

SAP Business One, version for SAP HANA: Analytic Content and Applications



Welcome to the topic on the analytic content and applications that are made possible in SAP Business One version by running on SAP HANA.

Objectives



At the end of this course, you will be able to:

- Describe the reporting and analytic features available in SAP Business One, version for SAP HANA.

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Agenda

- Extreme Apps
- Enterprise Search
- Dashboards and Pervasive Analytics
- Interactive Analysis and Crystal Reports

In this unit, we discuss some of the features available in SAP Business One because it is running on SAP HANA. These include the extreme apps, enterprise search, dashboards and the ability to create quickly using pervasive analytics, interactive analysis and prebuilt Crystal Reports.



Extreme Apps



Now we will look at two of the extreme apps available when running SAP Business One on SAP HANA: Cash Flow Forecasting and Advanced Availability to Promise.

Cash Flow Forecast

SAP Business One, version for SAP HANA dramatically improves forecasting of a company's incoming and outgoing cash flows.

- Forecasting with cash certainty levels
- Dynamic aggregation of all relevant business activities made possible by the speed of SAP HANA
- Real-time accuracy of transactional data
- Drill-down to transaction details



The extreme app for cash flow dramatically improves forecasting of a company's incoming and outgoing cash flows. This is a critical need for small businesses where the quality of cash flow forecasting can mean the difference between staying in business and closing.

Features of the Cash Flow Forecast include:

- Forecasting with cash certainty level
- Dynamic aggregation of all relevant business activities made possible by the speed of SAP HANA
- Real time accuracy of transactional data, and
- Drill-down to transaction details

Forecast Details

- Incoming
- Outgoing
- Net Cash
- Accumulation for each period
- Change forecast by dragging start and end dates
- Drill down to documents in the forecast



The graphical cash flow overview for a company shows the incoming, outgoing, and net cash amount for a selected period. The chart shows the accumulation for each period. The blue bars show incoming cash flow, the green bars show the outgoing flow, and the yellow line charts the net cash flow, the difference between the incoming and outgoing flows.

A time bar in the upper area allows you to specify a time range or date anywhere from the current date to two years out. You can adjust the dates to view up to a year's worth of forecast. If you choose a shorter period, you can view the accumulated data in smaller increments such as weeks or days. You can drag start and end dates to specify your required dates. The required time period shows as shaded. You also have the option to drag the shaded section to keep the same length of time while changing start and end dates.

The *Consider Business Objects* area contains information on the documents falling within the dates of the forecast. You can drill down from this area to a list of documents and into the document itself.

Advanced ATP

Delivery Schedule Details

Item	A00001	Item Description	IBM Infoprint 1312
Warehouse	01	Warehouse Description	General Warehouse
Open Qty (Inv. UoM)	10.000	Inventory UoM	
Req. Delivery Date	11/27/2013	<input type="checkbox"/> Fixed Qty/Date	
Delivery Strategy			

#	Delivery Date	Qty (Inv. UoM)
1	11/27/2013	5.000
2	11/28/2013	4.000
3	11/30/2013	1.000
4		0.000
		10.000

Buttons: Confirm, Continue, ATP Quantities, Check Availability



- ❑ Supports delivery schedule details for different types of demand documents
- ❑ Automatically checks and confirms quantities for the delivery dates
- ❑ Allows rescheduling confirmed quantity for documents in case adjustments are needed

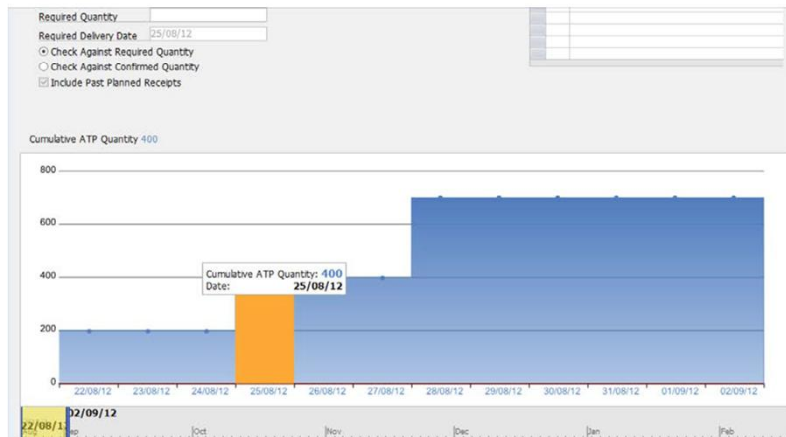
Availability-to-Promise (ATP) is a business function that matches sales enquiries with resource availability.

The Advanced ATP in SAP Business One, version for SAP HANA, greatly enhances ATP functionality. It supports delivery schedule details for different types of demand documents that have potential outflow. The automatic ATP check confirms quantity for the delivery dates and reserves the ATP information. It also allows rescheduling confirmed quantity for documents in case adjustments are needed.

The dynamic nature of Advanced ATP and Delivery Rescheduling leverages the speed and agility of the SAP HANA database for accessing transactional data.

ATP Check Process

- ❑ Input = Item + warehouse + required qty + required date
- ❑ Available = in stock + planned receipts – existing required/confirmed qty – temporary assigned quantity
- ❑ Output = ATP check result (different delivery strategy applied)



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Availability checking and confirmation of available quantity is automatically performed in sales orders and other demand documents.

The ATP Check looks at the item, warehouse, required quantity and required date to calculate the base quantity.

Availability is the sum of “in stock” quantities plus planned receipts minus existing required or confirmed quantities. The check takes into account temporarily assigned quantities currently being held by another user during their ATP check.

The output is the ATP check result.

The results may vary depending on the delivery strategy applied. Delivery strategies control whether an item is allowed multiple deliveries.

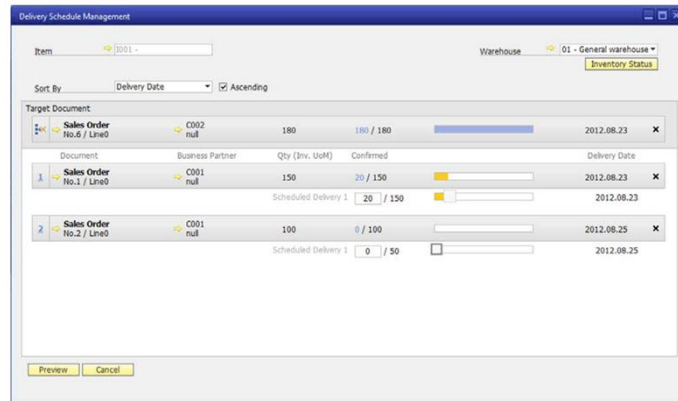
If there is insufficient quantity, the user is alerted with options for fulfilling demands. Schedule lines are created for the demand and quantities are confirmed.

In addition to the automatic check, you can check the inventory status of an item on demand.

Delivery Rescheduling

You can swap quantity between sales documents.

- ❑ You receive an urgent sales order from a customer for 180 items.
- ❑ You discover there is not enough quantity to fulfill this requirement.
- ❑ Your company decides to confirm this order with a sacrifice of other orders through rescheduling functionality.
- ❑ An authorized user can choose the sales order, drag it into the target document area, then pull quantity from other orders to fulfill the requirements.



The Delivery Rescheduling feature of Advanced ATP allows you to swap confirmed quantity between sales documents. Let us look at a business example of how it could be used:

- You receive an urgent sales order from an customer for 180 items.
- You discover there is not enough quantity to fulfill this requirement.
- Your company decides to confirm this order with a sacrifice of other orders through rescheduling functionality.
- An authorized user can choose the sales order, drag it into the target document area, then pull quantity from other orders to fulfill the requirements.

Demo – Extreme Apps

- Cash Flow Forecast
- Advanced ATP





Enterprise Search



Now we will take a look at the Enterprise Search.

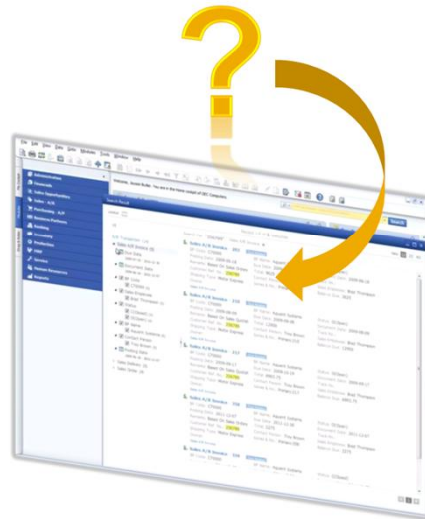
Enterprise Search

Enterprise search provides new ways to find information quickly to support operations and decision making.

You can search fields, such as descriptions or amounts, even remarks in the business objects stored in SAP Business One.

Business Object types include:

- ❑ Master Data
- ❑ Analytic Content, including Crystal Reports and dashboards
- ❑ Transactions



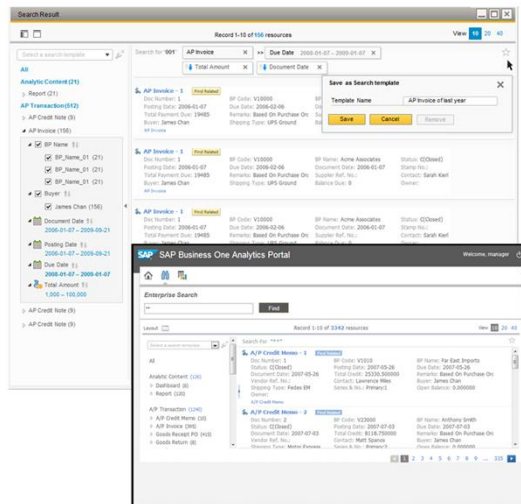
Enterprise search provides new ways to find information quickly to support operations and decision making.

You can search fields (such as Description, Amount, Remark, and so on) of the business objects in SAP Business One, version for SAP HANA that have been stored in the SAP HANA database server.

Enterprise search supports the following business object types:

- Master Data
- Analytic Content, including Crystal reports and dashboards based on the SAP HANA database
- Transactions, including: A/R Transactions, A/P Transactions, Inventory transactions, Service documents, Sales Opportunities, Production documents, and even User Defined Objects.

Enterprise Search Highlights



Functional Highlights

- Hierarchical search in all SAP Business One modules
- Full text search for all business object types
- Ability to narrow options per business object type
- Filtering and sorting options
- Link to SAP Business One forms
- Compliant with data ownership concept
- Search template allows you save previous searches
- Search available in the analytics portal

The enterprise search provides the ability to do a hierarchical search in all SAP Business One modules. You can do a full text search for all business object types. You can for example search by a document number. You have the ability to quickly and easy narrow down data you are viewing by using the options for business object types – such as choosing to view only open or closed documents or by narrowing the list by date range. You have options to filter by dates and to sort the results.

The enterprise search links to all SAP Business One forms. It is compliant with the SAP Business One data ownership concept so you can restrict who sees which data. There is easy navigation with a business object map. You can find related documents for the objects found in the search. It also provides enhancements to reporting and printing.

A search template allows you to save previous searches to use again later.

The enterprise search functionality is also available in the analytics portal.

Demo – Enterprise Search

The screenshot displays the SAP Enterprise Search interface. At the top, it shows 'Search for: 001' and 'Record 1-10 of 156 resources'. The search criteria are 'AP Invoice' and 'Due Date' (2008-01-07 - 2009-01-07). The left-hand navigation pane shows various filters: 'BP Name' (156), 'Posting Date' (1), 'Due Date' (1), and 'Total Amount' (1). The main results area shows a list of AP Invoices, each with a 'Print Header' button and a 'Save as Search Template' dialog box. The dialog box is open, showing a 'Template Name' field with the value 'AP Invoice of last year' and buttons for 'Save', 'Cancel', and 'Remove'.

Doc Number	Posting Date	Total Payment Due	Buyer	BP Code	Doc Date	BP Name	Status
1	2008-01-07	19485	James Chan	V10000	2008-02-06	Achse Associates	CO (Closed)
1	2008-01-07	19485	James Chan	V10000	2008-02-06	Achse Associates	CO (Closed)
1	2008-01-07	19485	James Chan	V10000	2008-02-06	Achse Associates	CO (Closed)
1	2008-01-07	19485	James Chan	V10000	2008-02-06	Achse Associates	CO (Closed)
1	2008-01-07	19485	James Chan	V10000	2008-02-06	Achse Associates	CO (Closed)



Dashboards and Pervasive Analytics



We will discuss the dashboards and pervasive analytics.

Pervasive (Embedded) Analytics – Dashboard Designer

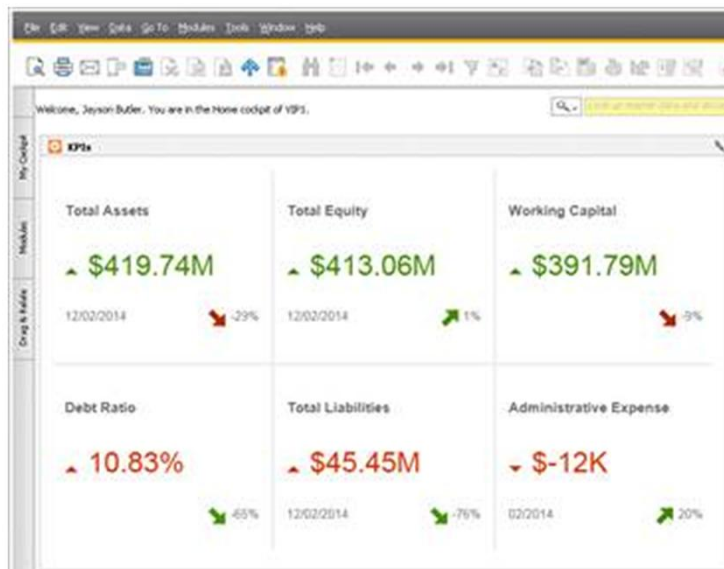
- ❑ Create dashboards for real time analytics to reflect transactional activity
- ❑ Design charts for queries defined in the Query Manager or for SAP HANA views
- ❑ Seamlessly embed charts into SAP Business One master data and documents
- ❑ Can be highly useful in environments filled with a “lot of action and dynamism”, such as the trading desk or call center



You can launch the dashboard designer in the Pervasive Analytics from the SAP Business One icon toolbar to design and generate dashboards of your own. Dashboards present an easy-to-understand visualization, such as a bar or pie chart, of transactional data from the SAP Business One, version for SAP HANA database. Depending on the dashboard, data is presented either as a time-specific static snapshot or as a refreshable visualization. SAP Business One, version for SAP HANA also provides pre-defined real-time dashboards.

Pervasive Analytics allows you to design dashboards and charts and then embed them in your master data and transaction windows. You can create real time analytics to reflect transactional activity, visualize customer query defined in the Query Manager, and seamlessly embed the charts into ERP operational context. Pervasive embedded analytics can be highly useful in dynamic environments such as the trading desk or call center.

Key Performance Indicators



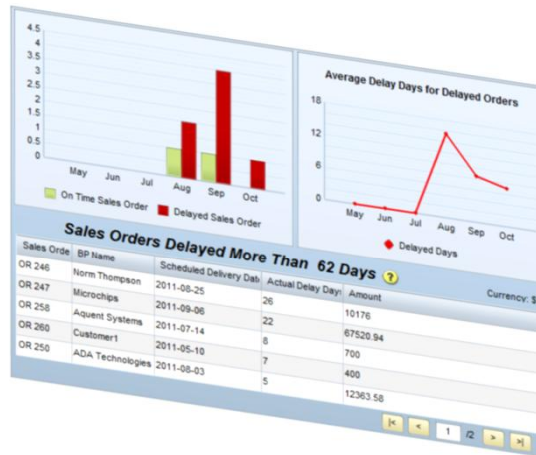
- Add KPIs to analytics developed in the pervasive analytics designer
- Use the KPIs in a cockpit to see the status of your business

You can add key performance indicators (KPIs) to the analytics you develop in the pervasive analytics designer. These KPIs can be added to a user's cockpit to see the status of a business in an easy-to-view way.

Prebuilt Dashboards

Examples:

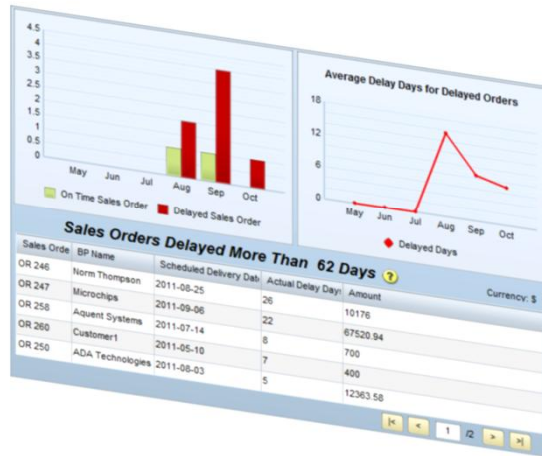
- Sales Revenue Analysis
- Delivery Analysis
- Service Call
- Purchase Quotations
- Sales Employee Performance
- Payment Collection Analysis
- Inventory Status



Prebuilt dashboards are supplied. Here are some examples of dashboards ready to add to your cockpit:

- Sales Revenue Analysis
- Delivery Analysis
- Service Call
- Purchase Quotations
- Sales Employee Performance
- Payment Collection Analysis
- Inventory Status

Demo – Delivered Dashboards in the Cockpit





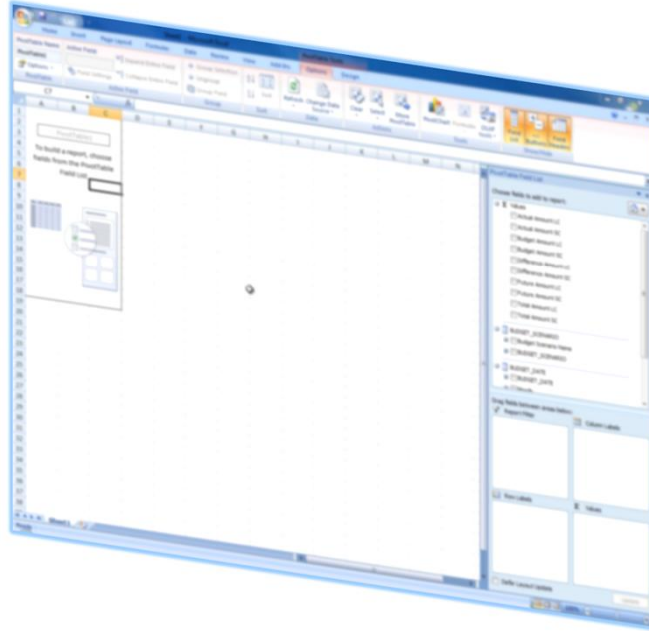
Interactive Analysis and Crystal Reports



Now let us look at Interactive Analysis and Crystal Reports built for semantic layer models.

Interactive Analysis

- Use SAP-delivered or customized semantic layers cubes to analyze transactional data in Microsoft Excel.
- Leverage users' comfort with MS Excel, by running ad hoc analyses on the data using Pivot Tables.



Interactive analysis allows you to use SAP-delivered and customized semantic layers cubes to analyze transactional data in Microsoft Excel.

You can leverage users' comfort with MS Excel, by running ad hoc analyses on the data using Pivot Tables. Users can quickly build reports in the familiar MS Excel environment. They can drag and drop measures and attributes to build reports interactively, choose columns and row labels and add filters to reports. When they make changes, results are calculated dynamically in SAP HANA's computational engines.

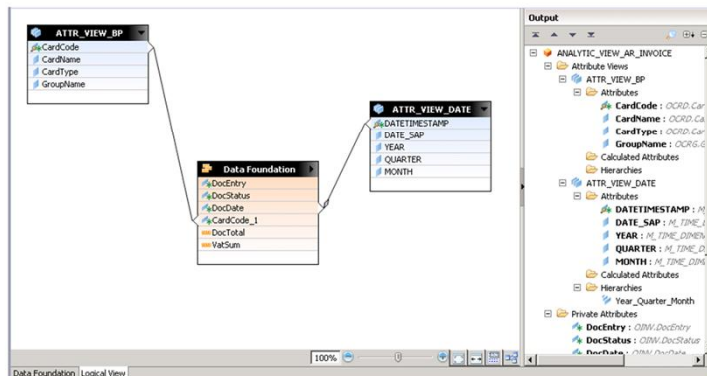
Semantic Layers

A semantic layer is a set of data and metadata retrieved from the database for fast analysis of data.

A semantic layer model contains:

- Numeric facts called measures
- Descriptive attributes in dimensions.

Structure allows for manipulating and analyzing data from multiple perspectives.



You can use pre-built and customized semantic layers to analyze transactional data in Microsoft Excel pivot tables. The semantic layers can also serve as a data source for dashboards and Crystal reports.

A semantic layer is a set of data and metadata retrieved from the database, which allows fast analysis of data.

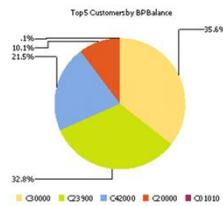
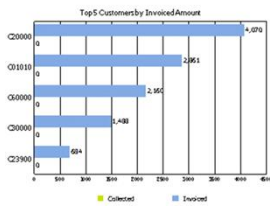
A semantic layer consists of numeric facts called measures, which are categorized by dimensions. Measures are measurable analytical elements that can be quantified and calculated. Dimensions are individual descriptive analytical elements that are not measurable. For example, a company might want to analyze sales opportunities by sales employee, by territory, and by month or quarter. The number of sales opportunities is a measure, and all methods of analyzing, including sales employee, territory, and month/quarter, are dimensions. Semantic layers are used to create multiple views of transactional data for analytical purposes.

The structure of these models allows manipulating and analyzing data from multiple perspectives.

Crystal Reports Content

Examples:

- Inventory Turnover Analysis
- Monthly Customer Status
- Customer Open Item List



Inventory Turnover Analysis

Period From: 01/01/2012 To: 12/31/2012
 Warehouse: 02,01,03,04
 Warehouse Code: 01
 Warehouse Name: General Warehouse
 Warehouse Group: Accessories, HP Printers, IBM Printers, Items, PI

Item Group	Item	UoM	Opening Inventory	Closing Inventory	Period Sales Qty	Turnover Rate	Max. Min.	Lead Time	Next Receipt	Last Receipt Date
Accessories	Memory Chip	N/A	259,000	259,000	0,000	N/A	**77.00	0	N/A	2011,07,07
HP Printers	HP Color Laser 345	N/A	222,000	221,000	1,000	84,729,000	**14.00	0	**79,421.00	2011,07,25
	HP Color Laser 344	EA	242,000	240,000	1,000	89,632,000	15,000	0	82,260,000	2011,07,25
	HP i300 Series Dtc	N/A	229,000	229,000	0,000	N/A	25,000	0	N/A	2011,07,07

You can generate sales and financial reports with the SAP Crystal Reports software on the SAP HANA database. All the SAP Business One reports that were available in Microsoft SQL have been migrated SAP HANA.

Convenient Access to Reporting

The screenshot shows the SAP Business One client interface. A menu item, likely 'Interactive Analysis', is circled in yellow. A large yellow arrow points from this menu item to a blue box on the right. The blue box contains the text 'Interactive Analysis' and a list of options: 'Cost Center Analysis', 'Cost Center Versus Financial Accounting', and '....'. The background shows a pivot table with columns for 'Sales Manager' and 'Grand Total'.

	Grand Total
1	279 439	279 439	279 439	279 439	279 439	279 439
2	80 438	80 438	80 438	80 438	80 438	80 438
3	75 517	75 517	75 517	75 517	75 517	75 517
4	519 793	519 793	519 793	519 793	519 793	519 793
Grand Total	706 146	600 207	579 398	1 800 351	340 451	2 802 844

Interactive analyses and Crystal reports which exploit the semantic layer are available on the menu within the SAP Business One client after the SAP HANA Installation and the activation in the SAP Business One client. For authorized users, it is one click on the menu to open the MS Excel pivot table or a Crystal Report.

Demo – Interactive Analysis and Crystal Reports

The image shows a SAP report titled 'Inventory Turnover Analysis' for 'DEC Computers'. The report is displayed in a window that also shows the Crystal Reports interface. The report data is as follows:

Warehouse Code	Item	UoM	Opening Inventory	Closing Inventory	Period	TurnoverRate	Min.	Lead Time	Rec. Receipt	Post	LastReceiptDate
Accessories	Memory Chip	N/A	259.000	259.000	0.000	N/A		77.00	0	N/A	2011.07.17
HPPrinters	HP Color Laser M45	N/A	232.000	232.000	1.000	64.729.000		14.00	0	179.422.0	2011.02.29
	HP Color Laser M4 4.00M	N/A	240.000	240.000	1.000	99.023.000		15.00	0	62.200.00	2011.02.29
	HP 100 Series Prt.	N/A	220.000	220.000	0.000	N/A		23.00	0	N/A	2011.07.17

Summary



Key points on the features available:

- SAP HANA allows you to forecast cash flow real time using cash certainty levels and displaying a dynamic aggregation of all relevant business activities and option for drilldown.
- Advanced ATP provides real time inventory transparency on daily basis & on-the-fly sales order delivery re-scheduling capability
- Enterprise Search provides the ability to do a text search in all SAP Business One modules. You have the option to narrow down results and navigate to related objects via a business object map.
- Prebuilt dashboards are available, however, you can create your own dashboards and embed pervasive analytics.
- Interactive reports based on SAP HANA cubes use MS Excel pivot tables for ad hoc analysis

Here are some key points on the features available in SAP Business One, version for SAP HANA:

- SAP HANA allows you to forecast cash flow real time using cash certainty levels and displaying a dynamic aggregation of all relevant business activities and option for drilldown.
- Advanced ATP provides real time inventory transparency on daily basis & on-the-fly sales order delivery re-scheduling capability
- Enterprise Search provides the ability to do a text search in all SAP Business One modules. You have the option to narrow down results and navigate to related objects via a business object map.
- Prebuilt dashboards are available, however, you can create your own dashboards and embed pervasive analytics.
- Interactive reports based on SAP HANA cubes use MS Excel pivot tables for ad hoc analysis

Thank you

This concludes the topic on Analytic
Content and Applications.

Thank you for your time.

This concludes the topic on the Analytic Content and Applications in SAP Business One version for SAP HANA. Thank you for your time.

We recommend you continue your learning by viewing the recorded demonstrations for this topic.

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