

## CHARTrunner and SharePoint Libraries

Sometimes we are asked if CHARTrunner and SharePoint work well together. Here are some ways that CHARTrunner and SharePoint can be used together.

- You can store file based data sources like Excel workbooks and Access databases in a SharePoint document library and CHARTrunner can use that as its data source.
- CHARTrunner can use data in a SharePoint list as the data source for a chart.
- CHARTrunner can periodically store chart image files in a SharePoint picture library so that up-to-date charts can be viewed by users who do not have access to CHARTrunner.

### Using a SharePoint library as if it were part of the file system

CHARTrunner expects file-based data sources like Access and Excel to be located somewhere in the file system. When CHARTrunner creates a chart image file or a chart web page, the output file(s) are saved somewhere in the file system.

So if we want CHARTrunner to work with SharePoint we must have a way to refer to a SharePoint document or picture library as if it were a location in the file system.

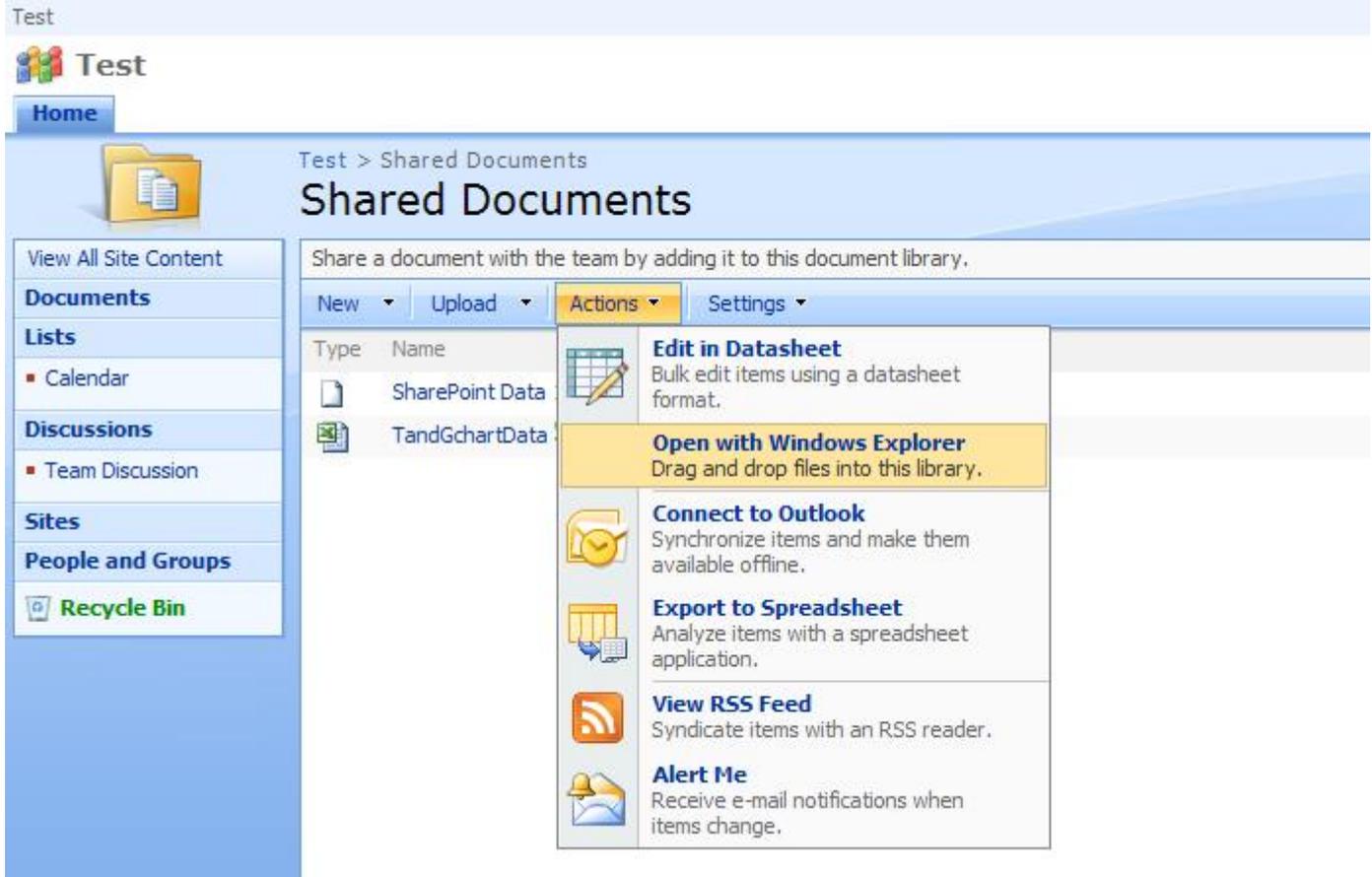
Fortunately, it is possible to refer to a SharePoint library as if it were a location in the file system.

You will need to enable the WebClient service if it is not running already.

<http://blog.crowe.co.nz/archive/2005/08/31/244.aspx>

When viewing the documents in the SharePoint library (this only seems to work in "All Documents" view) you can click on Actions > "Open with Windows Explorer", as shown below.

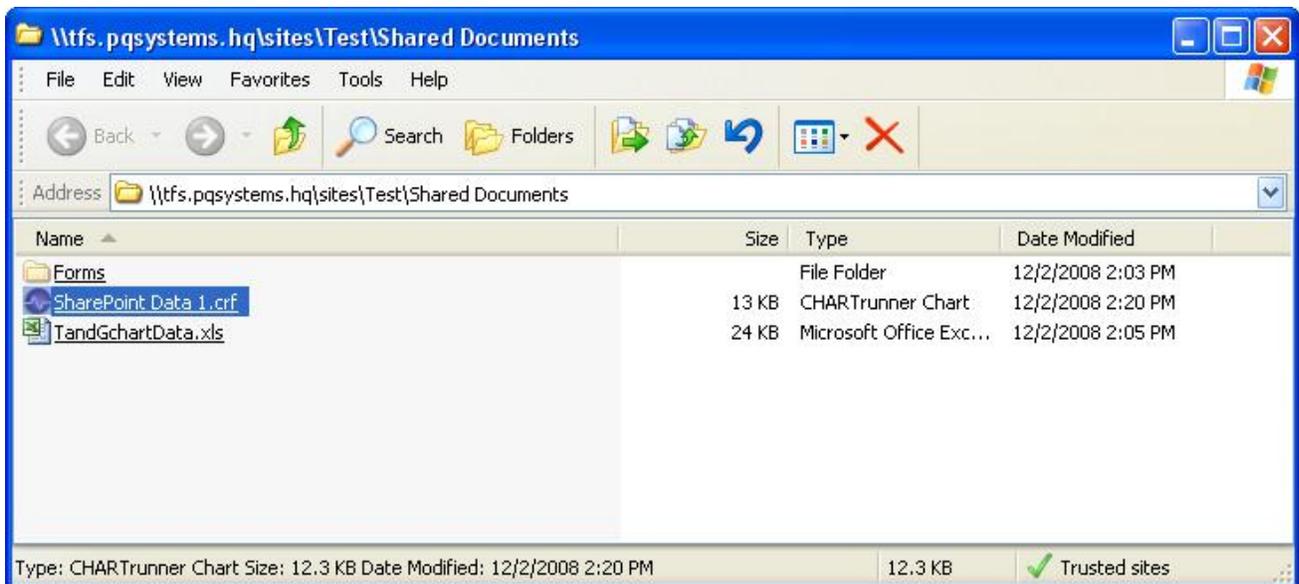
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What happens next depends on whether you are using Windows XP or Windows 7.

## Windows XP

On Windows XP a Windows Explorer window opened as follows:



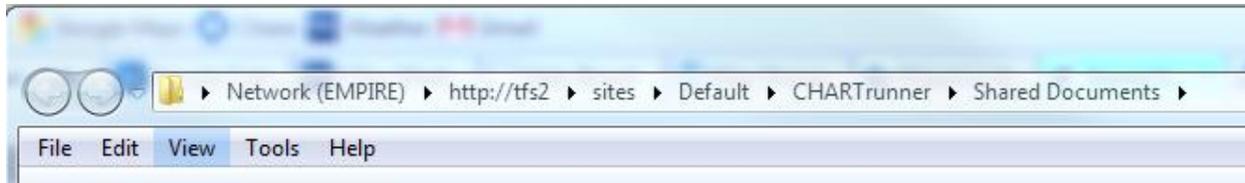
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Note the UNC (Universal Naming Convention) path to the document library, i.e. \\tfs.pgsystems.hq\sites\Test\Shared Documents. This UNC path is for my test SharePoint site, yours will be different.

You can use the UNC path in CHARTrunner to refer to a data source file stored in a SharePoint library. You can also create (or update) one or more chart image files in a SharePoint library.

### Windows 7

On Windows 7, Actions > "Open with Windows Explorer" results in a Windows Explorer window like this:



The path to the SharePoint documents library in this case looks like a web URL, i.e. it starts with http://. Microsoft calls this a *web folder* URL.

When I clicked on the URL field in Windows Explorer it was shown as a more standard looking web URL: `http://tfs2/sites/Default/CHARTrunner/Shared Documents`

CHARTrunner cannot refer to a file system path using a web folder URL like that. We have to do a bit more work (than we had to using Windows XP) to make the SharePoint web folder appear like it is a part of the file system.

One approach is to use the MAP command, as explained here:

<http://nandakishore.wordpress.com/2009/11/25/map-sharepoint-document-library-as-a-drive/>

```
net use x: "http://tfs2/sites/Default/CHARTrunner/Shared Documents"
```

Now in CHARTrunner you can refer to the SharePoint library via drive X. Any folders in the library will appear as folders on drive X.

Another approach is to get to a point where you can refer to the SharePoint web folder via a UNC path. The following blog article explains how:

<http://whitepages.unlimitedviz.com/2010/12/unc-path-naming-for-files-stored-on-sharepoint-2/>

After you follow the procedure in this article you will be able to refer to a SharePoint library via a UNC path like:

```
\\tfs2\DavWWWRoot\sites\Default\CHARTrunner\Shared Documents
```

One point to note that may not be immediately clear is that this type of UNC path only works after you have performed the "Add a network location" step described in the article.

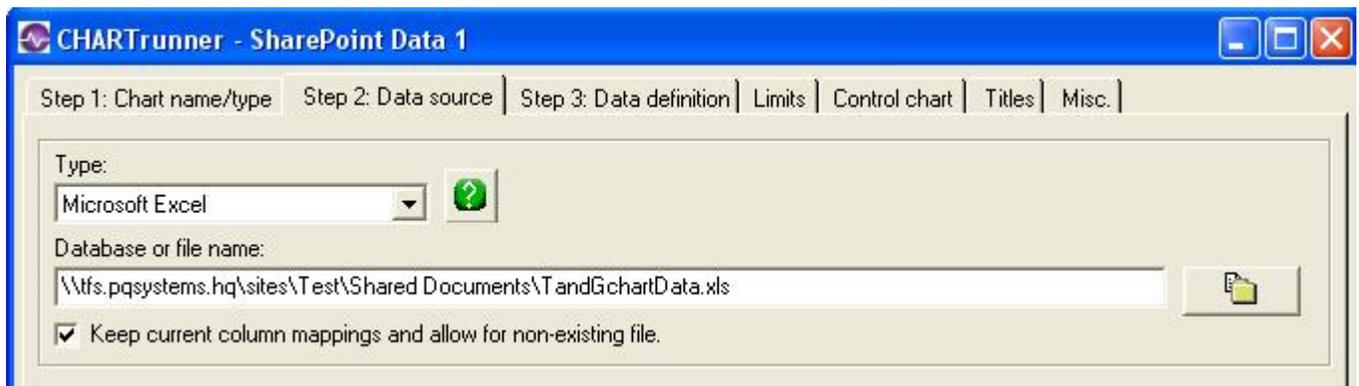
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### Charting from file-based data stored in a SharePoint library

Once you have figured out how to refer to a SharePoint document or picture library as if it were part of the file system, it is easy for CHARTrunner fetch data from a SharePoint library. This allows CHARTrunner to use an Excel workbook or Access database that is stored in a SharePoint library – because CHARTrunner expects to find an Excel workbook or Access database as a file sitting on the file system somewhere.

The CHARTrunner chart definition MUST refer to the Excel worksheet file using the UNC path to the SharePoint document library (or via a mapped drive letter).

Refer to the Using a SharePoint library as if it were part of the file system section above to learn how to refer to a SharePoint library via a UNC path or mapped drive letter.



### Charting from data stored in a SharePoint list

The ACE database engine must be installed on the CHARTrunner computer. If you have Office 2007 or higher then you already have ACE. If not, you can download and install the free “Microsoft Access Database Engine” from <http://www.microsoft.com/download/en/details.aspx?id=13255>. Be sure and install the 32-bit version, since CHARTrunner is a 32-bit application.

You must determine the GUID of your SharePoint list.

<http://nickgrattan.wordpress.com/2008/04/29/finding-the-id-guid-for-a-sharepoint-list/>

<http://weblogs.asp.net/jimjackson/archive/2008/02/11/get-a-sharepoint-list-guid-from-the-browser.aspx>

In your CHARTrunner chart definition, on the “Step 2: Data source” tab, select “ADO; OLE DB Provider” for the Type. Use a connection string like this:

```
Provider=Microsoft.ACE.OLEDB.12.0;WSS;IMEX=1;RetrievalIds=Yes;  
DATABASE=http://tfs2/sites/DemoData/; LIST={945BCA19-AA0D-4569-8DB4-7AAF4962EDB6}
```

Substitute the appropriate information for your SharePoint server URL and list GUID in place of the red sections above.

A “Custom query” must be specified on the “Step 3: Data definition” tab. Specify a custom query like this:

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```
select * from list order by DateTime
```

The table name is always list. You should always specify an ORDER BY column name. In the example shown above the DateTime column was used to order the data.

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### Saving chart images into a SharePoint picture library

In CHARTrunner you can save a chart or a group of charts in a workspace as image files that are stored in a SharePoint picture library. This allows the chart images to be consumed by a number of users who may not have access to CHARTrunner itself.

Refer to the Using a SharePoint library as if it were part of the file system section above to learn how to refer to a SharePoint library via a UNC path or mapped drive letter.

It is possible to create a scheduled task that periodically runs CHARTrunner and saves one or more charts as image files to a file system location that maps onto a SharePoint picture library. If the scheduled task ran every 5 minutes, then any charts in that SharePoint picture library would be up-to-date within the last 5 minutes.

Please refer to Appendix B in the CHARTrunner 3.6 User Guide for information about using CHARTrunner command line parameters.

For instance, if `summary.crw` is a CHARTrunner workspace file that contains 20 charts, the following CHARTrunner command line would update those 20 chart images in the `X:\SummaryCharts` folder (that is actually a SharePoint picture library folder) each time it was run:

```
CrCmdLine36.exe /T PNG /O X:\SummaryCharts /I C:\Charts\summary.crw
```