

SAP® Certified
Integration with SAP NetWeaver®

Microsoft Partner
Gold Application Development



ERPConnect

Microsoft®
.NET



**ERPConnect
Services**

Microsoft®
SharePoint



Xtract IS

Microsoft®
SQL Server



Xtract RS

Microsoft®
SQL Server



**Xtract
Universal**

Microsoft®
Power BI



ERPConnect

Programming library for .NET

ERPConnect is a lean .NET programming library that allows you to develop robust SAP interfaces with little effort and, above all, without requiring a complex infrastructure or additional middleware.

- » Easily invoke BAPIs and function modules with just a few lines of code
- » Send and receive IDocs
- » RFC servers
- » Supports RFC for integration with any modern SAP NetWeaver architecture
- » Can also be used on mobile devices (up to and including Windows 8)

In addition to these standard functions, ERPConnect offers an entire range of special classes in order to manage difficult requirements in SAP interface programming efficiently, securely and with stability:

- » Read BW objects (BEx queries) with own API
- » Directly read SAP tables via RFC
- » Generate and execute ABAP code on-the-fly
- » Control transactions via batch input

ERPConnect can be used with non-Unicode and Unicode systems starting with SAP Release 4.0B and can be natively integrated in both 32-bit and 64-bit applications.

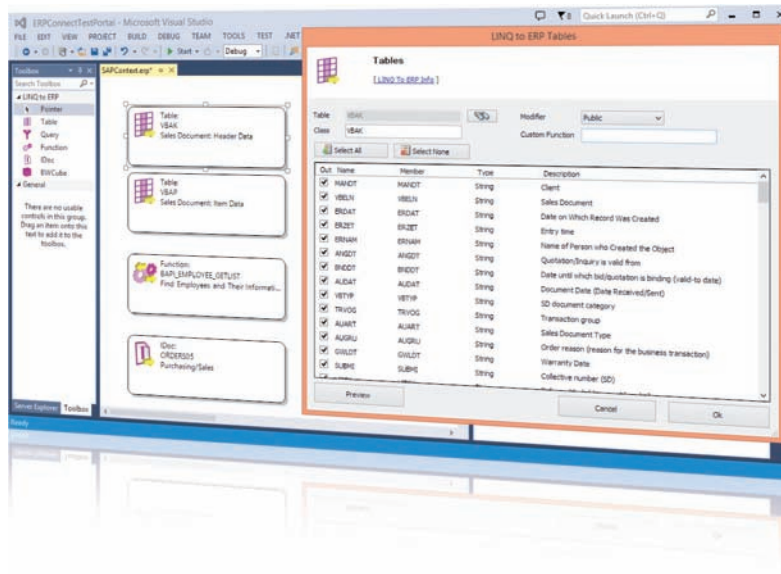
An SAP interface with just eight lines of code

The API is intuitive, pragmatic and lets you reach your goal with a minimal effort: Develop fast, robust SAP interface applications in any .NET-capable environments.

The following code shows how it works: First an SAP connection is established which is enabled by the R3Connection class. The RFC function object represents a function module and its parameters and can be invoked with Execute().

```
R3Connection con = new R3Connection("...");
con.Open();
RFCFunction func = con.CreateFunction("BAPI_EMPLOYEE_GETLIST");
func.Exports["SUR_NAME_SEARK"].ParamValue = "TH*";
func.Execute();
foreach (RFCStructure row in func.Tables["EMPLOYEE_LIST"].Rows)
    Console.WriteLine(row["ENAME"].ToString());
con.Close();
```

The comfortable LINQ to SAP Designer is seamlessly integrated in Visual Studio.



Visual Studio Plugin - LINQ to SAP

The optional Visual Studio plugin for ERPConnect lets you design an SAP access layer with help from a graphical designer. The SAP objects (such as function modules, IDocs, etc.) are simply dragged and dropped onto the work area. Complex function modules can be simplified so that only the elements that should be filled remain to be addressed in the code.

The following code provides an example for accessing the SAP table MAKT (material short texts).

The actual query is integrated in the code. The result is processed using a loop. LINQ to SAP offers 100% type safety and full IntelliSense support in this process.

```
//Connect data context
SAPContext sapContext = new SAPContext("...");

//Select material texts
var matTexts = from t in sapContext.MAKTList
               where t.MATNR.StartsWith("100") && t.MAKTX.Contains("Casing")
               select t;

//Print out list
foreach (var matText in matTexts)
    Console.WriteLine(matText.MATNR + " - " + matText.MAKTX);
```

SAP® Certified
Integration with SAP NetWeaver®

ERPConnect is certified as an "SAP Certified Integration with SAP NetWeaver." This certification guarantees clients that ERPConnect can be seamlessly integrated with SAP products.

simply sophisticated®

ERPConnect

ERPConnect
Services

Xtract IS

Xtract RS

Xtract Universal



ERPConnect Services

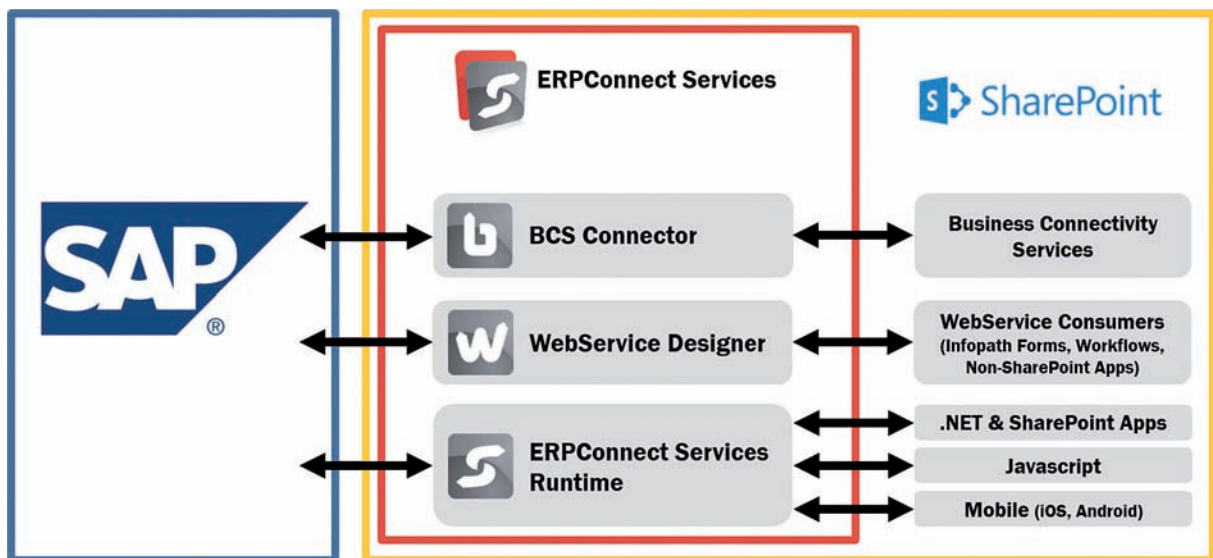
Seamlessly connect SAP and SharePoint

ERPConnect Services enables you to build powerful and sophisticated SharePoint applications for SAP.

ERPConnect Services supports a wide variety of technologies commonly used within the SharePoint area, e.g. like Business Connectivity Services. The **BCS Connector** lets you create read/write operations to SAP objects through external lists which in turn enable access to these SAP objects by all SharePoint applications that utilize lists.

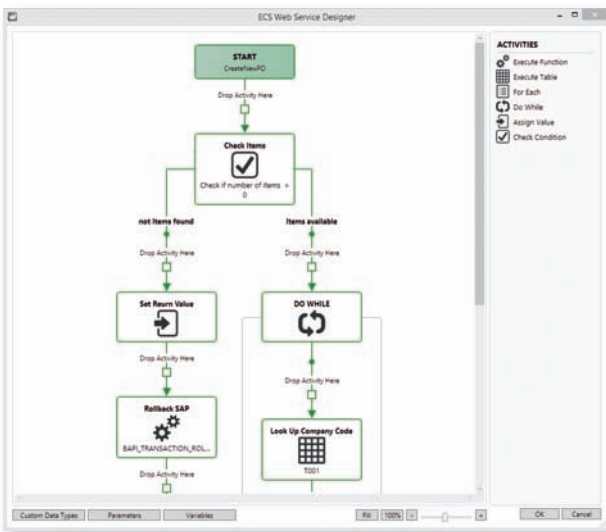
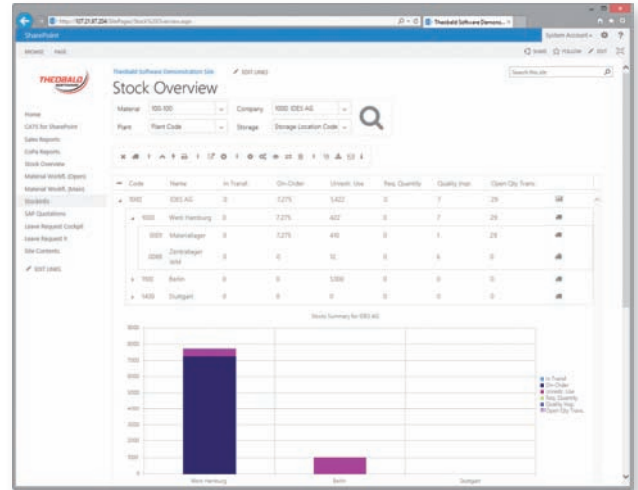
The **WebService Designer** offers a powerful, easy-to-use tool to design and deploy webservices to SharePoint that wrap even complicated SAP processes in a clean and simple web service interface. These SOAP or OData web services can be used by any common web service consumer like InfoPath, Workflows, or Lightswitch.

In case of business scenarios where pure coding is necessary or appropriate, the **ECS Runtime** is the perfect tool. The powerful plugin for Visual Studio helps developers to create their applications fast and robust. Beside an interface for .NET (which also includes WinRT and Silverlight) support for JavaScript and other non- Microsoft environments is provided. This is also true for iOS and Android development.



Without compromising on security and performance, your business processes are brought to an environment which empowers end users to improve their business. Different approaches for both coding and no-coding provide a perfect basis for any level of SAP/SharePoint application design.

- » Get rid of poor SAP usability and dramatically reduce costs by providing perfect interaction between end users and SAP
- » Seamlessly link SharePoint workflows with SAP elements and fill gaps in the business process
- » Make any kind of master data and transactions transactions available in real-time
- » Single Sign-On for a better and secure user experience
- » SAP certified technology



SharePoint architects and developers are empowered by a highly productive platform which covers the entire SharePoint world using a variety of tools and technologies:

- » SOAP, REST and OData Services
- » Support for JavaScript, JQuery, and HTML5 for mobile and desktop apps
- » Read/Write access with Business Connectivity Services
- » Prebuilt templates, e.g. for Purchase Requisition and Leave Management
- » Designer for Visual Studio

Using Nintex Workflow or Forms?

ERPConnect Services offers multiple SAP integration options based on web services and Business Connectivity Services. In addition, Nintex Workflow is supported by a dedicated custom action which connects your workflow directly to SAP.



Xtract IS

Plug'n'Play with SAP and SSIS

Xtract IS guarantees seamless integration of your SAP ERP / SAP BW system and SQL Server Integration Services.

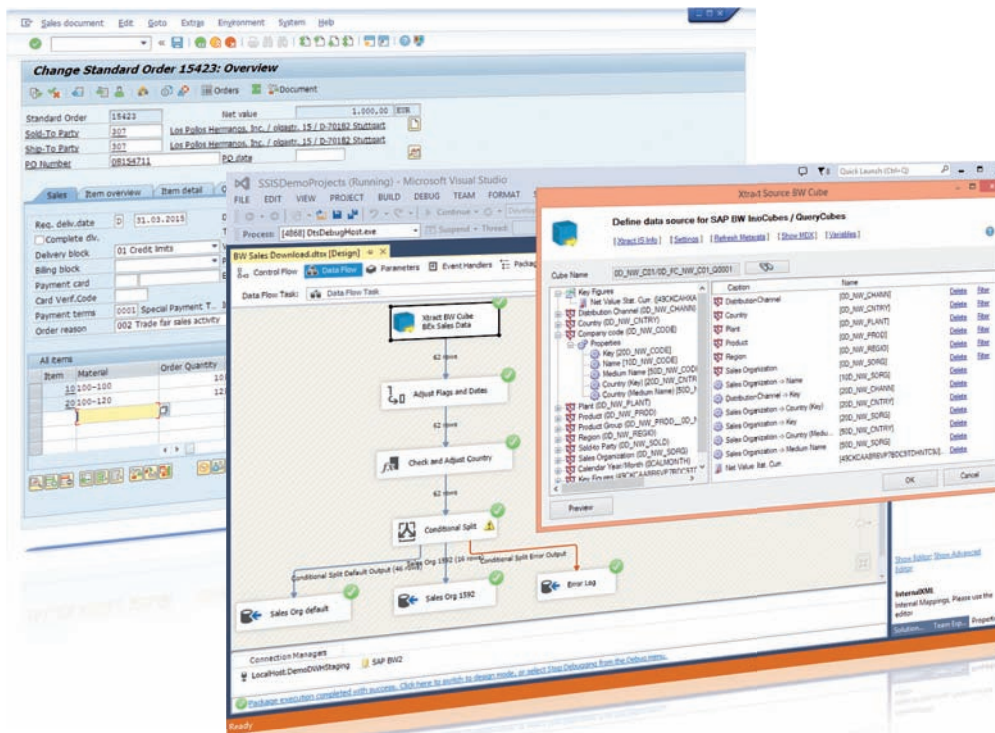
You can extract mass data with the highest level of performance and stability with just a few mouse clicks.

The Xtract IS component suite offers you 10 different modules for SQL Server Integration Services. This covers the entire spectrum of data integration for SAP.

Shape your data flows type-safe, with full meta data support and a graphical editor.

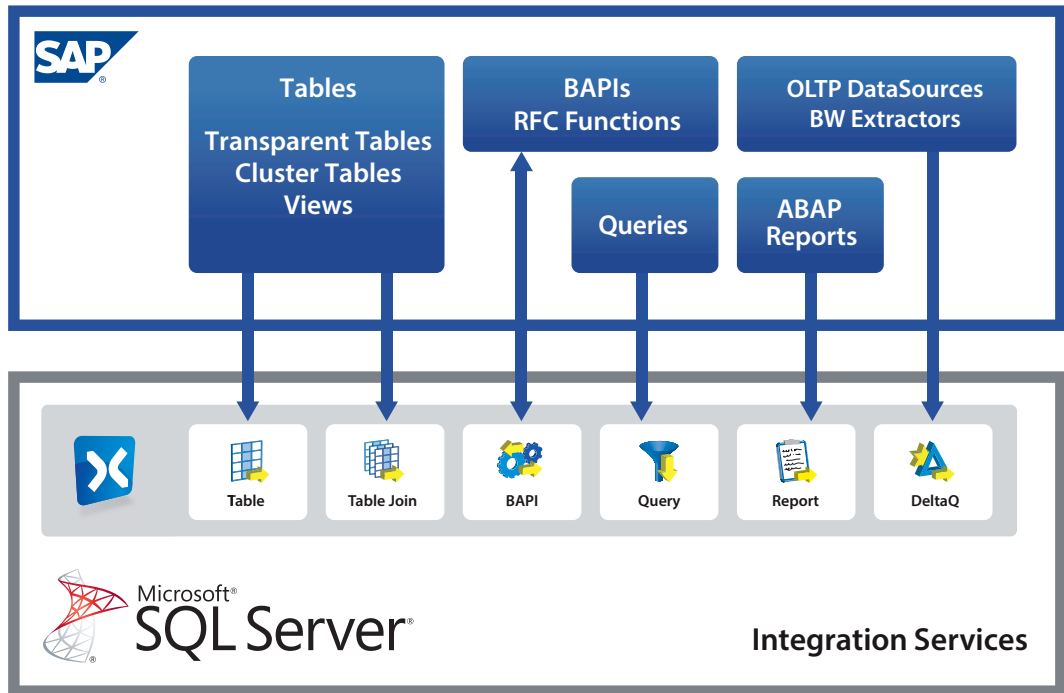
Your advantages with Xtract IS:

- » Minimal to zero intrusion in the SAP system
- » Clean authorization concept for individual extractions
- » Cross-module and module-independent

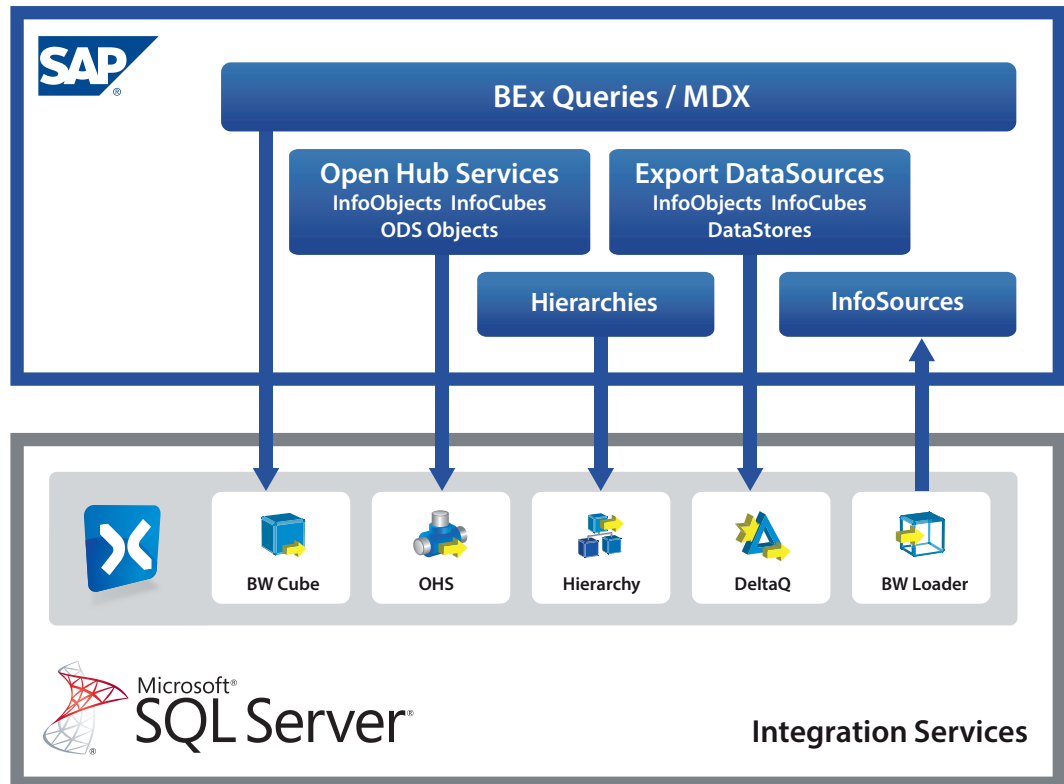


Xtract IS provides data from various SAP objects for further processing in the SSIS data flow. Depending on the use case, SAP can be used not only as a data source (as shown in this image), but also as a transformation or destination.

Integration of SAP ERP



Integration of SAP BW

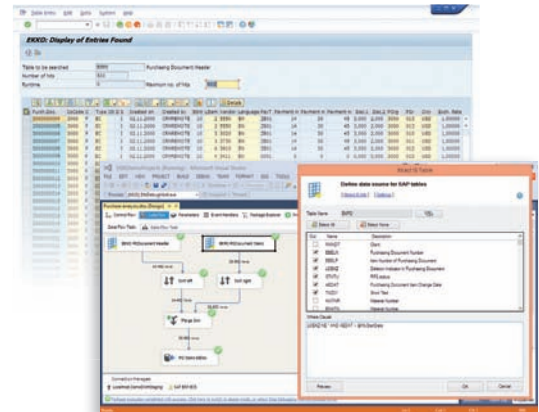


Table, Table Join & Query

Xtract **Table, Table Join & Query** allow for fast, reliable mass data extraction.

The data can be limited as desired using any type of WHERE statements. Dynamic SQL statements can be built by using SSIS variables. You can also link (**join**) and aggregate tables.

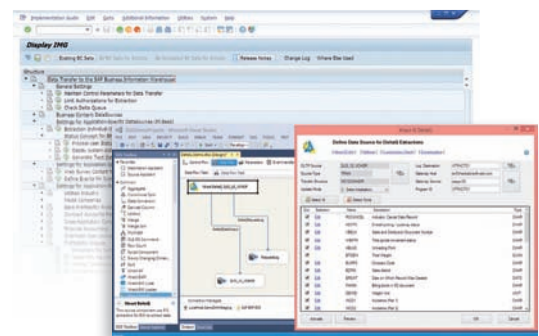
Xtract **Query** enables type-safe SSIS data flows from SAP queries within seconds. The selection screens can be filled dynamically with variables.



DeltaQ

Xtract **DeltaQ** is the premium component within the Xtract suite for business intelligence applications based on SQL Server.

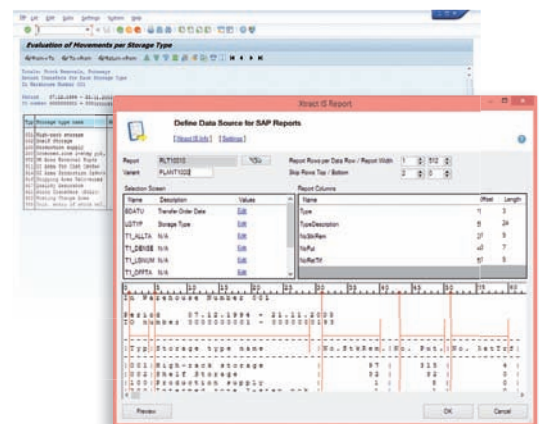
DeltaQ utilizes the Extractor API of the SAP system and the functionality that is used by BW systems to secure their data supply from the ERP production system.



Report

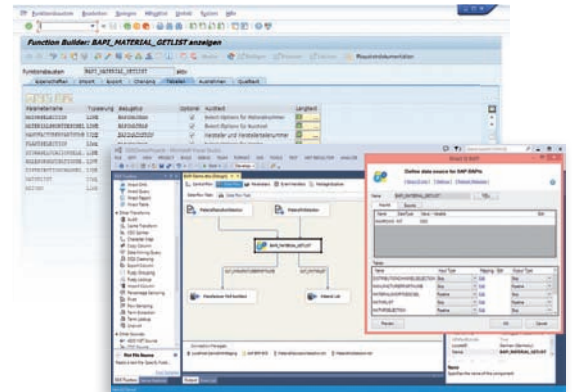
ABAP reports can be used as a data source with Xtract **Report**.

This ensures the highest level of investment protection when migrating to Microsoft BI tools: Existing reports and their business process logic do not require any complex reverse engineering, and can continue to be used with Xtract IS Report.



BAPI

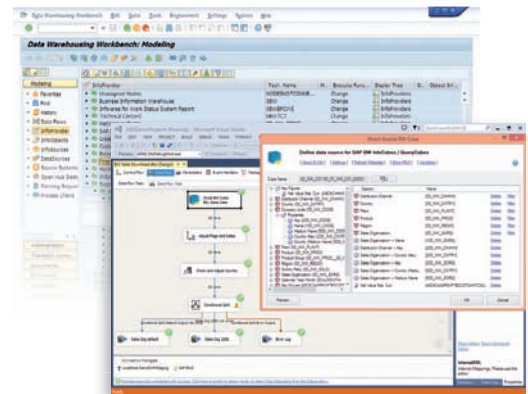
BAPIs and RFC function modules can be accessed directly from the SSIS data flow with the Xtract **BAPI** component. The component can be used as a source, transformation or target. Incoming and outgoing tables are dynamically linked with SSIS pipelines.



BW Cubes

Attributes and key figures from **BW Cubes** and **BEx Queries** can be easily extracted via drag and drop. This turns complex, multi-dimensional data structures into relational data that is easy to manage.

Dynamic query execution is supported with the use of variables. A packaging function is available for handling large volumes of data.

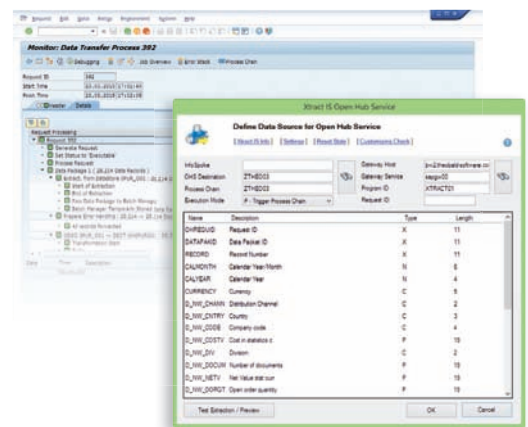


Hierarchy, Open Hub Service

Xtract **Hierarchy** extracts hierarchies from an SAP BW system. Additional optional features can be activated to perform other functions, for example, extracting description texts or removing leading zeroes from the data. Xtract Hierarchy supports parent/child and natural representation.

SAP's **Open Hub Service** offers a continuous extraction method for Cubes, InfoObjects, ODS Objects, etc.

Xtract OHS supports all OHS processes, including delta extraction.





Xtract RS

SAP real-time reporting with Reporting Services

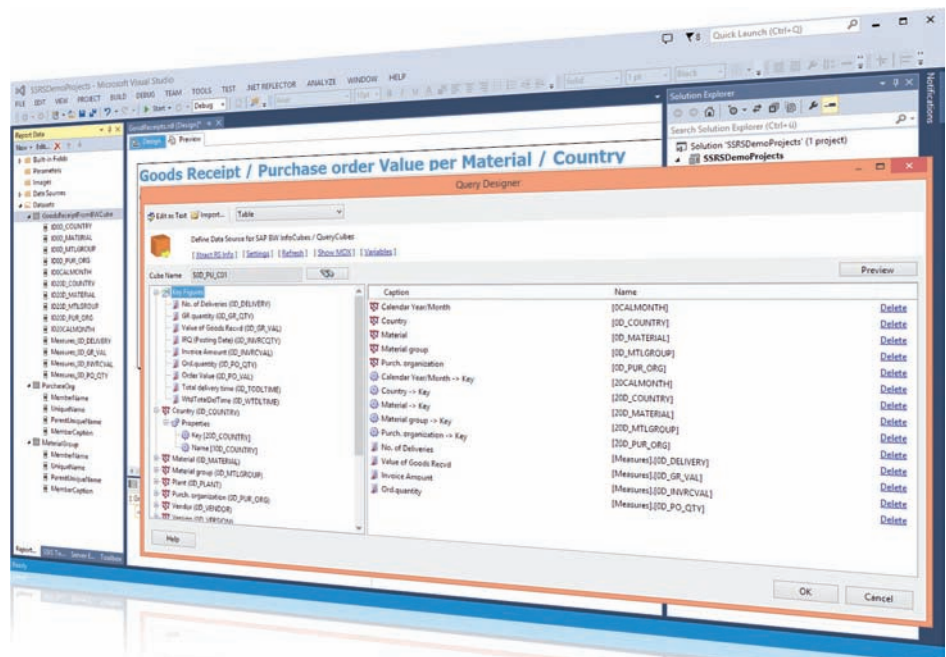
Xtract RS is a data provider for SAP that is optimized for Microsoft Reporting Services. It seamlessly integrates in the Business Intelligence Studio and Reporting Services Server as a data extension.

You can access SAP data in real-time without any additional software layers or other middleware:

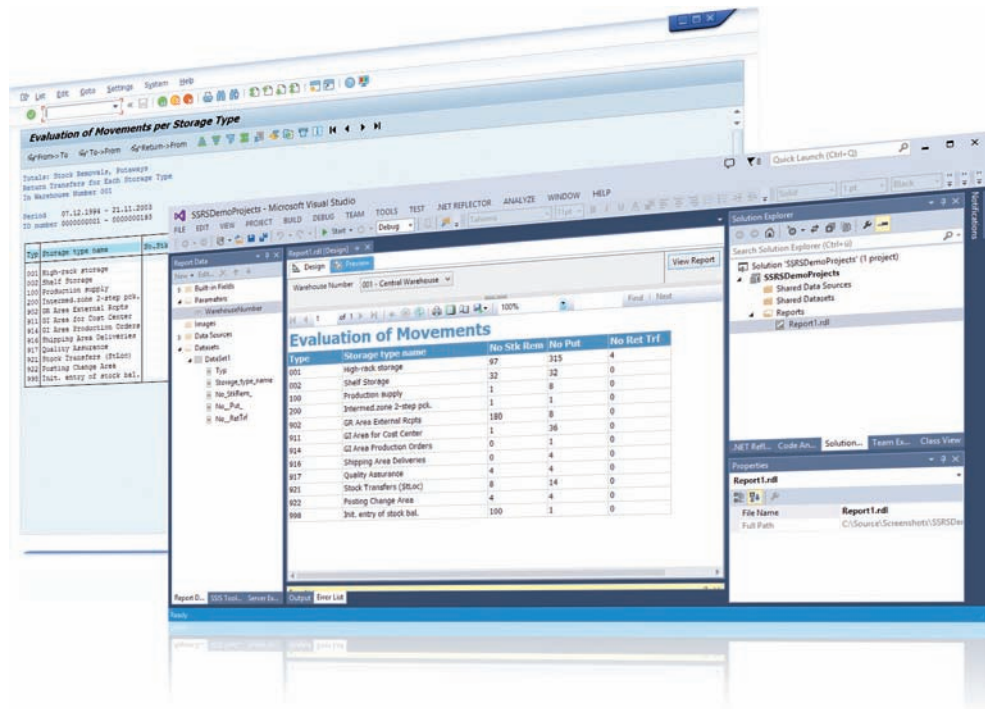
- » SAP tables directly or as an aggregated join
- » SAP queries
- » RFC function modules and BAPIs
- » BW objects (cubes, queries and master data)

In addition to complete integration in the Business Intelligence Development Studio, there are other obvious advantages:

- » Single sign-on for personalized SAP access
- » Very easy and intuitive to operate without programming skills
- » No data redundancy, 100% up-to-date
- » Complete support for dynamic query execution with variables and parameters

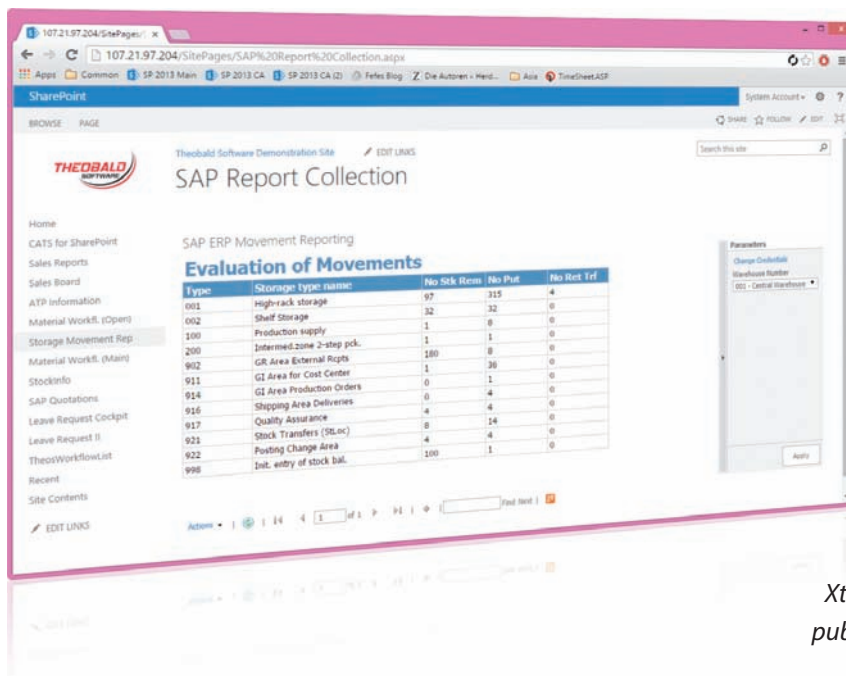


*Design of a goods receipts analysis with Xtract RS.
A BW query serves as the data source.*



An SAP query is used to analyze purchase orders.

B APIs and RFC function modules can also be used as intelligent data providers. Report parameters are forwarded to the B API's input parameters. The output table serves as the data source for the report.



Xtract RS-based report, published in SharePoint.

SAP data can be easily distributed in real-time via existing company portals like SharePoint using standard tools – without any programming.

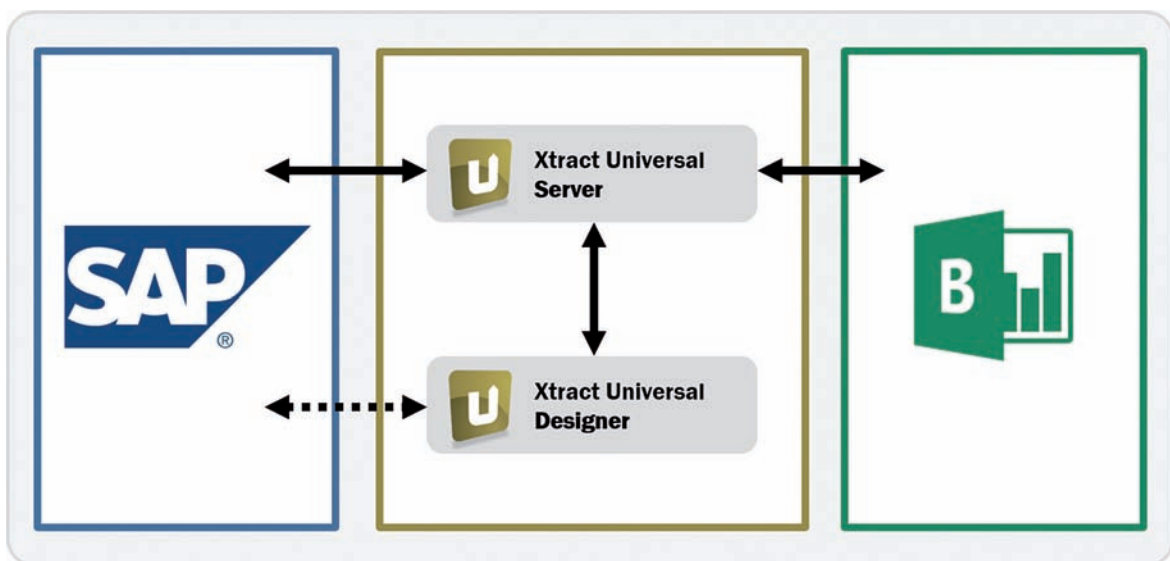


Xtract Universal

Connect Power BI and SAP

Xtract Universal is a middleware component for extracting data from SAP systems for processing in Power BI.

Xtract Universal consists of two components, the server as a central data hub and the designer for the extraction configuration. The following image illustrates how the two systems interact.

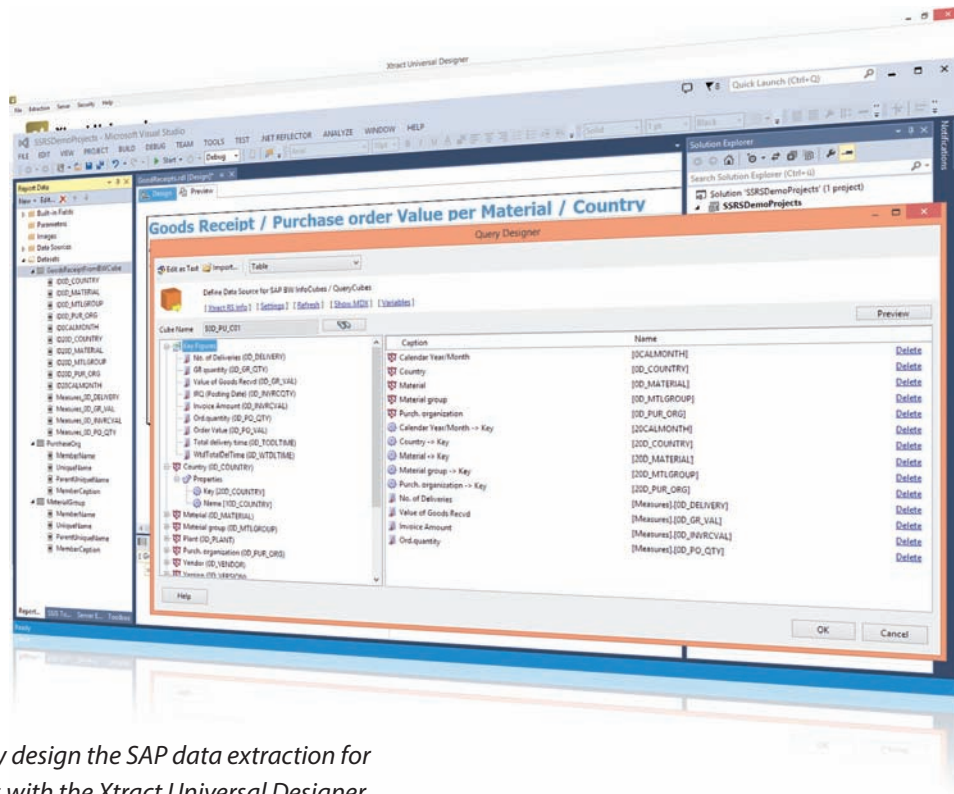


Your advantages with Xtract Universal:

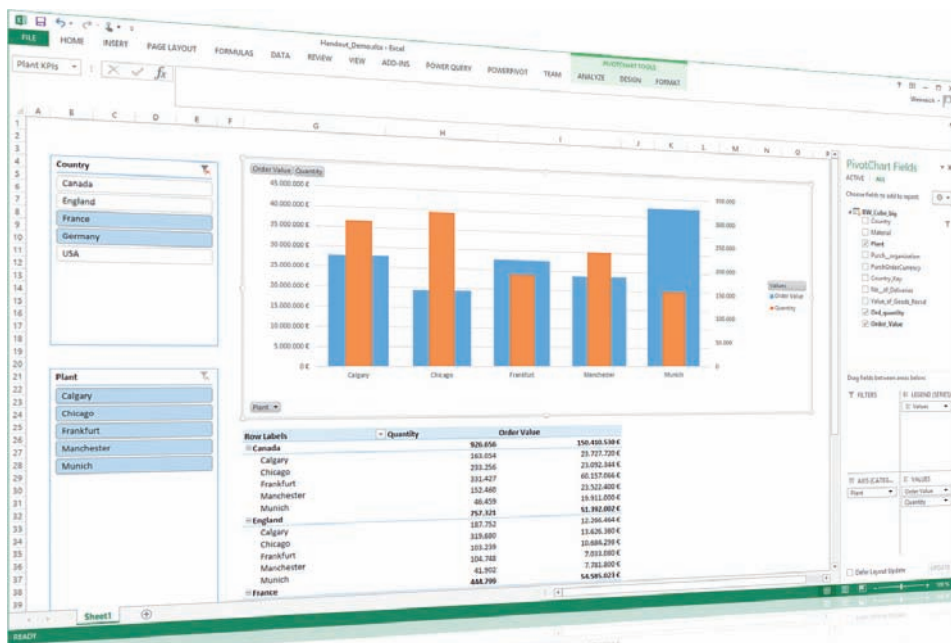
- » Central monitoring of all user activity, which can also be used for audits
- » Saves SAP resources during parallel queries
- » Data caching for optimal load performance
- » No installation on the end user's computer or on the SharePoint server necessary

Security and data protection are a priority:

- » Central security for controlling access rights
- » User management is linked to the Active Directory
- » Option for personalized SAP access via single sign-on



You can easily design the SAP data extraction for your needs with the Xtract Universal Designer.



Xtract Universal delivers data from SAP in both Excel and SharePoint. Since the data is distributed via feeds, there is no need for an additional installation in Excel or on the SharePoint server.

simply sophisticated®

ERPConnect

ERPConnect Services

Xtract IS

Xtract RS

Xtract Universal



Updates & Support

6 months of updates and support included when you purchase a license

- » Always up-to-date thanks to access to latest updates
- » Email, telephone and online helpdesk support from our experts
- » Annual extension of maintenance contract available at 20% of the current license fee

We guarantee the following services for users with a valid maintenance contract:

- » Access to our support via telephone, email and online helpdesk and a response within one workday
- » Access to all updates and new versions of your software
- » We guarantee that our software will run correctly according to the manual
- » We guarantee that the software will be compatible with all future SAP releases and patches
- » We guarantee that the software will be compatible with all future Microsoft releases and patches



Demo Version

Free four-week trial – no limitations:

- » Take the time to try out our products
- » Use our free presales support during the evaluation period
- » You can also extend the evaluation version

Documentation and additional material

Theobald Software GmbH has always prioritized detailed and comprehensive manuals, ideal support from our experts and a wide selection of additional materials:



HELP

You can find manuals on our products in our **OnlineHelp** section. Click your way through the overview and simple layout of the chapters to get to know our products better and learn how to use them more effectively.

<http://help.theobald-software.com>



**SUPPORT
KNOWLEDGEBASE**

You can find a number of articles, examples and additional information, such as the version history of our products, in our **knowledge base**.

<http://kb.theobald-software.com>

Partner Network

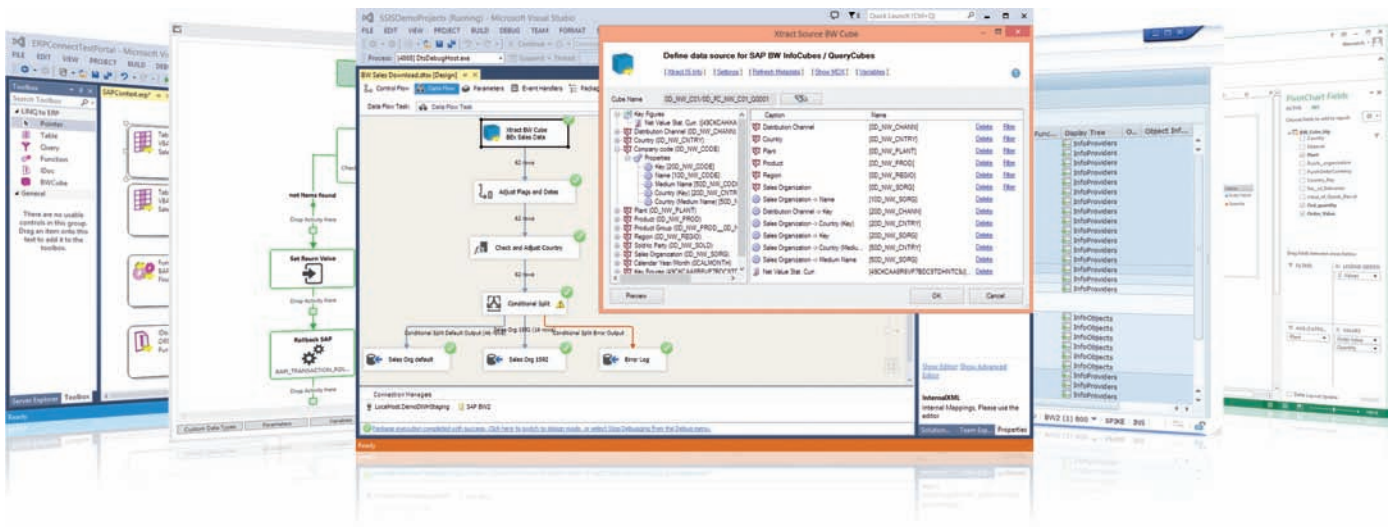
Providing optimal service and the best possible advantages for our clients are our top priority. This is why we developed an extensive ecosystem of partners in Germany and throughout the world who complement our products with their solutions portfolio and expertise. Visit our partner directory on our website for more information.

Always stay up-to-date and visit our website to sign up for our **newsletter**.

Visit our Facebook page to get all the news and talk to other users and the Theobald team. Thousands of fans already follow us there – what about you?

<http://www.facebook.com/TheobaldSoftware>





About us

Theobald Software makes efficient and flexible SAP interfaces possible without unnecessary workarounds or compromises.

Theobald Software GmbH has 10 years of experience in the design and development of SAP interfaces. Thanks to our innovative know-how combined with the experience from more than 1,800 international clients, Theobald Software GmbH can create a solid basis for the software and the respective business processes. We ensure the highest level of transparency, individual customization and flexibility without losing sight of the costs.

Get in touch with us. We look forward to hearing from you!

Your Theobald Software GmbH Team



Office Stuttgart

Theobald Software GmbH
 Kernerstraße 50 | 70182 Stuttgart | Germany
 Phone: +49 711 46 05 99 0
 Email: info@theobald-software.com

Office Seattle

Theobald Software, Inc.
 2211 Elliott Ave. | Suite 200 | Seattle, WA 98121 | USA
 Phone: +1 206 68196 38
 Email: info@us.theobald-software.com

Office Hong Kong

Theobald Software Asia Ltd.
 Suite 1 & 2 24/F | 135 Bonham Strand Trade Centre
 135 Bonham Strand East | Sheungwan | Hong Kong
 Phone: +852 3423 0401
 Email: info@theobald-software.com.hk

www.theobald-software.com