

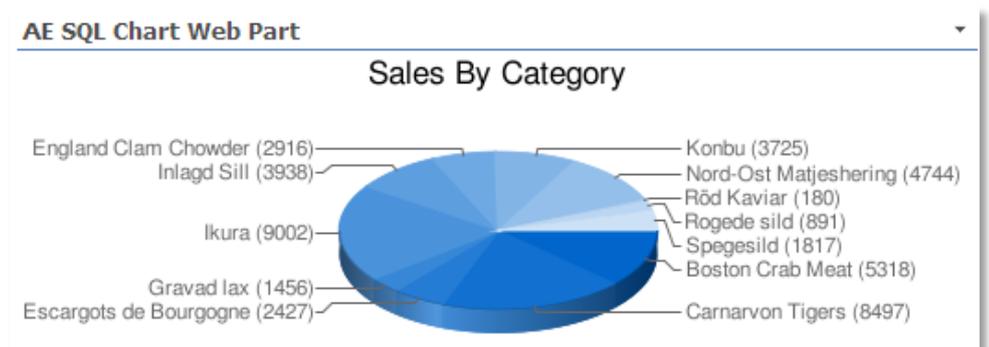
SQL Chart Web Part

Enterprise Version

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Version 1.1

January 2010



Description

The SQL Chart Web Part allows to chart data selected from the specified SQL Server database, OLE-DB or ODBC data source. The charts are created using Google's public Chart API. The SQL Chart Web Part accepts Web Part connections for filtering.

The Web Part can be used both with Windows Sharepoint Services V3 and MOSS.

The following parameters can be configured:

- SQL query or Stored Procedure to select the data to be visualized
- Chart Type:
 - Pie Chart
 - 3D Pie Chart
 - Horizontal Bar Chart
 - Horizontal Stacked Bar Chart
 - Vertical Bar Chart
 - Vertical Stacked Bar Chart
 - Line Chart
- Chart dimensions
- Chart Title
- Chart background colors
- Chart Color Palette
- Chart Legend

Prerequisites

Before you attempt to install the solutions you need to make sure that you have the following installed on your server(s):

- Windows SharePoint Services 3.0 or Microsoft Office SharePoint Server 2007

Installation

Manual Installation

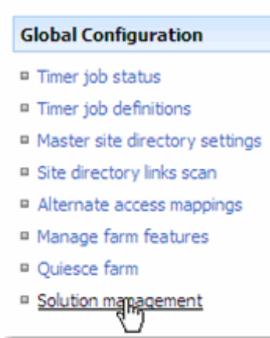
1. download and unpack the **AESQLChartWebpart.zip** file.
The ZIP archive contains the AESQLChartWebpart.dll and the AESQLChart.webpart files.
2. drop the AESQLChartWebpart.dll either into the SPS web application bin directory or into the GAC of your Sharepoint server (c:\windows\assembly).
3. add the following line to the "<SafeControls>" section of your Web.Config file.
Please make sure that the line is added as one single line (no line breaks):

```
<SafeControl Assembly="AESQLChartWebpart, Version=1.0.0.0, Culture=neutral,  
PublicKeyToken=b2e18922fa55fd05" Namespace="AESQLChartWebpart" TypeName="*" Safe="True" />
```

4. from the top site go to "Site Actions/Site Settings/Modify All Site Settings/Galleries/Web Parts"
5. use the "Upload" menu option to upload the AESQLChart.webpart file.

Automatic Installation

1. Unpack the **AESQLChartWebpart.wsp** and **Install.bat** files from the Zip Archive and place the 2 files onto your Sharepoint Server.
2. Add the Solution by either running **Install.bat** or manually entering:
`stsadm -o addsolution -filename AESQLChartWebpart.wsp`
3. Deploy the solution by navigating with your browser to "Central Administration->Operations->Solution Management":



4. You should now see the **AESQLChartWebpart.wsp** in the farm's solution store:

A screenshot of the 'Solution Management' page in SharePoint Central Administration. The page title is 'Solution Management' and the breadcrumb is 'Central Administration > Operations > Solution Management'. Below the title, it says 'This page has a list of the Solutions in the farm.' There is a table with three columns: Name, Status, and Deployed To. The table contains four rows of solutions.

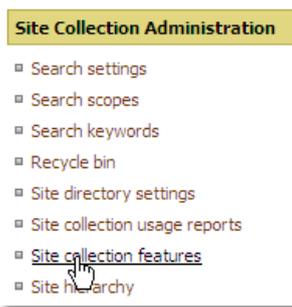
Name	Status	Deployed To
absencevacationschedule.wsp	Deployed	Globally deployed.
addnumbers.wsp	Deployed	http://ae24/
<u>aesqlchartwebpart.wsp</u>	Not Deployed	None
aestaffdirectorywebpart.wsp	Deployed	http://ae24:1256/...

Click on "AESQLChartWebpart.wsp" to deploy the solution:

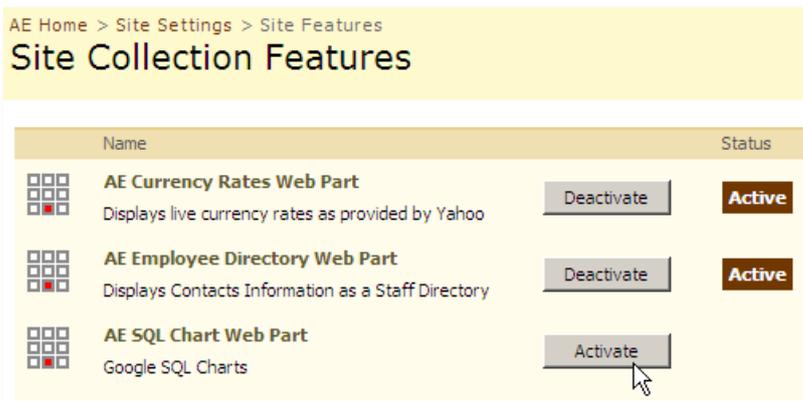
A screenshot of the 'Solution Properties' page in SharePoint Central Administration. The page title is 'Solution Properties' and the breadcrumb is 'Central Administration > Operations > Solution Management > Solution Properties'. At the top, there are three links: 'Deploy Solution', 'Remove Solution', and 'Back to Solutions'. Below the links, there is a table showing the properties of the selected solution.

Property	Value
Name:	aesqlchartwebpart.wsp
Type:	Core Solution
Contains Web Application Resource:	Yes
Contains Global Assembly:	Yes
Contains Code Access Security Policy:	No
Deployment Server Type:	Front-end Web server
Deployment Status:	Not Deployed
Deployed To:	None
Last Operation Result:	No operation has been performed on the solution.

5. Proceed to activate the feature by navigating to the "Site Actions/Site Settings" page in your top-level site:



Choose "Site collection features" to navigate to the Site Collection Features page:

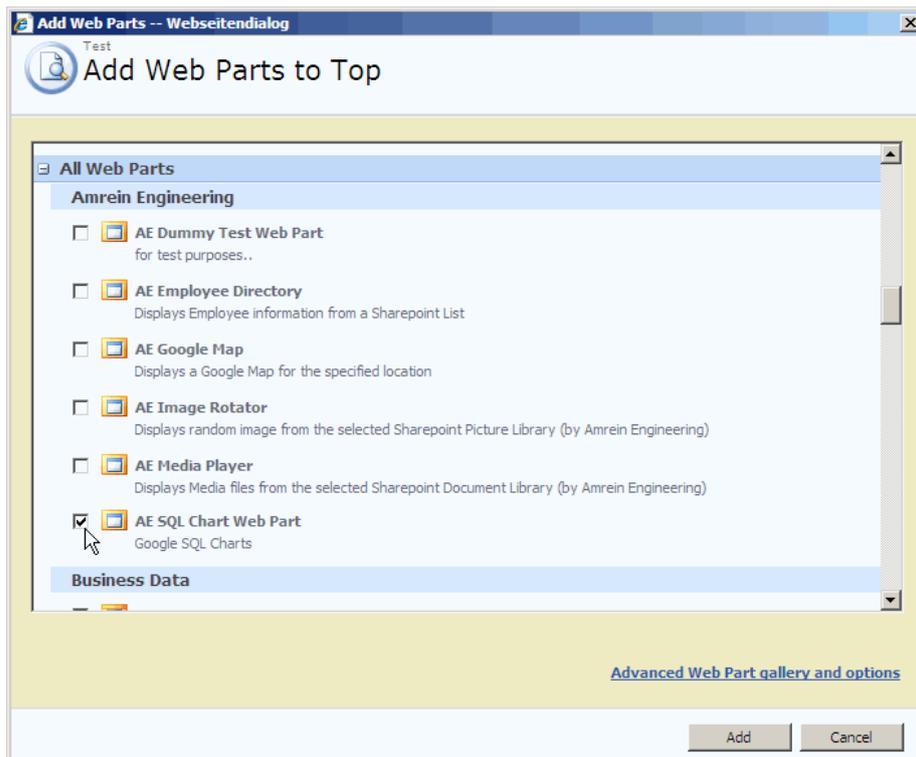


Activate the "AE SQL Chart Web Part" feature

Adding the Web Part to a Page

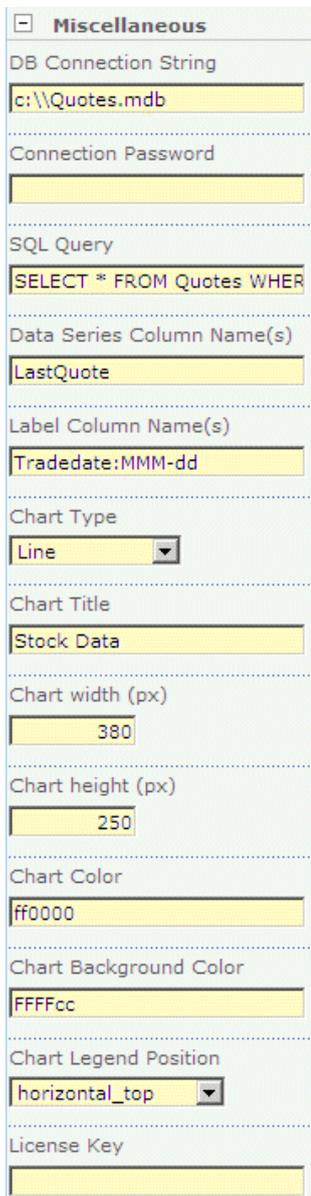
Navigate to a page where you would like to place the web part and choose "Site Actions/Edit Page"

Add the web part to the appropriate zone. The web part is listed in the "Amrein Engineering" gallery section :



Web Part Configuration

1. Configure the following Web Part properties in the Web Part Editor "Miscellaneous" pane section as needed:



The screenshot shows the 'Miscellaneous' pane of a Web Part Editor. The properties are configured as follows:

- DB Connection String: c:\\Quotes.mdb
- Connection Password: (empty)
- SQL Query: SELECT * FROM Quotes WHER
- Data Series Column Name(s): LastQuote
- Label Column Name(s): Tradedate:MMM-dd
- Chart Type: Line
- Chart Title: Stock Data
- Chart width (px): 380
- Chart height (px): 250
- Chart Color: ff0000
- Chart Background Color: FFFFcc
- Chart Legend Position: horizontal_top
- License Key: (empty)

○ **DB Connection String (SQL Server):**

- if you use SQL Server authentication, enter the connection string as follows:

UID=**uuu**;Initial Catalog=**database**;Data Source=**servername**

where

uuu = SQL Server User Account

database = the database you want to connect to

servername = the name of the SQL Server

Example: UID=sa;Initial Catalog=Northwind;Data Source=TestSQL;

Please note that the password is entered in the *Connection Password* field for security reasons.

- if you use Windows authentication, enter the connection string as follows:

Initial Catalog=**database**;Data Source=**servername**;Integrated Security=SSPI;

Example:

Initial Catalog=Northwind;Data Source=TestSQL;Integrated Security=SSPI;

○ **DB Connection String (OLE-DB):**

either simply enter the physical file name of the data source file (MS Access, MS Excel, CSV files) as follows:

Examples:

```
c:\data\northwind.mdb
d:\excel\somedata.xls
c:\data\somedata.csv
```

or alternatively enter a fully qualified OLE-DB connection string as follows:

Examples:

```
Provider=OraOLEDB.Oracle;OLEDB.NET=true;PLSQLSet=true;Password=[ppp];User ID=[uuu];Data
Source=[ddd]
Provider=Microsoft.Jet.OLEDB.4.0;Data Source=c:\data\northwind.mdb
Provider=Microsoft.Jet.OLEDB.4.0;Data Source=c:\data\test.csv;Extended Properties='text;FMT=Delimited'
```

○ **DB Connection String (ODBC):**

either enter the ODBC Data Source name (as configured with the ODBC Data Source Administrator) as follows:

```
dsn=MyDataSource
```

or enter your fully qualified ODBC connection string as follows (Example):

```
Driver={Microsoft Access Driver (*.mdb)};Dbq=C:\mydatabase.mdb;Uid=Admin;Pwd=;
```

- **Connection Password:** if you use SQL Server authentication, enter the User account password into this field. It will be automatically encrypted for security reasons. Leave this field empty if you use an OLE-DB connection.

- **SQL Query:** Enter the desired SQL Select statement into this field.

Example (using the Microsoft Northwind database):

```
SELECT CompanyName, City, Phone, Homepage FROM Suppliers ORDER BY CompanyName
```

Placeholders:

- Use the **{1}** placeholder to pass a Filter value to the query
- Use the **{uid}** placeholder to pass the current logged on user name

Example using a dynamic placeholder to filter (as provided by a connected Filter Web Part):

```
SELECT CompanyName, City, Phone FROM Suppliers WHERE City LIKE '{1}%'
```

Stored Procedures:

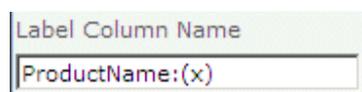
Enter the name of the Stored Procedure, followed by optional parameters.

Add each parameter as a "name=value" pair and separate multiple parameters by semicolons.

Example (refers to Microsoft Northwind sample database):

```
SalesByCategory;CategoryName=Seafood;OrdYear=1997
```

- **Data Series Column Name(s):** enter the database table column name of the column(s) containing the data to be charted. You can specify multiple data series by entering multiple column names separated by commas (as eg. *Sales 2008,Sales 2009*)
- **Label Column Name:** enter the database table column name of the column that contains the data labels to be used. You can append the data value to each label by adding the **x** placeholder to the column name (separated by a colon). The placeholder can be surrounded by other characters.
Example: append the data value to the labels, surrounded by parentheses:



The image shows a screenshot of a text input field. The label above the field is "Label Column Name". The text entered in the field is "ProductName:(x)".

produces:



If the labels consist of dates, you can append a date formatting string to the column name (separated by a colon):

Example: `TradeDate:MMM-dd`

The following formatting options are available:

d - Numeric day of the month without a leading zero.

dd - Numeric day of the month with a leading zero.

ddd - Abbreviated name of the day of the week.

dddd - Full name of the day of the week.

h - 12 Hour clock, no leading zero.

hh - 12 Hour clock with leading zero.

H - 24 Hour clock, no leading zero.

HH - 24 Hour clock with leading zero.

m - Minutes with no leading zero.

mm - Minutes with leading zero.

M - Numeric month with no leading zero.

MM - Numeric month with a leading zero.

MMM - Abbreviated name of month.

MMMM - Full month name.

t - AM/PM but only the first letter.

tt - AM/PM (a.m. / p.m.)

y - Year with out century and leading zero.

yy - Year with out century, with leading zero.

yyyy - Year with century.

- **Chart Type:** select the desired chart type:
 - Pie
 - Pie3D
 - Line
 - VerticalBar
 - HorizontalBar
 - VerticalStackedBar
 - HorizontalStackedBar
- **Chart Title:** enter the desired Chart Title
- **Chart Width:** enter the desired width of the Map Chart in pixels. The maximum chart width currently is 1000 pixels.
- **Chart Height:** enter the desired height of the Map Chart in pixels. The maximum chart height currently is 1000 pixels.
- **Chart Color:** enter the RGB Hex value of the desired data series color. Specify one value for each data series (the values are separated by commas).
Pie Charts: enter two (or more) RRGGBB hexadecimal numbers (separated by a comma) to specify the extremes of a color gradient that is used to color the pie segments. To control the gradient further, specify more colors.
- **Chart Background Color:** enter the RGB Hex value of the desired background color.
The default value is FFFFFFFF (white).
Specify colors with a 6-letter string of hexadecimal values in the format **RRGGBB**. For example:
 - FF0000 = red
 - 00FF00 = green
 - 0000FF = blue

- 000000 = black
- FFFFFFFF = white
- **Chart Legend Position:** allows to control the placement of the chart legend if you display multiple data series (the chart legend is suppressed if only one data series is displayed)
- **License Key:** enter your Product License Key (as supplied after purchase of the "SQL Chart Web Part" license key). Leave this field empty if you are using the free 30 day evaluation version or if you choose one of the License Activation described below.

License Activation

You have the following 3 options to enter your License Key:

1. Enter the License Key into the corresponding "License Key" field in the web part configuration pane (See Description above).

2. WSP Solution Deployment:

Add the **License.txt** file (as supplied by AMREIN ENGINEERING after having purchased a license) to the Solution at the following location:

```
c:\Program Files\Common Files\Microsoft Shared\Web Server  
Extensions\12\template\features\AESQLChartWebpart
```

3. Manual Deployment:

Add the License Key to your web.config (typically found at c:\inetpub\wwwroot\wss\virtualdirectories\80) <appSettings> section as follows:

```
<appSettings>  
<add key="AESM" value="AESM-x-xxxxx-xxxxx-xx-xx" />  
</appSettings>
```

Replace the "x" characters with your actual key values.

Please note that this method requires you to manually add the key to each Sharepoint application.