

Spotfire® Server Release Notes

Software Release 14.0 LTS (14.0.2)

Contents

Spotfire Server Release Notes.....	3
New Features.....	4
Changes in Functionality.....	8
Deprecated and Removed Features.....	11
Third Party Software Updates.....	13
Closed Issues.....	16
Known Issues.....	20
Migration and Compatibility.....	23
Spotfire Documentation and Support Services.....	24
Legal and Third-Party Notices.....	25

Spotfire Server Release Notes

The release notes for this product version are provided to inform you of new features, known issues, and issues from previous releases that have been closed.

These release notes are for Spotfire® Server version 14.0. They cover Microsoft Windows and Linux installations.

Spotfire® Server is a Tomcat web application that runs on Windows and Linux operating systems. It is the administrative center of any Spotfire® implementation. In addition to providing the tools for configuring and administering the Spotfire® environment, Spotfire Server facilitates the services that make it possible for users to access, blend, and visualize their data, creating analyses that provide actionable insight.



Major changes since earlier LTS versions

For an overview of important changes since the earliest in-support LTS version, see [Upgrading between Spotfire LTS versions](#).

New Features

The following new features have been added in version 14.0 of Spotfire® Server.

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

Key	Version	Summary
TSS-33621	14.0.2	<p>New built-in authentication process</p> <p>The Information Services process now has a built-in PostAuthenticationFilter process.</p> <p>Note: This process does not execute a custom Post Authentication Filter, so, there is no need to add an external .jar in the Information Services folder for a post-authentication filter.</p>
SPOT-3208	14.0.0	<p>Spotfire is back!</p> <p>Spotfire® is now a stand-alone brand within Cloud Software Group, and this is reflected in a new logotype and new product names.</p> <p>The following Spotfire products have been rebranded in this release:</p> <ul style="list-style-type: none"> • Spotfire Server • Spotfire Analyst • Spotfire Deployment Kit • Spotfire Automation Services • Spotfire Qualification • Spotfire Developer • Spotfire Enterprise Runtime for R (a/k/a TERR) • Spotfire Enterprise Runtime for R – Server Edition (a/k/a the TERR Service) • Spotfire Service for R • Spotfire Service for Python
TSS-16326	14.0.0	<p>An Unload event is now shown as an Activity in Scheduling & Routing</p> <p>If you unload an analysis that was loaded by Scheduled Updates, that event is now displayed in the Activity view, similar to the current load tasks. Also, if unloading was the last activity for a rule, it is also displayed as the last status in the Rules view.</p>
TSS-32317	14.0.0	<p>Improved graceful shut-down behavior for Spotfire Server instances</p> <p>You can now perform a rolling restart of Spotfire Server instances (for example, one at a time) when a graceful shutdown is initiated—that is, when it is explicitly called (see <code>graceful-shutdown.sh</code>), or when configuration changes are detected (not enabled by default).</p> <p>To enable this setting, set <code>lifecycle.changes-monitoring.draining.rolling.enabled</code> to <code>true</code>. The default is <code>false</code>.</p> <p>To configure how long a Spotfire Server instance should wait for another instance, set <code>lifecycle.changes-monitoring.draining.rolling.maxwait-seconds</code>. The default is <code>lifecycle.changes-monitoring.draining.timeout-seconds</code>.</p> <p>For larger clusters, it might be beneficial to restart more than one instance at a time. If so, set <code>lifecycle.changes-monitoring.draining.rolling.max-unavailable</code> to the desired value. The default is 1.</p>

Key	Version	Summary
SPOT-1277	14.0.0	<p>New Library REST API</p> <p>The new Library REST API (v2) allows an external application to manage library assets. The Library REST API supports the following operations:</p> <ul style="list-style-type: none"> • list items • show item details • download item • upload item • delete item • search items (also with expressions) <p>The Library REST API also supports operations related to the version history of items. The Library REST API simplifies promotion and migration operations between Spotfire environments and facilitates automation with CI/CD pipelines.</p>
SPOT-2361	14.0.0	<p>Configure version history per analysis from the Analyst client</p> <p>An analyst can enable or disable the version history setting for each analysis in the library from within the Spotfire Analyst client. By only saving the version history for the most important analyses, you can keep the storage need for the library to a minimum.</p> <p>When an analysis is opened in the installed client, select <i>File > Document Properties</i>, go to the <i>Library</i> tab and modify the <i>Keep older versions of this file when saving</i> check box to change the setting. You need write permissions for the analysis to update the setting.</p> <p>A system administrator can configure if the version history should be enabled or disabled for all analyses by default. See Switching off library versioning in the <i>Spotfire® Server and Environment - Installation and Administration</i> manual.</p>
SPOT-2426	14.0.0	<p>Bring your own Python</p> <p>You can deploy and use your preferred Python distribution with the Spotfire Service for Python.</p> <p>Note: To use an alternative Python distribution, install the Python packages and set the environment variable <code>SPOTFIRE_PYTHON_HOME</code> to point to that installation. If the environment variable <code>SPOTFIRE_PYTHON_HOME</code> is not specified, then Spotfire Service for Python uses the version of Python bundled with this product.</p> <p>Note: For consistency, the deployed Python version must be the same for all the Spotfire Service for Python instances within the same Spotfire deployment area.</p> <p>Note: Python 3.7 or higher is required.</p>
SPOT-3136	14.0.0	<p>PostgreSQL 15 supported as the Spotfire database</p> <p>Spotfire now supports PostgreSQL version 15 as the Spotfire Server database. PostgreSQL version 15 is the latest stable version.</p>
SPOT-3137	14.0.0	<p>SQL Server 2022 supported as the Spotfire database</p> <p>Spotfire now supports SQL Server 2022 as the Spotfire Server database. Microsoft SQL Server 2022 is the latest stable version.</p>

Key	Version	Summary
SPOT-3204	14.0.0	<p>Debian 12 supported as operating system</p> <p>Debian 12 is now supported as the operating system for:</p> <ul style="list-style-type: none"> • Spotfire® Server • Spotfire® Web Player • Spotfire® Automation Services • Spotfire® Enterprise Runtime for R - Server Edition (a/k/a the TERR™ service) • Spotfire® Service for R • Spotfire® Service for Python <p>Note: Debian 12 "bookworm" was released on 2023-06-10.</p>
TSS-30571	14.0.0	<p>Support for creating Information Services memory and thread dumps from the Spotfire Server web pages</p> <p>On the <i>Monitoring & Diagnostics, Overview</i> page, the context menu for a Spotfire Server now includes the options 'Create Information Services memory dump' and 'Download Information Services thread dump'.</p> <ul style="list-style-type: none"> • The resulting file name for the Information Services thread dump is <code>information-services-threadDump-<server-id>-<current-date-time-stamp>.txt</code>. • The resulting file name for the Information Services memory dump is <code>information-services-heap-<server-id>-<current-date-time-stamp>.hprof</code>.
TSS-32370	14.0.0	<p>Support for credential delegation for Oracle thin driver</p> <p>Beginning with version 19c, Oracle supports credential delegation for the Kerberos constrained environment. Spotfire supports credential delegation for an Oracle thin driver for version 19.3 or higher.</p>
TSS-32449	14.0.0	<p>Support for Oracle JDBC driver</p> <p>The Oracle JDBC driver version 23.2.0.0 is now supported.</p>
TSS-32522	14.0.0	<p>SCIM API updated</p> <p>The Cross-domain Identity Management (SCIM) API now supports pagination.</p>
TSS-32532	14.0.0	<p>SCIM user schema updated</p> <p>The <code>groups</code> attribute of the Cross-domain Identity Management (SCIM) user schema now includes the <code>type</code> sub-attribute.</p> <p>Now, with the <code>type</code> sub-attribute, it is possible to determine which groups a user or group is a direct member of using the SCIM API.</p>
TSS-32720	14.0.0	<p>New CLI command provides license information about named users</p> <p>Named user license information can be generated by using the <code>show-named-user-licenses</code> command-line command.</p>
TSS-32738	14.0.0	<p>Troubleshooting bundle includes named user license information</p> <p>Named user license information is now part of the troubleshooting bundle. It can be disabled by setting <code>licenses.named-users.append-troubleshooting-bundle</code> to <code>false</code>.</p>
TSS-32829	14.0.0	<p>PostgreSQL connection URL examples in CLI help show use of new parameter</p> <p>For the CLI commands <code>create-db</code> and <code>create-actiondb</code>, the help for PostgreSQL connections now includes examples of using the parameter <code>database-name</code>.</p>

Key	Version	Summary
TSS-33029	14.0.0	Support for RFC 8707 added When acting as an OAuth client (to access external systems), the Spotfire Server now supports RFC 8707 (Resource Indicators for OAuth 2.0).

Changes in Functionality

The following are changes in functionality in version 14.0 of Spotfire Server.

Key	Version	Summary
TSS-33551	14.0.2	<p>The SCIM API now supports filtering of attributes</p> <p>Clients can now request a partial resource representation on any SCIM operation that returns a resource within the response. You can specify either of the mutually exclusive URL query parameters <code>attributes</code> or <code>excludedAttributes</code>.</p>
SPOT-1723	14.0.0	<p>Updated from Java EE to Jakarta EE 9+</p> <p>The Spotfire Server is now updated to use a newer generation of third party components that have adopted to the new namespaces defined in the Jakarta EE 9 project. The old namespaces have been deprecated since Spotfire 10.10.11, 11.4.6 & 11.8.0.</p> <p>If you have custom code deployed on the Spotfire server, some of your code might need to be altered and rebuilt.</p> <p>The main difference is that some, but not all, imports of <code>javax.</code> must be changed to <code>jakarta.</code> For example, <code>javax.servlet.http.HttpServletRequest</code> must be changed to <code>jakarta.servlet.http.HttpServletRequest</code>.</p> <p>A list of components with changed namespace can be found here: https://wiki.eclipse.org/Jakarta_EE_Maven_Coordinates</p> <p>It is possible that a third party component that you use, for example a JDBC-driver, is still using the older namespace. In many cases, components handle this dependency by creating a shaded jar file, that is, a jar file that includes the dependency, but under a new namespace. If the jar file is shaded, everything might work directly, otherwise you need to update the third party component.</p>
SPOT-3268	14.0.0	<p>Eclipse Temurin OpenJDK replaces Oracle Java as the embedded JDK distribution</p> <p>With this release, the Spotfire installation packages now include the Eclipse Temurin OpenJDK instead of the Oracle Java Development Kit used in previous versions.</p> <p>Note: Eclipse Temurin is the name of the OpenJDK distribution from Adoptium. The Eclipse Adoptium Working Group is the successor of AdoptOpenJDK. The primary goal of Adoptium is to promote and support free and open-source high-quality runtimes and associated technology for use across the Java ecosystem.</p>
TSS-23383	14.0.0	<p>Improved queue management and routing for scheduled updates</p> <p>In previous Spotfire versions, each service instance had a separate queue for the initial loading of analysis files used in Automation Services jobs and scheduled updates, and the queue was assigned when the job arrived. In some cases, a job could end up behind other slow jobs and get stuck, even if other instances were available.</p> <p>With this improvement, there is a single queue for all service instances on the Spotfire Server, and each scheduled updates job is only assigned to an instance when a slot is available in that instance. Updates to an already loaded analysis are still handled as before, since they are done on the instance where the analysis is loaded.</p> <p>In addition to this change, when there are many instances with available slots, each instance takes one item at a time until all available slots are filled, or until the queue is empty. This change affects both Automation Services and scheduled updates job handling.</p> <p>Depending on the number of rules started around the same time, the difference in load time for each rule, and the number of Web Player instances, you might need to change the configured <code>concurrentUpdates</code> value in the Web Player service configuration.</p> <p>To go back to the previous behavior, set the configuration option <code>scheduled-updates.compatibility.assign-destination-before-queuing</code> to <code>true</code>.</p>

Key	Version	Summary
TSS-28095	14.0.0	<p>Change to Apache Ignite affects performance monitoring metrics</p> <p>Due to changes in the updated third-party component, detailed metrics of Apache Ignite data storage and data region are no longer available through the Spotfire Server performance monitoring files (if they were explicitly enabled previously). Metrics-related individual caches or a cluster are unchanged.</p> <p>Some of these metrics are available through JMX.</p>
TSS-30568	14.0.0	<p>Compatibility with TIBCO EMS changed</p> <p>The Spotfire Server compatibility with the TIBCO Enterprise Message Service has changed and now requires version 10.2.x or higher. Spotfire Server now uses the newer Jakarta EE API to make calls to the TIBCO Enterprise Message Service. Note this when selecting which jar files to use in Spotfire Server.</p>
TSS-31202	14.0.0	<p>Changes to API methods due to the move to Jakarta EE 9</p> <p>The following API methods have changed due to the move to Jakarta EE 9:</p> <ul style="list-style-type: none"> • <code>Object AuthenticationContext.getAttribute(String name)</code>: The attribute name <code>javax.servlet.request.X509Certificate</code> has been replaced by the new attribute name <code>jakarta.servlet.request.X509Certificate</code>. Note that the type of the returned object has also changed. • <code>Enumeration<String> getAttributeNames()</code>: The attribute name <code>javax.servlet.request.X509Certificate</code> has been replaced by the new attribute name <code>jakarta.servlet.request.X509Certificate</code>. • <code>Cookie[] getCookies()</code>: The return type has changed from <code>javax.servlet.http.Cookie</code> to <code>jakarta.servlet.http.Cookie</code>.
TSS-32539	14.0.0	<p>Change to usage permissions for library Filters</p> <p>With this release, when browsing the library in the Spotfire Server web administration pages, only administrators can filter for users in the <i>Created by</i> and <i>Modified by</i> filters using a control which exposes the users in the system (a drop-down list with a search field).</p> <p>Non-administrator users can filter by typing a user name in the input field. This change is done due to security concerns.</p>
TSS-32599	14.0.0	<p>Important for upgrades: Updated code trust Certificate Authority</p> <p>With this release, the name of the internal Certificate Authority for the Code Trust CA of the Spotfire Server is changed from <i>TIBCO Spotfire Code Trust Root CA</i> to <i>Spotfire Code Trust Root CA</i>.</p> <p>This means that a new root CA certificate is generated on the Spotfire Server, which will be used to issue new code signing certificates when users sign new Spotfire mods. If you are using an environment with a Test or Development to Production structure, this means that the step to export and import the root CA certificate between the systems must be done again to make everything work properly for Spotfire mods signed after the upgrade.</p> <p>See Moving certificates from one system to another in the <i>Spotfire® Server and Environment - Installation and Administration Guide</i> for instructions.</p>
TSS-32638	14.0.0	<p>Sort order changed in the Scheduling & Routing Activity page</p> <p>The events displayed in the Scheduling & Routing Activity page are now sorted in descending order, based on the <i>Start time</i> column by default, so that you now see the latest started events first. Previously, the default showed the latest finished events first. (That is, the column was sorted by descending order based on the <i>End time</i> column by default.)</p>

Key	Version	Summary
TSS-32705	14.0.0	<p>New variable added to the create_database script for PostgreSQL</p> <p>The variable PGDATABASE (represented by the <code>-d</code> flag) has been added to the <code>create_database</code> script for a PostgreSQL database. This change addresses an issue with the script failing if a user other than the admin "postgres" tries to run one of the commands <code>create_database</code> or <code>create_actionlog_db</code>.</p>
TSS-32789	14.0.0	<p>Spotfire Server and node manager services have been renamed because of rebranding</p> <p>The Windows services are now called <i>spotfireserver-1400</i> and <i>spotfirenodemanager-1400</i> (previously, they were called something like <i>Tss1250</i> and <i>WpNmRemote1250</i>, respectively).</p>
TSS-32967	14.0.0	<p>Changed Information Services default port</p> <p>The default port for connecting to the Information Services process is changed to 9445.</p>
TSS-32970	14.0.0	<p>The failover-delay for scheduled updates is now enabled by default</p> <p>The <code>failover-delay</code> setting is now enabled by default, with a delay time of 180 seconds. This change helps to reduce the risk of uneven distribution of scheduled updates over the available service instances, when one or more service instances are restarted.</p>
TSS-32974	14.0.0	<p>Updates to the bootstrap CLI command</p> <p>The previously optional parameters <code>-c value</code> ("driver class") and <code>-d value</code> ("database URL") in the <code>bootstrap</code> command are now always required, and they are different for each environment.</p>

Deprecated and Removed Features

Deprecated features

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

Key	Version	Summary
TSS-28133	14.0.0	<p>The CLI parameter <code>-t</code> or <code>--tool-password</code> of the <code>s3-download</code> command is deprecated and will be removed in a future version. Using this parameter results in a warning message about the deprecation.</p> <p>Deprecated since Spotfire 11.4.0.</p>
TSS-29565	14.0.0	<p>The <code>getReturnEndpoint()</code> method of the <code>CustomWebAuthenticatorInitContext</code> API class is deprecated and will be removed in a future release. Use the new method with the same name in the <code>WebAuthenticationContext</code> API class instead.</p> <p>Deprecated since Spotfire 11.6.0.</p>
TSS-32525	14.0.0	<p>The <code>LibraryService</code> SOAP API is deprecated and will be removed in a future release. Use the Library REST APIs instead.</p> <p>Deprecated since Spotfire 14.0.0.</p>
TSS-32528	14.0.0	<p>The <code>UserDirectoryService</code> SOAP API is deprecated and will be removed in a future release. Use the <i>System for Cross-domain Identity Management</i> (SCIM) APIs instead.</p> <p>Deprecated since Spotfire 14.0.0.</p>
TSS-32618	14.0.0	<p>The command-line command <code>s3-download</code> is deprecated and will be removed in a future release. Use <code>external-download</code> instead.</p> <p>Deprecated since Spotfire 14.0.0.</p>
TSS-32956	14.0.0	<p>The <code>import-scheduled-updates</code> CLI command is deprecated and will be removed in a future version.</p> <p>Deprecated since Spotfire 14.0.0.</p>
TSS-33175	14.0.0	<p>The <code>com.spotfire.server.security.AuthenticationContext.getRequesteSessionId()</code> method is deprecated and will be removed in a future version.</p> <p>Deprecated since Spotfire 12.4.0.</p>
TSS-33176	14.0.0	<p>The <code>com.spotfire.server.userdir.UserDirectory</code> Java User Directory API is deprecated and will be removed in a future release. Use the <code>com.spotfire.server.api.userdir.UserDirectory</code> Java User Directory API, or SCIM, instead.</p> <p>The <code>com.spotfire.server.security.SecurityContext.getPrincipal()</code> method is deprecated and will be removed in a future release. Use the <code>com.spotfire.server.api.userdir.UserDirectory</code> to retrieve principals instead.</p> <p>The <code>com.spotfire.server.userdir.UserDirectoryFactory</code> API is deprecated and will be removed in a future release. Use <code>com.spotfire.server.security.AuthenticationContext.getUserDirectory()</code> to retrieve a <code>com.spotfire.server.api.userdir.UserDirectory</code> instance instead.</p> <p>Deprecated since Spotfire 14.0.0.</p>

Key	Version	Summary
TSS-33177	14.0.0	<p>The <code>com.spotfire.server.security.PostAuthenticationFilter.setConfiguration(String)</code> API method is deprecated and will be removed in a future release. Use the <code>PostAuthenticationFilter.init(PostAuthenticationFilterInitContext)</code> method instead.</p> <p>The <code>com.spotfire.server.security.PostAuthenticationFilterInitContext.getLegacyConfiguration()</code> API method is deprecated and will be removed in a future release. Use name-value parameters instead.</p> <p>Deprecated since Spotfire 14.0.0.</p>

Removed features

The following features have been removed in this version of Spotfire Server.

Key	Version	Summary
SPOT-3109	14.0.0	<p>The TIBCO-branded versions of Progress DataDirect JDBC drivers, which previously came pre-installed with Spotfire Server, are removed, and not supported in this version of Spotfire. The corresponding data source templates for the drivers are also removed.</p> <ul style="list-style-type: none"> DB2 - DataDirect (<code>tibcosoftwareinc.jdbc.db2.DB2Driver</code>) MySQL - DataDirect (<code>tibcosoftwareinc.jdbc.mysql.MySQLDriver</code>) Oracle - DataDirect (<code>tibcosoftwareinc.jdbc.oracle.OracleDriver</code>) SQL Server - DataDirect (<code>tibcosoftwareinc.jdbc.sqlserver.SQLServerDriver</code>) Sybase - DataDirect (<code>tibcosoftwareinc.jdbc.sybase.SybaseDriver</code>) <p>If you use any of the above drivers in your Spotfire environment, you must migrate to using different JDBC drivers for connectivity. Before you upgrade, see Migrating from TIBCO DataDirect JDBC drivers.</p>
SPOT-3216	14.0.0	<p>Debian 10 is no longer supported as the operating system for:</p> <ul style="list-style-type: none"> Spotfire Server Spotfire Web Player Spotfire Automation Services Spotfire Enterprise Runtime for R (a/k/a the TERR Service) Spotfire Service for R Spotfire Service for Python
SPOT-3217	14.0.0	<p>Red Hat Enterprise Linux (RHEL) 7 is no longer supported as the operating system for:</p> <ul style="list-style-type: none"> Spotfire Server Spotfire Web Player Spotfire Automation Services Spotfire Enterprise Runtime for R (a/k/a the TERR Service) Spotfire Service for R Spotfire Service for Python
TSS-32466	14.0.0	<p>The legacy SOAP logging feature has been removed.</p>

Third Party Software Updates

The following third party software (TPS) components have been added or updated in version 14.0 of Spotfire Server.

Key	Version	Summary
TSS-33658	14.0.2	Amazon Redshift JDBC driver updated to 2.1.0.25
TSS-33678	14.0.2	Eclipse Temurin OpenJDK updated to 17.0.10+7
TSS-33596	14.0.2	<ul style="list-style-type: none"> • Amazon AWS SDK updated to 2.23.20 • Apache Commons IO updated to 2.15.1 • Apache Commons Logging updated to 1.3.0 • Apache Commons Validator updated to 1.8.0 • Apache HttpClient5 updated to 5.3.1 • Apache Ignite updated to 2.16.0 • Apache Log4j updated to 2.22.1 • Apache Tomcat updated to 10.1.18 • Dropwizard Metrics Core updated to 4.2.25 • Eclipse Jetty updated to 12.0.6 • FasterXML/Jackson Core updated to 2.16.1 • FasterXML/Woodstox Core updated to 6.6.0 • IO Swagger updated to 2.2.20 • IO Swagger Annotations updated to 1.6.13 • Microsoft Azure Storage Blob client library for Java updated to 12.25.1 • MigLayout updated to 11.3 • Nimbus JOSE + JWT updated to 9.37.3 • PostgreSQL JDBC Driver updated to 42.7.2 • Simple Logging Facade for Java updated to 2.0.12 • Spring Framework updated to 6.0.16 • User Agent Parser for Java updated to 1.6.1
TSS-33599	14.0.2	<ul style="list-style-type: none"> • Angular updated to 17.1.1 • @ng-idle/core updated to 14.0.0 • Autoprefixer updated to 10.4.17 • ngx-toastr updated to 18.0.0 • worker-timers updated to 7.1.1
TSS-33147	14.0.1	OpenJDK updated to 17.0.9+9

Key	Version	Summary
TSS-33160	14.0.1	<ul style="list-style-type: none"> • Apache Commons CLI updated to 1.6.0 • Apache CXF Core updated to 4.0.3 • Apache Log4j updated to 2.21.1 • Apache Tomcat updated to 10.1.16 • Amazon AWS SDK updated to 2.20.143 • ASM updated to 9.6 • Azure Blob Storage updated to 12.25.0 • Bouncy Castle updated to 1.77 • Dropwizard Metrics Core updated to 4.2.22 • Eclipse Jetty updated to 12.0.3 • FasterXML Jackson Core updated to 2.15.3 • Jakarta XML Web Services API updated to 4.0.1 • MiGLayout Swing updated to 11.2 • Nimbus JOSE JWT updated to 9.37.1 • Spring Framework updated to 6.0.13 • Swagger Annotations updated to 1.6.12 • Swagger Core V3 updated to 2.2.19
TSS-32630	14.0.0	Apache CXF updated to 4.0.2
TSS-31513	14.0.0	Jespa updated to 1.2.13
TSS-32890	14.0.0	Redshift JDBC driver updated to 2.1.0.18

Key	Version	Summary
TSS-32774	14.0.0	<ul style="list-style-type: none"> • Amazon AWS SDK updated to 2.20.143 • ANTLR 4 updated to 4.13.1 • Apache Ignite updated to 2.15.0 • Apache Tomcat updated to 10.1.15 • Azure Blob Storage updated to 12.23.1 • Dropwizard Metrics Core updated to 4.2.19 • Eclipse Jetty updated to 12.0.1 • FasterXML/Jackson Core updated to 2.15.2 • HttpClient updated to 4.5.14 • Jakarta Annotations updated to 2.1.1 • Jakarta Messaging API updated to 3.1.0 • Jakarta RESTful Web Services updated to 4.0.0 • Jakarta Servlet API updated to 6.0.0 • Jakarta Websocket API updated to 2.1.1 • Jakarta XML Binding (JAXB) updated to 3.0.2 • RSyntaxTextArea updated to 3.3.4 • Simple Logging Facade for Java updated to 2.0.9 • SnakeYAML updated to 2.2 • Spring Framework updated to 6.1.2 • Swagger Annotations updated to 1.6.11
TSS-32777	14.0.0	<ul style="list-style-type: none"> • Angular updated to 16.2.4 • autoprefixer updated to 10.4.15 • @ng-idle/core updated to 13.0.0 • ngx-toastr updated to 17.0.2 • tslib updated to 2.6.2 • worker-timers updated to 7.0.75 • zone.js updated to 0.13.1
TSS-32231	14.0.0	<ul style="list-style-type: none"> • HttpComponents HttpClient version 5.2.1 added • HttpComponents HttpCore version 5.2 added <p>Note: AWS S3 integration still has a dependency on version 4.x.</p>

Closed Issues

The table lists closed issues in version 14.0 of Spotfire Server.

Key	Version	Summary
TSS-33328	14.0.2	The Spotfire client and the Spotfire Server represent certificate names in different ways. This different representation can cause problems when the certificates need to match exactly.
TSS-33451	14.0.2	In some cases, loading an information link with a large number of elements (for example, columns) takes a very long time, because they are loaded one by one for caching purposes.
TSS-33453	14.0.2	If you perform a search in the Library Browse page of the Spotfire Server web pages, and the search returns a count that exceeds the 100 search results threshold, then no message is displayed.
TSS-33512	14.0.2	When re-authentication is triggered due to an absolute session timeout or due to Kerberos credentials that are about to expire, the Web Player session closes.
TSS-33517	14.0.2	In environments with a <i>very</i> large number of services and/or many executions of scheduled updates or jobs, the number of "empty" database transactions is unnecessarily high, and so is the load on the database.
TSS-33539	14.0.2	If the encryption password is lost, the internal code trust Certificate Authority is reset.
TSS-33549	14.0.2	The SCIM response does not include the multi-valued <code>Groups</code> attribute.
TSS-33569	14.0.2	In the upgrade tool, the information about the option <i>Probe Microsoft SQL Server data sources</i> is misleading.
TSS-33640	14.0.2	Data sources are not being probed even when the probing check box is selected in the Summary step view of the upgrade process.
TSS-33642	14.0.2	Kerberos is not working as expected when delegating credentials from the Spotfire Server to the Web Player service.
TSS-33651	14.0.2	Issues with PostgreSQL non-public schema cause a failure in the database verifier.
TSS-33653	14.0.2	Loading library properties for a required library item takes too long time.
TSS-33699	14.0.2	In Webkit browsers (such as Chrome and Edge), the scrollbar displays top and bottom arrows everywhere where a table is displayed, even when the arrows are not required.
TSS-33702	14.0.2	The <i>Run on instance</i> field in the <i>Activity details</i> dialog for an Automation Services job shows the service ID instead of the instance ID.
TSS-33705	14.0.2	It is not possible to generate an update script for SQL Server data sources in Information Services, neither with the CLI command <code>sqlserver-datasource-update-script</code> nor while upgrading Spotfire Server, if there are data sources that have no connection properties set.

Key	Version	Summary
TSS-33099	14.0.1	<p>Generating a troubleshooting bundle takes a long time when a large amount of rows are returned from the user directory, specifically when using Oracle as the database. With this fix, Spotfire Server database queries now use a fetch size of 1024 to improve performance.</p> <p>This value can be changed by setting the jdbc connection property <code>spotfire.pooling.data.source.fetch-size</code> to another value. Specify the value '0' to use the driver default, in, for example, the <code>bootstrap</code> command.</p>
TSS-33156	14.0.1	Certificates with a DN (distinguished name) attribute containing a DC (domain component) cannot be trusted.
TSS-33183	14.0.1	In certain scenarios, a bookmark can display required items that no longer exist in the library. If a client queries those items and none is found, an error is returned to the client.
TSS-33189	14.0.1	The documentation of the SCIM API incorrectly shows an uppercase V (for "version") in path examples for the SCIM API.
TSS-33239	14.0.1	When Information Services is run as an external process (the default), and one or more (online) Spotfire Server nodes have IPv6 addresses configured, the Spotfire Server fails to start.
TSS-33240	14.0.1	If the initialization of the Apache Ignite fails during startup, Spotfire Server can record an error showing that an attempt to unlock a lock that is not locked has failed.
TSS-33247	14.0.1	Upgrading from a version before Spotfire Server version 12.0, using a Microsoft SQL Server database that has, at some point, been restored from a backup, can leave certain foreign key constraints in the database that should have been removed. These unwanted constraints prevent the server from starting, with an error message about "Unexpected constraint for table" in the file <code>server.log</code> .
TSS-33277	14.0.1	In the help topic about using an identity provider with Information Services, a configuration example is missing a closing tag.
TSS-33282	14.0.1	You cannot upload Spotfire mods through the Library REST API.
TSS-32332	14.0.0	When running the upgrade tool on Windows as an administrator, the <code>upgrade-issues.html</code> file is not created as expected.
TSS-32515	14.0.0	You cannot remove an item as a favorite using the context menu in the Favorites view of the library.
TSS-32632	14.0.0	The help for the command-line command <code>migrate-db</code> does not contain information regarding changes to server trust defaults in connections with Microsoft JDBC drivers for SQL Server.
TSS-32633	14.0.0	When creating a Spotfire Server database for Oracle using the <code>create-db</code> command, temp space and tablespace are created as expected but there are additional dots in the data file names: <code>..DBF</code> instead of <code>.DBF</code> .
TSS-32634	14.0.0	In the help file for configuring Spotfire Server for cross-domain identity management (SCIM), the base URL for the SCIM APIs and the example URL are incorrect: they do not include <code>/rest/</code> in the path.

Key	Version	Summary
TSS-32637	14.0.0	The help for migrating an Oracle database does not include information about downloading the new <code>.jar</code> file and putting the file in the <code>custom-ext</code> folder.
TSS-32639	14.0.0	In Scheduling & Routing, the Rules in the Schedule column are displayed in an unexpected order, both for days and for times of day.
TSS-32642	14.0.0	In the CLI reference topic <code>create-actionlogdb</code> , the example section "Create Spotfire database schema with Azure" is displayed twice.
TSS-32671	14.0.0	Multiple entries of 'Removed at <code><date time year></code> ' are added to the names of data sources in the logs, when the data sources are idle due to the configuration of <code>information-services.data-sources.max-idle-time-minutes</code> .
TSS-32711	14.0.0	Embedding Spotfire version 12.0 or later using the JavaScript API results in higher request latency.
TSS-32745	14.0.0	The login timeout for Information Services data sources is always 10 seconds, even when you specify a different login timeout with a connection property in the data source template.
TSS-32795	14.0.0	An exception occurs while saving a file in the Spotfire library using the public APIs for Multipart file upload.
TSS-32832	14.0.0	References between library items (such as information links and data sources) are not updated properly when items are being copied.
TSS-32873	14.0.0	The help topic for the command-line command <code>delete-library-versions</code> shows the option <code>--search-query</code> default value surrounded by single quotation marks. This query requires double quotation marks.
TSS-32878	14.0.0	When Microsoft SQL Server is used as the Spotfire database, the generated SQL for library searches has the wrong syntax when searching for the following: <ol style="list-style-type: none"> users with a domain using exact match As a consequence of this, analysis states for the users on the Web Player cannot be retrieved.
TSS-32880	14.0.0	On the <i>Monitoring & Diagnostics, Instance</i> page, in the <i>Information</i> table, sorting the data on the <i>Total data table cells</i> or <i>Total document node count</i> columns yields incorrect results.
TSS-32881	14.0.0	If an analysis has special characters in its path, and the administrator closed the analysis from Monitoring & Diagnostics, the user is not directed to the correct ("Closed Analysis") page.
TSS-32909	14.0.0	User action log events for the category "scheduled_updates" actions "rule_schedule" and "schedule_change" do not contain the rule "libraryId" as <code>Id2</code> , as described in the documentation. (The category "scheduled_updates" action "adjust_ratio" now has "ruleId" as <code>Id1</code> where available.)

Key	Version	Summary
TSS-32935	14.0.0	If you use a post authentication filter, Spotfire also applies the filter for Information Services when you run it as its own subprocess. This is unnecessary, and causes issues if you have not added the filter . jar file to the directory <code>custom-ext-informationsservices</code> .
TSS-32943	14.0.0	If Information Services does not find a driver for the data source when the test connection is made, an exception is thrown.
TSS-32995	14.0.0	The documentation states that JDBC drivers for Information Services are automatically copied to the new extensions directory <code>custom-ext-informationsservices</code> when you upgrade from Spotfire versions earlier than 12.1.
TSS-33537	14.0.0	In the help topic for <code>config-external-information-services-process</code> , the default value for <code>--max-memory=value</code> is listed as 512M instead of 1024M.

Known Issues

The following are known issues in version 14.0 of Spotfire Server:

Key	Version	Summary
TSAS-1123	14.0.0	<p>Encrypting services' configuration files not supported on Linux</p> <p>You cannot encrypt configuration files for Automation Services and Web Player Services on Linux.</p> <p>Workaround: None</p>
TSS-23602	14.0.0	<p>A Spotfire Server restart affects jobs being executed by Automation Services</p> <p>In the Automation Services area of the administration interface, if an Automation Services job is in the <code>IN_PROGRESS</code> state, and all of the servers in the cluster stop running or are restarted, the job remains in the <code>IN_PROGRESS</code> state in the Activity view even after the servers are back online.</p> <p>Workaround: Right-click the activity, and then click Clear selected activity to clear the job activity from the Activity view.</p>
TSS-26972	14.0.0	<p>Java changes affect updating node manager from 10.9 to 10.10 or later</p> <p>Updating the node manager from Nodes & Services from a 10.9 or earlier release to a 10.10 release or later is not supported due to updated Java versions.</p> <p>Workaround: To update the node manager to version 10.10 or later, you must install it on each computer, and then run the node manager upgrade tool.</p>

Key	Version	Summary
TSS-29819	14.0.0	<p>Users authenticated through Kerberos with delegation require special handling for accessing certain services</p> <p>In the following situations, Spotfire users cannot view certain analysis files in the web client:</p> <ul style="list-style-type: none"> The user is authenticated using Kerberos with delegation. The user wants to view an analysis that accesses a TERR service node. <p>Workaround: Give Read permission for the private key of the Web Player Node certificate to users.</p> <p>Procedure:</p> <ol style="list-style-type: none"> On the computer running the Web Player node manager, open a command window as an administrator. Enter mmc. In the Console dialog box that opens, click File > Add/Remove > Snap-ins. In the Add or Remove Snap-ins dialog box, select Certificates, and then click Add. In the Certificates snap-in dialog box, select Computer account, and then click Next. In the Select Computer dialog box, click Finish. In the Add or Remove Snap-ins dialog box, click OK. In the Console Root window, click Certificates (Local Computer) to view the certificate stores for the computer. Go to Certificates (<i>Local Computer</i>) \ Personal \ Certificates, and then right-click the certificate that was issued by "TIBCO Spotfire Signing CA". Select All Tasks > Manage Private Keys. In the Permissions dialog box, under Group or user names, select a group that contains all Spotfire users that need to run analyses using the TERR service. Under Permissions for Name, select the Allow check box in the Read row, and then click OK. In the Spotfire administration interface or in the Windows Services dialog box, restart the Web Player node.
TSS-30350	14.0.0	<p>Very high display resolution affects ability to repair or uninstall Spotfire Server</p> <p>Repair or uninstallation of the Spotfire Server and/or the node manager does not work on computers with a high display resolution, such as 3840 x 2160 pixels. The repair/uninstall dialogs in the installers are not shown as expected and there is no way to proceed with the repair/uninstallation.</p> <p>Workaround: Temporarily switch to a lower display resolution, such as 1920 x 1080 pixels.</p>
TSS-30734	14.0.0	<p>Proxy server configuration</p> <p>When using a proxy server between the Spotfire Server and a Web Player or Automation Services service deployed on Linux, the services will use the operating system proxy configuration. Only the username and password for the proxy can be configured in the configuration files of the services.</p> <p>Workaround: None</p>

Key	Version	Summary
TSS-32020	14.0.0	<p>Exception during CDK upgrade</p> <p>You can see the error message "Database connection is not using a valid certificate" during a containerized Spotfire (CDK) upgrade. A nonvalid certificate causes the CDK upgrade to fail.</p> <p>Workaround: To upgrade the CDK, you must either trust the certificate or set the flag <code>encrypt=false</code> in the connection string.</p>
TSS-33260	14.0.0	<p>Wrong message sometimes shown when running create-db command</p> <p>When executing the <code>create-db</code> command, if the root folder argument is not provided, the user sees the message "<code>-root-folder</code>" instead of "<code>-oracle-rootfolder</code>".</p>

Migration and Compatibility

The documentation contains detailed instructions for migrating from a previous release.

Spotfire Server

See "Upgrading Spotfire" in the [Spotfire Server and Environment - Installation and Administration help](#).

Important: Upgrading from versions earlier than Spotfire 12.3

In Spotfire version 12.3, the included Microsoft JDBC Driver for SQL Server was upgraded to a version with important changes to the default settings for encryption. If you upgrade Spotfire from a version earlier than 12.3, and you use the Microsoft JDBC Driver for SQL Server in your environment (to connect to the Spotfire database, the action logging database, Information Services data sources, or the default join database), before you upgrade Spotfire, read the following topic: [Upgrading to 12.3 and later: Fixing Microsoft SQL Server JDBC driver-related issues](#)

Important: Applying version-specific hotfixes.

As of Spotfire Server version 10.3.0, server hotfixes can be applied only on the specific service pack version that they are created for. For example: If you currently have version 10.3.1, you can apply server hotfixes only for the 10.3.1 version, such as 10.3.1 HF-001, 10.3.1 HF-002, and so on. If you want a hotfix of a different service pack level, such as 10.3.2 HF-001, you must first make sure to upgrade to that service pack (10.3.2) before applying the hotfix.

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 Automation Services

Version 14.0 of Spotfire Automation Services should be installed for compatibility with version 14.0 of Spotfire.

For instructions on how to upgrade to version 14.0 Spotfire Automation Services, see "Updating Services" in the *Spotfire Server and Environment - Installation and Administration* help.

Spotfire Qualification

Version 14.0 of Spotfire Qualification should be installed for compatibility with version 14.0 of Spotfire.

For instructions on how to upgrade to version 14.0 of Spotfire Qualification, see the [Spotfire Qualification - Installation Guide](#).

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, TIBCO, Enterprise Message Service, and Hawk 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