CUSTOMER

SAP BusinessObjects Predictive Analytics 3.1
2017-10-26

Presentation of SAP BusinessObjects Predictive Analytics

Content

1 SAP BusinessObjects Predictive Analytics Overview

SAP BusinessObjects Predictive Analytics is a data mining and predictive modeling solution that enables you to discover hidden insights and relationships in your data and to build predictive models from which you can make predictions about future events.

Automated Analytics includes the following modules:

- Data Manager is used to facilitate the preparation of the data to be used in the analytics project.
- Modeler enables the analyst to create in a homogenous and easy-handling workflow models such as classification, regression, clustering, time series, and association rules. Models can be exported in different formats so that you can easily apply them in your production environment.
- Social extracts and uses implicit structural relational information stored in different kinds of data sets, improving the decision and prediction capacities of the models. It can represent data in the form of graphs that show how the different data are linked. Dedicated workflows help you create colocation and frequent path analyses based on geo-referenced data.
- Recommendation generates product recommendations for your customers based on a link analysis provided by Social.

Refer to Automated Analytics online help.

Expert Analytics enables you to do the following:

- Produce deep analysis of the data using different visualization techniques, such as scatter matrix charts, parallel coordinates, cluster charts, and decision trees.
- Perform various analyses and build models on the data, including time series forecasting, outlier detection, trend analysis, classification analysis, segmentation analysis, and affinity analysis.
- Use a range of predictive algorithms, the R open-source statistical analysis language, and in-memory data mining capabilities for handling large volume data analysis efficiently.

Refer to Expert Analytics online help

Predictive Factory leverages the business value of the predictive models, ensuring the link with in production databases that feed operational systems. This user-friendly interface allows users, from business analysts to data scientists, to operationalize and monitor the predictive models, in a secured and productive workflow, through:

- all in one management of predictive models associated to a business context: importation of existing models created in Automated Analytics or Expert Analytics; direct authoring of time series forecasting models; management of models versioning; monitoring of the models all along their lifecycle,
- precise scheduling of main industrialization tasks: application of the models on new data, retraining of the models to insure their performance level and accuracy, detection of the models deviations.

Refer to Predictive Factory online help

2 Deployment Configurations

SAP BusinessObjects Predictive Analytics can be deployed in the following configurations:

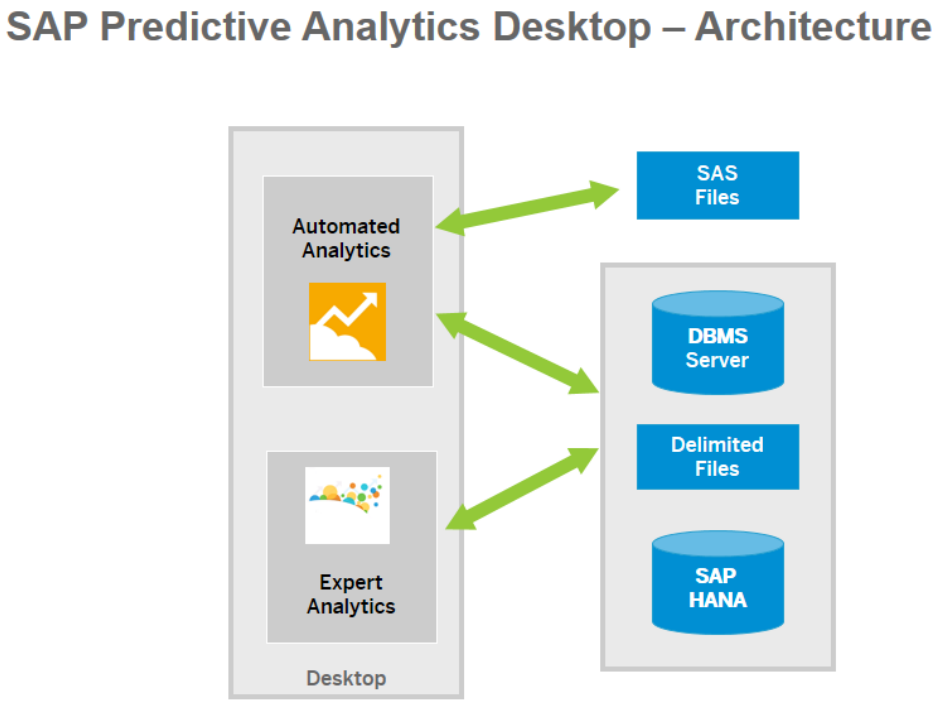
- The desktop edition is a two-tier standalone configuration. Both the Automated Analytics and Expert Analytics toolsets are available in the desktop edition.
- The enterprise edition is a three-tier client-server configuration with server authentication. The Automated Analytics toolset is available in the enterprise edition.With this configuration, you can install the following server-based components:
  - Java Web Start, a server-based client software deployment tool.
  - Predictive Factory for automating modeling tasks.

3 SAP BusinessObjects Predictive Analytics Desktop Edition

SAP BusinessObjects Predictive Analytics desktop edition is a stand-alone process with a two-tier architecture.

Automated Analytics can access data in flat files on the native file system, SAS, and SPSS files, or be configured to access Database Management Systems using ODBC.

Expert Analytics enables you to connect to various data sources such as flat files, relational databases, in-memory databases, and SAP BusinessObjects universes. In addition, you can operate on different volumes of data from a small matrix of data in a CSV file to a very large dataset in SAP HANA.



3.1 Installation Overview for the Desktop Edition

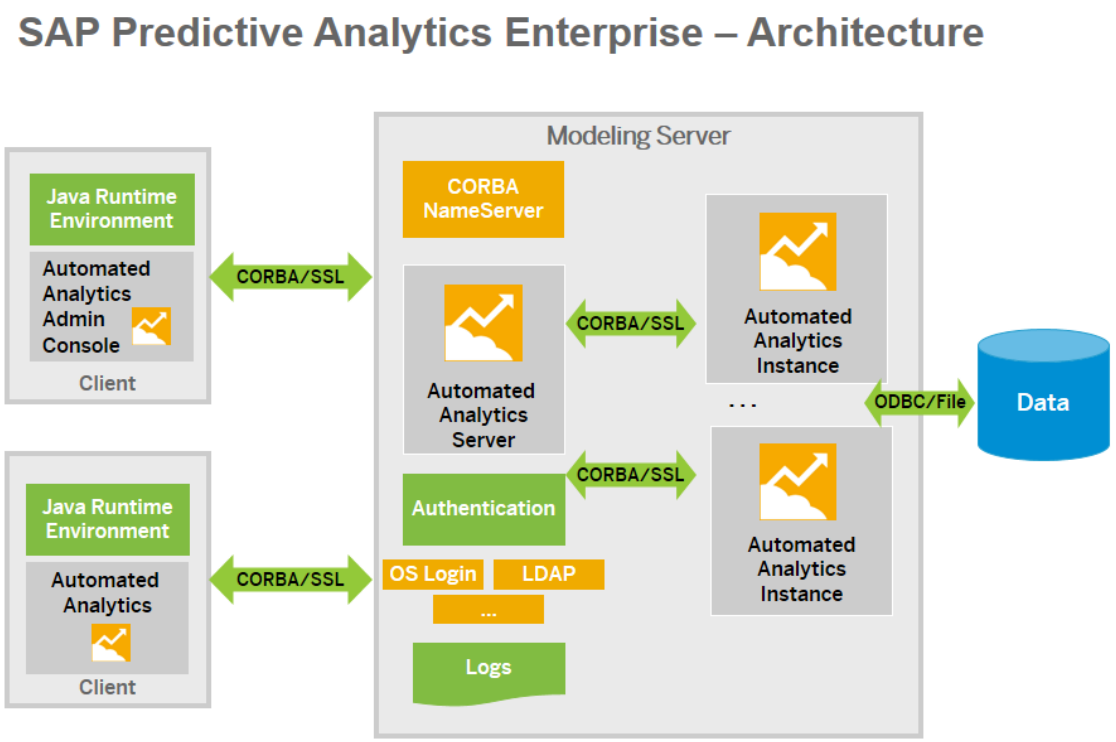
You install SAP BusinessObjects Predictive Analytics, desktop edition in Microsoft Windows environments. A Java Runtime Environment is provided and installed automatically. Refer to the *Desktop Installation Guide* .

If you want to use the Automated Analytics modeling tools to access data in your database management system, refer to the guide *Connecting your Database Management System on Windows*.

Documents can be found on the SAP Help Portal at http://help.sap.com/pa.

4 SAP BusinessObjects Predictive Analytics Enterprise Edition

The enterprise edition of SAP BusinessObjects Predictive Analytics is a three-tier client-server architecture. Communication between the Automated Analytics server and the data is identical to the desktop edition, using either ODBC or the native file system. For each client connection, a new Automated Analytics instance process is started on the server. Depending on the server configuration, the process can be started with a specific system account, or with the user account. Communication between the clients and server can be encrypted using SSL or TLS.



This configuration offers the following benefits:

- Users are authenticated because clients must log in before being able to use the modeling server. User accounts can be configured to implement security policy.
- User activity monitoring and logging is possible and activated by default.
- Database connectivity needs to be configured only once on the server. Operating system rights can be used to check access to the different resources (for example, modeling data).
- Resources are used more fully because each modeling session has a dedicated process. The process size limit applies only to a single user.

- Network administration is simplified because all network traffic from the client is directed to the server. This means only two TCP ports need to be opened for an Automated Analytics installation.

4.1 Installation Overview for the Enterprise Edition

The Automated Analytics server is installed in either a Microsoft Windows or UNIX environment. See the *Server Installation Guide* for Windows or UNIX.

If you want to use the Automated Analytics modeling server to access data in your database management system, see to the guide *Connecting your Database Management System* on Windows or UNIX.

You need to install an Automated Analytics client on each client machine. See the *Client Installation Guide*. You can alternatively use the Java Web Start technology to automatically deploy the client software on the client machines.

Documents can be found on the SAP Help Portal at http://help.sap.com/pa.

Related Information

Using the Java Web Start Server Component [page 8]

4.2 Using the Java Web Start Server Component

The Java Web Start technology is an additional server component that allows you to automatically deploy the client software on the client machines. The following is an overview of the installation procedure.

Install the Automated Analytics server on either a Windows or UNIX system. See the *Server Installation Guide* for Windows or UNIX.

If you want to use the Automated Analytics modeling server to access data in your database management system, see to the guide *Connecting your Database Management System* on Windows or UNIX.

Install and configure a Web server on the modeling server as described in the *Java Web Start Installation Guide* for Windows or UNIX.

Check that a Java Runtime Environment version 7 is installed on each client machine.

Documents can be found on the SAP Help Portal at http://help.sap.com/pa.

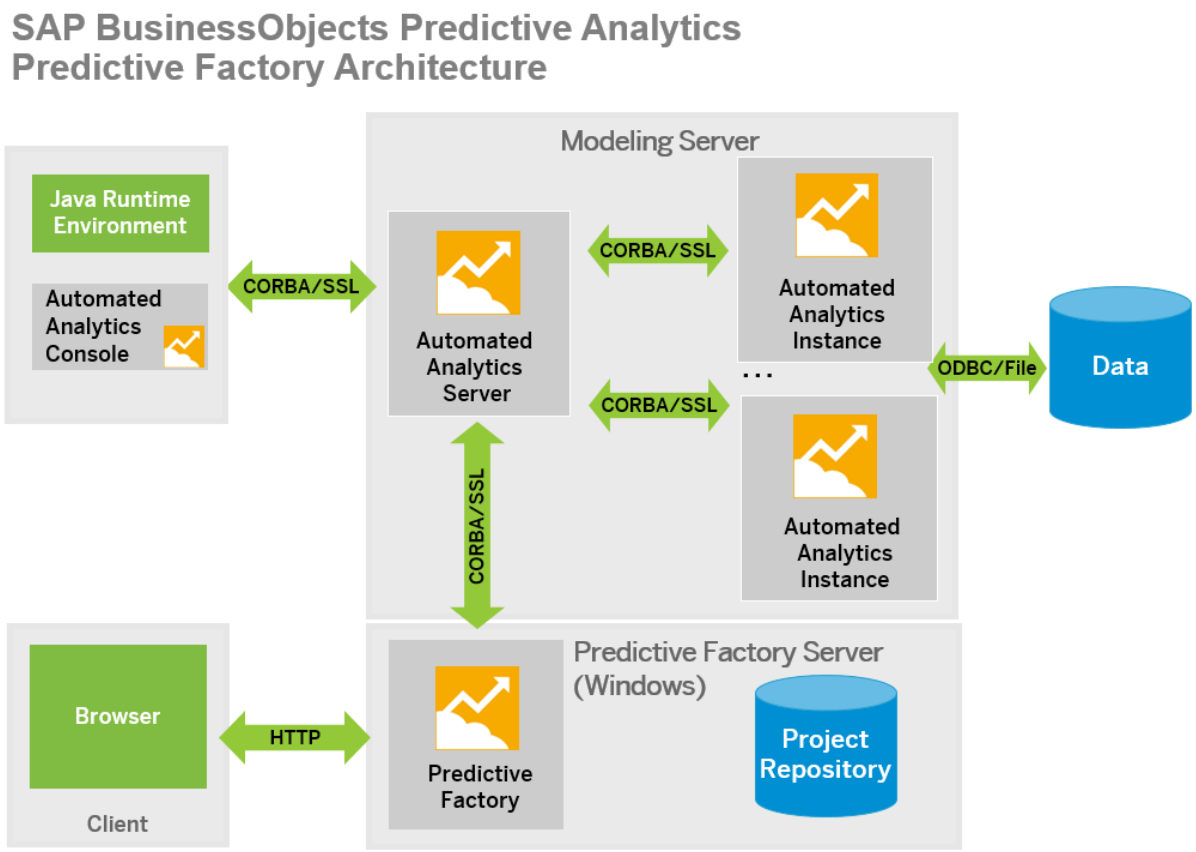
5 Predictive Factory

Installed as part of an SAP BusinessObjects Predictive Analytics client-server configuration, Predictive Factory is a thin-client, Web server-based application. Predictive Factory lets you automate the management of predictive models created in SAP BusinessObjects Predictive Analytics Modeler. All users can automate much of the predictive lifecycle such as retraining a model, applying a model to new data sets, and detecting model deviations.

Predictive Factory brings new advantages to massive model automation:

- Segmented time series model management lets you apply the same forecasting mechanism to multiple time series at once for different segments of your data set.
- A new, simplified user interface that adopts SAP's award-winning Fiori (HTML5) and includes integrated In-Application Assistance, guides you through workflows with context sensitive information on the fly to achieve your tasks.
- The same support for data sources as SAP BusinessObjects Predictive Analytics Modeler, including all types of SAP HANA Views.
- A one-step installation wizard that does the installation for you.

Predictive Factory is available only on Microsoft Windows, so if your modeling server is deployed on a Unix server, you need to set up a separate Windows sever.



5.1 Installation Overview for Predictive Factory

To install Predictive Factory, you must first install and configure an Automated Analytics server and clients.

You must install the Predictive Factory server on a Windows machine. See the *Predictive Factory Installation and Administration Guide* on the SAP Help Portal at http://help.sap.com/pa.

Important Disclaimers and Legal Information

Coding Samples

Any software coding and/or code lines / strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended to better explain and visualize the syntax and phrasing rules of certain coding. SAP does not warrant the correctness and completeness of the Code given herein, and SAP shall not be liable for errors or damages caused by the usage of the Code, unless damages were caused by SAP intentionally or by SAP's gross negligence.

Accessibility

The information contained in the SAP documentation represents SAP's current view of accessibility criteria as of the date of publication; it is in no way intended to be a binding guideline on how to ensure accessibility of software products. SAP in particular disclaims any liability in relation to this document. This disclaimer, however, does not apply in cases of willful misconduct or gross negligence of SAP. Furthermore, this document does not result in any direct or indirect contractual obligations of SAP.

Gender-Neutral Language

As far as possible, SAP documentation is gender neutral. Depending on the context, the reader is addressed directly with "you", or a gender-neutral noun (such as "sales person" or "working days") is used. If when referring to members of both sexes, however, the third-person singular cannot be avoided or a gender-neutral noun does not exist, SAP reserves the right to use the masculine form of the noun and pronoun. This is to ensure that the documentation remains comprehensible.

Internet Hyperlinks

The SAP documentation may contain hyperlinks to the Internet. These hyperlinks are intended to serve as a hint about where to find related information. SAP does not warrant the availability and correctness of this related information or the ability of this information to serve a particular purpose. SAP shall not be liable for any damages caused by the use of related information unless damages have been caused by SAP's gross negligence or willful misconduct. All links are categorized for transparency (see: http://help.sap.com/disclaimer).

go.sap.com/registration/contact.html