Analytics Explorer 2023.1

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S&P Global

Commodity Insights

Analytics Explorer 2023.1

October 19, 2023

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Overview

For installation and setup instructions see the online help.

For version compatibility between Analytics Explorer, Spotfire, Harmony, and Kingdom see <u>Version Compatibility</u> For a description of new features and functionality, see <u>What's New in Analytics Explorer 2023.1 (October 10, 2023)</u>.

Questions

If you have any questions, Contact Us or call Commodity Insights Client Services at one of the regions below:

Region	Phone
North and South America	+1 800 447-2273 +1 303 858-6187 (Outside US and Canada)
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Europe, Middle East, and Africa	+44 1344 328 300
Asia Pacific	+604 291 3600

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Analytics Explorer

Analytics Explorer is a state-of-the-art data science platform that integrates S&P Global analytics ready data with client proprietary data from S&P Global software and other sources. Analytics Explorer enables better collaboration across disciplines, in the same environment all asset team members can analyze data and execute advance computations and machine learning algorithms optimized to solve E&P challenges.

Analytics Explorer is built upon three key foundations:

- An internal and external network of research teams
- Vast data stores
- Proprietary machine learning algorithms

What's New in Analytics Explorer 2023.1 (October 24, 2023)

This release focuses on improving the journey through Machine Learning by updating key parts of the workflow to improve the user experience. See the What's New document for this release.

K-fold Cross Validation

Validating the accuracy and potential error of your model is a critical step in the journey to trusting the algorithm. Cross testing your data helps guide you to understand the stability of your input data and whether it is usable in a prediction down the road.

Analytics Explorer produces a dashboard of K-fold results at the completion of the process for you to analyze how the data performs. Key visuals are made to guide you to understanding how your data behaves when split into K number of testing groups.

Auto Machine Learning

Selecting the right algorithm for your prediction and configuring the hyperparameters of that algorithm are critical to ensuring the best model is built. The process of making that selection can be tedious, time-consuming, and prone to user error. This release automates the testing and comparison of all available prediction algorithms in Analytics Explorer and shows you which algorithm performs the best on your data, and what hyperparameter values make the most accurate model.

Auto Imputation

Data rarely, if ever, comes complete. There will be samples that are missing values that you want to fill in. The latest imputation technique identifies where you have missing values in your data set, and uses machine learning to impute those missing values. Our approach maintains the original data's distribution as a constraint so as not to fill missing values with unrealistic numbers.

Usability improvements for Machine learning Generation

Deploying a well-trained machine learning model on new data is the final stage of the ML journey. Enhancing this experience to allow for better scenario testing enables you to fully unlock the potential of the model you have created. These enhancements include features such as scroll bars with min/max values from the input data to keep your deployment within the range of the data used to train the model. Also, finally run a model on all constants and build various well designs to compare the incremental impact of increasing/decreasing certain attributes.



Related topics

Upgrading your version of Analytics Explorer
Analytics Explorer Functionality
Version Compatibility

Upgrading your version of Analytics Explorer

Before installing the latest version of Analytics Explorer you must first uninstall the current version. And depending on your Spotfire version, the upgrade process might be different.

For Spotfire Desktop version:

 Please uninstall the previous version of Analytics Explorer on each machine from the control panel and then install the latest version of Analytics Explorer

For Spotfire Analyst

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- In the Analyst Server, please remove the previous SPK files and then re-upload and deploy the latest SPK files available for Analytics Explorer
- At this time, it is not necessary to uninstall the local instance of Analytics Explorer on each end-user's machine.

Also note that if you are also upgrading your version of Spotfire, you must:

- 1. Uninstall the current version of Spotfire
- 2. Install the new version of SpotfireDeploying a well-trained machine learning model on new data is the final stage of the ML journey. Enhancing this experience to allow for better scenario testing enables you to fully unlock the potential of the model you have created. These enhancements include features such as scroll bars with min/max values from the input data to keep your deployment within the range of the data used to train the model. Also, finally run a model on all constants and build various well designs to compare the incremental impact of increasing/decreasing certain attributes
- THEN install Analytics Explorer. The version of Spotfire that you are using must be installed first.

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Version Compatibility

The following table outlines the version compatibility between Analytics Explorer, Spotfire, Harmony, and Kingdom. Note that TIBCO only allows installation of Analyst packages to their Enterprise Cloud subscription. TIBCO does not allow installation of packages in their Basic Cloud subscription:

Analytics Explorer	Spotfire	Harmony	Kingdom
AE 2023.1	10.10 to 12.5*	2021.2 and later	2022 and later
AE 2023	10.10 to 12.0*	2021.2 and later	2022 and later
AE 2022.2	10.10 to 12.0	2021.1 and later	2022 and later
AE 2022.1	10.10 to 11.7	2021.1 and later	2020 HF6 and later
AE 2022	10.10 to 11.5	2021.1 and later	2020 HF6 and later
AE 7.0	7.12 - 11.3	2021.1 and later	2020 and later

^{*}Spotfire 12.0 does not allow the push of data from Harmony into Spotfire. Pulling data from Harmony into Spotfire 12.0 is still available.

^{*}Spotfire 12.5 does not allow the push of data from Kingdom into Spotfire. Pulling data from Kingdom into Spotfire 12.5 is still available.

Note	TIBCO issues periodic security advisories with their releases. For additional information, see
	TIBCO Security Advisories.