TIBCO Spotfire® Service for Python Release Notes

Version 1.3.0 - LTS

June 2021

Contents

Release Notes

Visualizations that are created in TIBCO Spotfire® Analyst that take advantage of Python scripts are available for users on TIBCO Spotfire® Web Player through TIBCO Spotfire® Service for Python version 1.3.0.

These release notes cover new features, changes, closed issues, and known issues for this release of Spotfire® Service for Python.

Spotfire Service for Python is licensed under the product TIBCO Spotfire® Statistics Services. Although you must have the appropriate Spotfire® Statistics Services license, you do not need to install the Spotfire Statistics Services product itself to install and run Spotfire Service for Python in your TIBCO Spotfire Server deployment.

New Features

TIBCO Spotfire® Service for Python version 1.3.0 contains the following new features.

Custom repository setting for Python packages

The Spotfire administrator can now set a custom Python package repository for use with the Spotfire Analyst Python Tools feature. To specify a custom repository for data function authors, from the Spotfire Administration Manager Preferences dialog box, set **DataFunctions** > **DataFunctionPreferences** > **PythonPackageRepositoryIndexURL**.

Automatic proxy detection

Python Tools Package Management now attempts to detect system proxy settings automatically and uses them if they are available if available when searching for, or installing, Python packages. Additional custom configuration options have been added to the Spotfire Administration Manager.

Changes in Functionality

TIBCO Spotfire® Service for Python version 1.3.0 contains the following changes in functionality.

The Spotfire package available for download on PyPI

The Spotfire package is now available on PyPI. You can download the 'spotfire' package by using the standard pip command. This change makes creating packages for distribution simpler. If you are using your own Python interpreter, you can simply install the 'spotfire' package using pip instead of extracting the wheel from the distribution and installing it.

Python interpreter updated

The Python interpreter included in the Spotfire Service for Python has been updated to version 3.8.10.

Updated Python packages

The packages included with this version of Spotfire Service for Python have been updated. For more information, see the Included Packages topic in the documentation.

Deprecated and Removed Features

TIBCO Spotfire® Service for Python version 1.3.0 contains no deprecated or removed features.

Migration and Compatibility

TIBCO Spotfire® Service for Python version 1.3.0 contains no migration or compatibility issues.

Closed Issues

TIBCO Spotfire® Service for Python version 1.3.0 contains the following closed issues.

Key	Description
PYSRV-282	In some cases when the Python engine stops responding, full Java core dump files are created in the temp directory, potentially filling the disk. With this release, by default, when the JVM stops responding, it does not write full core dumps. If necessary, the core dumps can be enabled by adding the following property setting to your `custom.properties: disable.java.core.dump: FALSE`.

Known Issues

TIBCO Spotfire® Service for Python version 1.3.0 contains the following known issues.

Key	Description
PYSRV-80	**Plot created with pyplot persists between data functions** A plot created in a data function using the function pyplot from matplotlib can persist between data functions unless the plot is explicitly cleared. **Workaround**: If the buffer retains the plot, you can clear it explicitly by including the command `plt.clf()` in your data function.
PYSRV-188	**SPK builder filters out provided packages** Because of potential conflicts with pre-installed packages, the SPK builder now filters out the packages provided with the Python interpreter in your installation, and the "brand" written to the `requirements.txt` no longer lists these packages or their versions. This filtering can result in package compatibility issues in cases where your custom SPK contains Python packages with a strict dependency on a different release version of any of the filtered packages. **Workaround**: None. For more information about the included packages, see the Included Packages topic in the documentation.
PYSRV-223	**numpy version 1.19.4 has severe incompatibilities with certain versions of Windows** The Python package numpy version 1.19.4 has known incompatibilities when it is run on certain more recent versions of Windows 10. These compatibilities can cause Python to fail when it is used with Spotfire. Spotfire does not include this version of numpy. **Workaround**: If you build custom packages SPK on Windows, ensure the SPK does not include numpy version 1.19.4.
PYSRV-280	**Non-ASCII characters in TEMP path cause an error in the Python package builder** When you build an SPK of Python packages for distribution to Analyst clients on a Windows computer where the TEMP directory's path contains any non-ASCII characters, then the SPK build fails with the error `ValueError: FCI error 1`. This error is due to a defect in the Python interpreter. **Workaround**: Before building the SPK, set the value of the TEMP environment variable to a path containing only ASCII characters (for example, `SET TEMP=C:\temp`).

Key	Description
| PYSRV | **Error message "Bad Request (400) - Unable to parse form content"**<br><br>If you see this error, then the data being uploaded to the service is too large.<br><br>When a Spotfire data function is run, it sends the relevant data from Spotfire to Spotfire Service for Python for processing. Spotfire Service for Python 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, Spotfire Service for Python returns the following error:<br><br>```
Error from Remote Service: Bad Request (400) -
Unable to parse form content

  at Spotfire.Dxp.Data.DataFunctions.Executors.RemoteServiceClient.
    RunFunction(DataFunctionInvocation invocation)
  at Spotfire.Dxp.Data.DataFunctions.Executors.SPlusFunctionExecutor.
    <ExecuteFunction>d__11.MoveNext()
  at Spotfire.Dxp.Data.DataFunctions.DataFunctionExecutorService.
    <ExecuteFunction>d__8.MoveNext()
```<br><br>**Workaround**: An administrator can change this upload limit if needed by creating a custom configuration. See the topic "File size upload limit" in the *TIBCO Spotfire® Service for Python Installation and Administration* for more information.<br><br>If users see this error message, consider creating a custom configuration that increases the limits for both of the following properties:<br><br>• `spring.servlet.multipart.max-file-size`: The total file size for upload cannot exceed the value for this setting.<br><br>• `spring.servlet.multipart.max-request-size`: The total request size for a multipart file upload cannot exceed the value for this setting.<br><br>> 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 Spotfire Service for Python node has. When the Java Heap Size is exceeded, the following error message is displayed.<br>> ```
> Error from Remote Service: Internal Server Error (500)
> - java.lang.OutOfMemoryError: Java heap space
> ``` |

Documentation and support services

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

How to Access TIBCO Documentation

Documentation for 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.

TIBCO Spotfire Documentation

The documentation for all Spotfire products is available on the TIBCO Spotfire® Documentation page. Links on this page take 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 TIBCO 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://docs.tibco.com/pub/spotfire/general/LTS/spotfire_LTS_releases.htm.

How to Contact TIBCO Support

Get an overview of TIBCO Support. You can contact TIBCO Support in the following ways:

- For accessing the Support Knowledge Base and getting personalized content about products you are interested in, visit the TIBCO Support portal at https://support.tibco.com.
- For creating a Support case, you must have a valid maintenance or support contract with TIBCO. You also need a user name and password to log in to https://support.tibco.com. 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 http://spotfi.re/sr.

How to Join TIBCO Community

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO 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 TIBCO products. In addition, users can submit and vote on feature requests from within the TIBCO Ideas Portal. For a free registration, go to https://community.tibco.com.

For quick access to TIBCO Spotfire content, see https://community.tibco.com/products/spotfire.

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