

Advanced BOM Analytics – From Supplier to Customer

Transparent Product Structures – From Supplier to Customer and Back

PREISS Consulting Add-On for SAP in Manufacturing Companies



Challenges

Lack of Integration

Bills of Material (BOMs), Material Masters, Requirements, Stock, MRP, and Customer Data are scattered across numerous transactions.

High Manual Effort

Relevant information must be individually retrieved and manually consolidated.

Limited Mass Processing Capabilities

Standard transactions offer limited support for structured mass evaluations.

Increased Planning Risk

Decisions are often based on incomplete contexts, leading to late identification of dependencies.

Advanced BOM Analytics – From Supplier to Customer

BOM Browser with Material Analysis

Multi-level BOM explosion with material analysis and material master data completeness checks.

Material Analysis – Dependent Objects, Suppliers, Customers

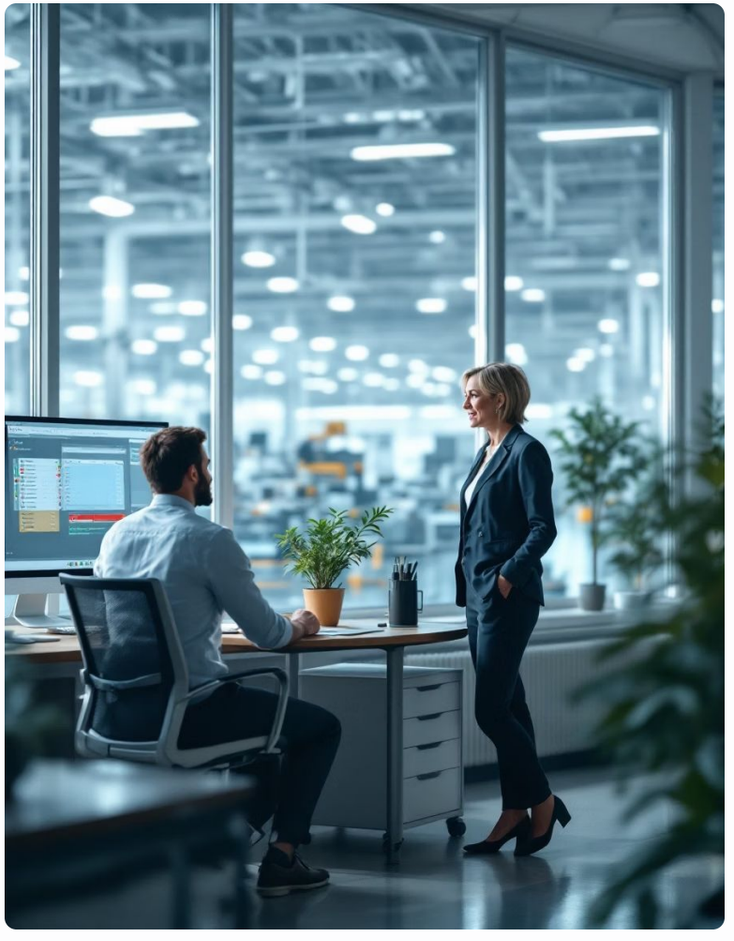
Material mass evaluation with stock, requirements, consumption, suppliers, customers, and related objects from Purchasing, Logistics, Production and Sales. With master data check.

BOM Usage Analysis

Mass evaluation of material usage with material, supplier, and customer context, stock, requirements, and consumption. Selection by components, assemblies, suppliers, and customers.

Source of Supply Analysis

Shows suppliers assignments to materials, single vs. multiple sourcing, and supplier country. Fast material selection by supplier and material attributes.



Additional Transactions

Mass evaluation for customers per material, BOM Usage for one material or supplier.

Source of Supply – Critical, yet often Opaque

Sources of supply determine costs, supply security, and supply chain risks. In standard SAP, however, relevant information is distributed across numerous transactions in Purchasing and Material Requirements Planning (MRP), making mass evaluation challenging.

Unanswered questions include:

- Which suppliers supply which materials?
- Where are there no sources of supply, or only a single source (single sourcing)?
- What dependencies exist on suppliers or countries?
- Where do Purchasing and MRP views differ?

> Without a consolidated view of sources of supply, supply chain risks remain invisible.



Source of Supply Analysis

ABASC provides transparency for sources of supply across multiple materials and consolidates previously distributed information.:

- Transparency of vendors and supplying plants for materials
- Identification of missing sources of supply
- Distinction between single sourcing and multi-sourcing
- Analysis of vendor dependencies by country
- Selection of materials for chosen vendors or countries
- Quick filtering by vendor in the results list

Purchasing and Planning Comparison for Source of Supply Determination

Purchasing:

Valid sources of supply from purchasing info records, outline agreements, scheduling agreements, quotas, and the source list.

Planning:

Simulative source determination via MRP Classic and, in S/4HANA, via MRP Live, with differences clearly highlighted.

ABASC combines sources of supply from Purchasing and Planning into a common, mass-processing enabled analysis.

Typical Use Cases

Product Launch / Engineering Change

- Multi-level visibility for product structures
- Verify whether structures are plannable and procurable
- Shared data basis for engineering, purchasing and supply chain

Critical Component Analysis

- Analyze multi-level usage and quantity impact
- Check for alternative BOMs
- Identify involved suppliers and customers

Supplier Disruption

- Identify materials linked to the affected supplier
- Show impacted assemblies, products and customers
- Prioritize based on stock, requirements and past usage

Managing Sources of Supply

- Review valid sources of supply per material/plant
- Understand automatic supplier selection
- Detect inconsistencies between purchasing and MRP

Single vs. Multi-Sourcing

- Detect materials with only one valid source of supply
- Transparency on supplier and country dependencies

S/4HANA Migration & Operations

- Check completeness of production versions
- Compare source determination in Purchasing, MRP Classic and MRP Live
- Validate consistency during migration and operation

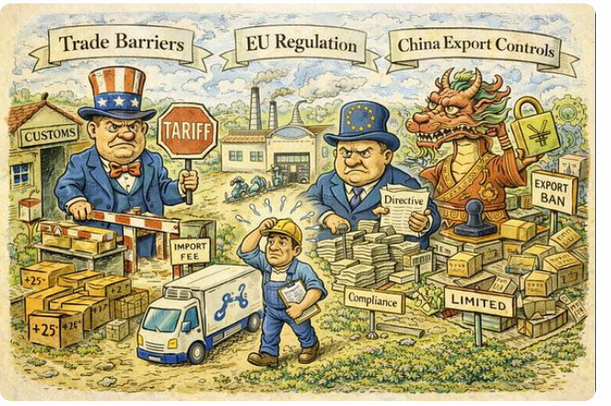
Country Dependencies & Compliance

- Identify products with components from country X
- Assess indirect impact on customers and markets
- Provide context for compliance and risk management

Variant Configuration Structure Checks

- Evaluate explosion results for configurable materials for maximum BOM and for specific configurations.
- Validate data completeness

Transparency for Customs, Supplier Dependencies, and Compliance



ABASC supports regulatory compliance and risk management through transparent traceability of suppliers and customers across the supply chain.

Customs Management

Identify materials and customers affected by customs changes based on supplier country.

Supplier Risk

Quickly identify materials dependent on specific suppliers or countries.

Compliance

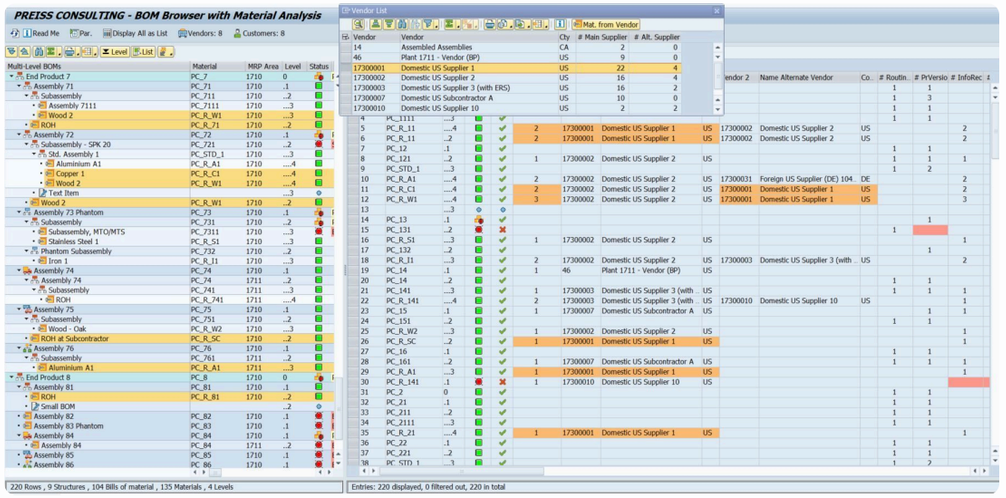
Traceability of which customers receive products with components from specific suppliers or countries.

ABASC provides transparent supplier and customer relationships – from component to end customer.

BOM Browser with Material Analysis

The BOM Browser combines multi-level BOM explosion with integrated material analysis and shows material master data, stock, demand, consumption, suppliers and customers in a single view.





Multi-Level & Cross-Plant BOM Explosion

User-friendly display of BOM structures across multiple manufacturing levels and plants, with quantities and production versions.

Material Analysis Across the Structure

For each component: stock, demand, consumption, suppliers, customers, and related objects from Purchasing, Logistics, Production, and Sales.

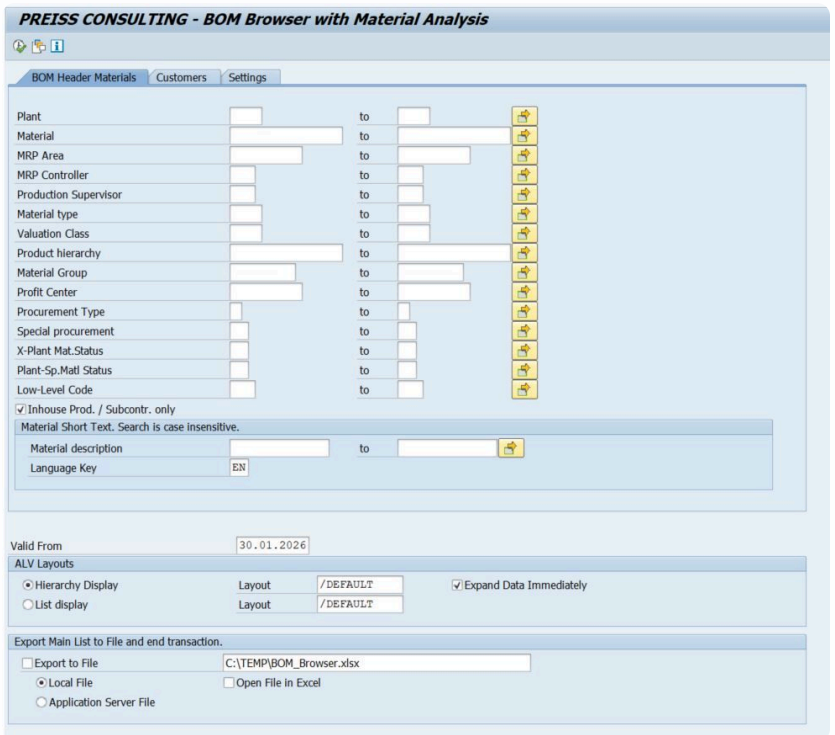
Related SAP transactions calls by context menu or double click

Master Data Completeness Check

check master data and highlight missing critical objects: BOMs, routings, production versions and supply sources

BOM Browser with Material Analysis

The BOM Browser has a wide range of selection options and is a mass transaction suited for high data volume and big product structures.



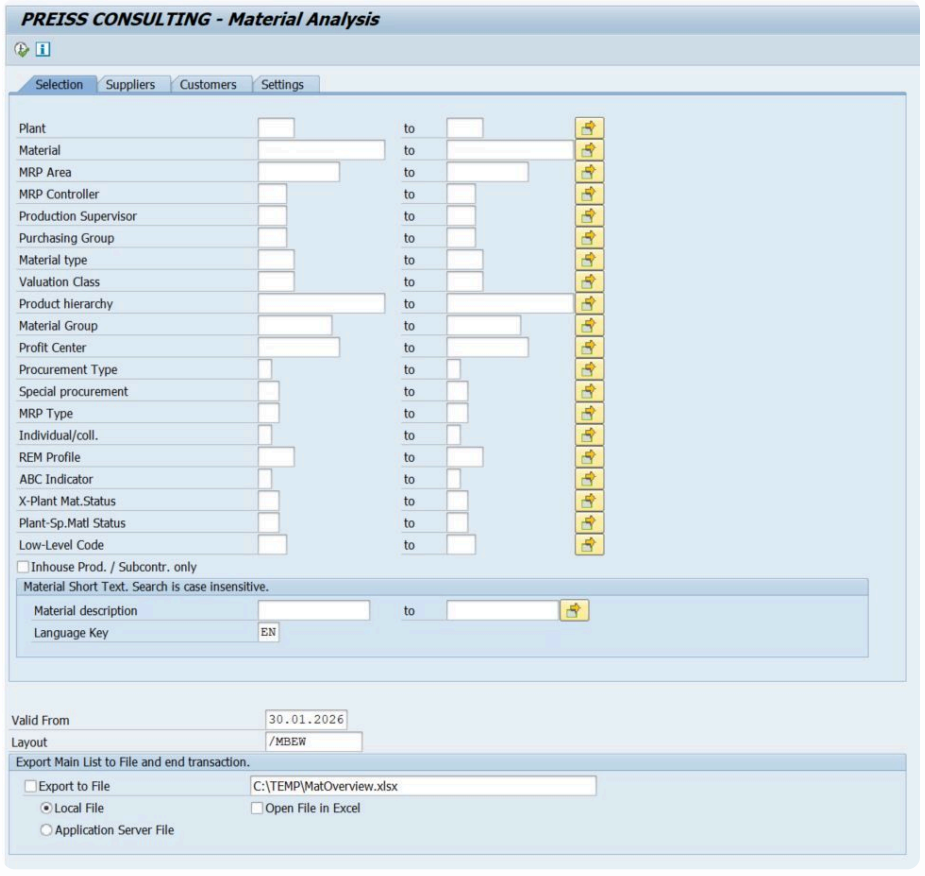
Selections Paths

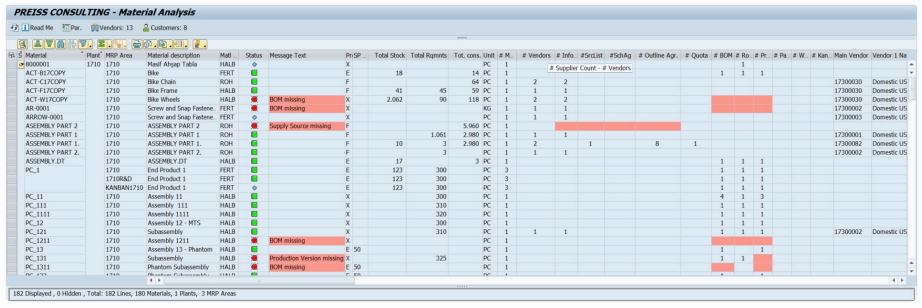
- Mass Transaction with selection by material attributes
- Call for Sales Order
- Call for Project, WBS Element or WBS hierarchy
- Call for Configurable Material with configuration dialog, optionally starting with configuration from sales order or material variant

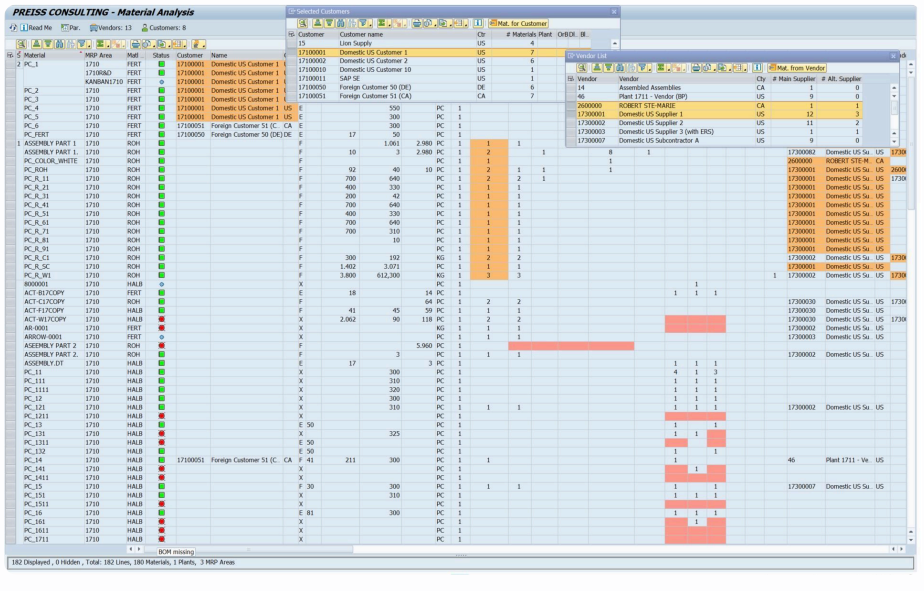
Output

- Hierarchy as ALV Tree: expand/collapse all or to given level
- List as ALV grid: sort and filter
- Excel Export locally or to application server

Material Analysis – Dependent Objects, Vendors, Customers







Material analysis enables high-performance mass evaluation of material master records at the material/plant level. It consolidates information from Purchasing, Logistics, Production, and Sales in one transaction.

Stock, Requirements & Consumption

Display of current stock, open requirements (Planned Orders, Production Orders, Purchase Requisitions, Purchase Orders), and historical consumption.

Vendors & Customers

Overview of Vendors from Purchasing Info Records, Outline Agreements, Scheduling Agreements, and Customers from Sales Info Records, Customer Outline Agreements, and Customer Scheduling Agreements.

Dependent Objects

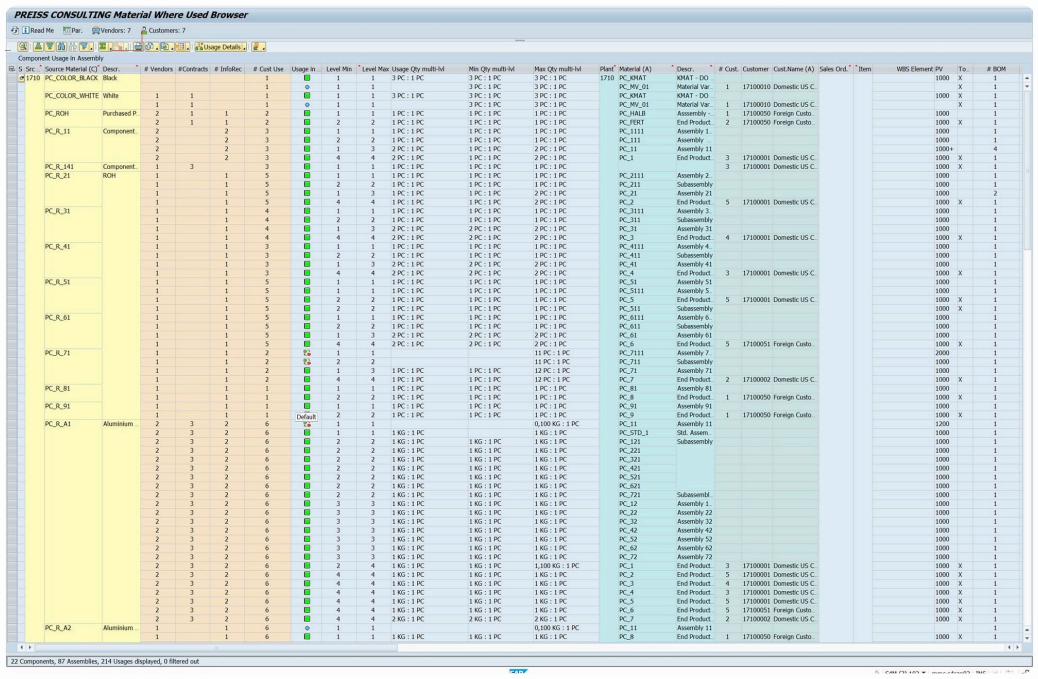
Display of associated objects: Bills of Material (BOMs), Routings, Work Centers, Production Versions, MRP Data, Purchasing Data, Sales Data.

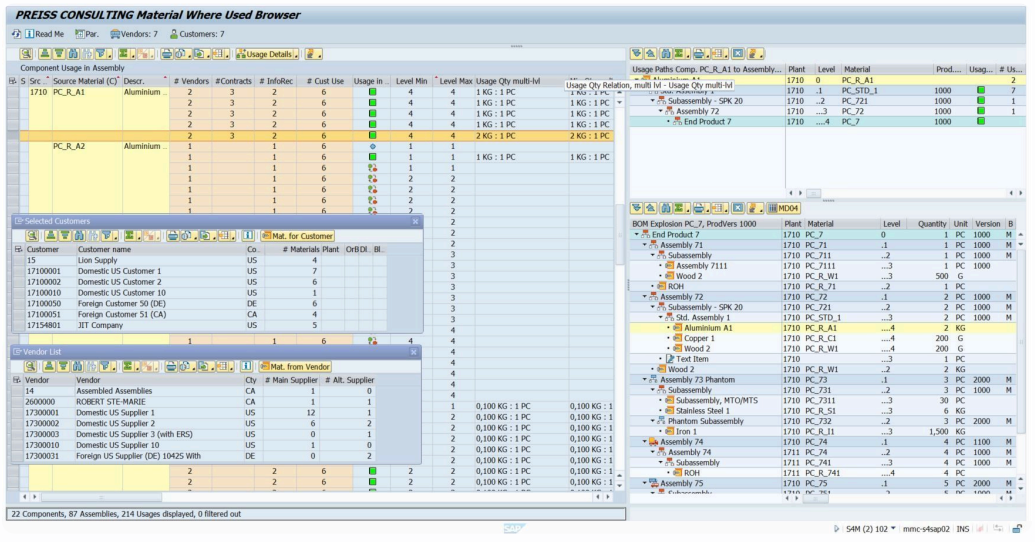
Master Data Completeness Check

Integrated check for master data completeness, highlighting missing or incomplete data for efficient master data maintenance.

Bill of Material (BOM) Where-Used Analysis







BOM Where-Used Analysis enables mass evaluation with material, vendor, and customer context, as well as stock, requirements, and consumption. It supports multi-level and cross-plant analysis with quantity relationships and production versions.

Multi-Level & Cross-Plant Analysis

User-friendly display of all component usages in assemblies and finished products across various production stages and plants.

Quantity Relationships & Production Versions

Displays single and multi-level where-used rates, considering different production versions or BOM alternatives.

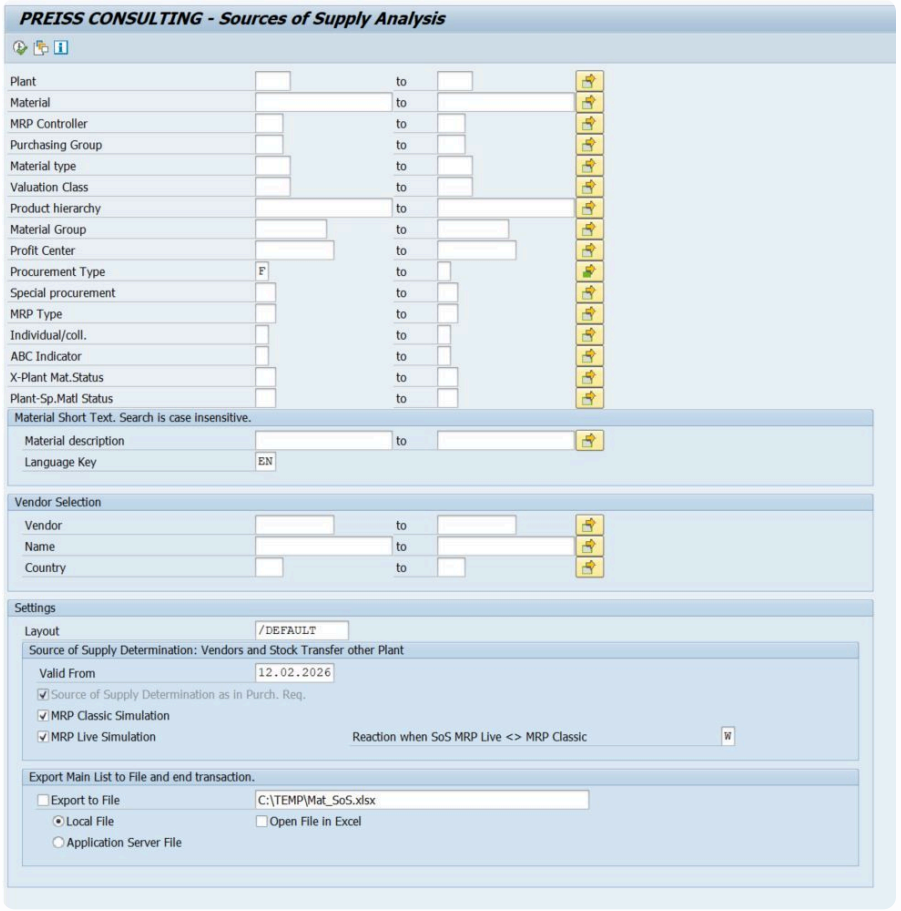
Vendor & Customer Context

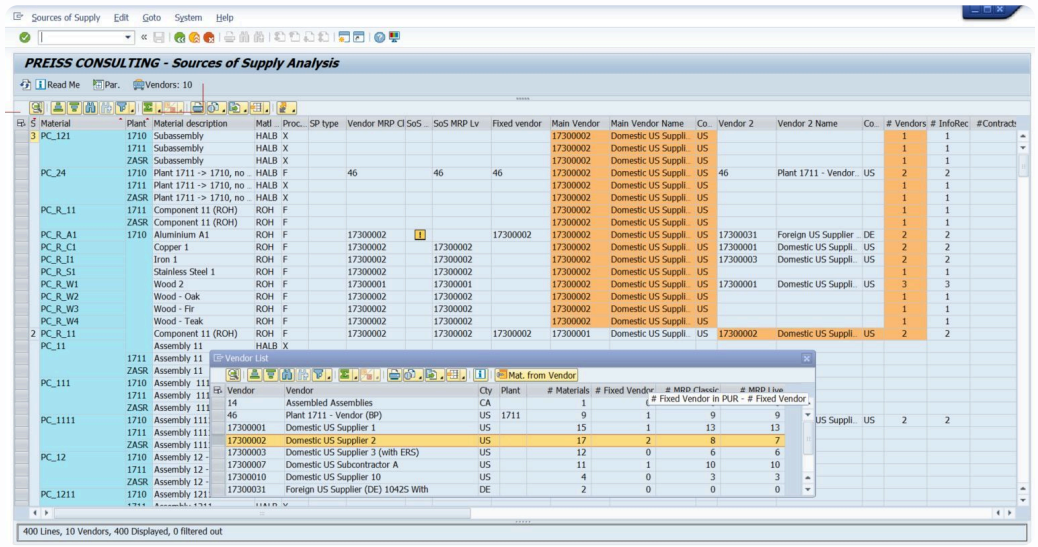
Shows vendors for components and customers for sales materials, ensuring complete supply chain transparency. Interactive filtering by vendor and customer is possible.

Requirements, Stock, Consumption & Material Details

Insight into current requirements, stock, consumption, and detailed material information for each component to optimize planning and procurement.

Source of Supply Analysis – Mass Evaluation





Source of Supply Analysis – Mass Evaluation enables efficient analysis of sources of supply at material/plant level. It complements the BOM browser and material analysis by providing a focused view on vendor relationships and procurement risks.

What is Evaluated

Assigned vendors and supplying plants per material; fixed vendors (e.g., from quota arrangement or source list); vendor in MRP Classic; vendor according to MRP Live (S/4HANA) with highlighting for deviations from MRP Classic; number of sources of supply per material.

Key Functions

Selection by material attributes, plant, vendor, vendor country. Dialog function for marking materials for selected vendors. Counters per vendor for materials with: valid vendor, fixed vendor, vendor in MRP Classic, vendor in MRP Live (in S/4HANA).

The Source of Supply Analysis makes vendor dependencies transparent across multiple materials.

Additional Transactions

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Customers to Materials – Mass Evaluation

Evaluation of customer info records, sales scheduling agreements, and sales delivery schedules related to a selection of materials.



BOM Usage Analysis – Single Material

Component usage for a specific material, for easy access, e.g., via a navigation profile from MD04.



BOM Usage Analysis– Supplier

Analysis of component usage from a specific vendor

Add-On Design Principles

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SAP Standard Integration

Utilizes SAP standard tables and function modules, no redundant data storage, real-time access to current data.

Performance Optimization

Optimized for mass data processing, efficient database access.

User-Friendly Operation

Intuitive user interface, flexible selection and filter options, Excel export for further processing.

Extensibility

Extendable via navigation profiles, integration into existing SAP processes, adaptable to customer requirements.

Implementation

SAP Systems

- SAP ERP ECC
- SAP S/4HANA On-Premise
- SAP S/4HANA Private Cloud

Languages

- German and English
- Translatable into additional languages

Delivery

- Delivery via Transport or abapGit/GitHub with customer-specific adaptations by PREISS Consulting

User Interface

- Developed for SAP GUI. Also usable with full functionality in Fiori Launchpad
- ALV Tree and ALV Grid
- Filter, sort, and layout functions
- Navigation to SAP standard transactions
- Extendable via navigation profiles

Excel Export of Reports

- to local file
- to application server, also possible as background job

Get Started – Schedule a Demo

Experience Advanced BOM Analytics live! Schedule a demo now and discover how our solution can drive your business forward.

Price on request – Demo & Fit-Gap: Brief remote session with sample evaluations in the demo system.

Contact Us

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