

## ACT! Technology Corner

### ACT! by Sage 2010 Dashboard Data Chart Component

In ACT! by Sage 2008 (10.0), a new Dashboard feature was introduced to the product line. This feature enabled users to use visual charts, graphs, gauges, and lists of Opportunity and Activity-related data. Similar to Layouts, Administrators are able to Design Dashboards for use by others in the database, allowing Filters specific to the type of data being reported, including the selection of Users and Types, etc. (Note that there are some Filter behavioral differences between ACT! and ACT! Premium products).

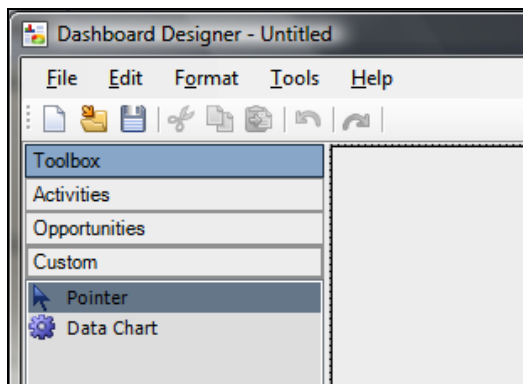
ACT! 2010 introduces a new **Data Chart** component to the Dashboard feature, which further enables the customization ability. There are two new stock Dashboards that are included with ACT! 2010, "ACT! Administrative Dashboard" and "ACT! Contacts Dashboard", which use the new Data Chart. An important technical note with this new Data Chart component is that it uses the ACT! OLE DB Reporting Provider v2.0 (also new in ACT! 2010) to provide the component data. In this article, we'll provide insight on how you can use the Data Chart to further customize your Dashboards in a whole new way!

#### Data Chart Key Features

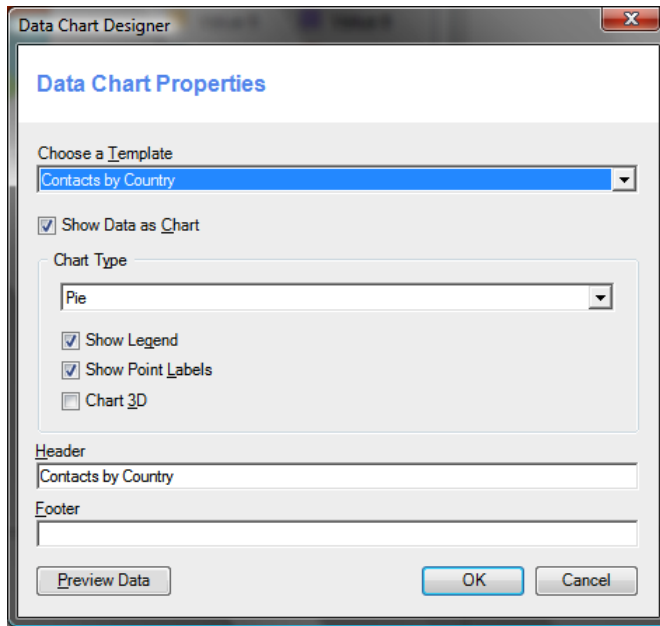
- Utilizes the same and familiar Dashboard Designer to integrate the component
- Template-based configuration – Simply choose a Template from the drop-down
- Flexible Chart Display Types
- Display as Chart or List
- Auto Data configuration – Charting more than two values automatically creates a cross tab of the data with no additional configuration
- Auto Filtering Detection – Detects parameters added by the Administrator to the Dashboard component (in the SQL statement) to allow user filtering

To begin, you should become familiar with the Dashboard Designer. Topic Help is available in the ACT! Help system, so be sure to review this. [Here's a quick guide to get up and running for this article example:](#)

1. While logged onto your ACT! database as an Administrator Role, select Tools>Design Dashboards from the ACT! menu.
2. Let's start with a new blank Dashboard by clicking File>New
3. Along the left side of the designer is the Toolbox; click the "Custom" slider bar which will then show the new "Data Chart" option below it like this (*note that the Custom slider bar may be located at the bottom of the Toolbox in some cases*):



4. To create your first Data Chart, drag and drop the Data Chart bar onto one of the empty Dashboard cells (blank squares).
5. Next will appear the "Data Chart Designer" dialog:



6. Clicking the dropdown to "Choose a Template" will offer several new sources to produce chart or list data. **NOTE:** You will notice that some Templates will disable the "Show Data as Chart" checkbox - this is because the Template's data query returns more than two columns. Chart data can only be rendered using simple two-dimensional X and Y axis data.
7. Click the Preview Data button to get an idea of the filtering behavior, as well as the data that will be returned by the Template query.
8. Click OK to close the dialog.
9. Save this Dashboard, specify the name as **"eNews Test"** as we'll use it later in this article.

Ok, enough of the setup. Now to the real hidden gem of the Data Chart—writing your own custom Template queries!

Upon installation, the file **Act.Dashboard.DataChart.xml** is placed in the Tools folder beneath the ACT! program installation folder (by default C:\Program Files\ACT\Act for Windows). This file contains the Template definitions for the Data Chart when in the Dashboard Designer. Since this is a text file, it can be opened using Notepad for viewing and editing. For example, the new "ACT! Contact Dashboard" component titled "Contact History Count by History Type" can be found in this XML file. A few highlights on the structure of this XML file:

- A virtually-unlimited number of query Templates can be added
- The top section of this file contains instructions and usage guidelines for modifying content—be sure to review it!
- Each Template is comprised of the following required XML element structure:
 

```

      <item> <!-- wraps each Template
      <key>
      <string> </string> <!-- identifies the Template Name
      </key>
      <value>
      <string> </string> <!-- contains each Template query and rendering attributes
      </value>
      </item>
      
```

In addition, the Template query can include parameters to provide filtering as necessary. The items, which can be made filterable, include:

- String value: {ParamName|STRING|Value}
- Date value: {ParamName|DATE|Value}
- Yes/No (Boolean) value: {ParamName|BOOL|Value}
- Integer Yes/No value: {ParamName|CHECKINT|Value}
- Users (i.e. Created By, Edited By, Record Manager): {ParamName|USERS|Value}
  - ▶ "." means the current logged-in user
  - ▶ "%" means all users

- Picklist values: {ParamName|PICKLIST:PicklistName|Value}
- The Template query is comprised of an SQL query. A few important usage notes:
- SQL wildcard characters, such as "%" and "\_", can be used
- SQL functions, such as datetime calculations, can be used
- Some HTML reserved characters, such as the less-than (<) character, must be typed using their HTML-equivalent such as &lt;

So, now let's add a new Template to our XML file to see how it works!

In this example, we'll add a Template which will give us the count of Contact Members for each Group in the database. Start by:

1. Opening the XML file using Notepad
2. At the bottom of the file, paste the text below **prior** to the </dictionary> element:

```
<item>
  <key>
    <string>Group Membership Volumes</string>
  </key>
  <value>
    <string>
      SELECT G.GROUP_NAME AS "GROUP",
             COUNT(GC.CONTACTID) AS "CONTACTS"
      FROM   dbo.GROUP G INNER JOIN dbo.GROUP_CONTACT GC ON G.GROUPID =
             GC.GROUPID
      WHERE  G.RECORD_MANAGER IN ({Record Manager|USERS|%})
      GROUP BY G.GROUP_NAME
      ORDER BY 1
             ;0;FALSE</string>
    </value>
  </item>
```

3. Save the file.
 

**Tip:** after saving your file, validate that the XML is well-formed by opening the XML file with Internet Explorer. You can do so simply by double-clicking the file. If no errors are reported, the XML is well-formed. Otherwise, you'll need to correct any errors specified.
4. In the ACT! Windows® application, open the Dashboard Designer so that we can edit the "eNews Test" Dashboard created in the prior steps of this article.
5. Drag-and-drop the Custom control onto an empty Dashboard cell
6. In the Data Chart Designer dialog, click the dropdown control for Templates. You should now see our new "Group Membership Volumes" Template we added to the XML file.
7. Save the Dashboard.
8. Now in the Dashboard view, the dropdown list of available Dashboards should include "eNews Test"; select that Dashboard and you should now see something like this example:

