STPivot, Installation Guide
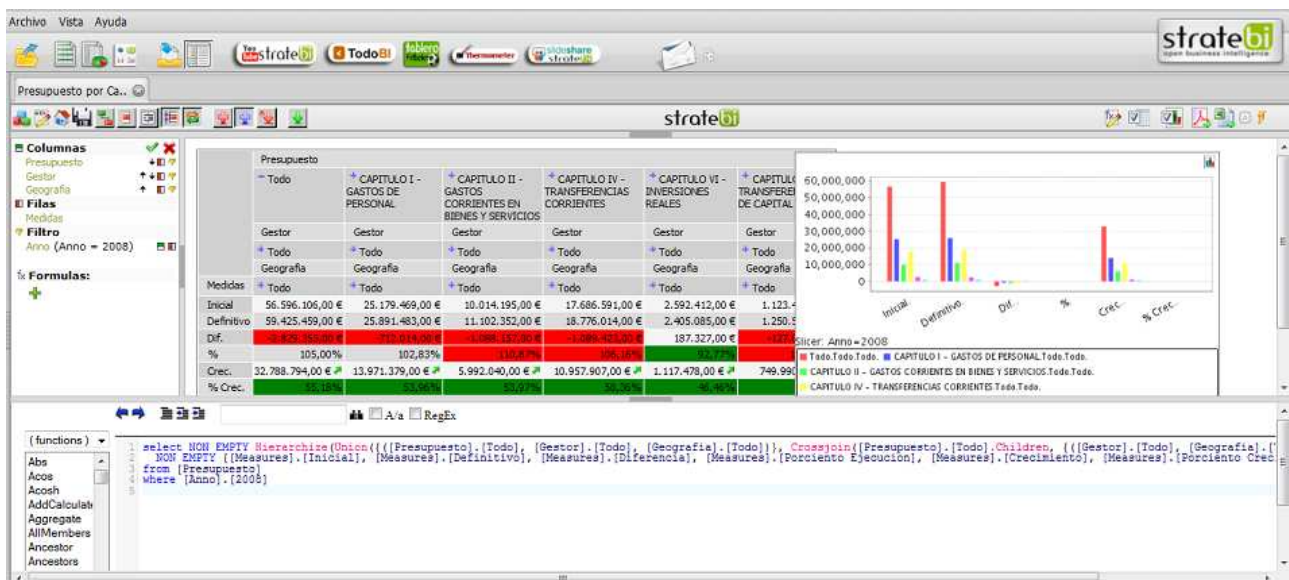
January 2012

About This Document

If you have questions that are not covered in this guide, or if you find errors in the instructions or language, please contact the Stratebi Technical Publications team at info@stratebi.com. The Publications team cannot help you resolve technical issues with products.

Support-related questions should be submitted through the STPivot Home Page at

http://code.google.com/p/stpivot

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They hold the main blog and social web about Open Source Analytics: Todobi (www.todobi.com) and Redopenbi (www.redopenbi.com)

You can check several **Online Demos** based on Open Source BI here: http://sample.stratebi.es and http://www.tablerofutbolero.com

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1. Introduction

STPivot is an open source web based OLAP viewer, developed by Todo BI – Stratebi, based on default Pivot viewer provided by Pentaho, writen on top of JPivot. The idea behind this project was to improve JPivot user's experience, by taking advantage of free user interface libraries and technologies (such as jQuery and Ajax).

Although default Pivot viewer in Pentaho have successfully pass the test of time (fully simple, functional and crossbrowser), in Stratebi our clients constantly asked for improved versions (closer to the state of the art). That´s why we develop STPivot, giving special attention to user interface and interactions (foreground), while the background remains basically the same.

This document have being created to guide your steps while installing STPivot in your Pentaho BI-Server, so you can give your users a fully functional and fresher interface to interact with data cubes. That´s why you must have an up and running instance of Pentaho BI-Server. This procedure have being tested from stable versions 3.7.0 to 3.9.0 (recommended), but may still work in older versions. Previous experience configuring Pentaho is recommended.

2. (Hard/Soft)ware Requirements

STPivot does not have special hardware or software requirements, other than those needed to deploy Pentaho BI-Server in your system of choice.

If you don't have a working instance of Pentaho BI-Server, you should manage to have it before continuing with this technical guide. Next picture shows you the Pentaho User Console for the 3.9.0 version of Community Edition, where you'll find working samples when fulfilling this guide.
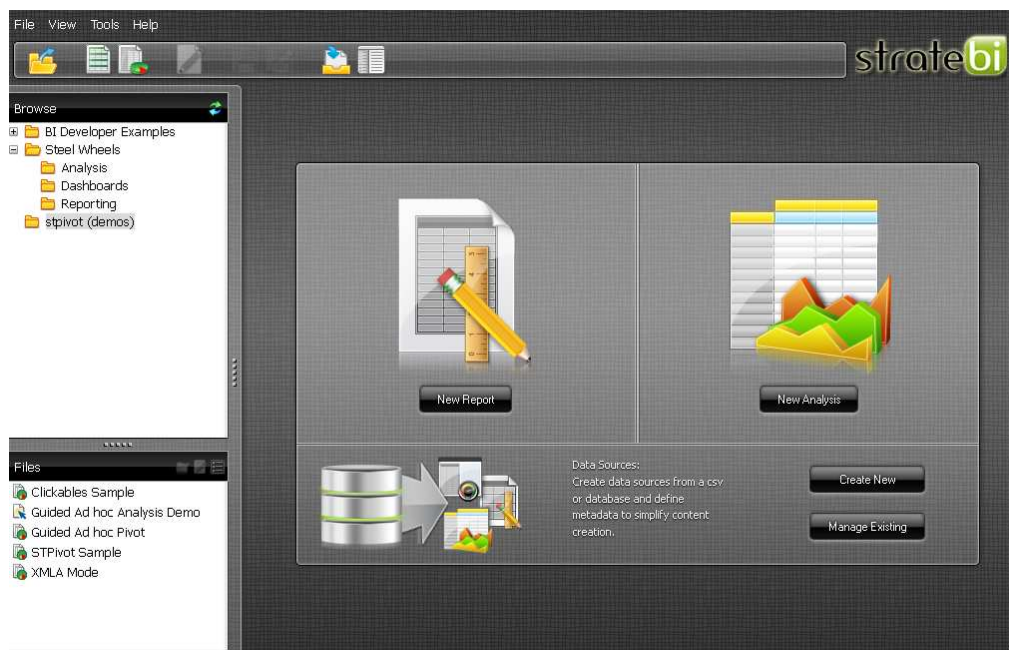

If you've use JPivot, you should know that it runs even when working with a browser that doesn't support JavaScritpt. Nevertheless, STPivot users will need JavaScript enabled browser, otherwise they will not be able to enjoy it.

Although this guide uses Pentaho BI Server CE 3.9.0, you should be able to use any version from 3.6.0. Please, give us your feedback if any uncovered issue arises while following this instructions.

3. Downloading Latest Release

You should visit STPivot's Home Page at http://code.google.com/p/stpivot to download the latest release. The code you download is ready to extract into the root of a normal Pentaho BI-Server configuration. The complete folder structure is reproduced in next picture:
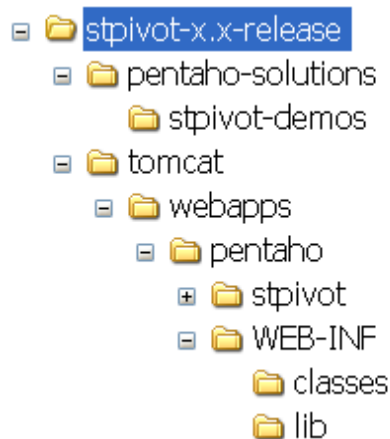
In the root folder you'll find a reference to its version number, containing the following files/folder:

- **ReadMe-STPivot.txt**: Text document with the Quick install guide, Road Map and Change Log for STPivot's current release.

- **screen-shoot.png**: Image file that shows what you should see when opening an included sample using STPivot.

- **pentaho-solutions/stpivot-demos/**: A solution (root pentaho-solutions folder) with a set of sample views using STPivot instead of default Pivot viewer, so you can open them from Pentaho's User Console, and reuse them while constructing your own analysisview.xaction

- **tomcat/webapps/pentaho/stpivot/**: Main folder containing STPivot's files.

- **tomcat/webapps/pentaho/WEB-INF/**: Other libs and configuration files you will need to run STPivot.

That´s all you need to make it work!

4. Installing & Configuring

Once extracted, you'll have to move/copy all the files in its corresponding folder according to your current Pentaho BI-Server installation:

1. **"pentaho-solutions/stpivot-demos/"** goes into **"pentaho-solutions/"** (Pentaho's repository)

2. **"tomcat/webapps/pentaho/*"** goes into **"tomcat/webapps/pentaho/"** (Pentaho's context)

You may receive a message indicating that some files already exists in "tomcat/webapps/pentaho/WEB-INF/" (classes/ESAPI.properties and WEB-INF/lib/ESAPI-2.0_rc6.jar). This files are included for compatibility with versions prior to 3.7.0 in Pentaho (that didn't include this files). You can choose to ignore or overwrite this files, at will.

If your BI-Server is up and running, we recommend you to stop it before continue (stop-pentaho.bat or stop-pentaho.sh, depending on your platform).

Next decision you have to make is whether you want to add STPivot to be used alternatively with default Pivot viewer, or completely replace the default Pivot viewer with STPivot.

While in beta version, we encourage STPivot's users to install it as a complement without replacing the original Pivot, mainly because you culdn't Save and Save as an analysisview.xaction

Once STPivot reached stable releases, this features come along and there is no strong reason to maintain the original (currently discontinued for improvements) Pivot viewer.

Nevertheless, we assume that you want to have both at hand and provide you with a file (tomcat/webapps/pentaho/WEB-INF/add-to-web.xml) that contains the xml tags you should add to your context web.xml file (any where inside of the root <web-app> tags). The content to add is:

```xml
<web-app>
        {...}
        <!-- STPivot -->
        <servlet>
                <servlet-name>STPivot</servlet-name>
                <jsp-file>/stpivot/STPivot.jsp</jsp-file>
        </servlet>
        <servlet>
                <servlet-name>STPivotError</servlet-name>
                <jsp-file>/stpivot/STPivotError.jsp</jsp-file>
        </servlet>
        <servlet>
                <servlet-name>STPivotBusy</servlet-name>
                <jsp-file>/stpivot/STPivotBusy.jsp</jsp-file>
        </servlet>
        <servlet-mapping>
                <servlet-name>STPivot</servlet-name>
                <url-pattern>/STPivot</url-pattern>
        </servlet-mapping>
        <servlet-mapping>
                <servlet-name>STPivotError</servlet-name>
                <url-pattern>/STPivotError</url-pattern>
        </servlet-mapping>
        <servlet-mapping>
                <servlet-name>STPivotBusy</servlet-name>
                <url-pattern>/STPivotBusy</url-pattern>
        </servlet-mapping>
        <!-- STPivot -->
        {...}
</web-app>
```

As you can see, we are adding three new servlets (STPivot, STPivotError and STPivotBusy) with their corresponding mappings. So, if you choose to replace default Pivot viewer, all you need is to update references to "/jsp/Pivot.jsp", "/jsp/PivotError.jsp" and "/jsp/PivotBusy.jsp", in servlet definition for Pivot, PivotError and PivotBusy, leaving the rest (name and mappings) unchanged.

5. Final Steps

Now you are ready to see STPivot in actions, but first you need to start Pentaho BI-Server (after editing its web.xml). By going to the Pentaho's Users Console (usually found at: http://localhost:8080/pentaho/Home), you should be able to navigate samples we've prepared into solution "stpivot-demos". May be you need to refresh the repository first, because default configuration use a database based repository (instead of file based), so Pentaho will not be aware of this new solution until refresh.

The way you use STPivot isn't different from default Pivot viewer. In our included samples we set <viewer>STPivot</viewer> into the **PivotViewComponent**'s <component-definition> tag.

You can also call an analysisview.xaction by using URLs in the form of:

http://localhost:8080/pentaho/STPivot?solution=stpivot-demos&path=&action=analysis.xaction

Next image shows you what you should see after following this guide.
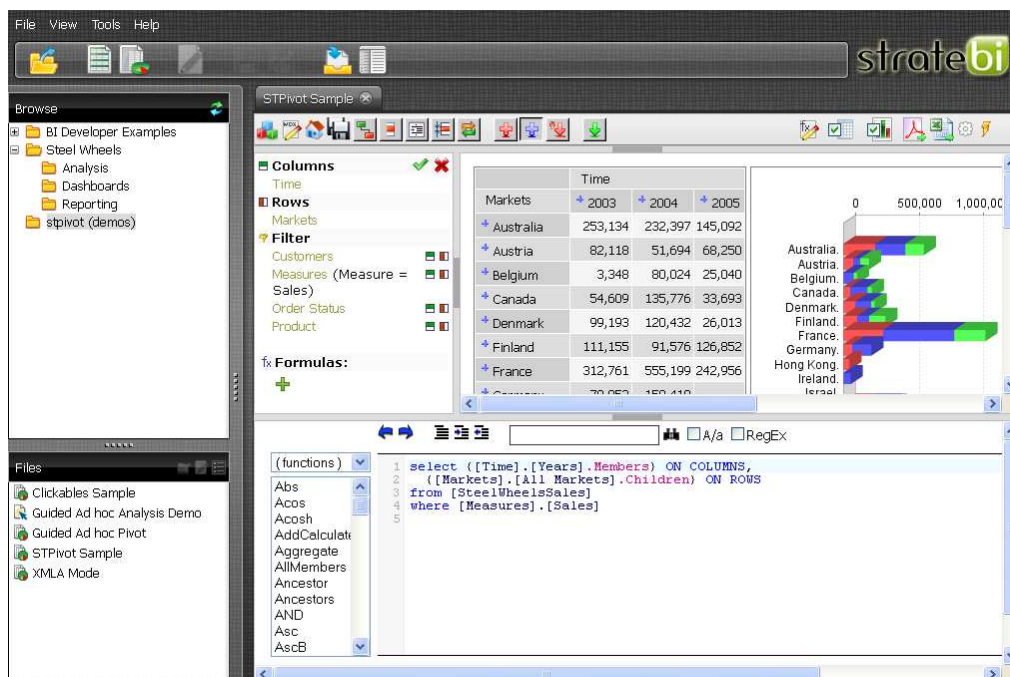
Please, fell free to visit the project home (http://code.google.com/p/stpivot/) to give your feedback and contributions.