TIBCO Spotfire® Professional – Release Notes

Software Release 7.0
February 2015

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Contents

TIBCO Documentation and Support Services

All TIBCO documentation is available on the TIBCO Documentation site, which can be found here:

https://docs.tibco.com

Product-Specific Documentation

The following documents for this product can be found in the TIBCO Documentation Library for TIBCO Spotfire Professional:

- TIBCO Spotfire® User's Guide
- TIBCO Spotfire® Deployment and Administration Manual
- TIBCO Spotfire® Administration Manager User's Manual
- TIBCO Spotfire® License Agreement

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, contact TIBCO Support as follows:

- For an overview of TIBCO Support, and information about getting started with TIBCO Support, visit this site:

  http://www.tibco.com/services/support

- If you already have a valid maintenance or support contract, visit this site:

  https://support.tibco.com

  Entry to this site requires a user name and password. If you do not have a user name, you can request one.

How to Join TIBCOmmunity

TIBCOmmunity is an online destination for TIBCO customers, partners, and resident experts. It is a place to share and access the collective experience of the TIBCO community. TIBCOmmunity offers forums, blogs, and access to a variety of resources. To register, go to:

https//www.tibcommunity.com

New Features

The following new features have been added to version 7.0.0 of TIBCO Spotfire®.

Recommendations

Spotfire Recommendations is a new, easier and faster way of creating visualizations, learning about your data and letting you get to insights quicker—regardless of whether you are an experienced analyst or a newcomer to visual analytics. With Spotfire Recommendations you can look at your data from different angles, discover new insights, and get a visual overview of your data.

New Data Panel

Spotfire 7.0 allows you to get a better overview of the loaded data in the new data panel. Here, all columns in the data are visible. By default, the columns are divided into categories such as number, category, or time, which makes it easier to find what you are looking for. The data panel is the basis for interacting with your columns; you can grab a column and drop it on the visualization, rename a column, delete a column or filter the data based on the column values.

New Visual Themes

The possibility to change the look of your Spotfire application and analyses has been introduced with the new visual themes. There is a light and a dark theme available by default, but you can also create custom themes. You change themes using the Visual Theme button on the toolbar, or by selecting View > Visual Theme in the main menu. You can import a custom theme from an analysis stored on disk or in the library. Use the Import Theme from File/Import Theme from Library option available on the button in the toolbar to import a theme.

Overview of Changed Filters

An overview of changed filters is provided in the filters panel and in the new data panel.

Improved Default Titles for Visualizations

With the new default title (${AutoTitle}) used when creating a new visualization, the title changes dynamically to reflect the current configuration of the visualization.

Trellis in Legend

You can trellis using column selectors directly in the legend similar to the color by and shape by features in earlier releases.

Grouping of Categories

The new easy-to-use grouping feature allows you to combine two or more marked categories displayed in the visualization into one. This is very useful in several situations:

- When you want to compare the total of more than one category against other categories. For example, when you want to compare the sales in (Boston + New York) against sales in Los Angeles.

- When you spot spelling errors or alternative spellings that cause data to be split into more categories than needed.

- When you want to compare, for instance, the top 10 categories against the rest.

In addition, it is also possible to create a binned column by manually grouping any combination of values from the column.

Support for Nested Aggregations in Expressions

Now TIBCO Spotfire® allows aggregations in expressions to be nested. This removes the need of having to create intermediate calculated columns, and allows you to instantly visualize, for instance, the maximum or minimum of an aggregated number.

New Expression Shortcut: Top Category

A quick calculation shortcut has been added to appropriate column selectors, which allows you to easily find the top category on a map or in other categorizing visualizations. For example, this can be used to visualize the winning party in an election for each state, to color a map chart based on the best selling product or to view which crime has the highest rate in each region of a map.

Improved Column Matches

When visualizing data from different data tables in one visualization, you can now add transforms to convert column values from one column so that they match the values in the other data table.

OLAP Cubes Connection Improvements

It is now possible to limit the data of interest from OLAP Cube connections. By limiting the selection to suitable chunks it is also possible to import cube data into Spotfire and analyze the selection in-memory rather than in-database.

Improved Data Recognition

The ability to automatically recognize common data values, such as months or weekdays, as well as the default formatting of timespan data have been improved. For example, if your data contains the names of months, you can now get the correct sort order right from the start, without having to create a custom sort order. There have also been some improvement to the TIBCO Spotfire client's ability to detect binary data, so that many types of images can be shown in the visualizations directly.

Improvements in Views in Connection Dialog

Custom relations in the Views in Connection dialog now allow you to specify a different join type. Custom queries are now placed in a separate "Custom queries" folder. Context menus for Expand/ Collapse and Select/Deselect have been added. Views now include tooltips showing original table names.

Calculated Columns for In-Database Data Tables

It is now possible to insert calculated columns into data tables based on (non-cube) in-database data. The expression is evaluated in the underlying DBMS. A new preview has been added showing calculated values for the first 100 rows (applicable to both in-db and in-memory).

Improvements for Administrators

A new tab has been added to the Edit Properties dialog, displaying additional metadata for analyses in the library. These library properties that may be useful for estimating resource consumption for analyses in the library. The Support Diagnostics dialog has gotten better options for investigating issues with analysis files.

Expression Language Improvements

A new BinByTimeSpan method has been added to the expression language, which lets you set up your own TimeSpan hierarchies in calculated columns and custom expressions. The Find function has been updated with an optional third argument for multiple matches. The Base64Encode/ Base64Decode functions have been added to be able to convert binary large objects so they can be viewed as an image in Spotfire. Also, various performance improvements have been made.

Map WMS Layer Transparency

Standard map and WMS layers now support transparency. You control the transparency via a slider on the General page of visualization properties for these layer types.

Map Chart Geocoding Improvements

Several improvements have been made to the Map Chart geocoding, including:

- Improved center point calculation. For instance, the marker for Florida is now better placed.

- Most common geocoding tables are now sorted by population. This gives a better result when the geocoding is ambiguous, like, when geocoding on a city column only and several cities with the same name exist.

Easy Access to Sample Data

A set of useful sample data is now available from the start page.

Hierarchy Slider for TimeSpan Columns

Just like for DateTime columns, columns of type TimeSpan now automatically get a Hierarchy slider.

Improved Organize Filters Dialog

The organize filters dialog now includes search capabilities and the capability to select/deselect all filters in a specific data table or group.

Drag-and-Drop Hierarchy Level from the Data Panel to a Visualization

It is now possible drag a sub-level in a dimension hierarchy to the X-axis, in order to only show the sub-hierarchy of interest in the visualization.

Mark from Legend

Spotfire 7.0 introduces the ability to mark elements in the visualization by clicking on categories in the legend. This is useful especially in visualizations with many graphical elements and lets you compare the marked category with the other categories. Mark from legend works for the color and shape axis for categorical and binned columns.

Improved Script Management and Script Trust

When opening an analysis containing untrusted scripts, you have the option to trust all scripts with one single click. This works for both IronPython and Java scripts. The feature is available automatically when opening analyses containing untrusted scripts, and it is handled from Document Properties, the Scripts tab.

Automatic Updates of Data Table from Current Analysis

The ability to automatically update a data table based on another data table from the current analysis has been introduced. Now, the new data table can be automatically updated whenever the source table changes. For new analyses, this is the default setting. For old analyses, you can go in and change to automatic updates using Edit > Data Table Properties > Refresh Data > With Prompt, and selecting Automatic update in the Data Table from Current Analysis dialog.

Syntax Highlighting for Data Functions and Expression Functions

Now TIBCO Spotfire® provides syntax highlighting for data scripts and expression scripts written using TIBCO Enterprise Runtime for R, open-source R, or S-PLUS. Syntax highlighting colors were selected to closely match the default settings of Notepad++. In this version of Spotfire, the colors are not customizable.

TERR Tools

Under the Tools menu you can now access TERR Tools which are a collection of useful features when working with TERR. For example, it is now possible to launch a TERR console, access the TERR language reference and launch RStudio (if installed on your machine). It is also now much easier to install R packages locally for use with the embedded TERR engine.

Broader R Compatibility in TERR

The embedded TERR engine features much broader R compatibility, performance improvements and many features for integration with a variety of products. See the TERR Release Notes for full details.

Changes in Functionality

The following are changes in functionality in version 7.0.0 of TIBCO Spotfire.

Text Area

Editing the text area is made in an external pop-up window instead of directly in the text area field.

Scripts in the text area are executed each time the text area is loaded. The Professional and the web clients now have the same behavior.

Tooltips

Tooltips are shown when moving the X-axis zoom slider.

Drag and Drop of Axis Expressions

An axis expression is moved instead of copied when dropping the expression on the drop target in the same visualization.

You copy an expression by pressing Ctrl when dropping the expression on the drop target in the same visualization.

Display Filter Settings

Current filter settings are shown at the bottom of the **Data** panel and at the bottom of the **Filters** panel instead of as a tooltip when moving the cursor over the **Filters** panel header.

Visualization Properties

Double-clicking a visualization title bar will edit the visualization title instead of opening the visualization **Properties** dialog.

Default Colors

The default color scheme has been updated. Analyses created in earlier versions will retain their original color scheme.

Default Font

You can set the font to '(Default)' in **Tools > Options**, the **Fonts** page. A default font setting will inherit the font setting from the loaded visual theme.

Deprecated and Removed Features

The following tables list any features that have been deprecated or removed as of version 7.0.0 of TIBCO Spotfire®.

For deprecated features, if relevant, useful alternatives to the deprecated features are listed. Any use of a deprecated feature should be discontinued as it may be removed in a future release. You should avoid becoming dependent on deprecated features and become familiar with the suggested alternative features.

Deprecated Features

Affected Component	Description
Text Area v3.0	It is not possible to create new instances of an old type of non-HTML Text Area (Spotfire v3.0 and earlier versions). Instead, all new text areas will be of the type introduced in Spotfire v3.1. You can still open analyses containing old versions of the Text Area. However, support for displaying old non-HTML text areas will be dropped in a future Spotfire version.
Bookmarks v3.2	Opening an analysis containing an old type of bookmarks (Spotfire v3.2 and earlier versions) will automatically convert the bookmarks to the new type of bookmarks used in Spotfire v3.3 and later.
Map Chart v5.5	It is not possible to create new instances of the old single layer map chart (Spotfire v5.5 and earlier versions). Instead, all new map charts will be of the type introduced in Spotfire v6.0, which is capable of displaying multiple layers. You can still open analyses containing old versions of the map chart. However, support for displaying old map charts will be dropped in Spotfire v8.0. It is recommended that you convert old map charts to the new type by selecting **Switch To Map Chart** in the visualization's context menu.
Multiple selection with Shift+F8	It is not possible to select several values in a list box filter using the multiple selection mode (Shift+F8). Instead, select several values in the standard way, that is, use Ctrl + mouse click.

Removed Features

Affected Component	Description
Popover mode	The legend cannot be in popover mode. The Collaboration panel cannot be in popover mode.
Floating panels	It is not possible to move floating panels outside of the Spotfire window.

Affected Component	Description
Context menus	Context menus are not accessible from: • Right-clicking or double-clicking in the description for a visualization • Right-clicking in the visualization title bar
Drag and drop operation in the Table visualization	The disabled drop target for adding a column that already exists is not shown when dragging a column over a Table visualization.
Resizing images in text areas	It is not possible to resize an image and maintain the aspect ratio by pressing Shift while resizing the image.

Migration and Compatibility

The following are instructions on how to migrate from a previous release to version 7.0.0 of TIBCO Spotfire.

Installation of Release 7.0.0

1. First install/upgrade the TIBCO Spotfire® Server to version 7.0.

2. Install TIBCO Spotfire® Professional 7.0 on all client computers.

3. Finally, deploy the TIBCO Spotfire® 7.0 distribution on the TIBCO Spotfire® Server 7.0.

Upgrading from Previous Version without Installing

1. First install/upgrade the TIBCO Spotfire® Server to version 7.0.

2. Deploy the TIBCO Spotfire® 7.0 distribution on the TIBCO Spotfire® Server 7.0.

3. Start the old version of TIBCO Spotfire® Professional, log on to the TIBCO Spotfire® Server 7.0 and accept the update.

Installation Notes

- If the .NET 4.5 framework is not installed, it will be downloaded and installed when launching the TIBCO Spotfire® Client installer.

- If the product localization is defined as a user group preference, a client restart is required after the initial login to the server for the changes to be fully applied. Note that clients are not informed that such a restart is required. It is also important that the appropriate localization packages are deployed to the TIBCO Spotfire® Server prior to setting the user group preference.

Note that the correct Language pack and the matching server preference must be set on the very first server that the user connects to. Changing the settings on the Server will not have any effect. If the localization group preference does not have any effect, it can be enforced on clients using Tools > Options.

Closed Issues

The tables list important closed issues in version 7.0.0 of TIBCO Spotfire®.

Key	Summary
TS-35327	Marking in a visualization with a Holt-Winters Forecast was many times slower in 6.5 than in 6.0.
TS-31114	Spotfire did not support hierarchical sets in Microsoft SQL Server Analysis Services, i.e., when a dynamic set returned more than one column .
TS-30062	Refreshing a schema definition in Spotfire based on external data did not provide a warning if the table had been renamed in the external system.
TS-29967	Error message was shown in visualization for some invalid expressions (with, for example, mismatched parentheses) that were allowed in 5.0.
TS-24512	When exporting a map chart to PDF using vector graphics, the map was not rendered correctly.
SNXT-3689	Issues with Data Functions running the local TIBCO Enterprise Runtime for R engine: Running library(sjdbc) threw error when loading required package terrJava due to no JAVA_HOME environment variable set.
TS-36937	Client error when tags column was frozen and new rows were added.

Known Issues

The tables list known issues in version 7.0.0 of TIBCO Spotfire.

OLAP Import

Key	Summary
	Summary: On-demand is not supported for cube data sources. **Workaround**: You can limit the data in the data connection by using Limit Data in the Data Selection in Connection dialog. Only fixed values can be used.
	Summary: In contrast to data connections from relational data sources, selections for cube data connections always result in a single data table in Spotfire. **Workaround**: To get multiple data tables, create a connection per table and add all connections separately.
	Summary: You cannot switch from an imported configuration to an in-database configuration in a cube data connection, the way you can with relational data sources, or vice versa. **Workaround**: You can replace a data table based on an imported cube data connection with another data table based on an in-db connection, or vice versa.
	Summary: When cube hierarchies have been added to a connection, the hierarchies in Spotfire will not be updated when the data connection is edited. **Workaround**: Recreate new hierarches manually.
	Summary: Import of large amounts of data may not work. **Workaround**: If you try to import and it fails, you can edit the connection and limit the selected dimensions and/or categories some more.
	Summary: The estimation of the expected import size is only an approximation and cannot give any definitive information regarding whether or not an import will work. If the estimation takes a long time it often, but not always, means that the selection is too big to import. **Workaround**: None
	Summary: If multiple instances of one leaf value exist you may get different behavior between imported data and in-db data, since the imported data may have lost hierarchical information required in order to distinguish the leaf values from each other. For example, there is more than one city called Berlin in the world and after an import, all of those cities will be clumped together into one group in the flattened data table, unless you make sure to always include full hierarchies on all axes. **Workaround**: Include full hierarchies on all axes, if this is an issue.
	Summary: You can only select full hierarchies, not single columns from a hierarchy. **Workaround**: None

Key	Summary
	Summary: PKI:s are not supported when working with Microsoft SQL Server Analysis Services. **Workaround**: None
	Summary: In SAP BW, user hierarchies are built from attribute hierarchies. It is not possible to import user hierarchies together with the underlying attribute hierarchies. **Workaround**: None

Calculated Columns for In-Database Data Tables

Key	Summary
	Summary: Cube data connectors are not supported. **Workaround**: None
	Summary: Binning is not supported. **Workaround**: None
	Summary: OVER expressions are not supported. **Workaround**: None

Views in Connection Dialog

Key	Summary
	Summary: The join type can only be specified for user defined relations, not for relations set up by the database administrator. **Workaround**: None

Other Known Issues

Key	Summary
TS-24612	**Summary**: When setting a document property value from an expression in a property control in the text area, it is not possible to select columns from any data table. **Workaround**: Change the default data table in Data Table Properties.
TS-39291	**Summary**: With some configurations, Recommendations may display empty map chart visualizations. **Workaround**: Turn on auto-load option for all geocoding tables.
	Summary: Filtering in the Data Relationships results table will prevent re-calculation of the Data Relationships. **Workaround**: Reset filters and then Data Relationships can be re-calculated again.