

CORISTO SAP OBJECT STRUCTURE EXPLORER

CORISTO EXPLORER – OVERVIEW

Coristo SAP Object Structure Explorer

BUSINESS CONTEXT

- Creation of an easy-to-use solution in which SAP objects such as **routings, production orders, functional locations** or similar can be displayed and navigated very simply (=> **consumer solution**).
- Assigned documents, manufacturing instructions, 3D visualised assembly instructions or 3D models can be navigated directly, i.e. **all relevant documents** can be made **easily available**.
- In particular, a **bidirectional integration between the 3D view and the structural representation** was created so that it is possible to navigate intuitively.

REALISIERUNG

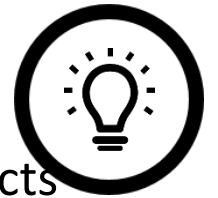
- ✓ The solution is available as
 - ✓ **Web HTML5 solution (SAP UI5)**, which can be used directly in the browser or on mobile devices (e.g. iPad or Android tablet – responsive design) and can be operated with FingerTouch.
 - ✓ SAP GUI version (with navigation options directly in standard transactions).

THE EXPLORER OFFERS:

- a **bidirectional display** between a structure and visual representations.
- The **display** of various **business objects** with freely definable **search helps**:
 - Production Order,
 - Functional Location,
 - Routing, and more.
- a history of the most recently viewed objects per business object.

The screenshot displays the SAP Coristo 3D Manufacturing Cockpit interface. On the left, a 'Selektion' (Selection) panel shows a tree view of business objects for 'E-Scooter'. The selected object is '5PR/10000054373/000/00 (3)'. The right side of the interface shows a 3D CAD model of a blue scooter with a tan seat, viewed from a three-quarter perspective.

Objekt	Objektbeschreibung
1000025	PP01 0001 14869 (E-Scooter)
14869	E-Scooter
CATIA V5 Product [5PR]	CATIA V5 Product [5PR]
5PR/10000054373/000/00 (1)	E-Scooter
5PR/10000054373/000/00 (3)	E-Scooter
Engin/Des. Drawing [KPR]	Engin/Des. Drawing [KPR]
PDF [PDF]	PDF [PDF]
0010	Assembly Front Fork
DRW/10000054414/000/00	eScooter VDS File
0080 L 14977	Assembly eScooter Handlebar
0090 L 14976	Assembly eScooter Fork Frontwheel
0100 L 14873	Screw ISO 4762 M10x25
0110 L 14951	Rim 3 x 12" OS 10
0120 L 14944	Tire 130 / 70 12"
0130 L 14894	Mudgard Front 130 12"
0270 L 14967	Rear Outer Body ER25 Complete
0020	Assembly Rear Wheel Swingarm



- The Explorer focuses above all on the idea of making the **information** on SAP business objects **accessible from anywhere**.
- For this reason, the Explorer was converted into a **web version** in the **SAP Fiori environment**, so that the information is accessible from all devices (**PC, smartphone or tablet**).
- In this way, the **information required** in a wide range of business processes can be accessed **easily, adapted** and **updated** (redundancy-free) at any time.
- However, an SAP GUI version is still available. Due to the improved integration in standard functions of the SAP system, it is possible, for example, to provide an easy navigation to the maintenance transactions of a business object or to use the full potential of the SAP Visual Enterprise Viewer.

Objective of the solution

- The Coristo Explorer is a way of displaying any SAP documents for a business object.
- The information is provided directly from the SAP backbone.
- Easy navigation and reduced, customized information.
- Display of different document types possible.
- The solution is easily extendable and customizable.

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DISPLAY OF ANY SAP BUSINESS OBJECTS

- Any business objects can be represented as so-called contexts, these include:
 - **Production Order**
 - **Routing**
 - **Maintenance order**
 - **Material Master**
 - **Network plan** etc.

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DISPLAY OF ANY SAP BUSINESS OBJECTS

REDUNDANCY FREE INFORMATION

- The information displayed in the explorer is redundancy-free.
- This is because the information displayed at each resolution is the current data from the backbone of the underlying ERP system.

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DISPLAY OF ANY SAP BUSINESS OBJECTS

REDUNDANCY FREE INFORMATION

SIMPLE NAVIGATION

- Independent on the business object, the navigation behaves in the same way. This leads to simple and intuitive navigation.
- Likewise, only the information on the business objects that is desired is displayed. This efficiently bundles the information to be displayed.

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DISPLAY OF ANY SAP BUSINESS OBJECTS

REDUNDANCY FREE INFORMATION

SIMPLE NAVIGATION

DISPLAY OF VARIOUS DOCUMENT TYPES

- In the browser, information on various business objects can be used in place by default (without an additional application).
- This includes documents in .pdf, .jpg, .vds... formats.
- This means that 3D viewing is also possible by default.

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DISPLAY OF ANY SAP BUSINESS OBJECTS

REDUNDANCY FREE INFORMATION

SIMPLE NAVIGATION

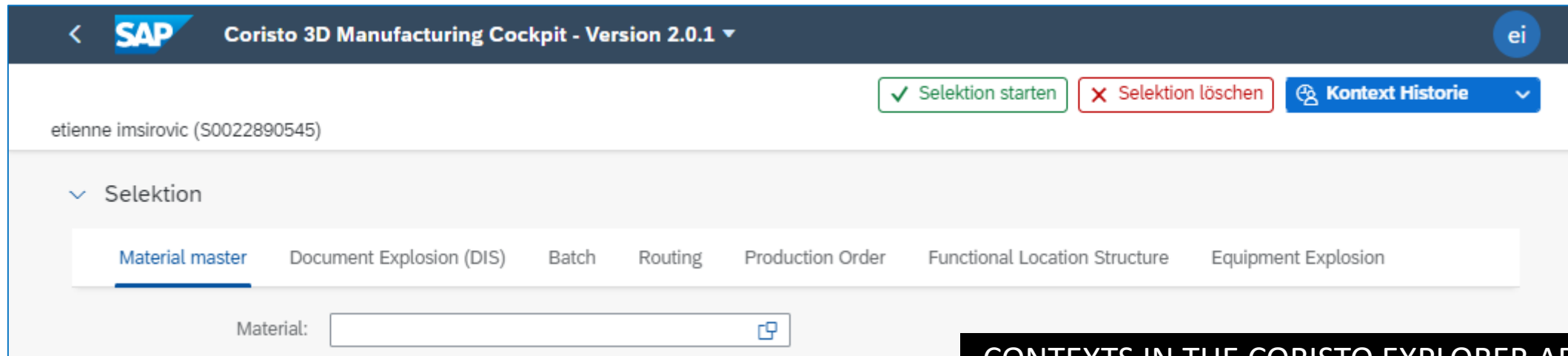
DISPLAY OF VARIOUS DOCUMENT TYPES

EASY EXTENSIBILITY

- The solution is very easy to expand.
- This is because the solution has its own customizing view via which new contexts (SAP business objects) can be easily added.
- For a new context, only a class has to be implemented that controls the expansion logic (possibility to integrate customer-specific logic via BADIs / extensions).

CORISTO EXPLORER – EXAMPLES OF THE UI5 / FIORI VERSION

Coristo SAP Object Structure Explorer



CONTEXTS IN THE CORISTO EXPLORER ARE:

- Material Master
- Document info record
- Batch
- Routing
- Production Order
- Equipment
- Functional location

- The SAP objects listed are only examples.
- These can be freely selected and extended as desired.

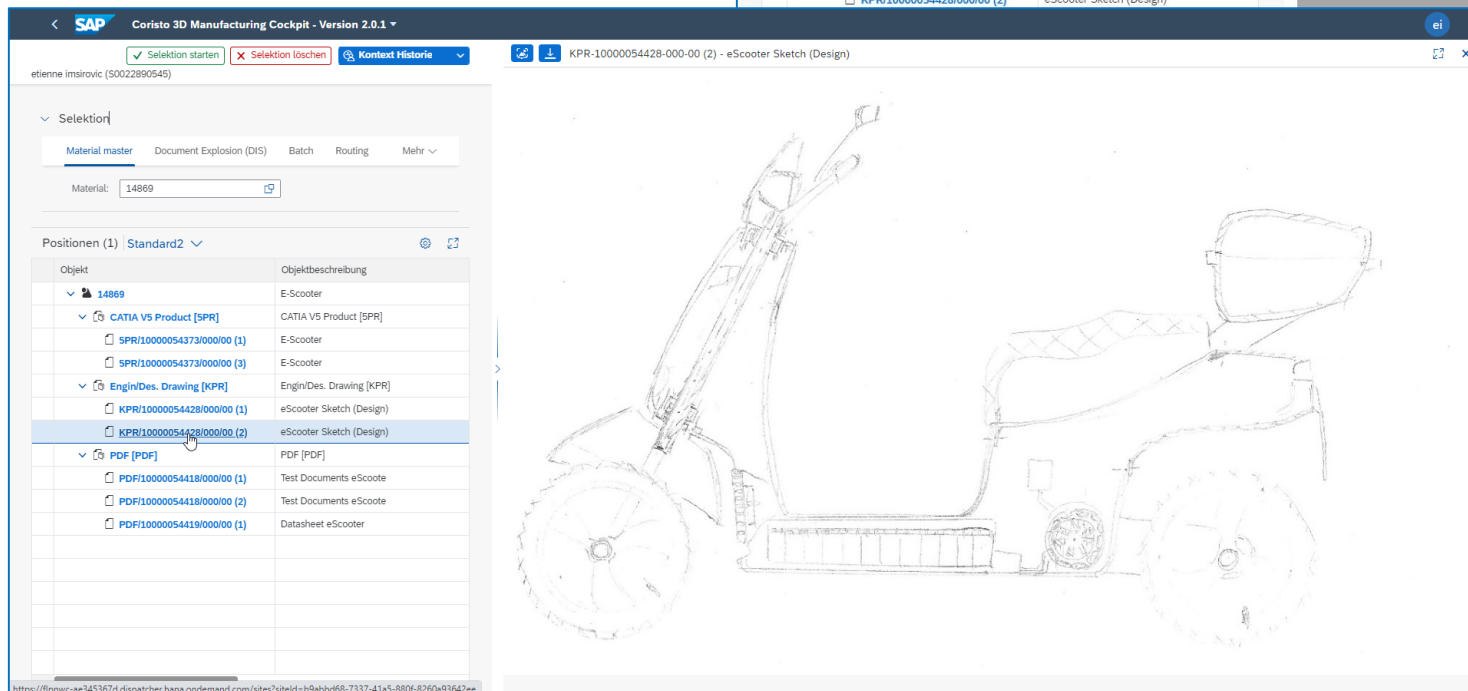
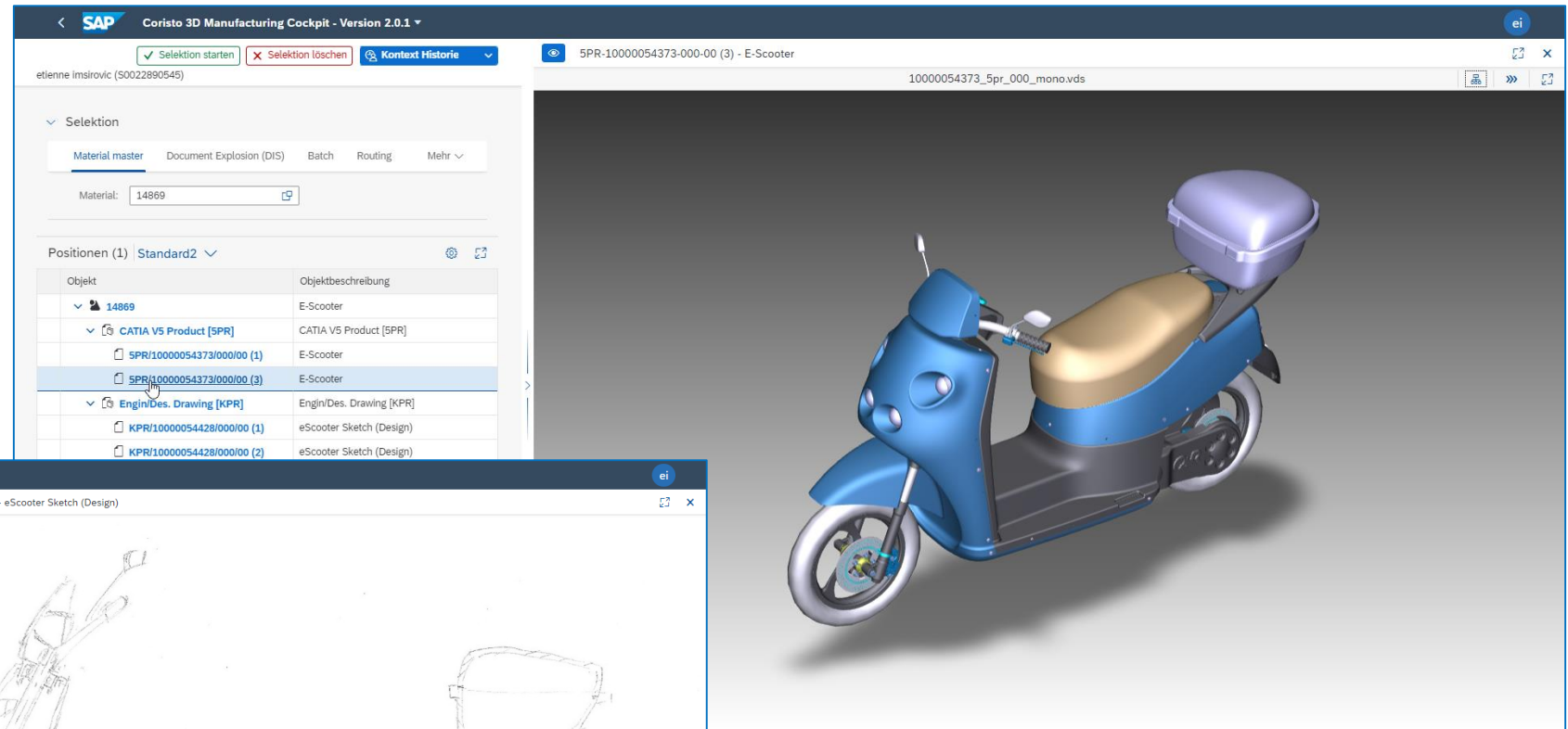
ANY DOCUMENTS (HERE TO THE MATERIAL MASTER)

MATERIAL MASTER

The document info record is displayed for a material master.

You can see a .VDS file and a JPG of a construction drawing.

Other file formats are also supported.



DOCUMENT INFO RECORD

The document info record shows a document BOM of an eScooter.

Here you can see a .VDS file of a brake disc.

The screenshot displays the SAP Coristo 3D Manufacturing Cockpit interface. The top navigation bar includes the SAP logo, the title 'Coristo 3D Manufacturing Cockpit - Version 2.0.1', and user information 'etienne imsirovic (S0022890545)'. The main content area is divided into two sections. On the left, the 'Selektion' (Selection) section shows a document explosion (DIS) for a document with the following details: Document type: 5PR, Document number: 10000054373, Document part: 000, and Document version: 00. Below this is a table of positions (1) under 'Standard2'. The table lists various components of the eScooter, including the Brake Disc (BRAKE_DISC) which is highlighted. On the right, a 3D model of a brake disc is displayed, showing its circular shape with a central hub and a perforated outer ring.

Objekt	Objektbeschreibung
5PR/10000054373/000/00	E-Scooter
5PR/10000054375/000/00 (1)	Verschalung
5PA/10000054382/000/00 (3)	VR-Pos-8-Bodenverkleidung
5PR/10000054375/000/00 (1)	Verschalung
5PR/10000054405/000/00 (1)	Component
5PR/10000054355/000/00 (1)	Front Wheel
5PR/10000054395/000/00 (1)	Rear Wheel
5PR/10000054358/000/00 (2)	Sitzbank Gelb
5PR/10000054348/000/00 (1)	Top-Case
5PR/10000054381/000/00 (2)	Braking System
5PR/10000054397/000/00 (1)	FW Braking System
5PR/10000054388/000/00 (1)	ASSY_BRAKE_CALIPER
5PA/10000054352/000/00 (3)	BRAKE_DISC

ANY DOCUMENTS (HERE FOR A BATCH)

BATCH

A batch is exploded with the material master assigned to it.

The documents for the material master are displayed.

You can see an original that corresponds to a PDF file for a sample delivery note.

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Selektion starten Selektion löschen Kontext Historie

DMO-1000054424-000 (1) - Example delivery bill

Example_deliverybill_eScooter.pdf

Selektion

Material master Document Explosion (DIS) Batch Routing Mehr

Batch: 3

Material: 14944

Plant: 0001

Positionen (1) Standard2

Objekt	Objektbeschreibung
14944/0001/3	
14944	Tire 130 / 70 12"
CATIA V5 Part [SPA]	CATIA V5 Part [SPA]
SPA/10000054337/000/00 (1)	Pneu
SPA/10000054337/000/00 (2)	Pneu
Demo Document [DMO]	Demo Document [DMO]
DMO-1000054424-000/00 (1)	Example delivery bill
PDF [PDF]	PDF [PDF]
PDF/10000054428/000/00 (1)	ADAC Labeling Tires

Coris eScooter GmbH | Scooterstreet 1 | 12345 Scootertown

Coris eScooter GmbH
Herr / Frau xy
Musterstraße 1
34567 Musterstadt

Kundennummer
156871654556884

Auftragsdatum
25.01.2021

Datum
27.01.2021

Lieferschein Nr. 0815

Wir bedanken uns für die gute Zusammenarbeit und liefern Ihnen vereinbarungsgemäß folgende Waren:

https://fipnwc-ae345367d.dispatcher.hana.ondemand.com/sites?siteid=b9abbd68-7337-41a5-880f-8260a93642ee

ROUTING

The corresponding routing is displayed for a material master.

The routing operations with the associated assemblies are displayed.

A .VDS file is displayed that is assigned to operation 0010 as a production resource/tool.

The file has a bidirectional link with the assemblies of the eScooter.

Thus, the handlebar is coloured red when it is clicked in the structure.

The screenshot displays the SAP Coristo 3D Manufacturing Cockpit interface. The left pane shows the routing structure for material 14869 at plant 0001. The routing table lists various operations and their associated assemblies, with the handlebar assembly (0080 L 14977) highlighted in red. The right pane shows a 3D CAD model of the eScooter, with the handlebar assembly highlighted in red to match the selection in the routing table.

Objekt	Objektbeschreibung
N 50000028/01	N 0001 (Arbeitsplan eScooter)
0	
0010	Assembly Front Fork
DRW/10000054414/000/00	
0080 L 14977	Assembly eScooter Handlebar
0090 L 14976	Assembly eScooter Fork Frontwheel
0100 L 14873	Screw ISO 4762 M10x25
0110 L 14951	Rim 3 x 12" OS 10
0120 L 14944	Tire 130 / 70 12"
0130 L 14894	Mudgard Front 130 12"
0020	Assembly Rear Wheel Swingarm
14980	Clamping angle

PRODUCTION ORDER

The corresponding production order is displayed for a material master.

The document info record is read for the material master and the production resources/tools (PRT) are read for the routing.

A PRT is assigned to operation 0080 - Steering assembly.

The PRT is a document whose original is in .PDF format and is displayed.

The screenshot displays the SAP Coristo 3D Manufacturing Cockpit interface. On the left, the 'Selektion' (Selection) pane shows a hierarchical list of objects for production order 1000025. The selected object is 'PDF10000054423/000/00 (1)', which is a 2D view of a handlebar. The main area on the right shows a PDF viewer displaying the document '2DVIEW_ESC25_handlebar_complete_00235678.pdf'. The viewer shows two views of the handlebar: '4 sides - complete' and a perspective view.

Objekt	Objektbeschreibung
1000025	PP01 0001 14869 (E-Scooter)
14869	E-Scooter
CATIA V5 Product [5PR]	CATIA V5 Product [5PR]
Engin/Des. Drawing [KPR]	Engin/Des. Drawing [KPR]
PDF [PDF]	PDF [PDF]
0010	Assembly Front Fork
DRW/10000054414/000/00	eScooter VDS File
0080 L 14977	Assembly eScooter Handlebar
PDF [PDF]	PDF [PDF]
PDF10000054422/000/00 (1)	InspectionRecord_00114_15-01-2021
PDF10000054423/000/00 (1)	2DVIEW_ESC25_handlebar_complete_00235678
0090 L 14976	Assembly eScooter Fork Frontwheel
0100 L 14873	Screw ISO 4762 M10x25
0110 L 14951	Rim 3 x 12" OS 10
0120 L 14944	Tire 130 / 70 12"
0130 L 14894	Mudgard Front 130 12"
0270 L 14967	Rear Outer Body ER25 Complete

ANY DOCUMENTS (HERE ON EQUIPMENT)

EQUIPMENT

The relevant documents are read for a equipment.

A graph showing the machine data can be seen. The original file is available as a .JPG file.

Coristo SAP Object and Document Explorer - Version 2.0.1

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Selektion starten Selektion löschen Kontext Historie

Materialstamm Dokumentinfosatz Charge Arbeitsplan Fertigungsauftrag Technische Platzstruktur **Equipment**

Equipment: 10000028

Positionen (1) Standard2*

Objekt	Objektbeschreibung	Filename
10000028	Fließband 01 (Verpackung)	
Konstruktionszeichng [DRW]	Konstruktionszeichng [DRW]	
DRW/CORIS_ASSEMBLY_LINE_0	Dokumente für Fließband	Graph_Assembly_Line_Power.jpg
DRW/CORIS_ASSEMBLY_LINE_0	Dokumente für Fließband	DIN_3115732_SecurityHintsAssemblyLine.PDF

DRW-CORIS_ASSEMBLY_LINE_01-000-00 (1) - Dokumente für Fließba...

Zeit in s	Antriebskraft in N
0	0
1	150
2	175
3	100
4	-150
4.5	-175
5	-100
6	0
15	0

ANY DOCUMENTS (HERE A FUNCTIONAL LOCATION)

FUNCTIONAL LOCATION

The assigned documents and the pieces of equipment that make up the structure are read for a functional location structure.

You can see a .VDS file of the entire functional location structure.

The pieces of equipment 10000028 and 10000029 are assigned to this structure.

The screenshot displays the SAP Coristo 3D Manufacturing Cockpit interface. On the left, a 'Selektion' (Selection) panel shows a tree view of the functional location structure for 'PACK-LOC-EI-01'. The tree includes various objects such as 'Packaging Machine', 'CATIA V5 Product [5PR]', 'Production Line VDS', and several 'Engin/Des. Drawing [DRW]' and 'Documents for Assembly Line' entries. The 'Production Line VDS' entry is highlighted. On the right, a 3D CAD model of a production line is shown, featuring a large grey machine with a green pipe and a blue component. The machine is labeled 'HÜLLER HILLE NBH 630 5X'. The interface also shows a URL at the bottom: <https://flpnwc-ae345367d.dispatcher.hana.ondemand.com/sites?siteId=b9abb668-7337-41a5-880f-8260a93642ee>

SIMPLEST SEARCH - FROM DIRECT SEARCH TO THE SIMPLE POSSIBILITY OF USING BACKEND SEARCH HELPS

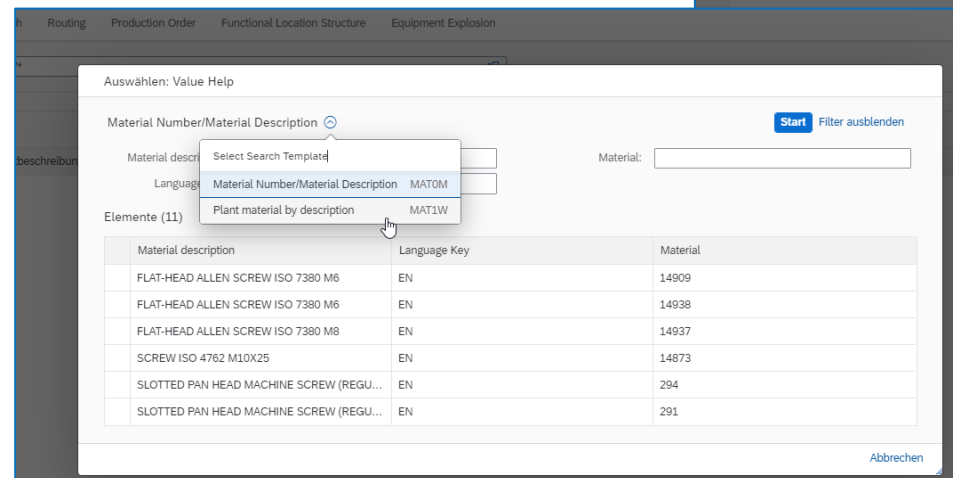
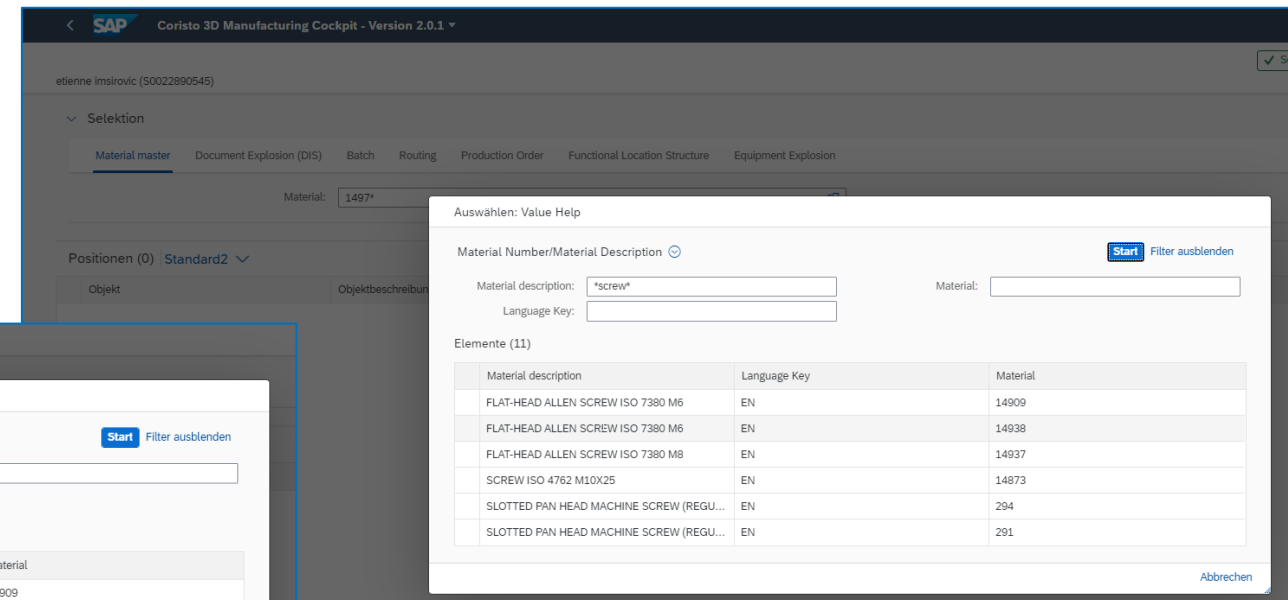
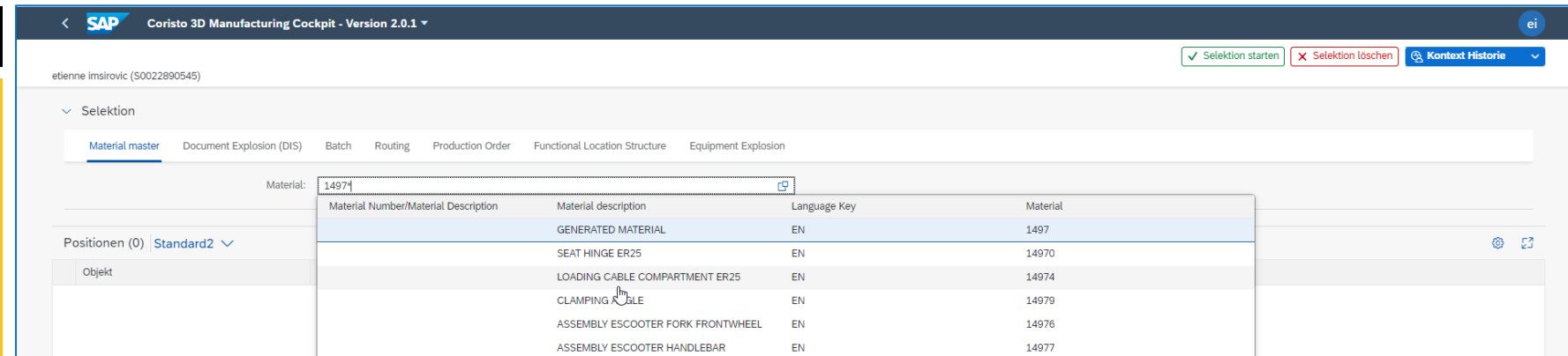
SEARCH HELPS

It is possible to use different and also several search helps.

These can easily be stored as parameters in customising.

In this way, customer-specific search helps can also be realized (backend search helps).

On the right hand some different search helps.



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