

SAP insights – up and running
Fully integrate, analyze, and visualize SAP data.

TECHNICAL DATA SHEET

SAP is the standard ERP solution in many companies, and it comes with restraints.

Facts about SAP

378.000+

customers in more
than 180 countries

91%

of Forbes Global 2000
are SAP customers

Heterogeneous system landscapes are the rule in most companies, and at least one SAP system is installed in almost every corporation. Unfortunately, many companies lack the ability to sensibly evaluate the wealth of distributed data.

However, integrating data from other systems and then creating reports and analyses across SAP tables is extremely challenging. This is especially true when SAP data needs to be combined with data from other sources, or when large amounts of data have to be processed. As a result, many SAP companies don't fuel their SAP data insights into their business processes what prevents them from gaining new insights.

Today, independence from SAP is a set goal of many companies. They no longer want to tie themselves to just one software provider – including SAP. Pentaho offers a cost-effective alternative to SAP's own analytics offering, which companies can use to independently evaluate their data.

Added-value when analyzing SAP data with Pentaho

The combination of SAP and Pentaho enables customers to gain valuable insights from their SAP data and create real business value:

- When managing data ingestion from internal and external data sources
 - Preparation and enrichment of SAP data
 - Data blending of SAP data
 - Storage of historical data in the data warehouse / lake
 - Automated, standardized processes
- To protect investments in SAP and drive cost reduction where appropriate
- To carry out cost-effective offloading scenarios
 - Reduction of licensing costs, e.g. HANA



Pentaho Data Integration and the Hitachi Data Connector for SAP. A great team at work.

This combination enables our sales teams to offer an easy-to-use user interface for processing SAP data with Pentaho Data Integration (PDI).

With the Hitachi Data Connector application scenarios and use cases – such as onboarding, blending or offloading of SAP data – can be implemented easily and cost-effectively.

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With their in-depth expertise in Pentaho, it-novum is one of the few global product development partners which is able to develop low-level plug-ins. Such as the Hitachi Data Connector for SAP ERP and Business Warehouse – currently the only Pentaho connector for SAP – or the connector extending Hitachi Vantara's video solution with Pentaho analytics.



Chuck Yarborough

Solutions Marketing and Management
Hitachi Vantara



Added **business** value for the customer

The Hitachi Data Connector for SAP protects investments that companies have already made in SAP components. I.e. these components remain usable: HANA Views & Tables, Bex Queries, DSO/ODS objects, ABAP reports, SAP queries and SAP extractors.

Advantages the connector provides:

- Simplified access to SAP sources
- Removal of roadblocks for blending SAP data with other corporate and device data
- Minimizing the effort required by data engineers to access and blend SAP data
- Increased productivity through the continued use of existing SAP-modules
- Reduction of manual tasks and activities
- Future-proof analytic investments across the enterprise

Added **technical** value for the customer

The Hitachi Data Connector SAP ERP & Business Warehouse is especially designed for SAP and uses BAPI, RFC and web services. It fulfills all standard-compliant tasks without causing higher internal effort.

Advantages the connector provides:

- Flexible and easy-to-use analysis of SAP data
- Reading all data from SAP modules
- Query of complex and nested SAP structures (such as cost center groups or structures/data only available at runtime of the SAP system)
- Access to BW data, using SAP Data Store Objects
- Support of Metadata Injection
- Cost-saving offload scenarios
- Data blending of SAP data
- Analytical workloads on Data Warehouse Layer (SAP Infocubes)
- High performance data transfer from SAP to Hadoop thanks to the integrated server mode

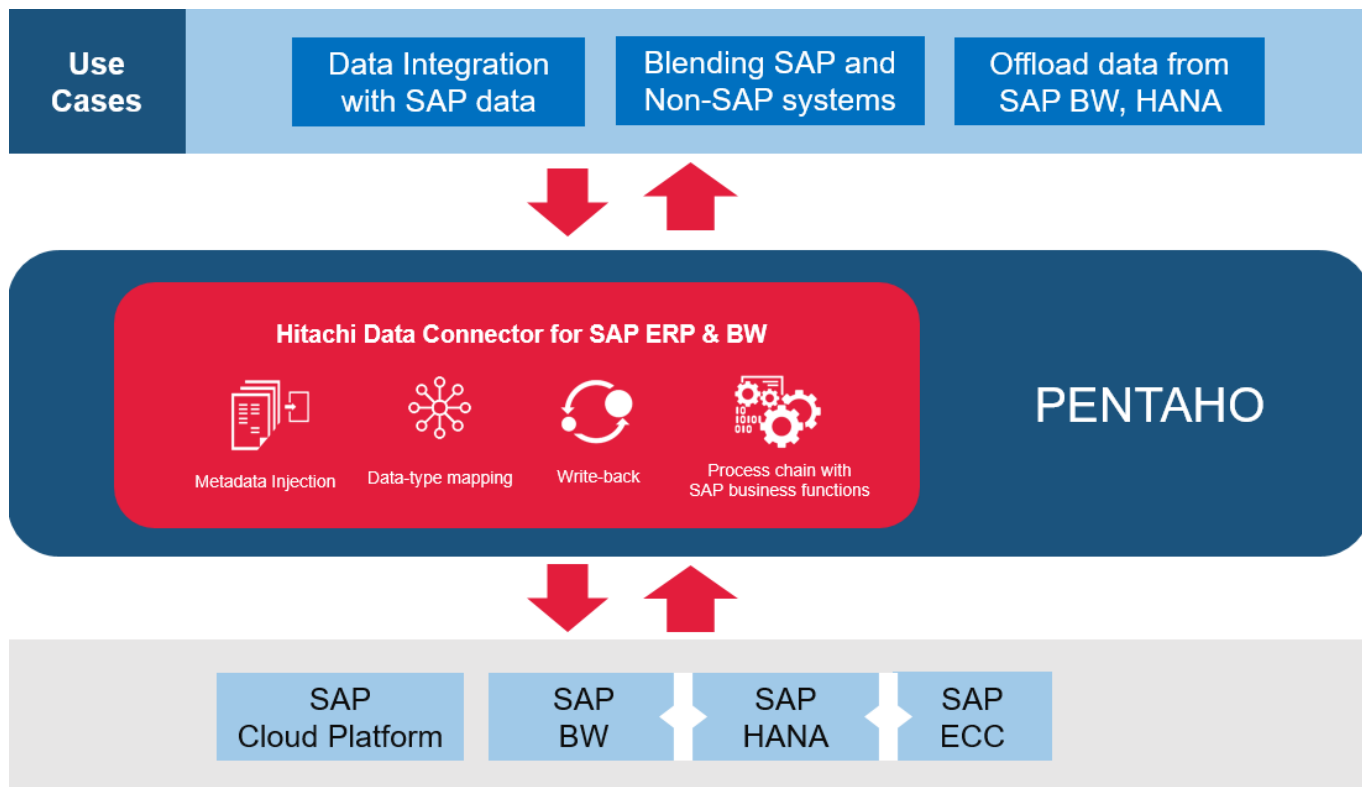
The only Pentaho connector for SAP

If you want to upgrade to the current Pentaho version and continue analyzing SAP data with Pentaho, the Hitachi Data Connector is your first choice.



What you should know about the Connector technology

With the Hitachi Data Connector for SAP ERP and Business Warehouse, application scenarios and use cases – such as onboarding, blending or offloading of SAP data – can be implemented easily and cost-effectively.



Connection to SAP ERP

All data from all SAP modules can be used with the Hitachi Data Connector and Business Warehouse (e.g. FI, CO, MM, etc.). The connector relies on RFC functional modules (BAPI's) and SAP tables, thus the customer can also query complex and nested SAP structures (such as cost centre groups or only the structures/data that exist at runtime in the SAP System).

Connection to SAP BW

The Hitachi Data Connector for SAP ERP and Business Warehouse offers a cost-effective way to extract SAP data from "expensive" SAP landscapes, using offload scenarios. The data can then be further processed as needed.

The customer can access BW data using two different scenarios:

- the staging area data can be extracted by accessing SAP Data Store Objects (DSO)
- the analytical workloads (querying) can be executed at the data warehouse layer (SAP InfoCubes)



Feature Overview

Supported PDI Version	7.x, 8.x
Connection method	RFC via SAP JCo
Unlimeted record length	via customization
Search for tables fields in the user interface (data directory)	✓
Partial table load (filter)	✓
Lookup / join functionality	via customization
Data type support for negative packed floating points and raw hex fields	✓
Chunk loading of big tables	via customization
Call other RFCs (also for calling functions to read, look-up and write back)	✓

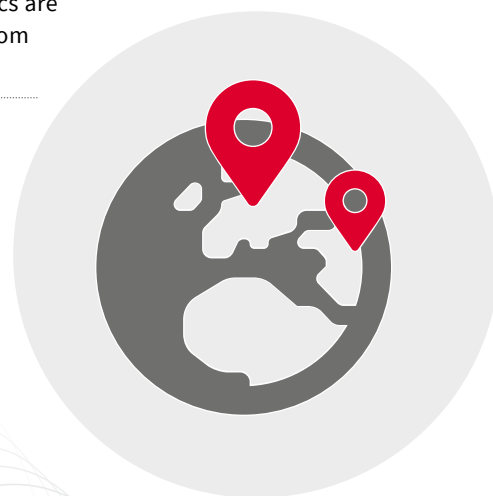


Feature Overview

	SAP ERP Table Input	SAP BW/ERP RFC Executor	SAP BW DSO Input
Metadata Injection	✓	✓	✓
Using Variables	✓	✓	✓
Filter functionality	✓	✓	✓
Selection of fields	✓	✓	✓
Mapping of SAP/Java Datatype	✓	✓	✓
SAP Table Read	✓	✓	./.
BAPI Querying	✗	✓	./.
Custom SAP Functionality	✓	✓	✓
Multi-Language	✓	✓	✓
Server Mode	✓	✗	✓
Parallel Processing	✓	✗	✓
Advanced-DSO (SAP Hana)	./.	./.	✓

These companies have successfully integrated SAP-data into their analyses and reports – without the need to touch or adapt the SAP-system

Customer	Business case
Waste Management Germany	Hitachi Data Connector for SAP ERP optimizes waste management processes and saves public resources. Data from SAP ERP is integrated with information from operational sources to a central data warehouse that enables in-depth analytics.
Automotive Germany	The world's leading manufacturer for car window supplies gains deeper insights in their production processes by integrating data from SAP and non-SAP systems in their central supplier and project controlling platform.
Manufacturing Germany	To become a data-driven enterprise, this global industry leader integrates their data from corporate, manufacturing and supplier systems in a central data lake. Thus providing one single access point to insights about the company's processes and products.
IT Services Romania	The Hitachi Data Connector for SAP ERP and SAP BW is an essential part of a full solution stack for data integration and analytics. Thus providing data models and use cases for easy implementation and higher ROI.
Public Dubai	To better monitor Dubai's huge construction projects and budgets, data from project management systems is integrated with information about budgets spend and material usage from SAP – providing in-depth analytics of project progress and costs.
Production Germany	With offices in 50 countries, this workholding specialist oversees their processes by combining data from SAP and non-SAP systems for reporting and analytics.
Industrial Group Germany	Consolidated KPIs are crucial for this holding with 15 companies and 29 subsidiaries in 12 countries. Hence reporting and analytics are based on a central data warehouse which integrates data from different data sources and sub-companies.



Hitachi Data Connector for SAP Q&A

Does the Table Input Step also allow table contents to be filtered in the SAP ERP system?

Yes, it is possible to create filters in the Table Input Step. The filter is then sent with a table call and executed in the SAP system.

Is it also possible to call SAP function modules that you have written yourself?

Yes, the introduced RFC Executor Step offers the user an interface to call any BAPI modules in Pentaho. It is also possible to concatenate several function modules.

Can data be loaded from the SAP BW system using the SAP Connector, such as Infocubes?

Yes, both the presented SAP Table Input and the RFC Executor Step are BW-capable. Furthermore, we have additional steps such as the DSO and Infocube Input Step to access BW-specific data structures.

Can the SAP Connector also access large cluster tables, such as VBRP?

Yes, the SAP Table Input Step can be used to read cluster tables such as VBRP.

Can queries be created?

Current Bex queries that are stored as Info Providers can be called using the RFC Executor Step by accessing the corresponding BAPI module. The development of a separate step for this use case is planned in our roadmap.



SAP insights – up and running

The Hitachi Data Connector for SAP ERP and Business Warehouse

enables companies using SAP to easily include SAP data in their analyses and reports. Hitachi Vantara offers a comprehensive solution portfolio and uses the Pentaho for data integration and big data analytics, the software behind the connector.

Hitachi Vantara

offers a comprehensive solution portfolio for Big Data, Internet of Things and Cloud. Pentaho from Hitachi Vantara is the leading software for data integration and big data analytics.

it-novum

is Hitachi Vantara's Big Data Insights and IoT partner and the largest Pentaho implementation and training partner in EMEA. The Hitachi Data Connector for SAP is developed and maintained by it-novum, with a combined deep knowledge of analytics and SAP.



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