

Spotfire® Analyst Release Notes

Software Release 14.4.0



Contents

New Features.....	3
Changes in Functionality.....	6
Deprecated and Removed Features.....	7
Third Party Software Updates.....	8
Closed Issues.....	9
Known Issues.....	11
Installation.....	13
Migration and Compatibility.....	14
Spotfire Documentation and Support Services.....	16
Legal and Third-Party Notices.....	17

New Features

The following new features have been added in version 14.4 of Spotfire® Analyst.

For details about new Spotfire features, see [What's New in Spotfire](#) in the [Community](#).

Key	Version	Summary
TS-77269	14.4.0	<p>Copy information about selected library items in Library Administration dialog</p> <p>In the <i>Library Administration</i> dialog, you can now copy information about the selected library items to the clipboard as a semicolon-separated table. To copy the details about the currently selected items, right-click in the list, and select <i>Copy Selected as Table</i>.</p>
SPOT-2070	14.4.0	<p>Action mods and the Actions flyout</p> <p>Action mods extend Spotfire with a new type of lightweight reusable action components that can be tailored for specific domains and use cases. Using actions within visual analytics provides extensive options for carrying out tasks and enhancing workflows across all analytic elements, spanning from visualizations to data.</p> <p>An action mod is a collection of actions (scripts) that are packaged together making them easy to share and reuse. Actions within an action mod can be added to various controls and triggers in visualizations as well as text areas as part of an analytic application, or they can be initiated directly from the new <i>Actions</i> flyout or from the Spotfire library. Triggers can be added to visualizations using the new <i>Action trigger</i> card in the <i>Visualization properties</i> panel, or using drag-and-drop from the <i>Actions</i> flyout.</p> <p>Action mods follow the same development principles as visualization mods, with external source code control (in e.g. GitHub), modern IDE with syntax highlighting and code completion (e.g. Visual Studio Code) with live debugging in Spotfire. Action mods can be distributed as .mod files and shared through the Spotfire library. The security model is based on a trust mechanism and sandboxed execution.</p> <p>Similar to IronPython scripts, Action mods use the comprehensive Spotfire API for accessing Spotfire analytic items and services, which allows for implementing actions such as:</p> <ul style="list-style-type: none"> • Apply page layouts • Create and configure visualizations • Drill down or up in hierarchical data • Navigate to pages and visualizations • Run data functions and transformations • and much more <p>For information on how to develop action mods, see the Spotfire® Mods website on GitHub.</p>

Key	Version	Summary
SPOT-2255	14.4.0	<p>Apache Spark SQL data connector improvements</p> <p>The data connector for Apache Spark SQL has received an overhaul. You can now make use of a range of new features when you connect to your Spark SQL and Databricks databases:</p> <p><i>Access data from Spark SQL and Databricks in the web client</i></p> <p>You can now create new data connections in the web client. You can also edit existing connections. This makes it easier to use data from your Spark SQL and Databricks databases when you author analyses in the web client.</p> <p>Note: Some connection authoring capabilities, such as configuring prompts, and writing custom queries, are only available when you use the installed client. For details, see the documentation.</p> <p><i>Modernized UI</i></p> <p>The data connector for Apache Spark SQL has a new and improved user interface for connecting to your databases.</p> <p><i>Custom properties in connection data sources</i></p> <p>When you create a data connection, you can now configure settings in the driver software that the data connector does not have built-in properties for. Custom properties can be useful for tweaking the connection performance, changing the behavior of a connection, or accessing certain data.</p> <p><i>Identity provider authentication</i></p> <p>You can now use an identity provider for authentication in data connections to Spark SQL and Databricks.</p> <p>With the <i>Identity provider (OAuth2)</i> authentication method, you can enable a convenient log-in experience for connecting to your databases. To learn more, see Single sign-on with an identity provider (OAuth2) for connectors.</p>
SPOT-2430	14.4.0	<p>More time granularity and easier repetition patterns for scheduled Automation Service jobs</p> <p>You can now use common recurrent rules when you schedule an Automation Services job, for example:</p> <ul style="list-style-type: none"> hourly: every X hours daily: every X days weekly: every X weeks monthly: every X months <p>Recurrent rules simplify event scheduling, improve efficiency, enhance consistency, and provide a structured approach to managing events, ultimately leading to better time management and organization.</p>
SPOT-2884	14.4.0	<p>Distribute customized prepared reports</p> <p>Report developers can distribute a single report as multiple, separate PDFs, where visualizations and key indicators are customized to different target recipients based on selected filter values, bookmarks, and/or document properties. This ensures that only relevant data is shared with the various stakeholders, without any unnecessary information.</p> <p>This functionality is enabled by the <i>ForEach</i> Automation Services task now available from Automation Services Job Builder in Spotfire Analyst. For example, a report developer can use the ForEach task to loop over a list of bookmarks which filters the data in the report that will be exported. The report can then be sent to different email addresses.</p> <p>See Emailing reports using a single analysis for more information.</p>

Key	Version	Summary
TS-77229	14.4.0	<p>More properties added to the new visualization properties experience (in preview)</p> <p>New configuration and appearance settings are available in the preview of the new visualization authoring experience. You can now assign labels to data points, show markers in line and combination charts, configure the projection in map charts, display total bars in waterfall charts, and configure actions on visualizations.</p> <p>This release also includes several improvements to the interaction design, making the experience more reliable.</p> <p>Not all visualization properties are available in the new properties panel yet. The existing properties dialogs can be used side-by-side with the new experience, and they are still the default for configuring visualizations.</p>
TSAS-1144	14.4.0	<p>Create Automation Services task to execute IronPython script</p> <p>A new Automation Services task, <i>Execute Script</i>, is added to enable the execution of IronPython scripts.</p>
TSAS-1145	14.4.0	<p>Create looping task in Automation Services</p> <p>A new Automation Services task, <i>ForEach</i>, has been added to allow looping over a list of data.</p>
TSDC-7398	14.4.0	<p>Connection string included in logs for Microsoft SQL Server connections</p> <p>When you use a Microsoft SQL Server data connection, for TRACE level logging, the sanitized connection string is now written to the log files.</p>

Changes in Functionality

The following are changes in functionality in version 14.4 of Spotfire® Analyst.

Key	Version	Summary
TS-76216	14.4.0	<p>Updated design for general properties in the new visualization properties panel</p> <p>General properties that apply to the entire visualization, for example, settings that affect all layers in a map chart, all KPIs in a KPI chart, or all columns in a graphical table, are now shown in a separate expandable section in the visualization properties panel. Previously, the general properties were marked with a link icon.</p> <p>In addition, the top level of the visualization can now be selected to show only the general properties.</p>
TSAS-1147	14.4.0	<p>Support for Insert Field in more Automation Services tasks</p> <p>In Automation Services tasks such as <i>Apply Bookmark</i>, <i>Execute Report to PDF</i>, and <i>Execute Data Function</i>, you can now insert the name using the <i>Insert Field</i> functionality. <i>Insert Field</i> can also be used in email fields in <i>Send Email</i> tasks.</p>
TSDC-7353	14.4.0	<p>Apache Spark SQL connector supports TIBCO ComputeDB</p> <p>To access data from TIBCO ComputeDB, you now use the Apache Spark SQL connector. The dedicated connector for TIBCO ComputeDB is removed. TIBCO ComputeDB is still available as a data source in the <i>Connect to</i> list, but now opens the Apache Spark SQL connector.</p>

Deprecated and Removed Features

Deprecated features

The table lists features that are deprecated and will be removed in a future release of Spotfire® Analyst.

Key	Version	Summary
TS-74041	14.4.0	<p>The <i>Column properties</i> dialog in the Spotfire Analyst client is deprecated and it will be removed in a future version.</p> <p>With the option to edit data table and column property values from the data canvas, the old dialog (reached from <i>Data > Column Properties</i>) is no longer needed. You can do everything except freezing columns from either the <i>Data canvas</i> or from the <i>Data in analysis</i> flyout. The freeze columns functionality, when accessed via the dialog, is also deprecated. API for frozen columns is still supported.</p> <p>Deprecated since Spotfire 14.0.0.</p>
TS-75213	14.4.0	<p>IronPython 2.0 is deprecated and will be removed in a future version. The possibility to run existing IronPython 2.0 scripts has been switched off by default, but can be switched on by an administrator using the new preference <i>Allow IronPython 2.0 scripts to execute</i>.</p> <p>Deprecated since Spotfire 14.1.0.</p>

Removed features

No features have been removed in this release of Spotfire® Analyst.

Third Party Software Updates

The following third party software (TPS) components have been added or updated in version 14.4 of Spotfire® Analyst.

Key	Version	Summary
TS-77132	14.4.0	Apache Log4Net updated to 2.0.17
TS-77143	14.4.0	Chromium Embedded Framework updated to 124.3.0
TS-77134	14.4.0	HtmlAgilityPack updated to 1.11.60
TS-77125	14.4.0	Spotfire Enterprise Runtime for R (a/k/a TERR) engine updated to 6.1.3
TS-77136	14.4.0	mono/SkiaSharp updated to 2.88.8
TS-77137	14.4.0	preact updated to 10.20.2
TS-77138	14.4.0	preact/signals updated to 1.2.3
TSDC-7443	14.4.0	<ul style="list-style-type: none"> • Microsoft.Identity.Client updated to 4.60.3.0 • Microsoft.Identity.Client.Extensions.Msal updated to 4.60.3.0 • Azure.Core updated to 1.38.0.0 • Azure.Identity updated to 1.11.2.0
TS-77127	14.4.0	<ul style="list-style-type: none"> • Python interpreter updated to 3.11.9 • The following Python packages are updated in this release: <ul style="list-style-type: none"> – pandas updated to 2.2.2 – setuptools updated to 69.5.1

Closed Issues

The table lists closed issues in version 14.4 of Spotfire® Analyst.

Key	Version	Summary
TS-54879	14.4.0	Copying data from a graphical table does not work correctly if there is more than one column on the row axis.
TS-76029	14.4.0	When setting the <code>TypeId</code> of a visualization and adding a reference line using an IronPython script, an exception is thrown in the script.
TS-76055	14.4.0	The documentation for the <code>TimeSpan()</code> function does not mention how the function works when the entered argument is an Integer; it only describes the behavior when the argument is a String or a TimeSpan.
TS-76259	14.4.0	If you access data from a non-UTF-8 text file, and the system's default encoding is set to UTF-8, Spotfire does not try any other encoding, even if replacement characters are found. This leads to faulty data in the resulting data table.
TS-76273	14.4.0	It is not possible to create and save an information link with interval type columns from PostgreSQL.
TS-76528	14.4.0	The entire Spotfire application zooms in or out when using Ctrl+mouse wheel in visualization mods.
TS-76775	14.4.0	When trying to replace an unsigned <code>.mod</code> file in an analysis with a signed version of that file, the unsigned <code>.mod</code> file is not updated with the signed file.
TS-76802	14.4.0	If HTTP errors occur, saving an analysis or uploading SBDF data to the library can fail without attempting to retry.
TS-76911	14.4.0	Sometimes, there is a redundant <i>Back</i> button that does nothing in the dialog <i>Connect to Microsoft SQL Server</i> .
TS-76973	14.4.0	When certain fonts are used, texts might not be displayed in all the expected places in Spotfire.
TS-77013	14.4.0	When inserting a large image into a text area, no scroll bars are shown.
TS-77146	14.4.0	Moving a visualization to another page breaks scripts that use this visualization as an argument.
TS-77151	14.4.0	When dragging a visualization from one window to another window of the same Spotfire Analyst instance, the visualization is not moved, but duplicated.
TS-77158	14.4.0	Sometimes, tooltips do not disappear as expected in a visualization mod.
TS-77171	14.4.0	<i>Developer tools</i> sometimes closes unexpectedly when deeply nested elements are inspected.
TS-77194	14.4.0	When using the mods API to mark a large number of rows (>100), some of the rows are sometimes omitted.

Key	Version	Summary
TS-77210	14.4.0	Spotfire sometimes closes unexpectedly when you edit the value of a document property that uses an invalid IronPython script.
TS-77217	14.4.0	If you press the space bar to change the selection in a pie chart, Spotfire might close unexpectedly.
TSAS-1157	14.4.0	When running a localized version of Spotfire Analyst, some dialogs cannot be opened and attempts to open them might cause Spotfire to close unexpectedly. The affected dialogs are: <i>Automation Services Job Builder</i> , <i>Text area - Insert Property Control</i> , <i>Text area - Insert Dynamic Item</i> and <i>Forecast - Holt-Winters</i> in the visualization properties.
TSAS-1166	14.4.0	Automation Services jobs do not send progress updates to the server for long-running background tasks, such as on-demand loading of data sources. This might result in the server canceling the job.
TSDC-5565	14.4.0	When you work with in-database data tables from Microsoft SQL Server, if you write a custom expression to convert a value to <code>TimeSpan</code> with the <code>Cast</code> function, you get a stack trace error. <code>TimeSpan</code> data is, in fact, not supported by the connector for Microsoft SQL Server, and you now get a more informative error message instead.
TSDC-7378	14.4.0	When you use Spotfire with the Brazilian Portuguese language pack, an error occurs when you search the library and multiple data connectors in the results share the same display name.

Known Issues

The following are known issues in version 14.4 of Spotfire® Analyst.

Key	Version	Summary
TS-62137	14.4.0	<p>Package installation precedence rules</p> <p>Python packages that are installed by the Administrator (through an SPK) take precedence over packages installed using the Python Tools from the Spotfire Analyst Tools menu. If users attempt to update a package previously installed by an SPK, then the package update is installed, but the update is ignored.</p>
TS-67656	14.4.0	<p>"Unable to write data" error message</p> <p>Error message "Unable to write data to the transport connection: An established connection was aborted by the software in your host machine."</p> <p>If you see this error, then the data being uploaded to the service is too large. When a Spotfire data function is run, it sends the relevant data from Spotfire to the service for processing. The service has a file size upload limit, the default of which is 100 MB. When a data function is run with data that exceeds this limit, the service returns the error.</p> <p>An administrator can change this upload limit if needed by creating a custom configuration. For more information, see the topic "File size upload limit" in the service <i>Installation and Administration</i> guide.</p> <p>If users see this error message, the administrator can consider creating a custom configuration that increases the limits for both of the following properties:</p> <ul style="list-style-type: none"> • <code>spring.servlet.multipart.max-file-size</code>: The total file size for upload cannot exceed the value for this setting. • <code>spring.servlet.multipart.max-request-size</code>: The total request size for a multipart file upload cannot exceed the value for this setting. <p>Note: At a certain point, the Java Heap size fails to handle very large files. The threshold for this behavior is dependent on the amount of RAM the service node has. When the Java Heap Size is exceeded, the following error message is displayed.</p> <p>Error from Remote Service: Internal Server Error (500) - java.lang.OutOfMemoryError: Java heap space</p>

Key	Version	Summary
TS-69770	14.4.0	<p>Empty String columns in exported SBDF causes an error</p> <p>If you export an SBDF from Python (for example, as outputs for a data function), and your output contains an empty column, then you can encounter the following error:</p> <pre>spotfire.sddf.SBDFError: cannot determine type for column 'EmptyString' ; all values are missing</pre> <p>This error occurs because the Spotfire data function environment cannot determine the proper Spotfire type to export the data as if all values in the column are missing (in other words, Python's <code>None</code>, NumPy's <code>nan</code>, or Panda's <code>NA</code> or <code>NaT</code> values).</p> <p>Workaround:</p> <p>To resolve this issue, edit your data function to use the helper function <code>set_spotfire_types</code>.</p> <p>Example</p> <pre>import pandas as pd import spotfire df = pd.DataFrame(inp) spotfire.set_spotfire_types(df, {'EmptyString': 'String'})</pre>

Installation

The following are instructions on how to install version 14.4 of Spotfire® Analyst.

The Spotfire Analyst client is delivered as two different installers. The installer labelled "single_user" is the default one. Use this if you do not know which version to select. The installer labelled "single_user" installs the product for the logged in user only. The other users on the same machine will not be able to use the client. The installer labelled "shared_computer" installs the product for all users on the machine. This installer requires administrative privileges on the machine.

There are separate instructions available for installing Spotfire Analyst without a server on the [documentation site](#).

Installation of Release 14.4

1. First install/upgrade the Spotfire® Server to version 14.4.
2. Deploy the Spotfire 14.4 distribution on the Spotfire Server 14.4.
3. Finally, install Spotfire Analyst 14.4 on all client computers.

Installation Notes

- If the .NET 4.8 framework is not installed, it will be downloaded and installed when launching the "shared_computer" Spotfire Analyst client installer. The "single_user" installer will not download the .NET framework, because it does not have system changing privileges. However, it will complain if the .NET framework is missing.
- 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 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**.

Migration and Compatibility

The following are instructions on how to migrate from a previous release to version 14.4 of Spotfire® Analyst.

Upgrading from Previous Version without Installing

1. First install/upgrade the Spotfire® Server to version 14.4.
2. Deploy the Spotfire 14.4 distribution on the Spotfire Server 14.4.
3. Start the old version of Spotfire Analyst, log on to the Spotfire Server 14.4 and accept the update.

Compatibility Versions

You can use Spotfire 14.4 to open .dxd analysis files that were created and saved in any older version of Spotfire that is still in support.

The compatibility versions of Spotfire 14.4 are updated to versions 14.3 and 14.0 LTS. This means that .dxd analysis files that you create and save in Spotfire 14.4 can be opened in versions 14.3 and 14.0 LTS of Spotfire.



When you use an older version of Spotfire to open an analysis file that was created in a newer version of Spotfire, features from the newer version might not be available, and the analysis might look and behave differently compared to the version in which it was created.

Version	Compatibility versions
14.4	14.3, 14.0 LTS
14.3	14.2, 14.0 LTS
14.2	14.1, 14.0 LTS
14.1	14.0 LTS, 12.5
14.0 LTS	12.5, 12.0 LTS
12.5	12.4, 12.0 LTS
12.4	12.3, 12.0 LTS
12.3	12.2, 12.0 LTS
12.2	12.1, 12.0 LTS
12.1	12.0 LTS, 11.4 LTS
12.0 LTS	11.8, 11.4 LTS
11.4 LTS	11.3, 10.10 LTS
10.10 LTS	10.9, 10.3 LTS

File compatibility example



For example, when you create a .dxp analysis file in Spotfire 14.3, the file is saved with compatibility versions for 14.2 and 14.0 LTS. You can open the .dxp file in any older Spotfire version that either *is* one of those versions, or has 14.2 or 14.0 LTS as compatibility versions.

That means you can open the .dxp analysis file that you saved in Spotfire 14.3 in the following older versions: 14.2, 14.1, and 14.0 LTS.

Newer and older versions of Spotfire Analyst client can be used to connect to the current version of Spotfire Server in order to upgrade or downgrade the client packages. However, it is recommended to always run the same version of client and server in production environments. See [System Requirements](#).

Spotfire Documentation and Support Services

For information about the Spotfire® products, you can read the documentation, contact Spotfire Support, and join the Spotfire Community.

How to Access Spotfire Documentation

Documentation for Spotfire and TIBCO products is available on the [TIBCO Product Documentation](#) website, mainly in HTML and PDF formats.

The website is updated frequently and is more current than any other documentation included with the product.

Spotfire Documentation

The documentation for all Spotfire products is available on the [Spotfire Documentation](#) page. This page takes you directly to the latest version of each document.

To see documents for a specific Spotfire product or version, click the link of the product under 'Other versions', and on the product page, choose your version from the top right selector.

Release Version Support

Some release versions of Spotfire products are designated as long-term support (LTS) versions. LTS versions are typically supported for up to 36 months from release. Defect corrections will typically be delivered in a new release version and as hotfixes or service packs to one or more LTS versions. See also <https://spotfi.re/lts>.

How to Contact Support for Spotfire Products

You can contact the Support team in the following ways:

- For accessing the Support Knowledge Base and getting personalized content about products you are interested in, visit the support portal at <https://spotfi.re/support>.
- For creating a Support case, you must have a valid maintenance or support contract with Cloud Software Group, Inc. You also need a user name and password to log in to <https://spotfi.re/support>. If you do not have a user name, you can request one by clicking **Register** on the website.

System Requirements for Spotfire Products

For information about the system requirements for Spotfire products, visit <https://spotfi.re/sr>.

How to join the Spotfire Community

The Spotfire Community is the official channel for Spotfire customers, partners, and employee subject matter experts to share and access their collective experience. The Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from Spotfire products. In addition, users can submit and vote on feature requests from within the [Ideas Portal](#). For a free registration, go to <https://spotfi.re/community>.

Legal and Third-Party Notices

SOME CLOUD SOFTWARE GROUP, INC. ("CLOUD SG") SOFTWARE AND CLOUD SERVICES EMBED, BUNDLE, OR OTHERWISE INCLUDE OTHER SOFTWARE, INCLUDING OTHER CLOUD SG SOFTWARE (COLLECTIVELY, "INCLUDED SOFTWARE"). USE OF INCLUDED SOFTWARE IS SOLELY TO ENABLE THE FUNCTIONALITY (OR PROVIDE LIMITED ADD-ON FUNCTIONALITY) OF THE LICENSED CLOUD SG SOFTWARE AND/OR CLOUD SERVICES. THE INCLUDED SOFTWARE IS NOT LICENSED TO BE USED OR ACCESSED BY ANY OTHER CLOUD SG SOFTWARE AND/OR CLOUD SERVICES OR FOR ANY OTHER PURPOSE.

USE OF CLOUD SG SOFTWARE AND CLOUD SERVICES IS SUBJECT TO THE TERMS AND CONDITIONS OF AN AGREEMENT FOUND IN EITHER A SEPARATELY EXECUTED AGREEMENT, OR, IF THERE IS NO SUCH SEPARATE AGREEMENT, THE CLICKWRAP END USER AGREEMENT WHICH IS DISPLAYED WHEN ACCESSING, DOWNLOADING, OR INSTALLING THE SOFTWARE OR CLOUD SERVICES (AND WHICH IS DUPLICATED IN THE LICENSE FILE) OR IF THERE IS NO SUCH LICENSE AGREEMENT OR CLICKWRAP END USER AGREEMENT, THE LICENSE(S) LOCATED IN THE "LICENSE" FILE(S) OF THE SOFTWARE. USE OF THIS DOCUMENT IS SUBJECT TO THOSE SAME TERMS AND CONDITIONS, AND YOUR USE HEREOF SHALL CONSTITUTE ACCEPTANCE OF AND AN AGREEMENT TO BE BOUND BY THE SAME.

This document is subject to U.S. and international copyright laws and treaties. No part of this document may be reproduced in any form without the written authorization of Cloud Software Group, Inc.

Spotfire, the Spotfire logo, TERR, and TIBCO are either registered trademarks or trademarks of Cloud Software Group, Inc. in the United States and/or other countries. A list of Cloud SG's trademarks and trademark guidelines is available at <https://www.cloud.com/legal>.

All other product and company names and marks mentioned in this document are the property of their respective owners and are mentioned for identification purposes only. You acknowledge that all rights to these third party marks are the exclusive property of their respective owners. Please refer to Cloud SG's Third Party Trademark Notices (<https://www.cloud.com/legal>) for more information.

This document includes fonts that are licensed under the Apache License, Version 2.0, which is available at <https://www.apache.org/licenses/LICENSE-2.0> and reprinted in the Addendum below.

Copyright (c) Christian Robertson / Google, Roboto font.

Cloud SG software may be available on multiple operating systems. However, not all operating system platforms for a specific software version are released at the same time. See the "readme" file for the availability of a specific version of Cloud SG software on a specific operating system platform.

THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

THIS DOCUMENT COULD INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS. CHANGES ARE PERIODICALLY ADDED TO THE INFORMATION HEREIN; THESE CHANGES WILL BE INCORPORATED IN NEW EDITIONS OF THIS DOCUMENT. CLOUD SG MAY MAKE IMPROVEMENTS AND/OR CHANGES IN THE PRODUCT(S), THE PROGRAM(S), AND/OR THE SERVICES DESCRIBED IN THIS DOCUMENT AT ANY TIME WITHOUT NOTICE.

THE CONTENTS OF THIS DOCUMENT MAY BE MODIFIED AND/OR QUALIFIED, DIRECTLY OR INDIRECTLY, BY OTHER DOCUMENTATION WHICH ACCOMPANIES THIS SOFTWARE, INCLUDING BUT NOT LIMITED TO ANY RELEASE NOTES AND "README" FILES.

This and other products of Cloud SG may be covered by registered patents. For details, please refer to the Virtual Patent Marking document located at <https://www.tibco.com/patents>.

Copyright © 1994-2024 Cloud Software Group, Inc. All Rights Reserved.

Addendum to Legal and Third-Party Notices

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions

for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS