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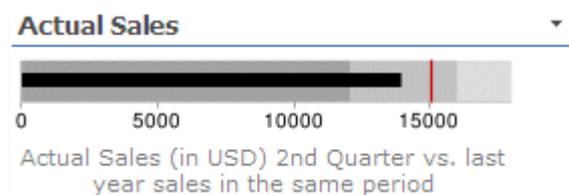
# SQL Bullet Graph Web Part

Enterprise Version

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Version 1.1

February 2010



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## Description

The SQL Bullet Graph Gauge Web Part allows to display data values from the specified SQL Server database, OLE-DB or ODBC data source as either a KPI indicator or a Bullet Graph. The bullet graph charts are created using Google's public Chart API.

The Web Part can be used with Windows Sharepoint Services V3, MOSS 2007 and Sharepoint 2010.

The following parameters can be configured:

- SQL query to select the data to be visualized
- KPI Indicator or Bullet Graph display options
- Bullet Graph ranges and range colors (eg. bad, satisfactory, good)

## 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, Microsoft Office SharePoint Server 2007 or Microsoft Sharepoint 2010

## Installation

### Manual Installation

1. download and unpack the **AESQLGaugeWebpart.zip** file.  
The ZIP archive contains the AESQLGaugeWebpart.dll and the AESQLGauge.webpart files.
2. drop the AESQLGaugeWebpart.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):

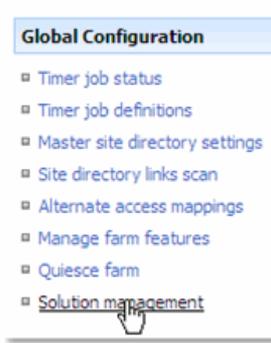
```
<SafeControl Assembly="AESQLGaugeWebpart, Version=1.0.0.0, Culture=neutral,
PublicKeyToken=0c54864e87b5263b" Namespace="AESQLGaugeWebpart" TypeName="*" Safe="True" />
```

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 AESQLGauge.webpart file.

### Automatic Installation

1. Unpack the **AESQLGaugeWebpart.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 AESQLGaugewebpart.wsp`

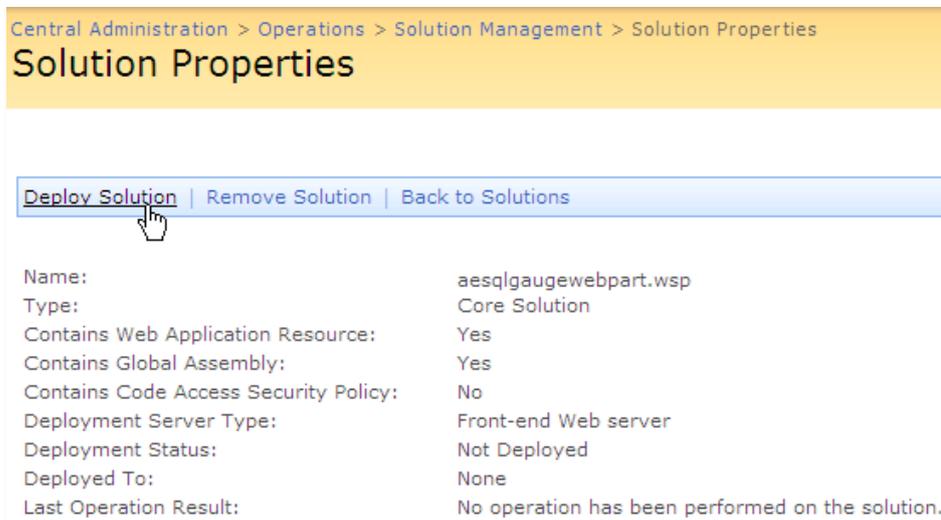
3. Deploy the solution by navigating with your browser to “Central Administration->Operations->Solution Management”:



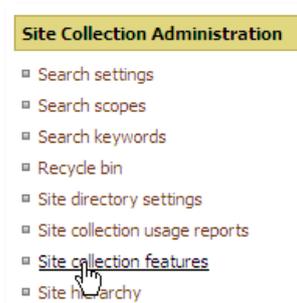
4. You should now see the **AESQLGaugeWebpart.wsp** in the farm’s solution store:



Click on “AESQLGaugeWebpart.wsp” to deploy 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:

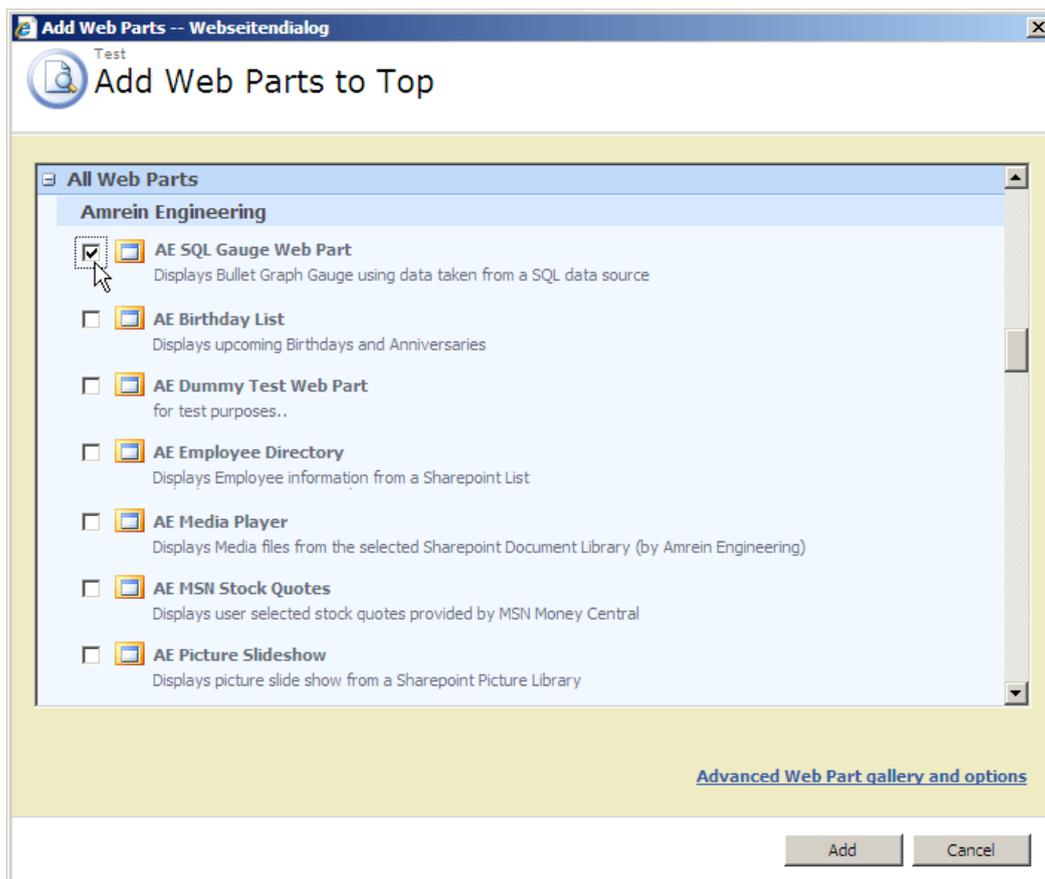


Activate the "AE SQL Gauge Web Part" feature

### Adding the Web Part to a Page

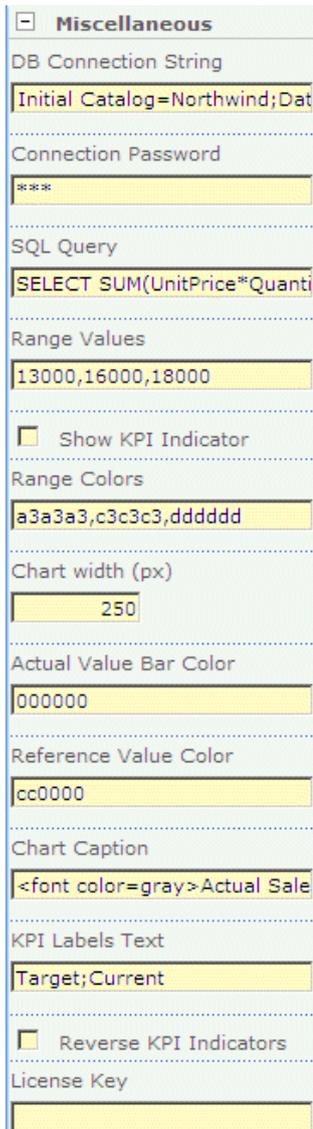
Navigate to a page where you would like to place the web part and choose "Site Actions/Edit Page"

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 fields and their values are as follows:

- DB Connection String:** Initial Catalog=Northwind;Dat
- Connection Password:** \*\*\*\*
- SQL Query:** SELECT SUM(UnitPrice\*Quanti
- Range Values:** 13000,16000,18000
- Show KPI Indicator:**
- Range Colors:** a3a3a3,c3c3c3,dddddd
- Chart width (px):** 250
- Actual Value Bar Color:** 000000
- Reference Value Color:** cc0000
- Chart Caption:** <font color=gray>Actual Sale
- KPI Labels Text:** Target;Current
- Reverse KPI Indicators:**
- 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'
```

You can look up nearly every existing database connection string at <http://connectionstrings.com>

○ **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.

Select the following numeric values:

- **Actual Value:** is displayed as the featured measure (black bar)
- **Reference Value:** (optional) contains the comparative reference measure to be displayed. If present, this value is displayed as a red vertical bar.
- **Lower Limit:** (optional) you can either select the lower threshold value (actual values below this limit are "red") via SQL or enter it manually (see "Range Values" field below).
- **Upper Limit:** (optional) you can either select the upper threshold value (actual values above this limit are "green") via SQL or enter it manually (see "Range Values" field below).

Example (using the Microsoft Northwind database):

```
SELECT SUM(UnitPrice*Quantity),15000 FROM [Order Details] WHERE ProductID=11
```

○ **Range Values:**

enter the numeric values for the 3 (Bullet Graph) or 2 (KPI display) data ranges representing the qualitative ranges (as eg. "bad, satisfactory, good" or "red, yellow, green").

These values should be chosen to fit the actual data value. Separate the values by commas.

The KPI display option only requires the first two values.

○ **Show KPI Indicator:**

choose either the Bullet Graph or KPI Indicator display option



○ **Range Colors: (Bullet Graph only)**

enter the RGB color values for the 3 qualitative ranges, separated by commas (only needed if Bullet Graph

- 
- option is chosen).
  - **Chart Width:**  
enter the desired width of the Bullet Graph Chart in pixels
  - **Actual Value Bar Color:** (Bullet Graph only)  
enter the desired RGB color value of the actual data value being gauged (Default:black).
  - **Reference Value Color:** (Bullet Graph only)  
enter the desired RGB color value of the reference value being gauged (Default:red).
  - **Chart Caption:**  
enter an optional chart caption (use embedded HTML tags if needed)
  - **KPI Labels Text:** (KPI only)  
enter the desired label values (Default: "Goal;Actual")
  - **Reverse KPI Indicators:** (KPI only)  
display the indicators in reverse order (eg. low value=green, high value=red)
  - **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\AESQLGaugeWebpart
```

**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="AESB" value="AESB-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.