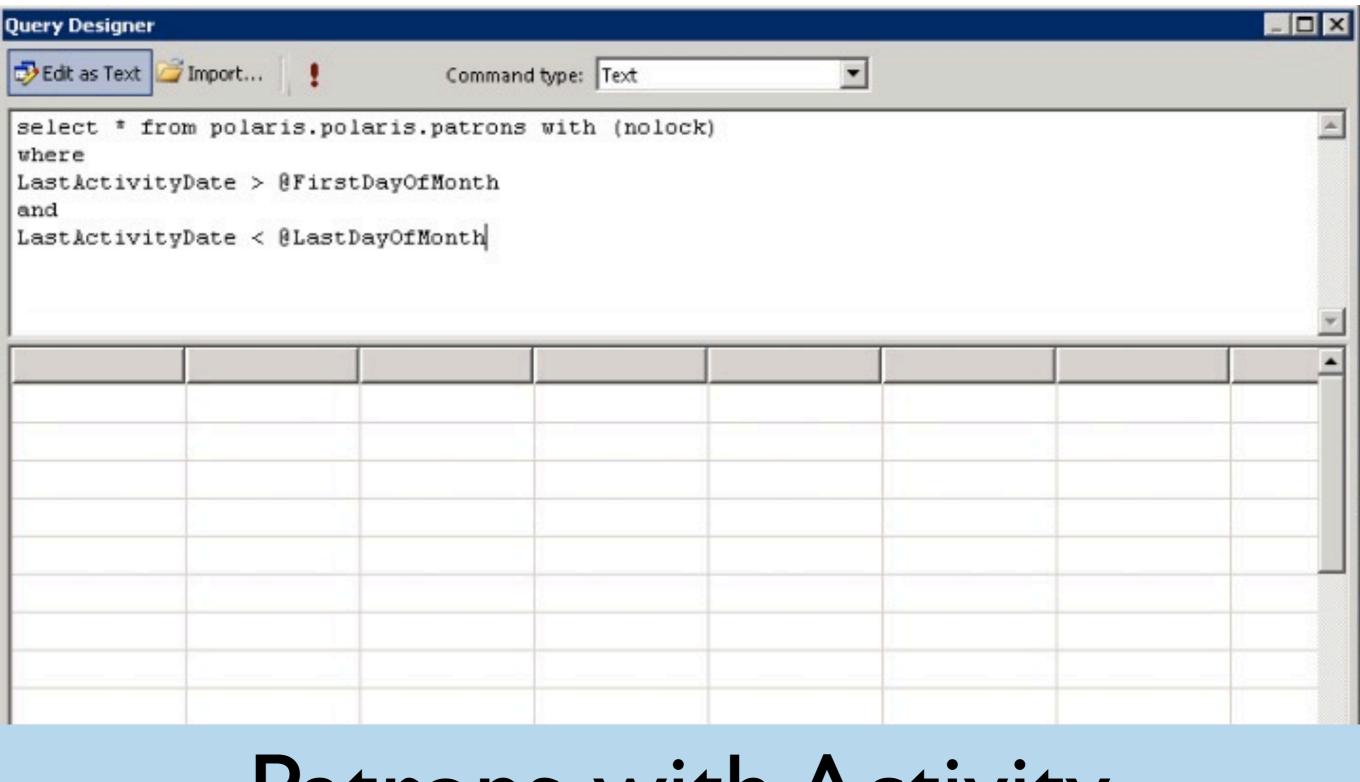
Design a query

Build a query to specify the data you want from the data source.



×

Patrons w/Activity after 8/1/11

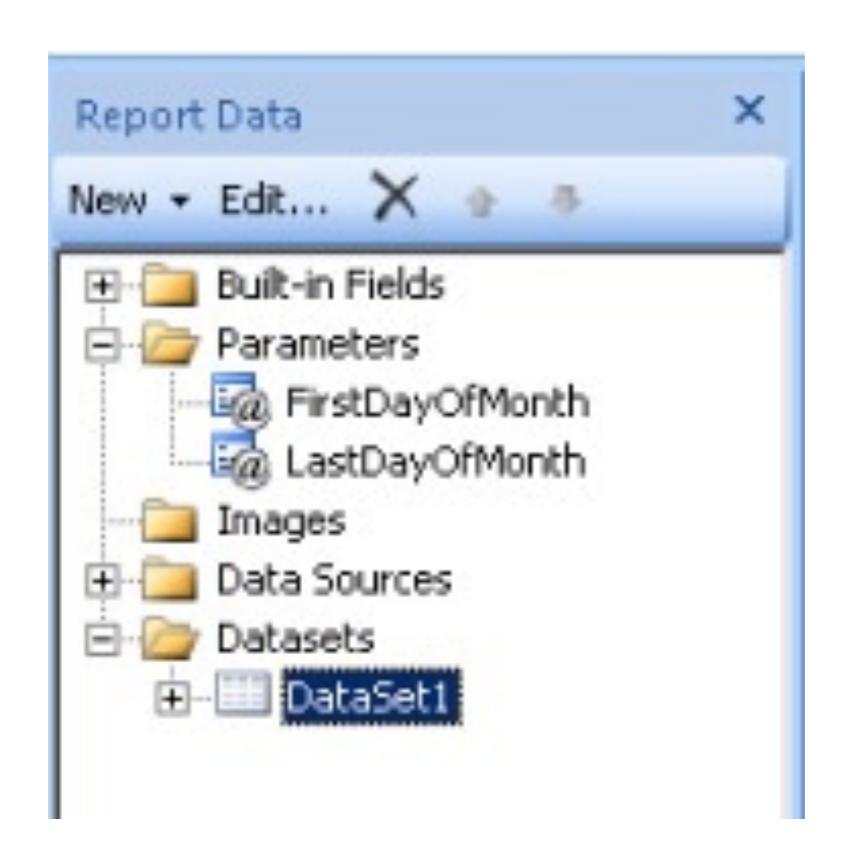


Patrons with Activity between parameter dates

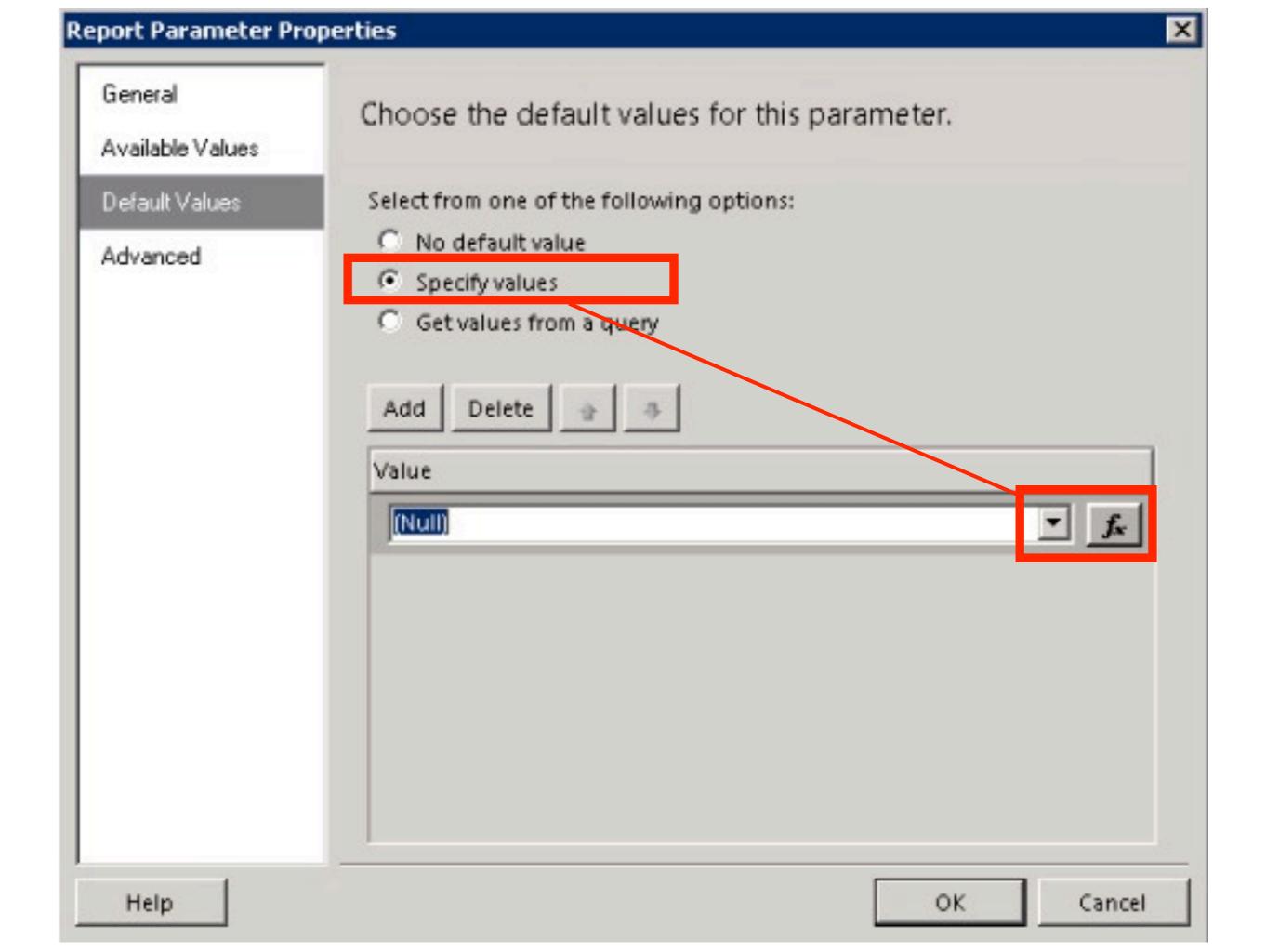
Helb

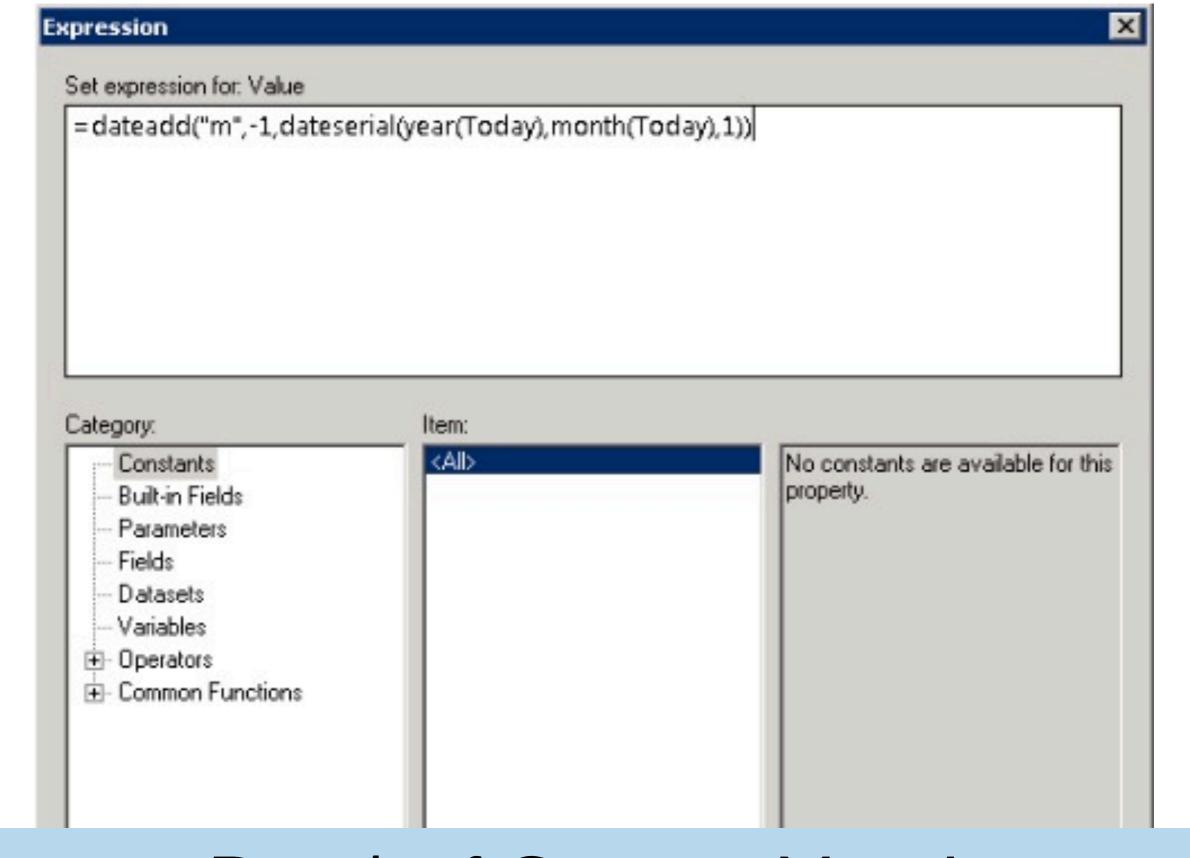
OF

arricer

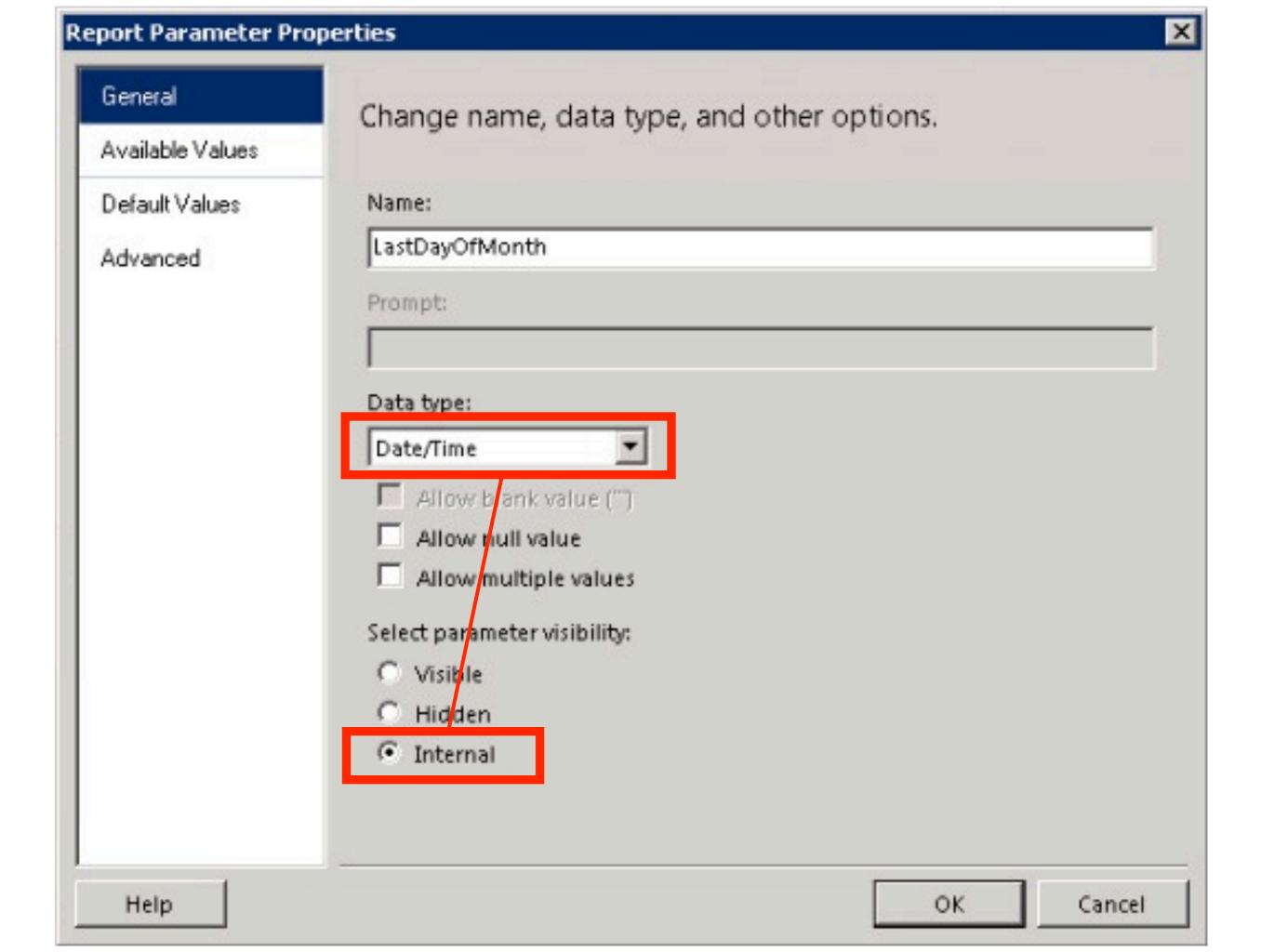


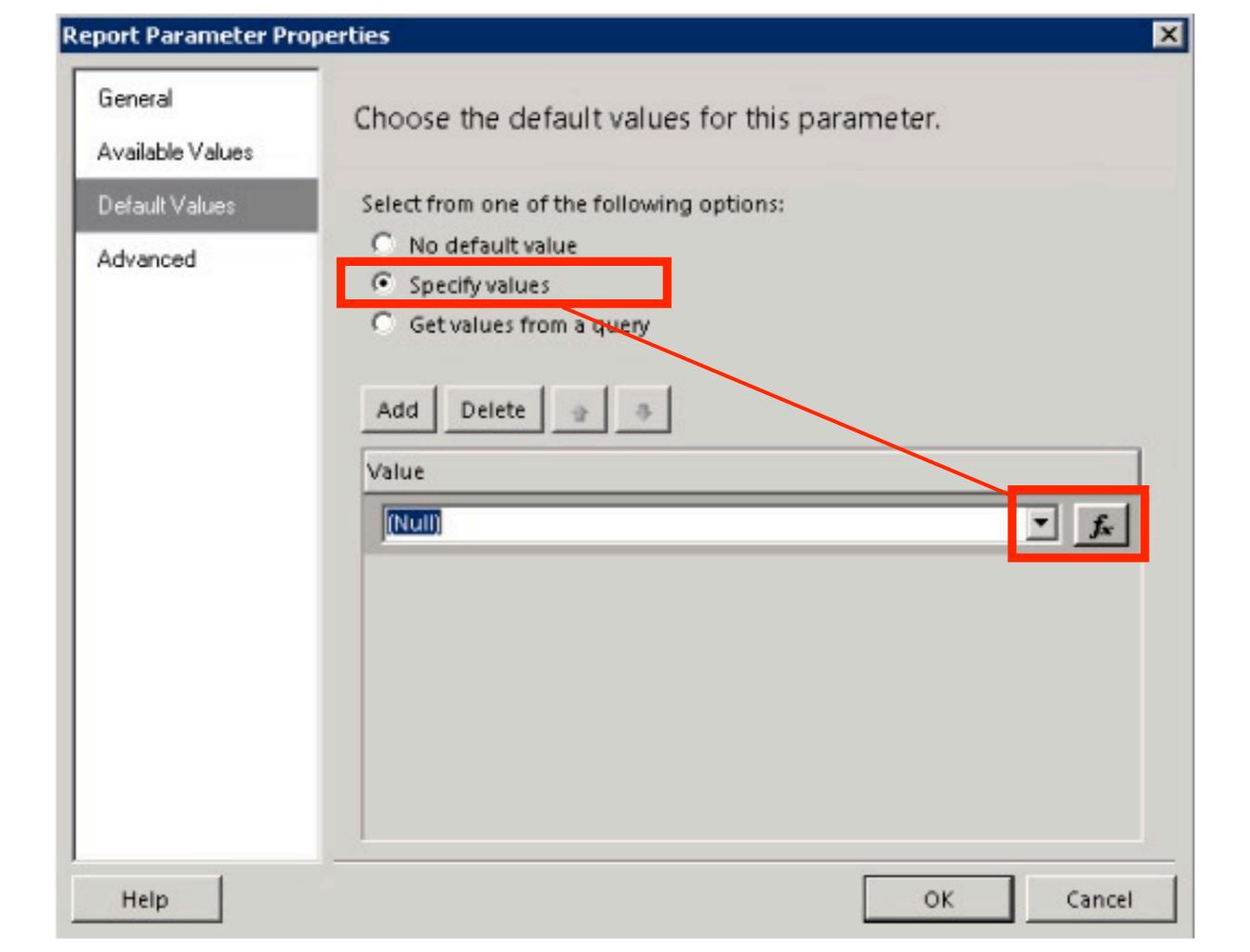
Automatically Filling in Parameter Values

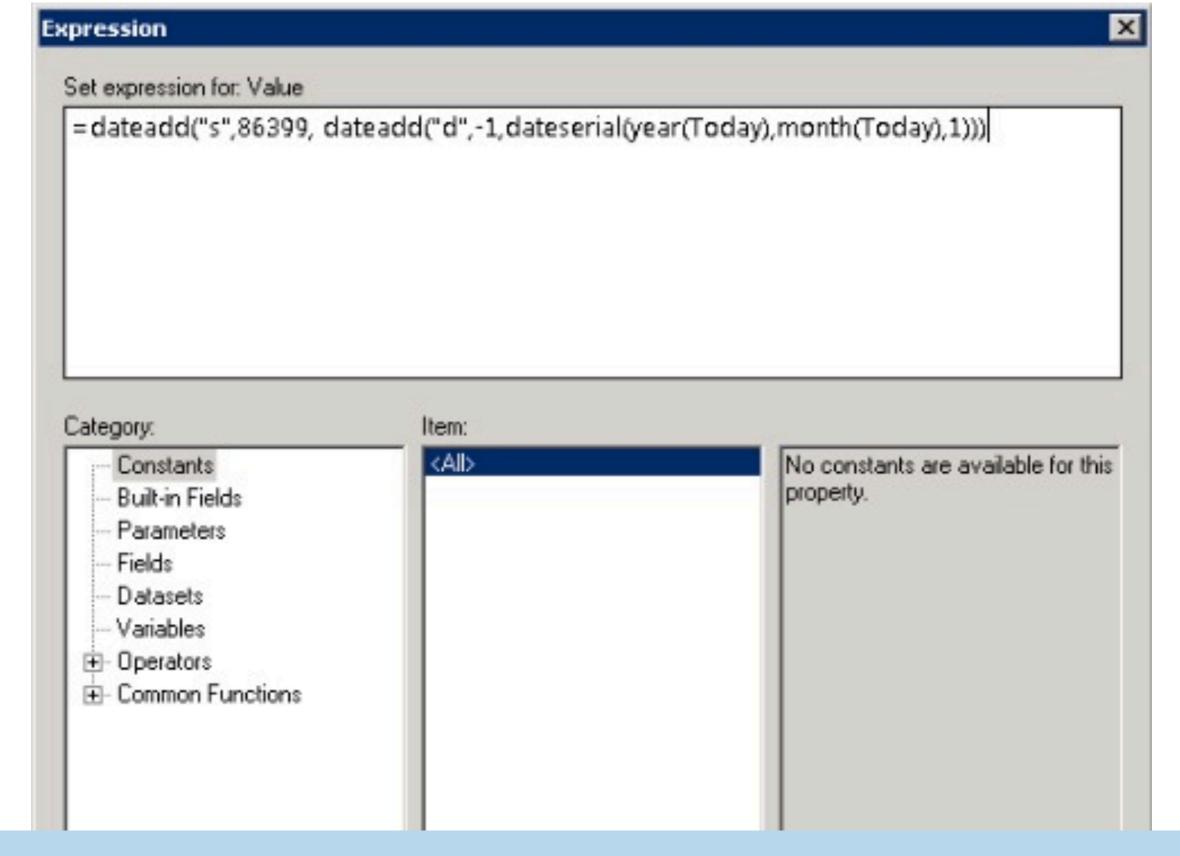




Day 1 of Current Month Minus 1 Month



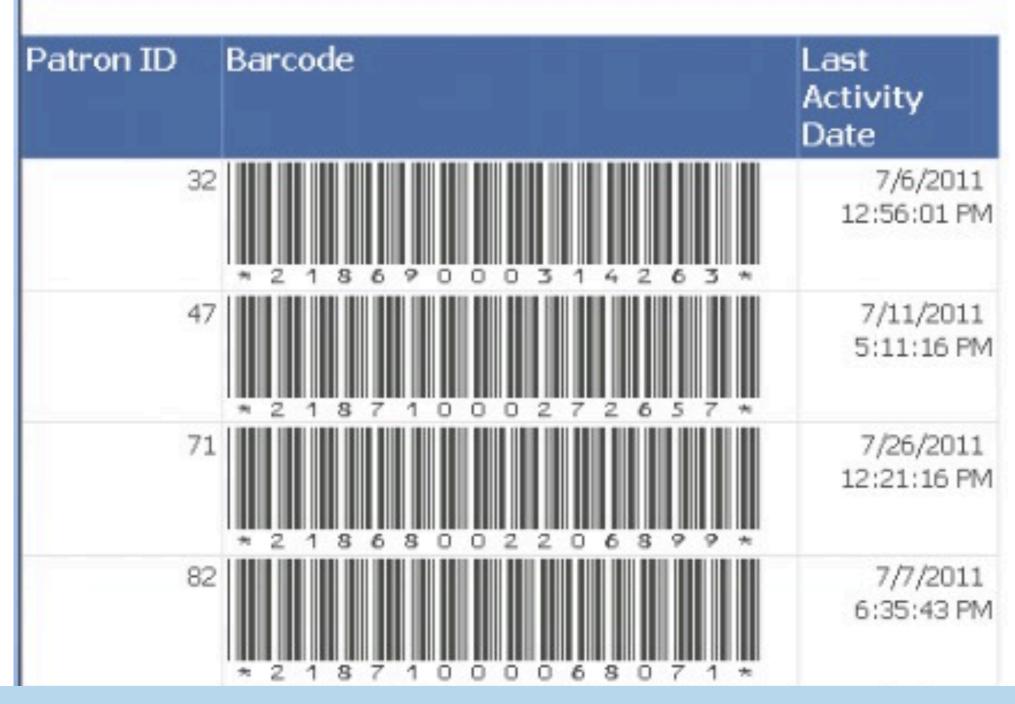




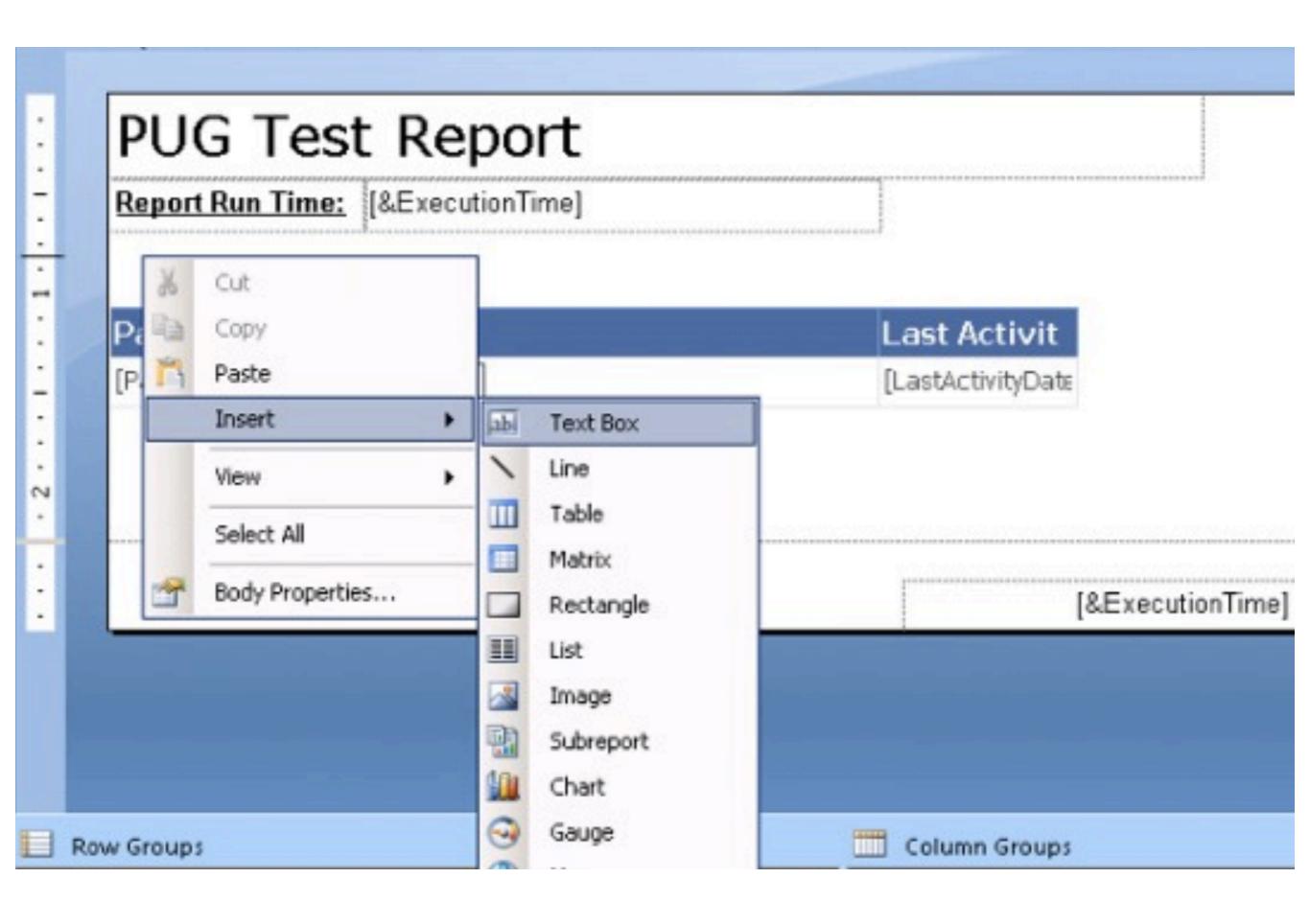
Day 1 of current month, minus 1 day, add 86399 seconds (11:59pm)

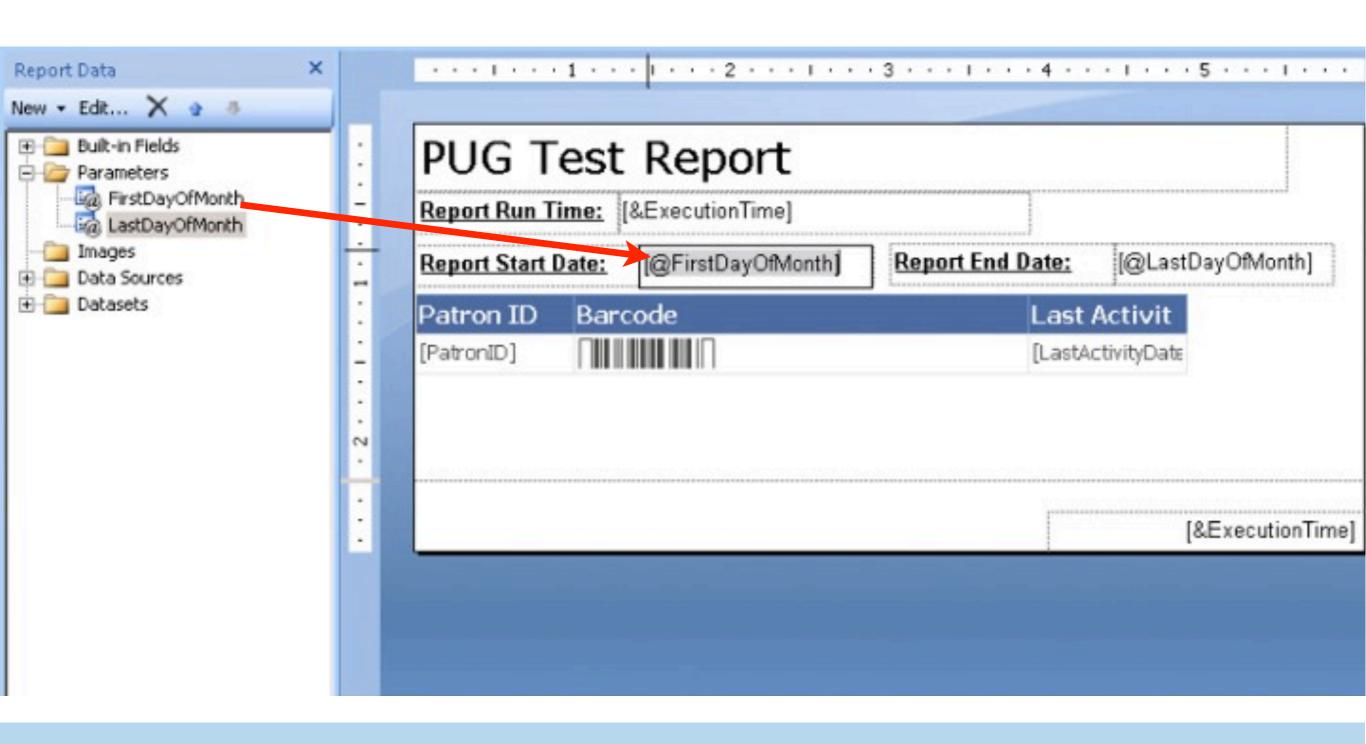
PUG Test Report

Report Run Time: 8/31/2011 1:25:47 PM

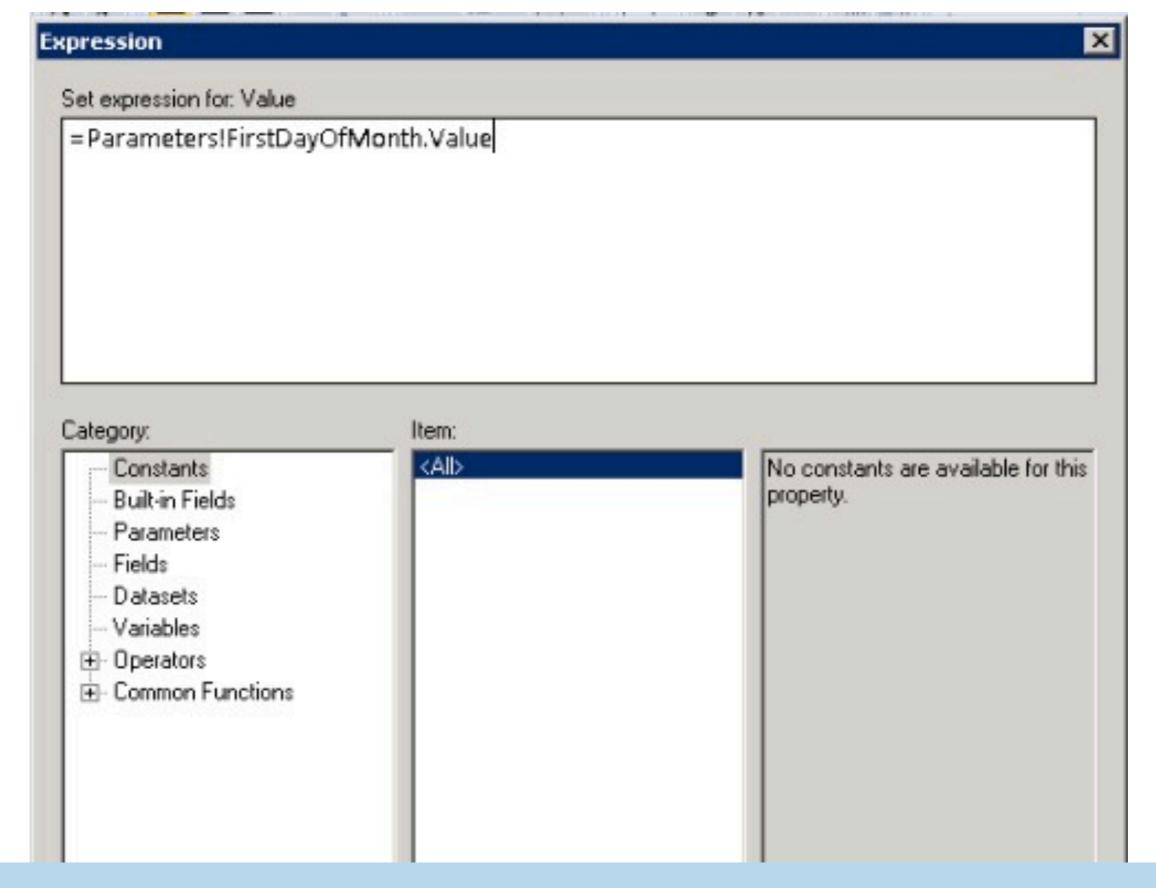


Did it really run for the proper dates?





Drag parameter to text box



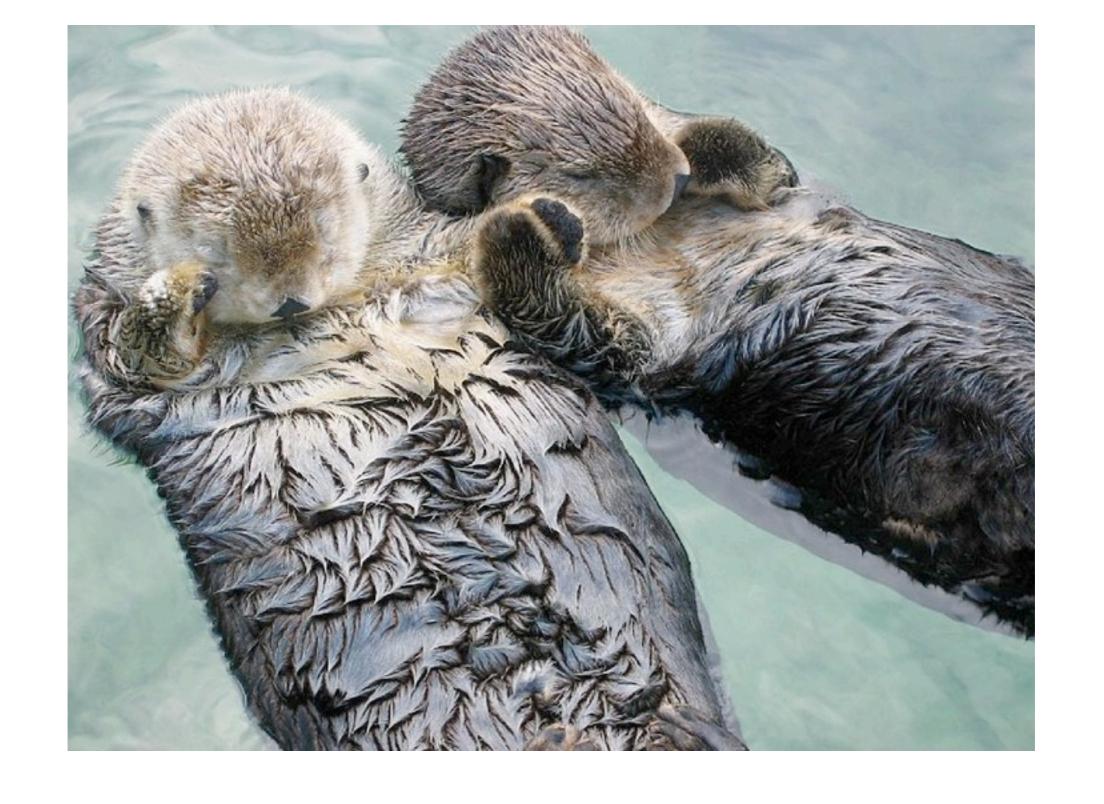
Expression of dragged element

PUG Test Report

Report Run Time: 8/31/2011 1:27:01 PM

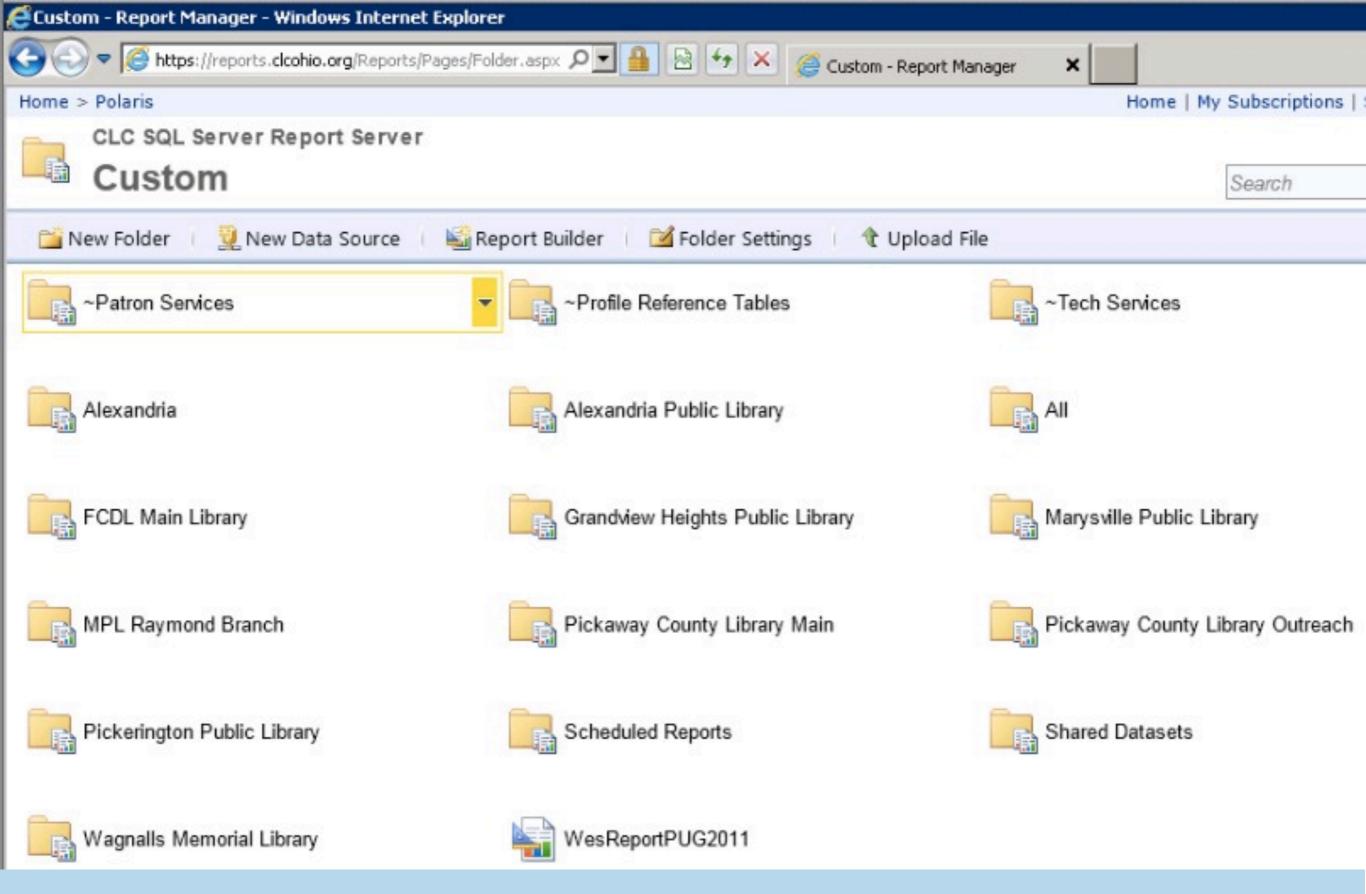
Report Start Date: 7/1/2011 12:00:00 AM Report End Date: 7/31/2011 11:59:59 PM

Patron ID	Barcode	Last Activity Date
3.	2 1 8 6 9 0 0 0 3 1 4 2 6 3 *	7/6/2011 12:56:01 PM
4	7 2 1 8 7 1 0 0 0 2 7 2 6 5 7 *	7/11/2011 5:11:16 PM
7	* 2 1 8 6 8 0 0 2 2 0 6 8 9 9 *	7/26/2011 12:21:16 PM
8	2	7/7/2011 6:35:43 PM
30	7	7/19/2011 2:26:26 PM

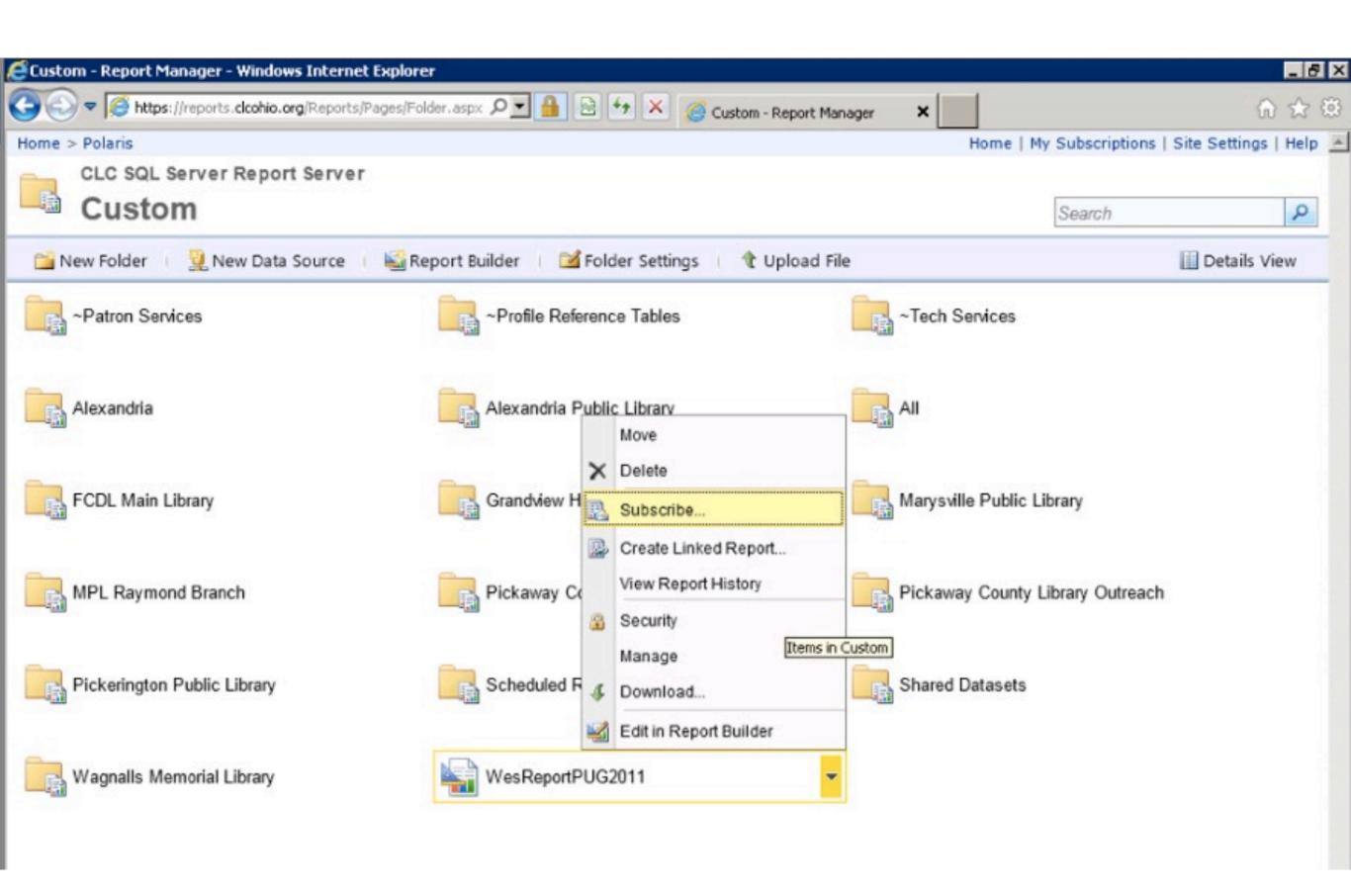


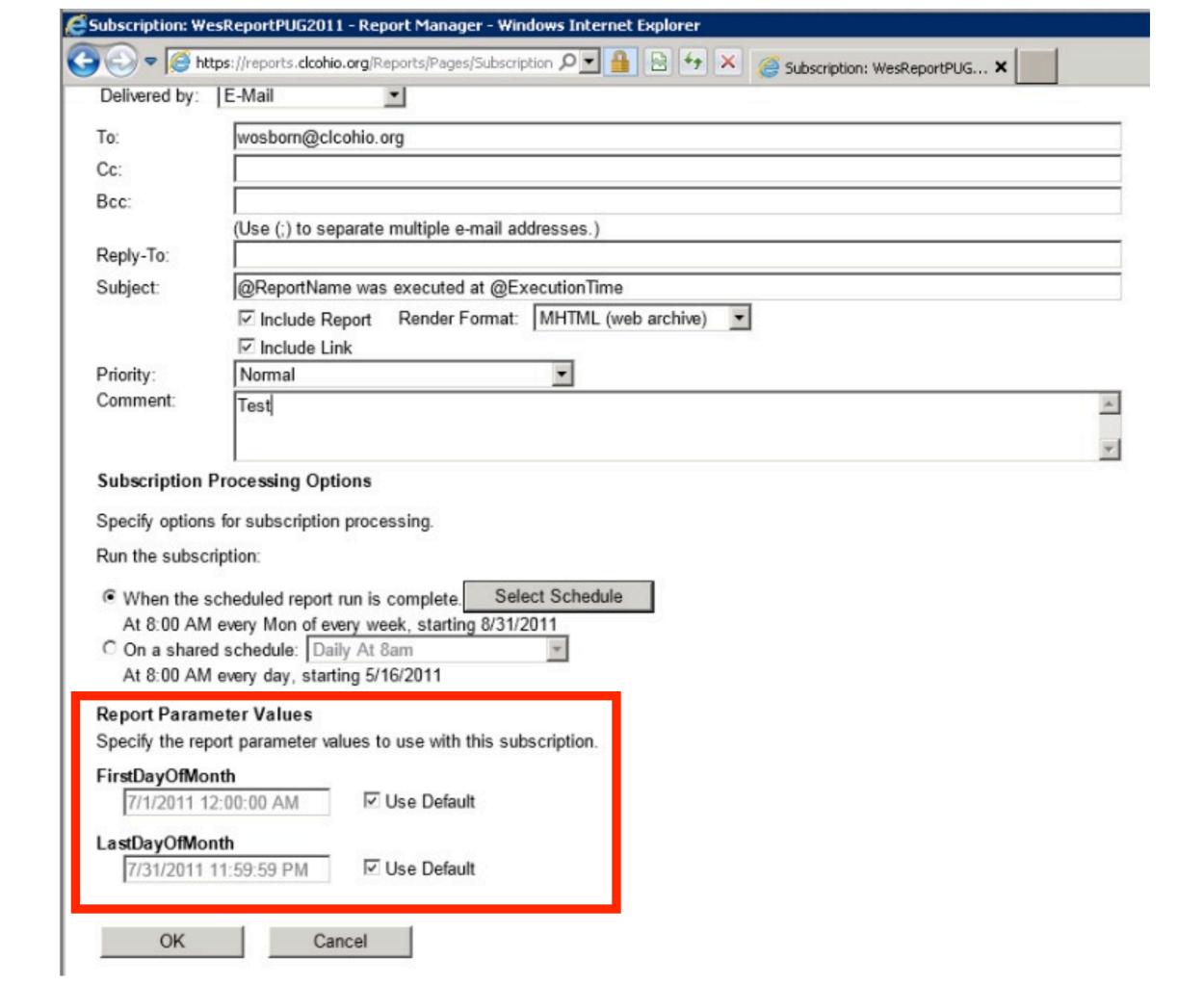
fx are your friends

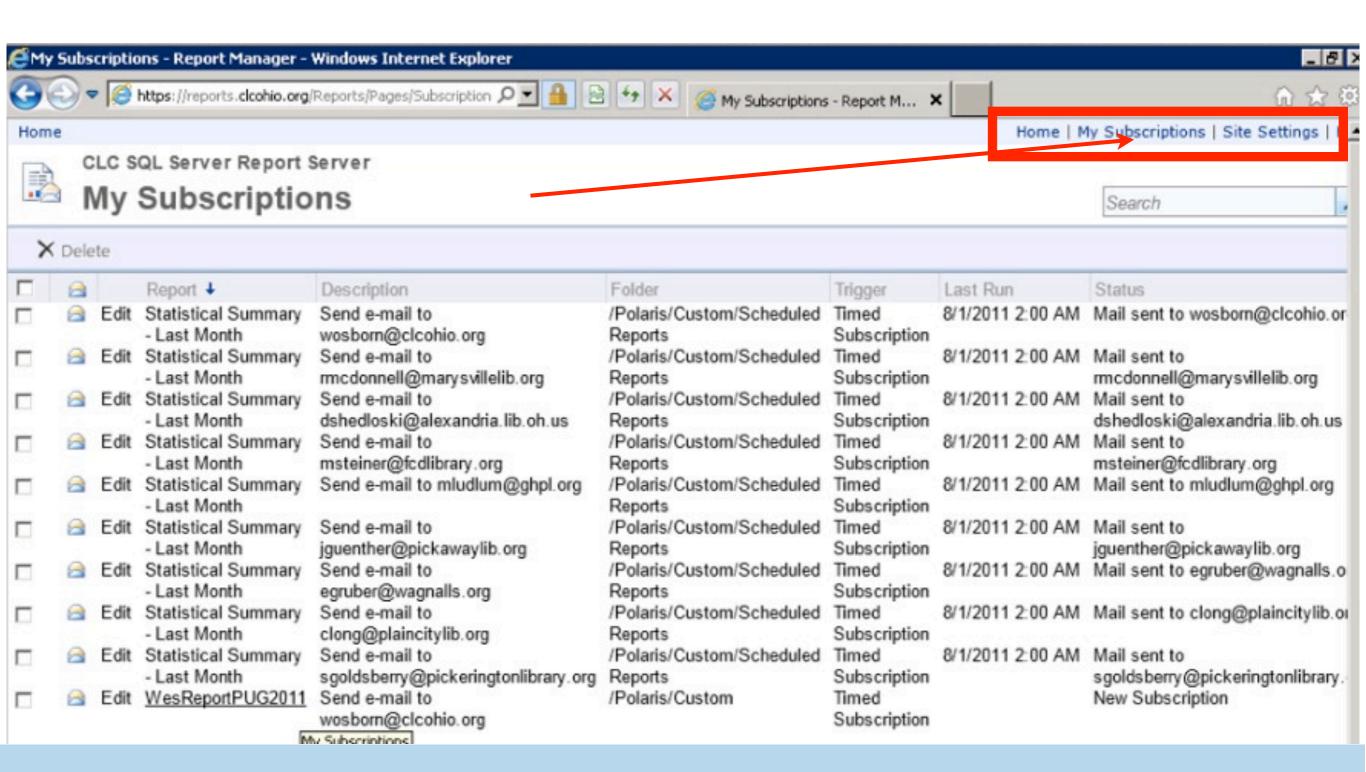
Scheduling Reports to Run



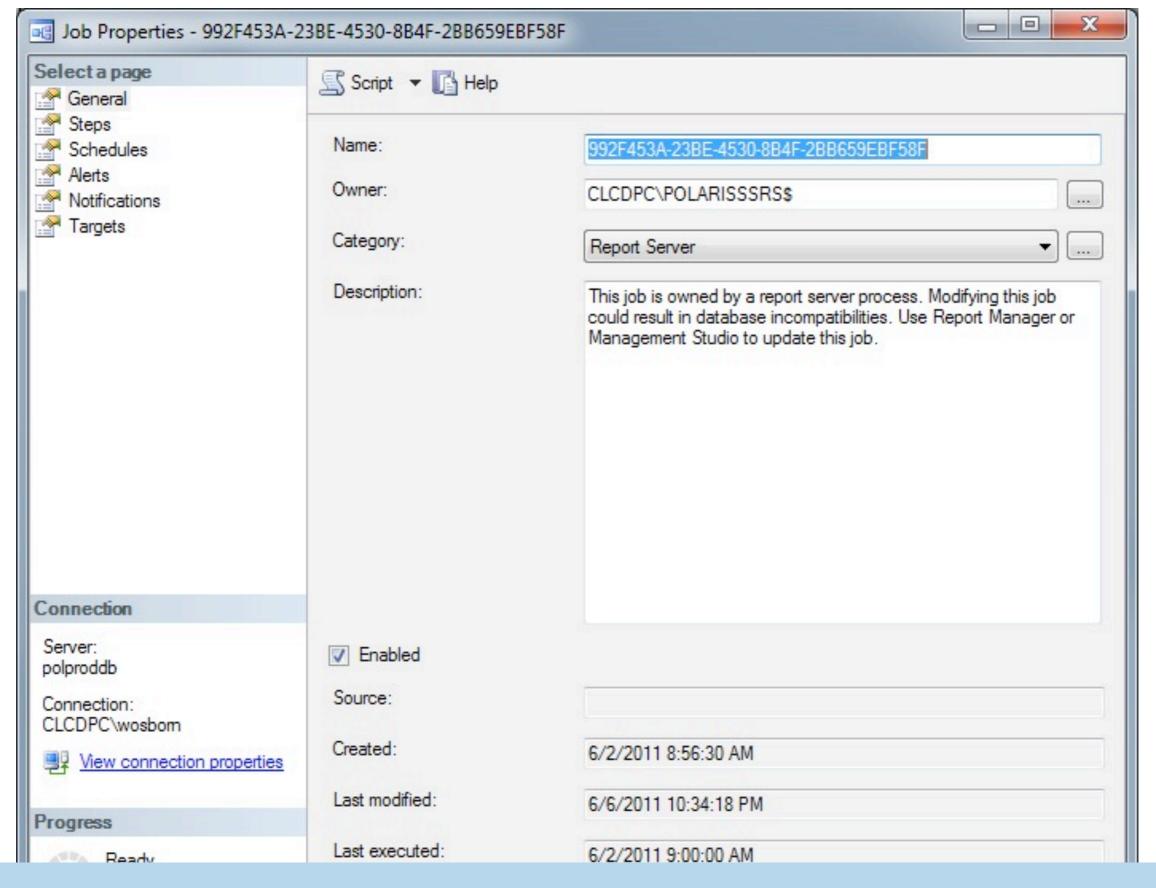
https://reports.clcohio.org/Reports/







Managing Subscriptions



Surprise! A new SQL Job!

WesReportPUG2011 was executed at 9/8/2011 7:45:03 PM

reports@reportserver.clcohio.org

Sent: Thu 9/8/2011 7:45 PM

To: Wes Osborn

Test



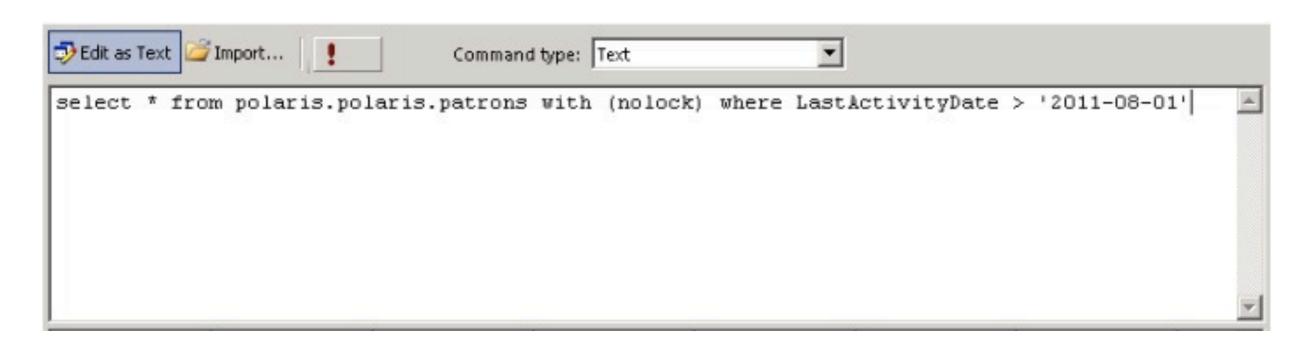
PUG Test Report

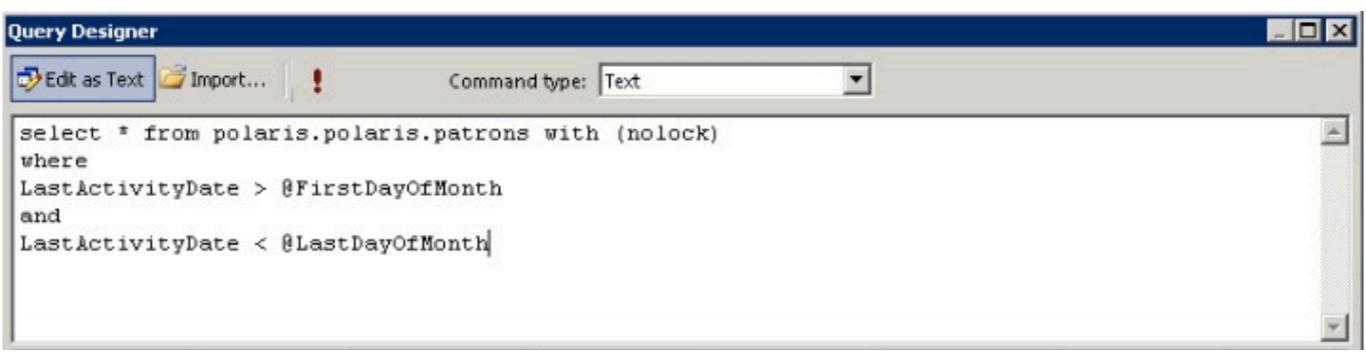
Report Run Time: 9/8/2011 7:45:05 PM

Report Start Date: 8/1/2011 12:00:00 AM Report End Date: 8/31/2011 11:59:59 PM

Patron ID	Barcode	Last Activity Date
37	* 2 0 2 3 1 0 0 0 1 5 0 3 2 3 *	8/1/2011 11:46:39 AM
73	* 2 1 8 6 9 0 0 0 7 9 3 2 2 7 *	8/11/2011 7:29:53 AM
74	* 2 1 8 6 9 0 0 0 4 7 0 2 0 6 *	8/20/2011 11:40:14 AM
89	* 2 1 8 6 8 0 0 1 9 4 8 9 9 6 *	8/13/2011 11:57:15 AM
90	* 2 0 2 3 1 0 0 0 1 3 5 2 3 3 *	8/29/2011 6:17:57 PM
108	* 2 0 2 3 1 0 0 0 1 3 6 9 4 2 *	8/25/2011 3:13:39 PM
119	* 2 0 3 0 5 0 0 0 0 3 4 3 4 7 *	8/16/2011 11:45:38 AM

Separating Data from Design

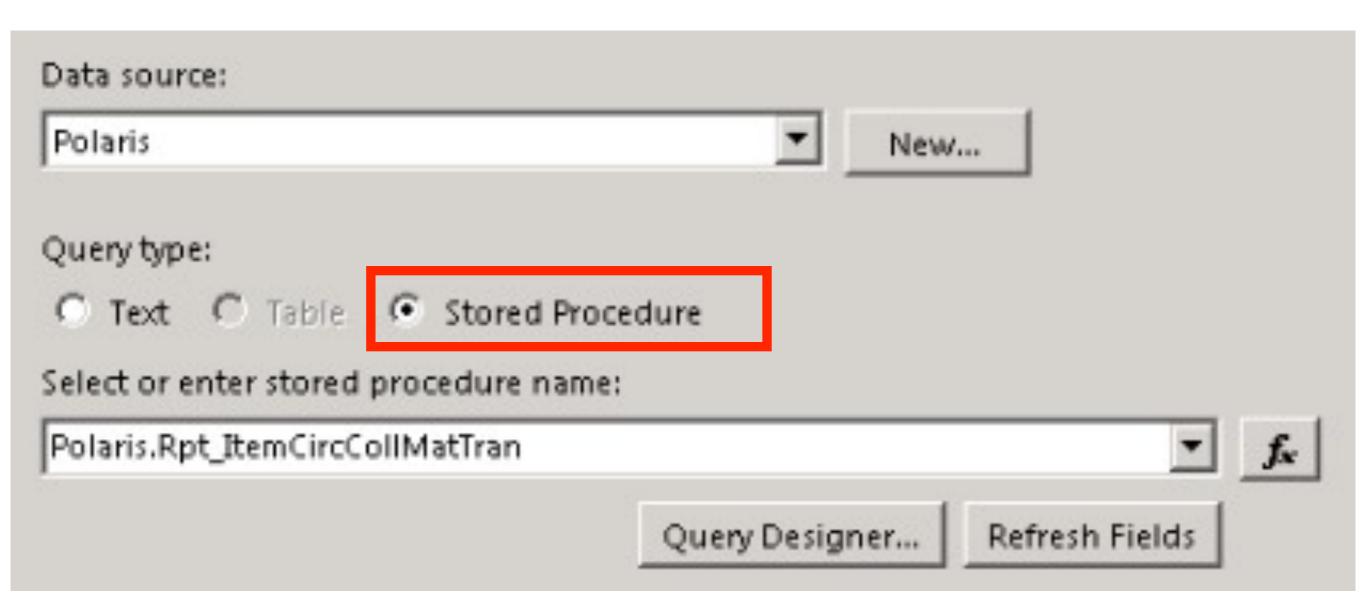




Dataset SQL as Text



What a Mess!



Much cleaner

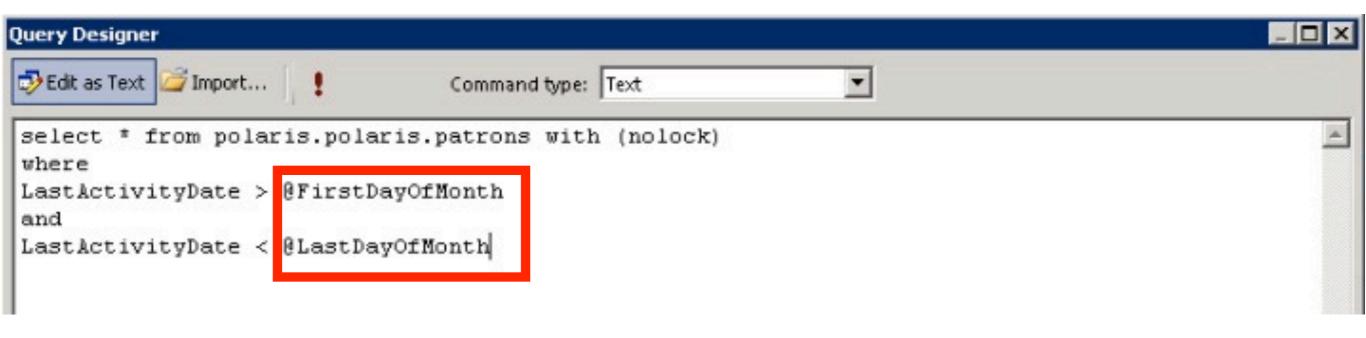
select o.abbreviation as patronbranchabbr, pr.patronfullname, p.barcode as patronbarcode, pr.altemailaddress, pr.emailaddress from polaris.patronregistration pr with (nolock) inner join polaris.patrons p with (nolock) on (pr.patronid = p.patronid) inner join polaris.organizations o with (nolock) on (p.organizationid = o.organizationid) where p.organizationid in (@OrganizationList) and pr.deliveryoptionid = 1 and pr.emailaddress is not null and pr.emailaddress > ' ' order by patronbranchabbr asc, patronfullname asc

Ugly

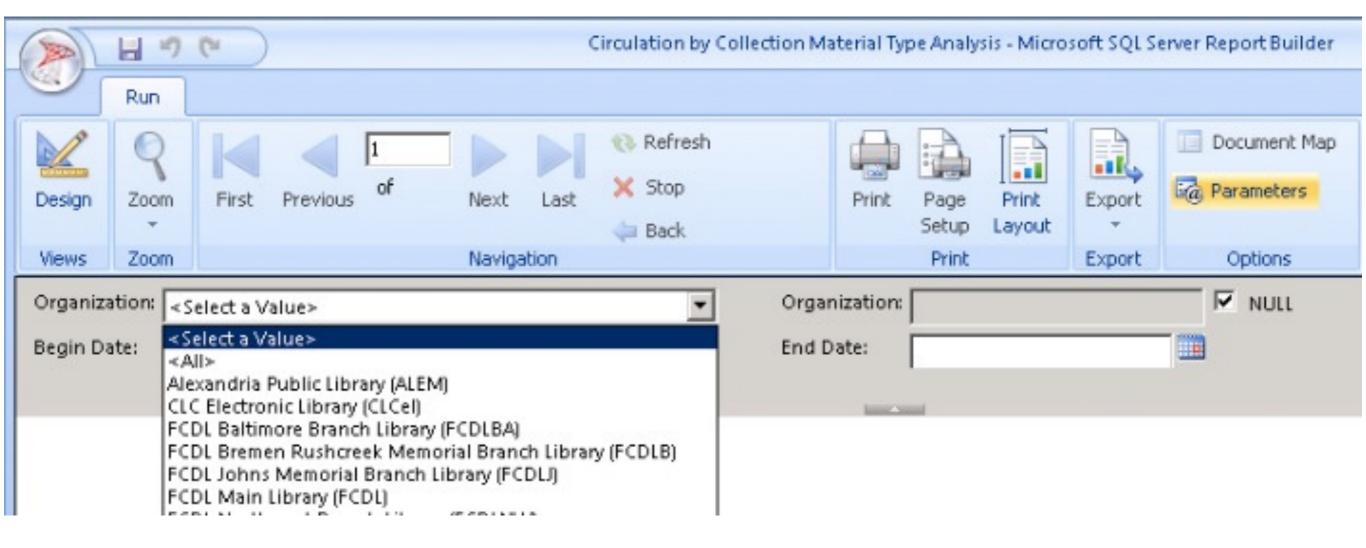
```
USE [Polaris]
    GO
    /***** Object: StoredProcedure [Polaris].[Rpt ItemCircCollMat] Script Date: 09/01/2011 11:42:02 ******/
    SET ANSI NULLS ON
    GO
   SET QUOTED IDENTIFIER ON
10
11
12 CREATE PROCEDURE [Polaris].[Rpt ItemCircCollMat]
        @OrganizationList varchar (MAX)
14
   AS
15 BEGIN
16
        SET NOCOUNT ON
17
       CREATE TABLE #Branches (OrganizationID INT)
18
       IF LEN (@OrganizationList) = 1 AND @OrganizationList= '0' -- ALL SELECTED
19
20 |
        BEGIN
            INSERT INTO #Branches
21
            SELECT OrganizationID FROM Polaris.Organizations WITH (NOLOCK) WHERE OrganizationCodeID IN (3)
22
23
        END
24
        ELSE
25 🛱
        BEGIN
            EXEC ('INSERT INTO #Branches SELECT OrganizationID FROM Polaris. Organizations WITH (NOLOCK) WHERE Organization
26
        END
28
29
        declare @strAll varchar(10)
        select @strAll = '<All>'
30
```

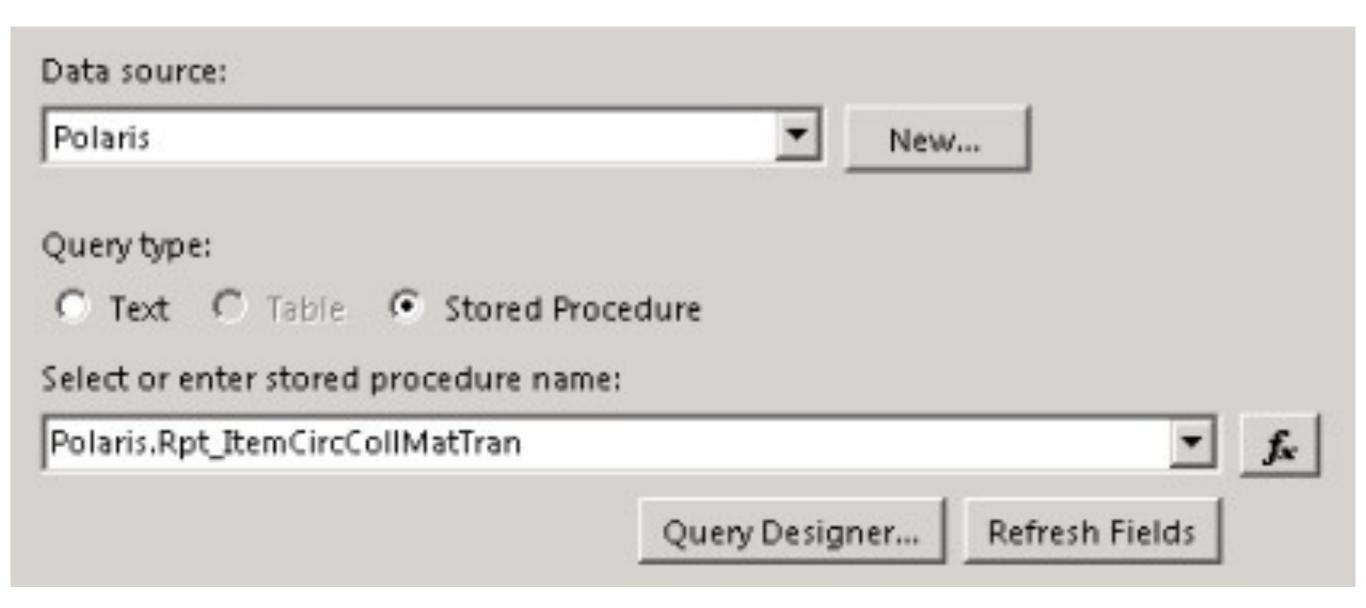
Beautiful

But what about parameters?

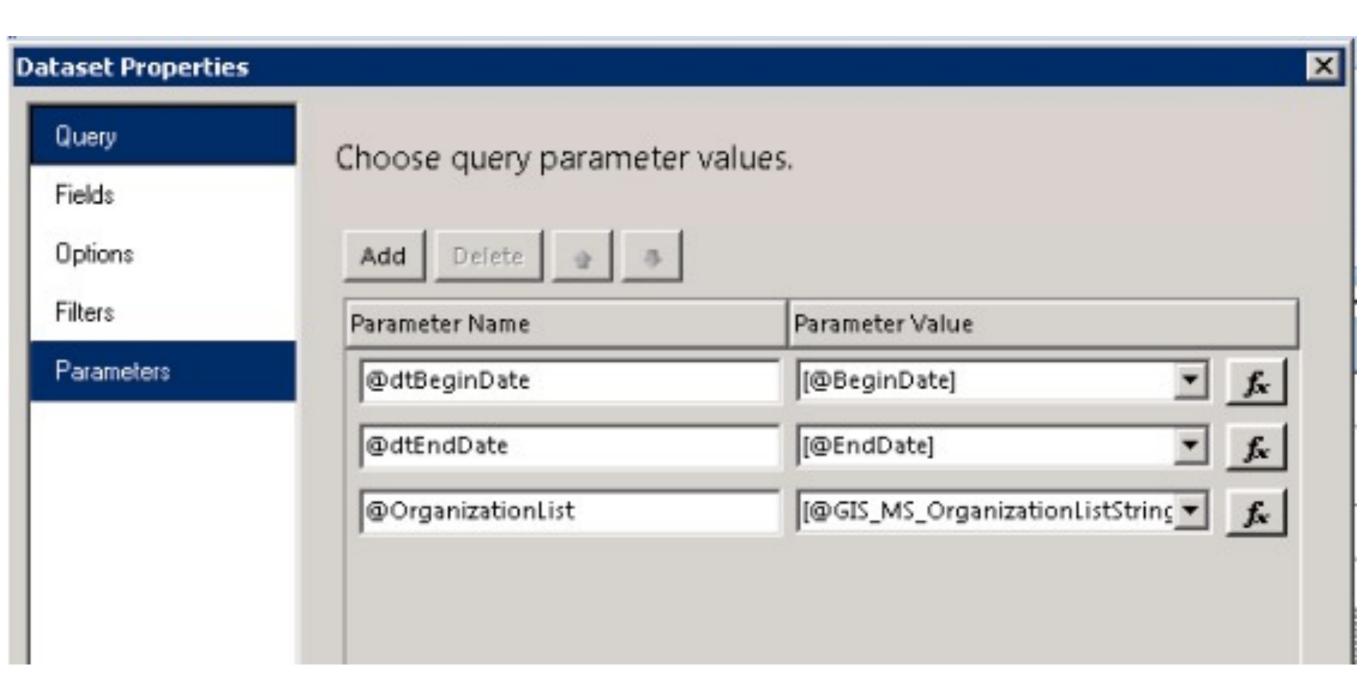


Used to be embedded in SQL

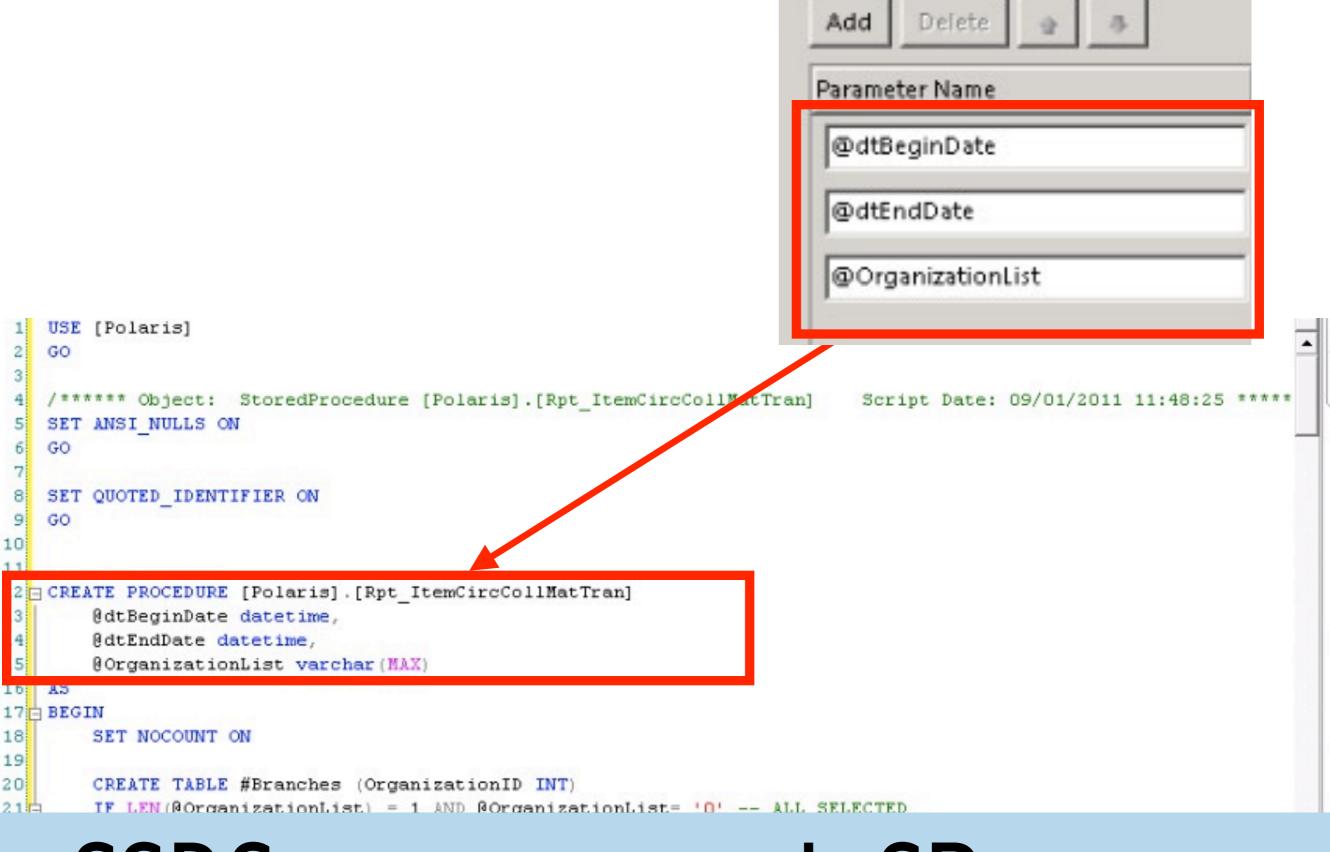




No place for an @

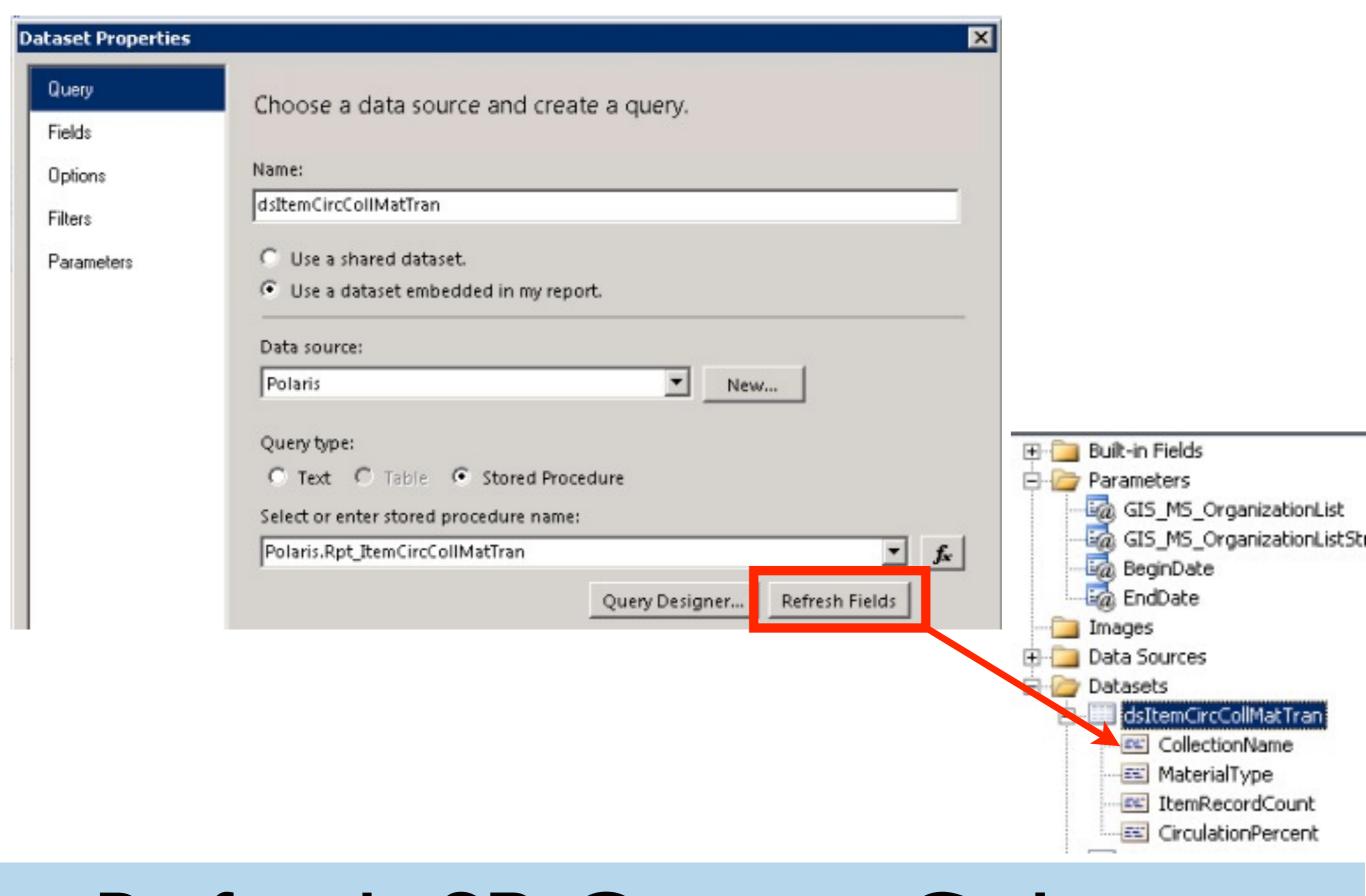


Now add them manually



SSRS names match SP names

27 BEGIN



Refresh SP Output Columns

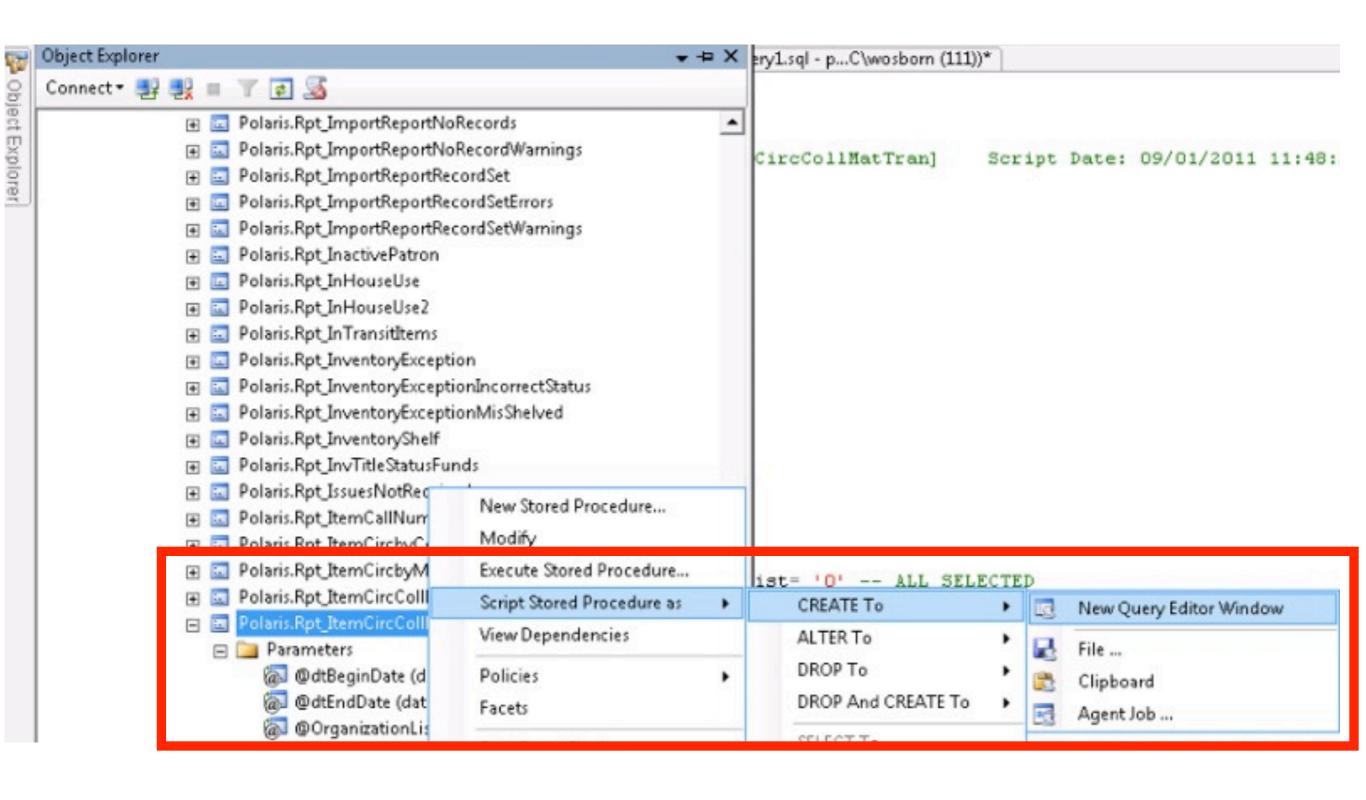
SMSFineText	Money is owed on your library account. Please call the library or check your account on line.	
EmailFineSubj	Fine Notice	
EmailFineText	The following charges have been incurred since the last notice and should be paid immediately. Thank you for your prompt attention to these charges.	
MailFineSubj	Fine Notice	
MailFineText	The following charges have been incurred since the last notice and should be paid immediately. Thank you for your prompt attention to these charges.	
BillsEnabled	Yes	
NumDaysBillingNotice	31	
BillDeliveryMethod	Print ONLY	
BillADDTXTMessages	Disabled	
SMSBillText	Money is owed on your library account. Please call the library or check your account on line.	
EmailBillSubj	BILLING NOTICE	
EmailBillText	THIS IS A BILL. Your account has been charged for failure to return the following items. Please remit payment or contact the library as soon as possible.	
MailBillSubj	Billing Notice	
MailBillText	This is your final notice to return the item(s) listed below. You are being billed for replacement costs.	

```
12
13
    -- Author:
                    Wes Osborn
    -- Create date: 2011.01.24
17
    -- Description: Supports SSRS custom report "Library Notices Information" that shows libraries what their noti
18
    -- Updated: 2011.03.22 Added support for canceled notices
    __ ________
21 CREATE PROCEDURE [dbo].[CLC_Custom_Rpt_LibraryNoticesInformation]
        -- Organization code needed for process
23
        @Library int
24 AS
25 BEGIN
26
        -- SET NOCOUNT ON added to prevent extra result sets from
27
        -- interfering with SELECT statements.
28
        SET NOCOUNT ON:
29
30 declare @deliverymethod bit
   declare @addtxtmessages varchar(10)
31
32
33
   create table #noticeinfo (setting varchar(50), value varchar (4000))
34
35 /* what is the email notice reply to address */
36 insert into #noticeinfo (setting, value)
37
   -select 'ReplyEmail' as [setting], Polaris.Polaris.fn S& GetValue ('NSP&RMRMEM&ILREPLYTO',@Library) as [value]
38
451
452
    /* is additional TXT delivery method enabled for reminder notices */
    select @addtxtmessages = Polaris.Polaris.fn S& GetValue ('NSP&RMRM ADDTXT', @Library)
454 if @addtxtmessages = 'No'
455
        begin
456
            insert into #noticeinfo (setting, value)
457
            select 'ReminderADDTXTMessages' as [setting], 'Disabled' as [value]
458
459 ELSE
460
            insert into #noticeinfo (setting, value)
            select 'ReminderADDTXTMessages' as [setting], 'Enabled' as [value]
461
462
463 /* Overdue REMINDER notice SMS text */
464 insert into #noticeinfo (setting, value)
```

470+ Lines of code

If you want to customize a Polaris Report...

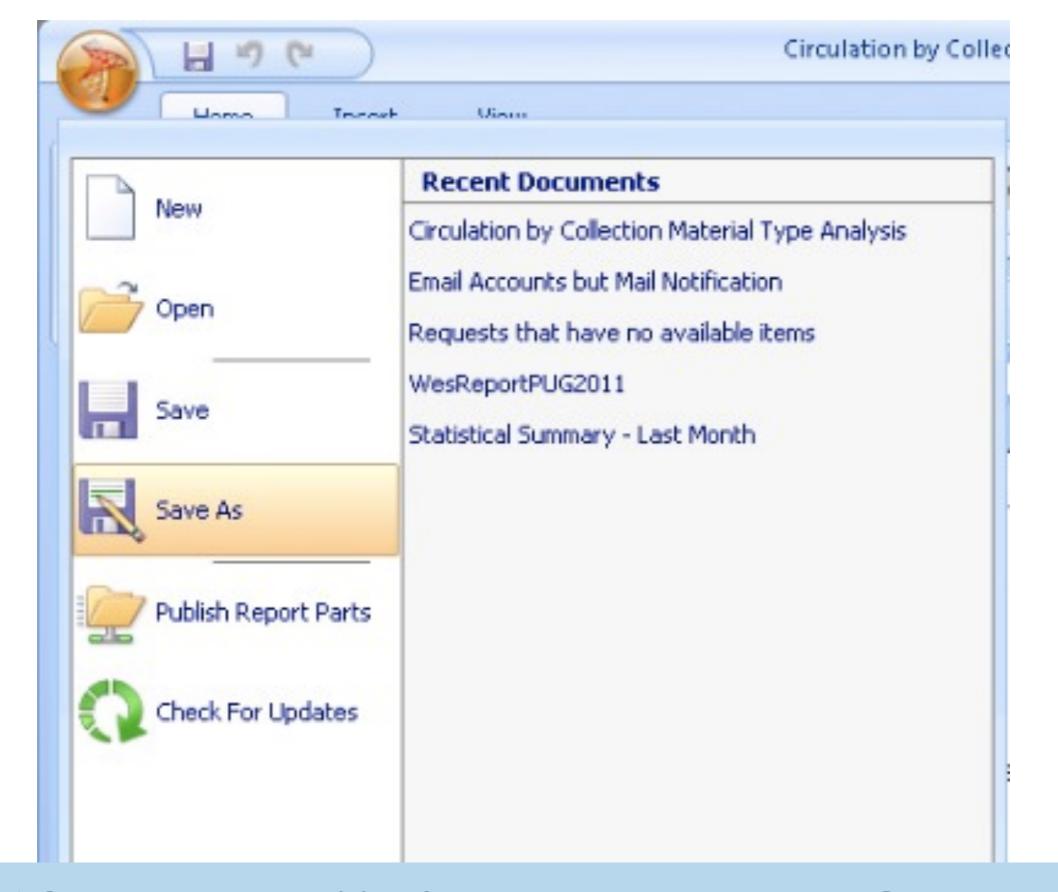
Change the RDL and Stored Procedure



Copying Stored Procedure

```
USE [Polaris]
   GO
 3
   /***** Object: StoredProcedure [Polaris].[Rpt_ItemCircCollMatTran]
                                                                              Script
   SET ANSI NULLS ON
   GO
    SET QUOTED IDENTIFIER ON
    GO
10
11
                                [CLC_Custom_Rpt_ItemCircCollMatTran]
12 CREATE PROCEDURE [Polaris] .
        @dtBeginDate datetime,
13
        @dtEndDate datetime,
14
        @OrganizationList varchar (MAX)
15
16
   AS
17 BEGIN
18
        SET NOCOUNT ON
19
               TABLE #Branches (OrganizationID INT)
```

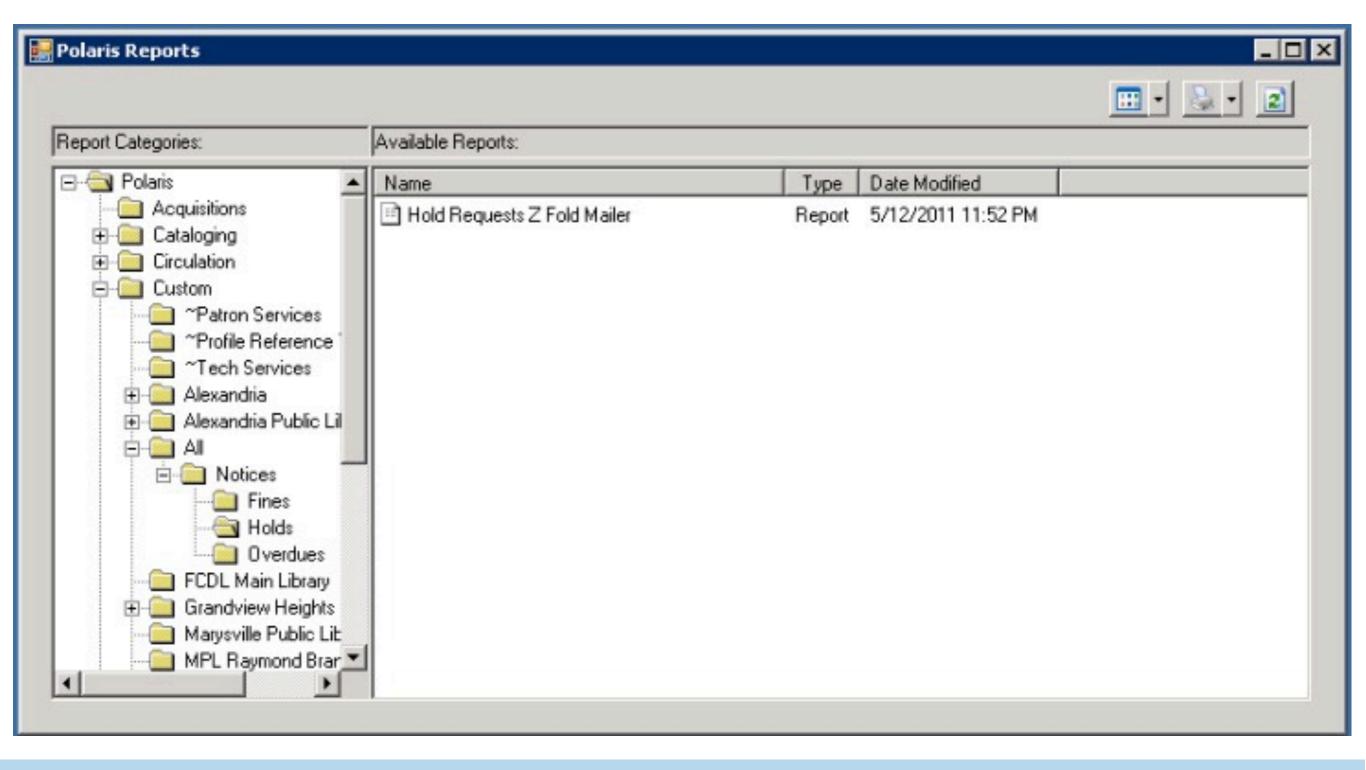
Rename it



"Save As" for a RDL Copy

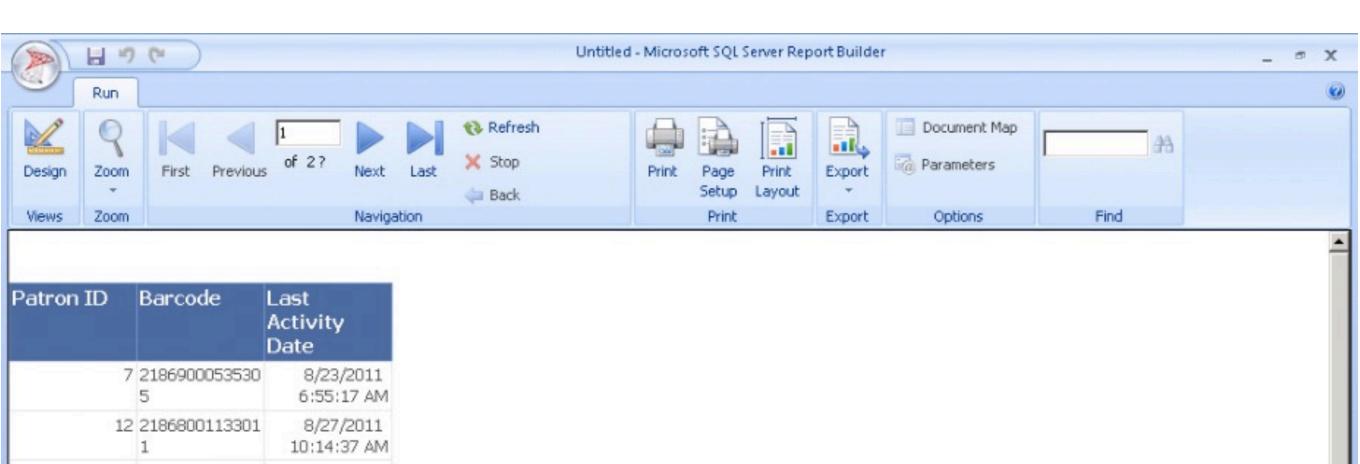
A Note about Notices

Location Matters!

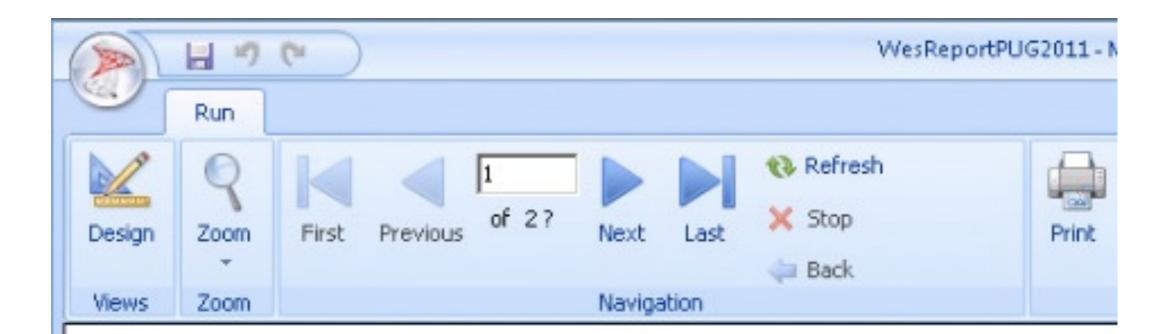


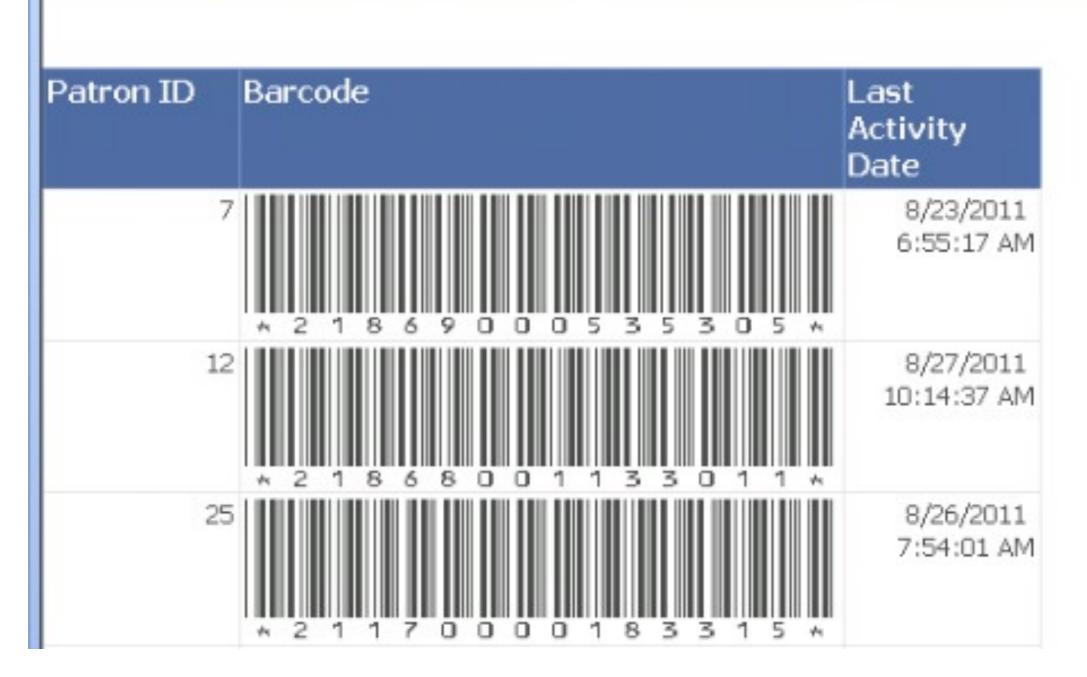
Custom -> All -> Notices -> Match Folder & Report Name

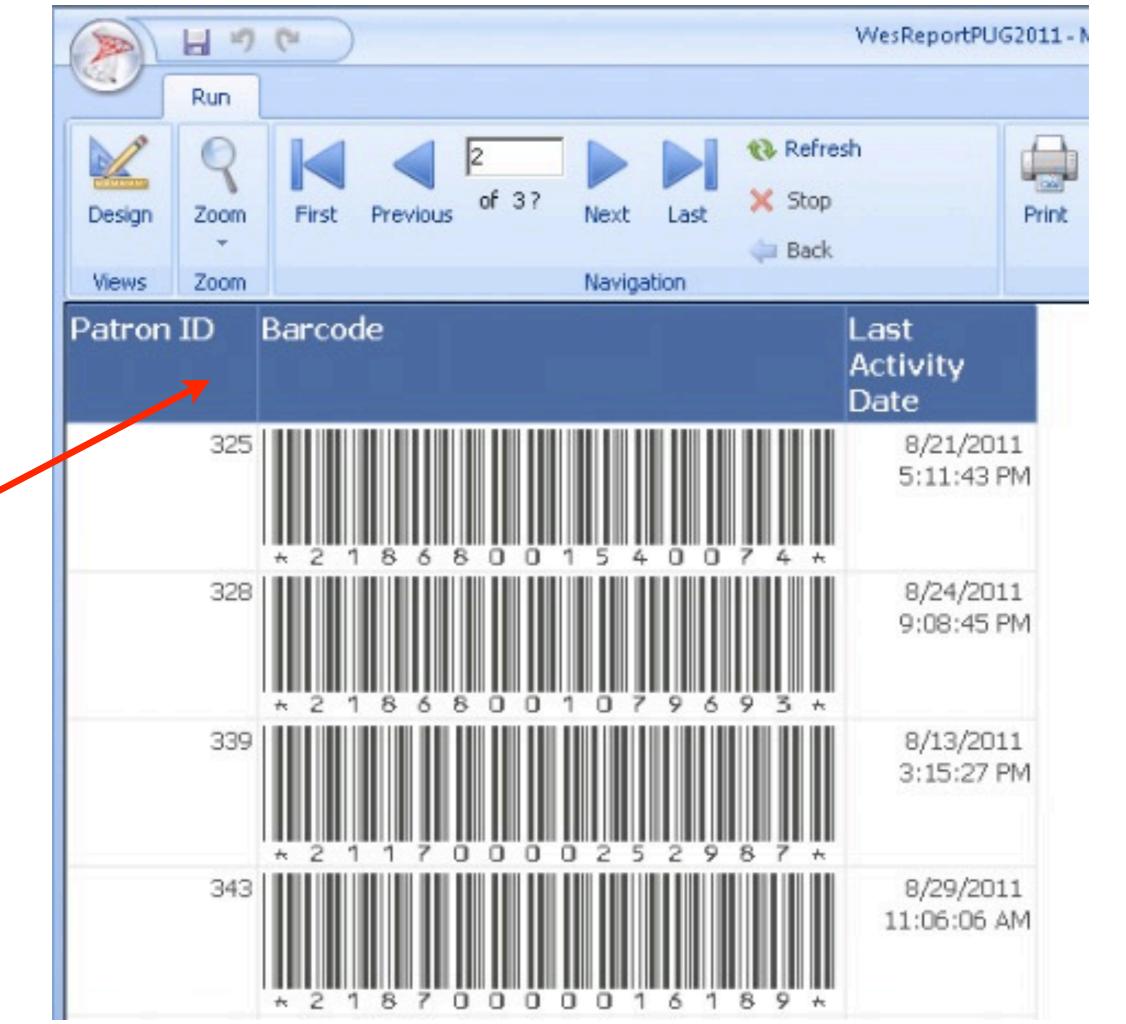
Recap



r du on 10	Dai code	Activity Date
7	2186900053530 5	8/23/2011 6:55:17 AM
12	2186800113301 1	8/27/2011 10:14:37 AM
25	2117000018331 5	8/26/2011 7:54:01 AM
34	2186800194902 8	8/18/2011 4:57:49 PM
37	2023100015032 3	8/1/2011 11:46:39 AM
40	2023100015104 0	8/27/2011 10:57:45 AM
44	2023100002314 0	8/25/2011 1:34:41 PM
73	2186900079322 7	8/11/2011 7:29:53 AM
74	2186900047020 6	8/20/2011 11:40:14 AM
87	2186900060710 4	8/24/2011 6:56:17 PM
89	2186800194899 6	8/13/2011 11:57:15 AM
96	2186800170555 2	8/29/2011 1:06:48 PM











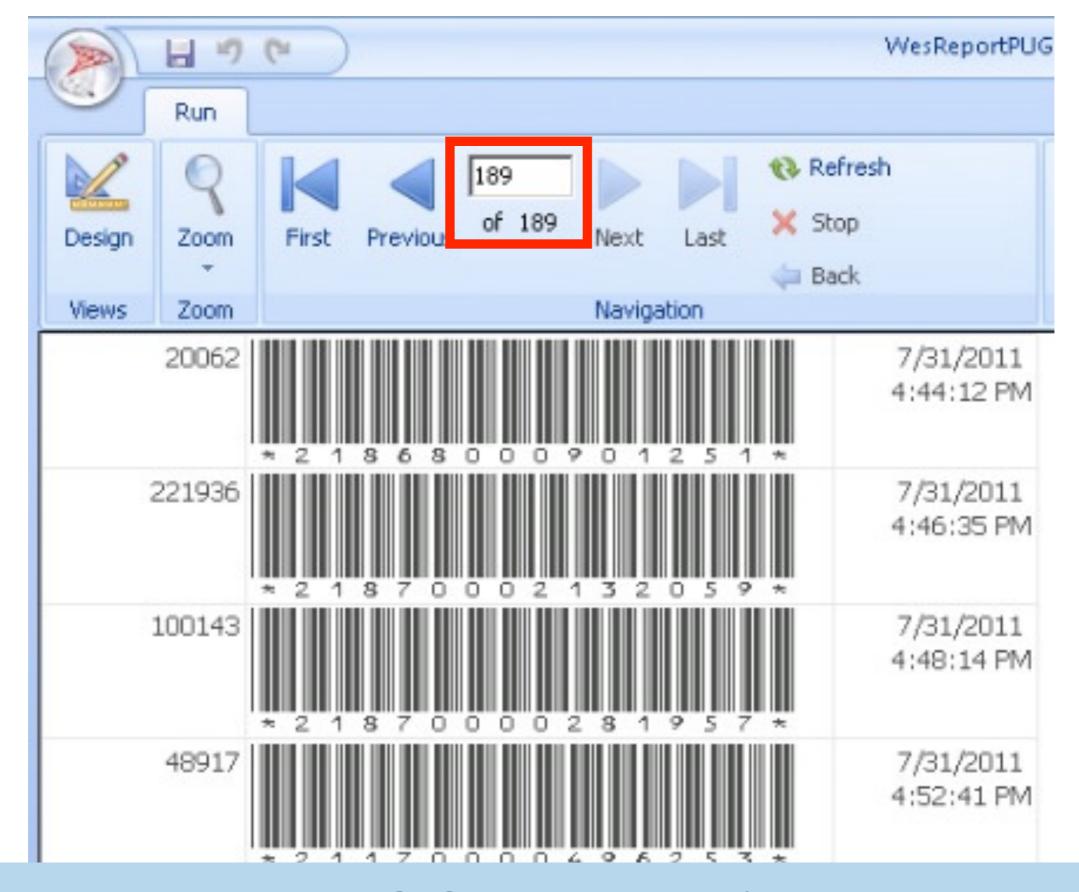
PUG Test Report

Report Run Time: 8/31/2011 1:27:01 PM

Report Start Date: 7/1/2011 12:00:00 AM Report End Date: 7/31/2011 11:59:59 PM

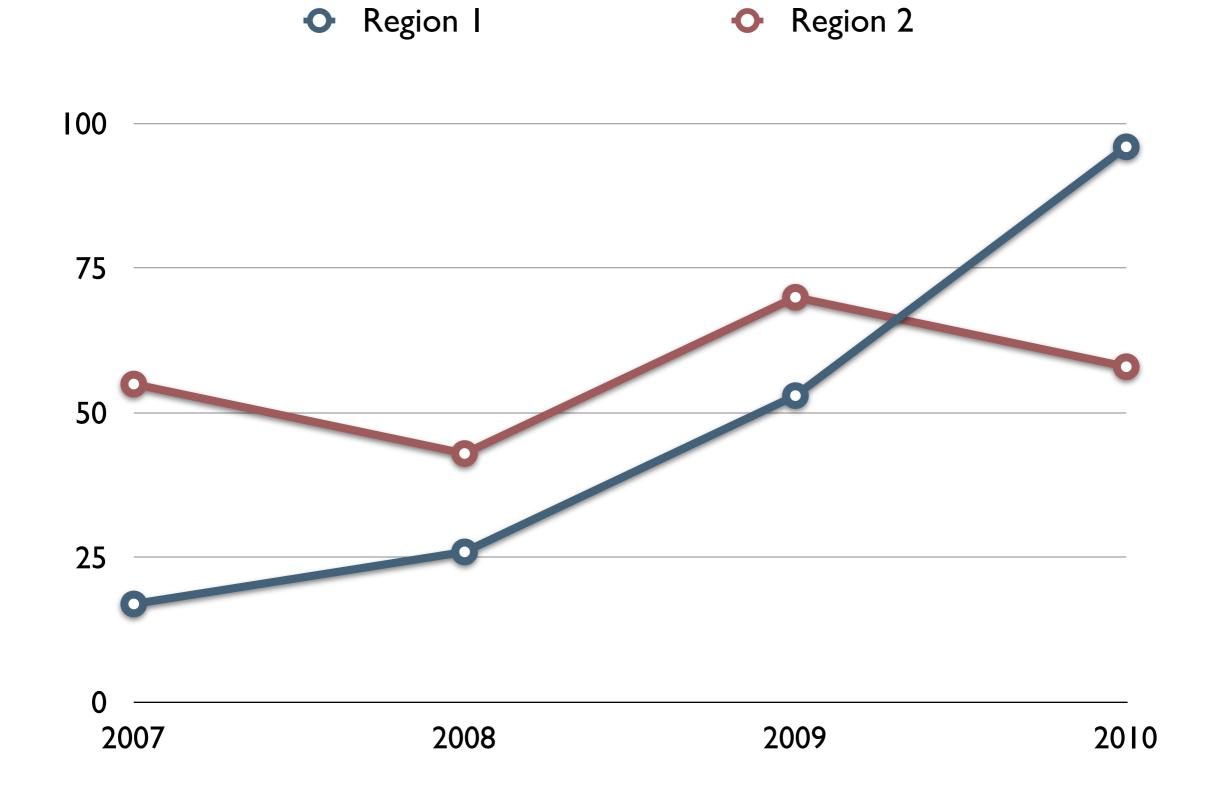
Patron ID Barcode	Last Activity Date
* 2 1 8 6 9 0 0 0 3 1 4 2	7/6/2011 12:56:01 PM
47	7/11/2011 5:11:16 PM
71 * 2 1 8 6 8 0 0 2 2 0 6 8	7/26/2011 12:21:16 PM
82	7/7/2011 6:35:43 PM
307 * 2 1 8 6 8 0 0 1 9 4 8 5	7/19/2011 2:26:26 PM

One more thing...

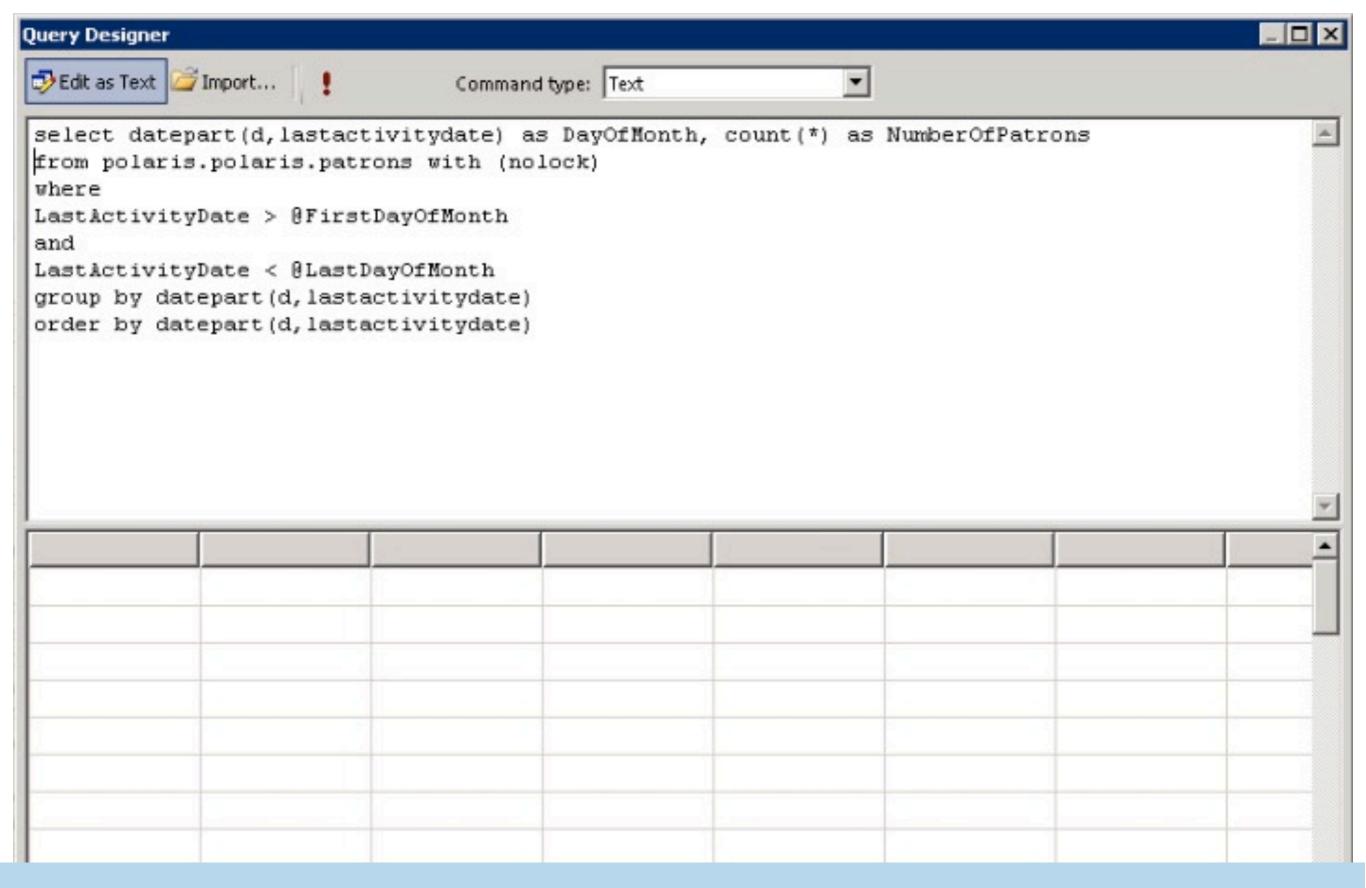


189 Pages!

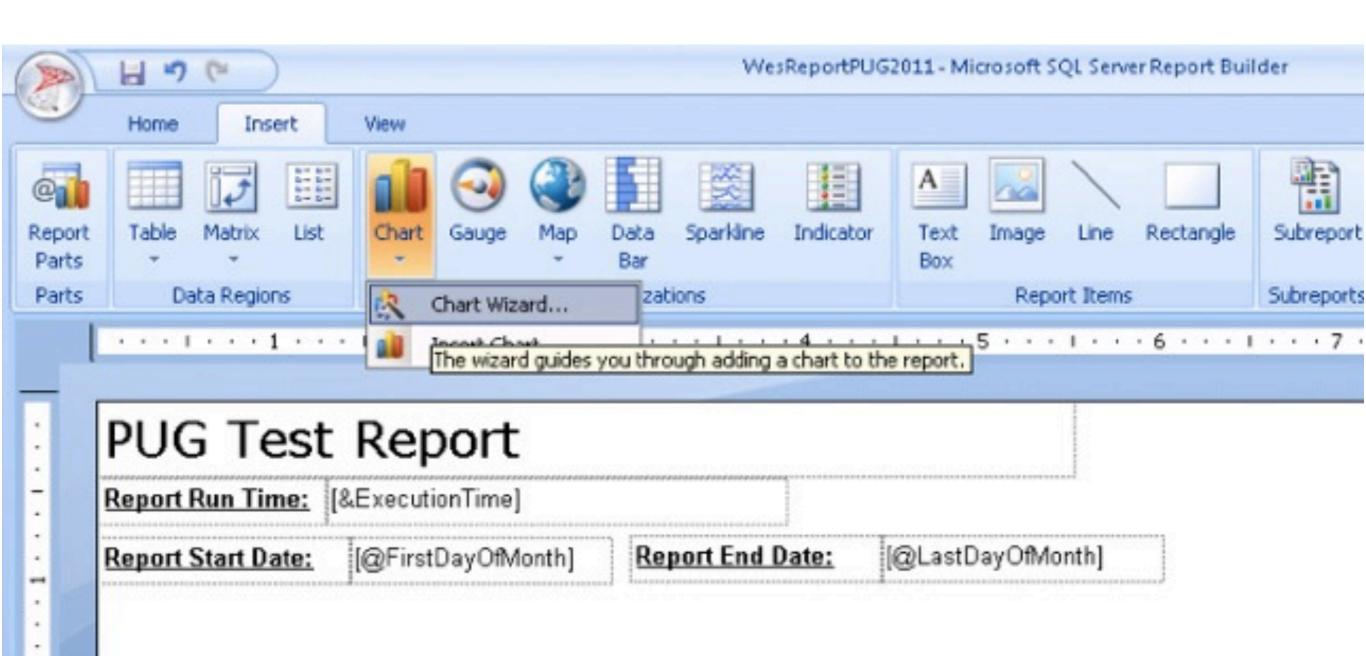
The Solution...

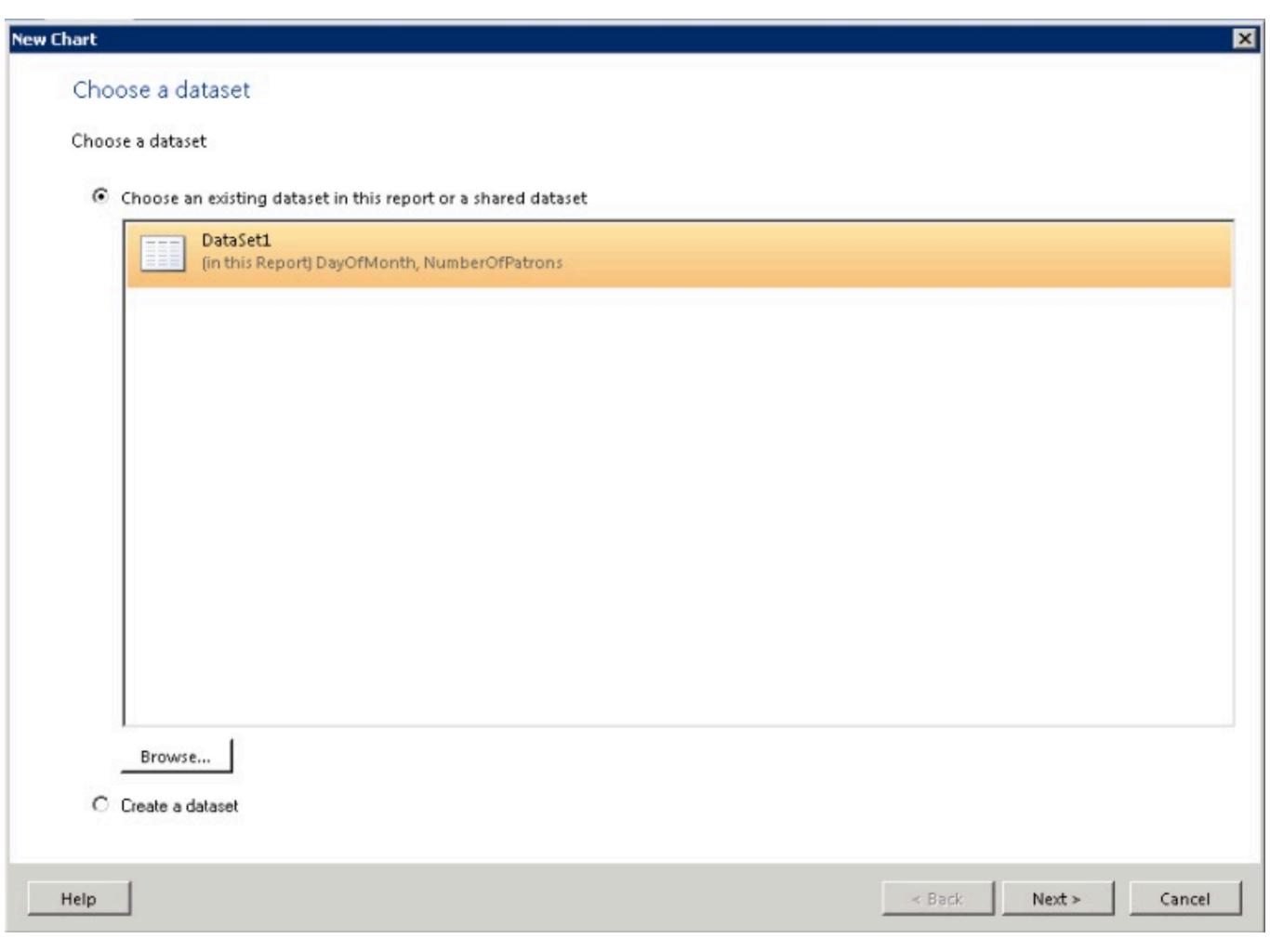


Charts!



Simplifying the data set





Choose a chart type

Choose a chart type that best displays your data.

Chart type:



Column

A column chart displays a series as a set of vertical bars grouped by category. Column charts are useful for illustrating comparisons amon...



Line

A line chart displays a series as a set of points connected by a single line. Line charts are used to represent large amounts of data that occ...



Pie

A pie chart displays value data as percentages of a total. Consider using a pie chart after the data has been aggregated to seven data poi...



Bar

A bar chart displays data horizontally. It is popular for categorical information, because the categories can be displayed horizontally.



Area

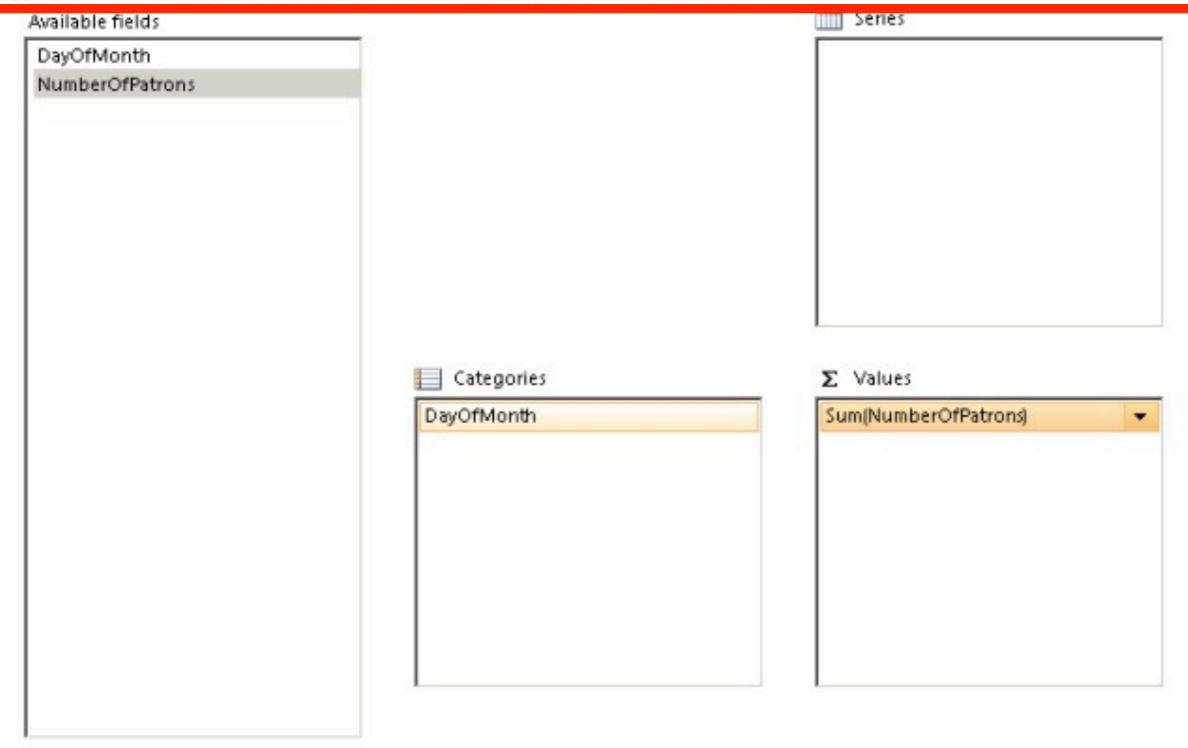
The area chart displays data contiguously, so it is commonly used to represent data that occurs over a continuous period of time.

Use a stacked chart to display the total value of multiple series.

■ Use a 100 percent stacked chart to show relative proportions between multiple series.

Arrange chart fields

Add data fields to the chart. For most chart types, a field in the Categories list is displayed on the x-axis. A field in the Values list shows aggregated data on the y-axis. A field in the Series list creates a new series in the chart.



Help

< Back

Next >

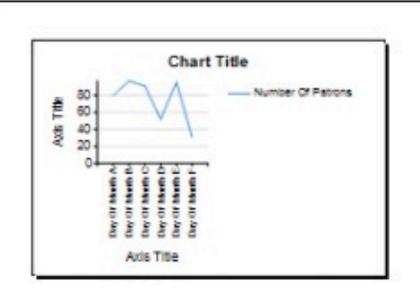
Cancel

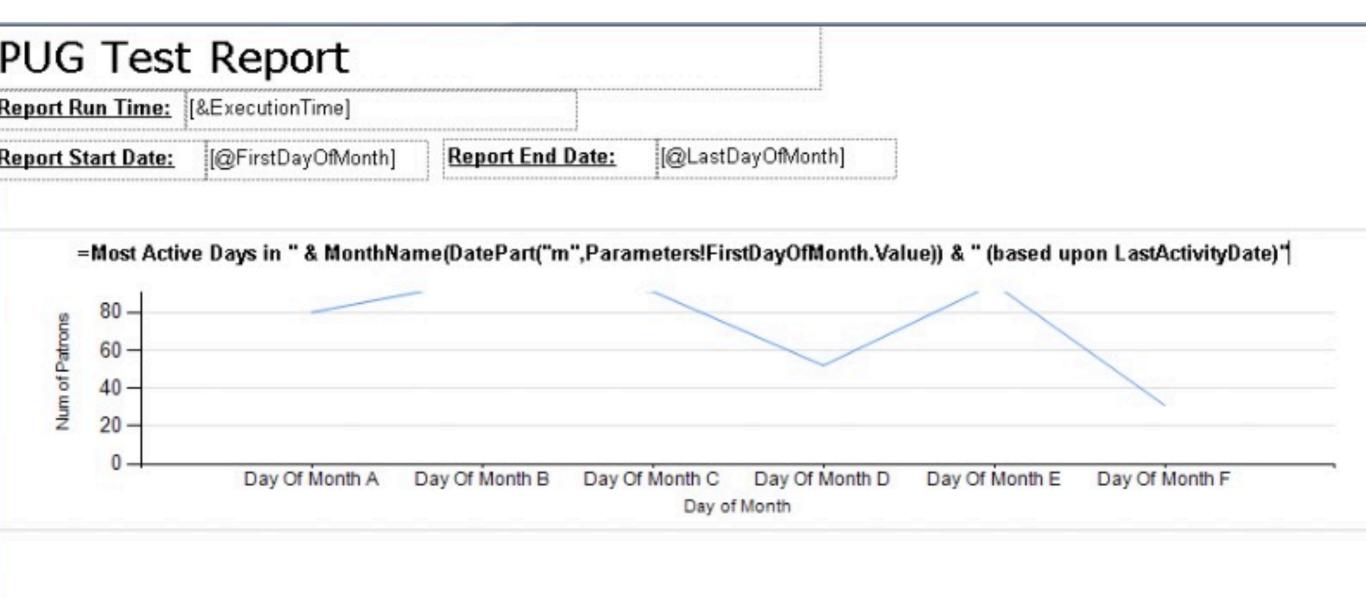
Choose a style

Styles feature different fonts and color schemes, but do not affect the basic layout. You can customize the style after you finish the wizard.

Preview





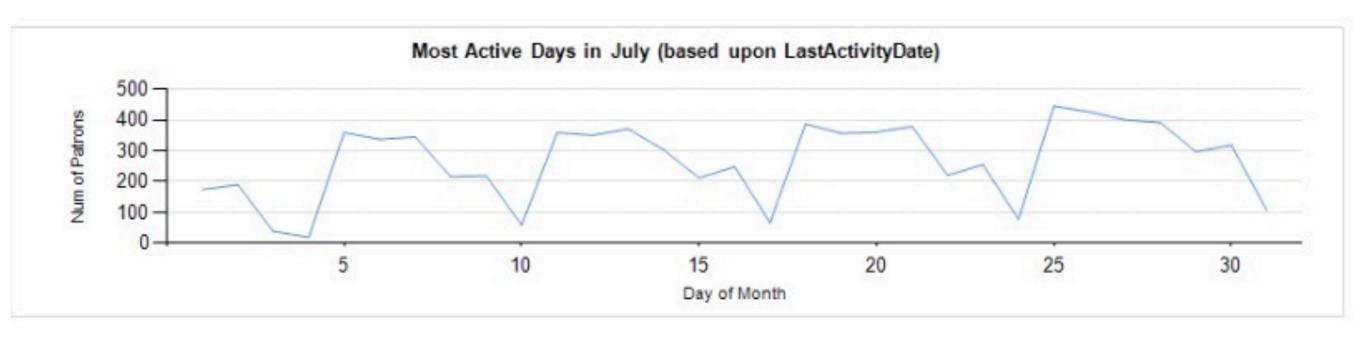


Cleanup Chart Object

PUG Test Report

Report Run Time: 8/31/2011 3:31:07 PM

Report Start Date: 7/1/2011 12:00:00 AM Report End Date: 7/31/2011 11:59:59 PM



New Report Output



Giveaway Time!

Questions? wosborn@clcohio.org

Slides available at http://bit.ly/pug2011wes