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| Test ScriptSAP S/4HANA - 24-08-20 | public |
| Setup Configurable Model using Variant Configuration (22T\_DE) |

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# Purpose

Improve your company's product engineering, sales, and manufacturing performance with SAP software for integrated variant configuration and classification. Enable your business process to handle highly individualized products in sales and manufacturing.

A comprehensive simulation environment supports state-of-the-art configuration, sophisticated analysis of your configurable products, and real-time integration to the configurable BOM Explosion. Get support from integrated requirements management.

This document provides a detailed procedure for testing this scope item after solution activation, reflecting the predefined scope of the solution. Each process step, report, or item is covered in its own section, providing the system interactions (test steps) in a table view. Steps that are not in scope of the process but are needed for testing are marked accordingly. Project-specific steps must be added.

# Prerequisites

This section summarizes all the prerequisites for conducting the test in terms of systems, users, master data, organizational data, other test data and business conditions.

## System Access

|  |  |
| --- | --- |
| System | Details |
| System | Accessible via SAP Fiori launchpad. Your system administrator provides you with the URL to access the various apps assigned to your role. |

## Roles

Assign the following business roles to your individual test users. Alternatively, if available, you can create business roles using the following spaces with pages and predefined apps for the SAP Fiori launchpad and assign the business roles to your individual test users.

Note These roles or spaces are examples provided by SAP. You can use them as templates to create your own roles or spaces.

For more information about business roles, refer to Assigning business roles to a user in the [Administration Guide to Implementation of SAP S/4HANA with SAP Best Practices](https://help.sap.com/viewer/S4HANA2020_AdminGuide) .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name (Role) | ID (Role) | Description (Space) | ID (Space) | Log On |
| * Product Configuration Modeler

Maintains the variant-configuration-specific master data such as classes, characteristics, variant conditions, dependencies, configuration profiles, and so on.Collaborates with PLM department, production supervisors, and others relevant to manufacturing. | SAP\_BR\_PRODUCT\_CONFIG\_MODELER | Variant Configuration | SAP\_BR\_PRODUCT\_CONFIG\_MODELER |  |
| * Master Data Specialist - Product Data

Maintains the product master details in collaboration with the other departments such as PLM, production, planning, purchase, sales, and so on. | SAP\_BR\_PRODMASTER\_SPECIALIST | Product | SAP\_BR\_PRODMASTER\_SPECIALIST |  |
| * Production Engineer - Discrete Manufacturing

Maintains the production-specific master data such as BOM, routing, and so on, for discrete manufacturing.Collaborates with the engineering and planning departments, production supervisors, and others relevant to manufacturing. | SAP\_BR\_PRODN\_ENG\_DISC | Production Engineering - Discrete Manufacturing | SAP\_BR\_PRODN\_ENG\_DISC |  |

## Master Data, Organizational Data, and Other Data

The organizational structure and master data of your company is created in the system during activation. The organizational structure reflects the structure of your company. The master data represents materials, customers, and vendors, for example, depending on the operational focus of your company.

Use your own master data or the following sample data to go through the test procedures.

Table 1: Single-Level Configurable BOM

|  |  |  |  |
| --- | --- | --- | --- |
| Data | Sample Value | Details | Comments |
| Plant | 1010 | Plant 1 DE |  |
| Material | CM-FL-V01 | Forklift | Configurable MaterialNote* If the material CM-FL-V01 already exists, then create the material CM-FL-Vnn, where nn is the running number.
* Ensure that the AVC\_CL\_REFCSTC\_VXX and AVC\_CL\_COMMON\_VXX classes are assigned to the material.
 |
| Material | SF-FL-COMB | Forklift Base Combustion Model | Semi-finished Material |
| Material | SF-FL-ELECTRIC | Forklift Base Electrical Model | Semi-finished Material |
| Material | SF-FL-CWEIGHT | Forklift Counterweight Plate | Semi-finished Material |
| Material | SF-FL-TIRE-CUSH | Forklift Cushion Tire | Semi-finished Material |
| Material | SF-FL-TIRE-PNEU | Forklift Pneumatic Tire | Semi-finished Material |
| Material | SF-FL-FORK-S | Forklift Small Fork | Semi-finished Material |
| Material | SF-FL-FORK-M | Forklift Medium Fork | Semi-finished Material |
| Material | SF-FL-FORK-L | Forklift Large Fork | Semi-finished Material |
| Characteristic | AVC\_CR\_LIFTERMODEL\_VXX | Lifter Model |  |
| Characteristic | AVC\_CR\_POWERSOURCE\_VXX | Power Source |  |
| Characteristic | AVC\_CR\_WHEELTYPE\_VXX | Wheel Type |  |
| Characteristic | AVC\_CR\_COUNTERWEIGHT\_VXX | Counter Weight |  |
| Characteristic | AVC\_CR\_FORKSIZE\_VXX | Fork Size |  |
| Characteristic | AVC\_CR\_STPOQTY\_VXX | Component Quantity |  |
| Characteristic | AVC\_CR\_FORKLENGTH\_VXX | Fork Length |  |
| Class | AVC\_CL\_COMMON\_VXX | Forklifter High Level Configuration | Variant Class (type: 300) |
| Class | AVC\_CL\_REFCSTC\_VXX | Reference Cstics | Variant Class (type: 300) |
| Class | AVC\_CL\_FORK\_VXX | Fork for Class Node | Material – Configurable Objects (type: 200) |
| Dependencies | AVC\_OD\_CALCPRICECWEIGHT\_VXX | HL: Procedure Pricing |  |
| Dependencies | AVC\_OD\_CALCFORKLEN\_VXX | LL: Determine Fork Length |  |
| Dependencies | AVC\_OD\_CALCCWEIGH\_VXX | LL: Calc Counterweight Qty |  |
| Dependencies | AVC\_OD\_CTIREONLY\_VXX | LL: Cushion Tire |  |
| Dependencies | AVC\_OD\_PTIREONLY\_VXX | LL: Pneumatic Tire |  |
| Dependencies | AVC\_OD\_COMBONLY\_VXX | LL: Combustion Power Source |  |
| Dependencies | AVC\_OD\_ELECONLY\_VXX | LL: Electrical Power Source |  |

Table 2: Multi-Level Configurable BOM

|  |  |  |  |
| --- | --- | --- | --- |
| Data | Sample Value | Details | Comments |
| Plant | 1010 | Plant 1 DE |  |
| Material | CM-MLFL-KM-VXX | Multi-Level Forklifter | Configurable Material |
| Material | SF-FL-COMB | Forklift Base Combustion Model | Semi-finished Material |
| Material | SF-FL-ELECTRIC | Forklift Base Electrical Model | Semi-finished Material |
| Material | SF-FL-CWEIGHT | Forklift Counterweight Plate | Semi-finished Material |
| Material | SF-FL-TIRE-CUSH | Forklift Cushion Tire | Semi-finished Material |
| Material | SF-FL-TIRE-PNEU | Forklift Pneumatic Tire | Semi-finished Material |
| Material | SF-FL-FORK-S | Forklift Small Fork | Semi-finished Material |
| Material | SF-FL-FORK-M | Forklift Medium Fork | Semi-finished Material |
| Material | SF-FL-FORK-L | Forklift Large Fork | Semi-finished Material |
| Material | SF-FL-FORKSEAT-VXX | Seat Type of Fork lifter (HALB) | Semi-finished Material |
| Characteristic | AVC\_CR\_LIFTERMODEL\_VXX | Lifter Model |  |
| Characteristic | AVC\_CR\_POWERSOURCE\_VXX | Power Source |  |
| Characteristic | AVC\_CR\_WHEELTYPE\_VXX | Wheel Type |  |
| Characteristic | AVC\_CR\_COUNTERWEIGHT\_VXX | Counter Weight |  |
| Characteristic | AVC\_CR\_FORKSIZE\_VXX | Fork Size |  |
| Characteristic | AVC\_CR\_STPOQTY\_VXX | Component Quantity |  |
| Characteristic | AVC\_CR\_FORKLENGTH\_VXX | Fork Length |  |
| Characteristic | AVC\_CR\_BCAPACITY\_VXX | Battery Capacity [Ah] |  |
| Characteristic | AVC\_CR\_SEAT\_TYPE\_VXX | Seat Type |  |
| Characteristic | AVC\_CR\_SEAT\_COLOR | Seat Color |  |
| Characteristic | AVC\_CR\_PLPOVGW03\_VXX | Standard Value |  |
| Class | AVC\_CL\_COMMON\_VXX | Forklifter High Level Configuration | Variant Class (type: 300) |
| Class | AVC\_CL\_REFCSTC\_VXX | Reference Cstics | Variant Class (type: 300) |
| Class | AVC\_CL\_ELECADD\_VXX | Add Cstics for Electrical Forklifter | Variant Class (type: 300) |
| Class | AVC\_CL\_FORK\_VXX | Fork for Class Node | Material – Configurable Objects (type: 200) |
| Class | AVC\_CL\_FORKSEAT\_VXX | Cstics for Forklifter Seat | Variant Class (type: 300) |
| Variant Table and Content | AVC\_VT\_BASECMB\_VXX | Forklifter Common Model Restriction |  |
| Configuration Profile | AVC\_CP\_MULTILEVEL\_VXX |  |  |
| Configuration Profile | AVC\_CP\_FORKSEAT\_VXX |  |  |
| Dependency Net | AVC\_OD\_CNSTRNET\_VXX |  |  |
| Dependency | AVC\_OD\_CALCPRICECWEIGHT\_VXX | HL: Procedure Pricing |  |
| Dependency | AVC\_OD\_CALCFORKLEN\_VXX | LL: Determine Fork Length |  |
| Dependency | AVC\_OD\_CALCCWEIGH\_VXX | LL: Calc Counterweight Qty |  |
| Dependency | AVC\_OD\_CTIREONLY\_VXX | LL: Cushion Tire |  |
| Dependency | AVC\_OD\_PTIREONLY\_VXX | LL: Pneumatic Tire |  |
| Dependency | AVC\_OD\_COMBONLY\_VXX | LL: Combustion Power Source |  |
| Dependency | AVC\_OD\_ELECONLY\_VXX | LL: Electrical Power Source |  |
| Dependency | AVC\_OD\_CNSTRNET\_VXX | HL: Constraint Net |  |
| Dependency | AVC\_OD\_RESTRICTMODEL\_VXX | HL: Constraint Common Restrict |  |
| Dependency | AVC\_OD\_DEFPSOURCE\_VXX | HL: Procedure Default Value |  |
| Dependency | AVC\_OD\_VALFORLFORK\_VXX | HL: Only Large Fork |  |
| Dependency | AVC\_OD\_CSTICFORELEC\_VXX | HL: Show for Electrical Lifter |  |
| Dependency | AVC\_OD\_HDSEAT\_VXX | HL: Heavy Duty Seat |  |
| Super BOM | CM-MLFL-KM-VXX |  |  |
| BOM Item | SF-FL-COMB |  |  |
| BOM Item | SF-FL-ELECTRIC |  |  |
| BOM Item | SF-FL-TIRE-PNEU |  |  |
| BOM Item | SF-FL-TIRE-CUSH |  |  |
| BOM Item | SF-FL-CWEIGHT |  |  |
| BOM Item | AVC\_CL\_FORK\_VXX |  |  |
| BOM Item | SF-FL-FORKSEAT-VXX |  |  |

For more information on creating master data objects, see the following [Master Data Scripts (MDS)](https://support.sap.com/content/dam/SAAP/Sol_Pack/BP_OP_ENTPR/BP_OP_ENTPR_S4HANA2020_7_Master_Data_EN_XX.htm)

Table 3: Master Data Script Reference

|  |  |
| --- | --- |
| Master Data ID | Description |
| BNS | Create Product Master of Type "Semi-Finished Good" |
| 2T7 | Create Product Master of Type "Configurable Material" |

## Preliminary Steps

### Assign Routing for CM-FL-V01

Purpose

In this process step, you assign routing for the configurable material.

This step has to be executed only once for material CM-FL-V01.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log on | Log on to the SAP Fiori launchpad as Production Engineer - Discrete Manufacturing. | The SAP Fiori Launchpad displays. |  |
| 2 | Access the App | Open  Change Routing (CA02). | The Change Routing Initial |  |
| 3 | Enter the data on the initial screen | On the Change Routing Initial screen, make the following entries and choose Continue:* Material: CM-MLFL-KM-VXX
* Plant:1010
 | The Change Routing: Header Details screen displays. |  |
| 4 | Enter the data on the header details screen | In the menu bar, choose More > Routing > Assignment :* GrC: 1
* Material: CM-FL-V01
* Plant:1010

Choose Continue. | The Material Assignment screen displays. |  |
| 5 | Save the routing | Choose Save: | The routing is created. |  |

### Assign Dependency to Operation and Sequence in Routing

Purpose

For configurable routing, you must assign dependencies to operations and sequence so that routing is variable according to configuration of the material.

You must execute this step once only.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Production Engineer - Discrete Manufacturing. | The SAP Fiori Launchpad displays. |  |
| 2 | Access the app | Open  Change Routing (CA02). | The Change Routing: Initial Screen screen displays. |  |
| 3 | Enter the plant and the material name | Make the following entries, and choose Continue:* Material: CM-FL-V01
* Plant:1010
* Group: 41010039
 |  |  |
| 4 | Create Parallel Sequence 1 | 1. Choose More > Sequences .
2. Choose New entries.
3. On the Choose Sequence Category dialog box, select Parallel Sequence and choose Continue.
4. Make the following entries:
	* Sequence: 1
	* Description: Parallel Seq for Elec
	* Branch Operation: 0010
	* Return Operation: 0010
5. Choose Operation and make the following entries:
	* Operation: 0011
	* Work center: ASSEMBLE
	* Control Key: YBP1
	* Description: Preparation of electrical engine
6. Press Enter.
7. Choose the Back icon.
 |  |  |
| 5 | Assign dependency to Sequence 1 | 1. Choose More > Extras > Object Dependencies > Assignments .
2. Enter the following dependency:
	* Dep.: AVC\_OD\_ELECONLY\_VXX
3. Choose Back.
 | The dependency is assigned to the sequence. |  |
| 6 | Assign dependencies to operation | 1. In the Operation Overview table, select the check box for the operation 0010.
2. Choose More > Extras > Object Dependencies > Assignments .
3. Enter the following dependency:
	* Dep.: AVC\_OD\_CALCCLABOR\_VXX
4. Choose Back.
5. Repeat the steps 1 to 4 for the following:
	1. Operation 0031 and Dep.: AVC\_OD\_COMBONLY\_VXX
	2. Operation 0032 and Dep.: AVC\_OD\_ELECONLY\_VXX
 | The dependencies are assigned to the operation. |  |
| 7 | Save the routing | Choose Save. | The routing is saved. |  |

# Overview Table

This scope item consists of several process steps provided in the following table.

If your system administrator has enabled spaces and pages on the SAP Fiori launchpad, the homepage will only contain the essential apps for performing the typical tasks of a business role.

You can find all other apps not included on the homepage using the search bar.

If you want to personalize the homepage and include the hidden apps, navigate to your user profile and choose Settings > App Finder .

|  |  |  |  |
| --- | --- | --- | --- |
| Process Step | Business Role | App / Transaction | Expected Results |
| Create Configurable BOM section |
| [Create Characteristic](#unique_9) [page ] 15 | Product Configuration Modeler | Manage Characteristics (CT04) | Characteristic is created. |
| [Create Class – Class type 300: Variants](#unique_10) [page ] 17 | Product Configuration Modeler | Manage Classes (CL02) | Class is created. |
| [Assign Class to Product](#unique_11) [page ] 18 | Master Data Specialist - Product Data | Manage Product Master Data (F1602) | Class is assigned to the product. |
| [Create Variant Table](#unique_12) [page ] 19 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | Variant table is created. |
| [Create Variant Table Content](#unique_13) [page ] 21 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | Variant table content is created. |
| [Create Configuration Profile](#unique_14) [page ] 23 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | Configuration profile is created. |
| [Change Configuration Profile to Assign Characteristic Group](#unique_15) [page ] 25 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | Characteristic group is created and assigned to the configuration profile. |
| [Create Constraint Net](#unique_16) [page ] 27 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | Constraint net is created. |
| [Create and Assign High-Level Dependencies](#unique_17) | Product Configuration Modeler | VC Modeling Environment (PMEVC) | High-level dependencies are created and assigned to respective objects. |
| [Create Super BOM](#unique_18) [page ] 37 | Production Engineer - Discrete Manufacturing | Maintain Bill Of Material - Create, change & display BOMs (F1813) | Super BOM is created. |
| [Simulate Single-Level Configurable BOM](#unique_19) [page ] 40 | Production Engineer - Discrete Manufacturing | Simulate Configuration Models (F2570) | Single-level configurable BOM is simulated with the variant data. |
| [(Optional) Replicate Configuration Model to SAP Cloud Platform](#unique_20) [page ] 44 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | Knowledge base is created and replicated to SAP Cloud Platform. |
| [(Optional) Simulate Multi-Level Configurable BOM](#unique_21) [page ] 46 | Production Engineer - Discrete Manufacturing | Simulate Configuration Models (F2570) | Multi-level configurable BOM is simulated with the variant data. |
| [Simulate Configurable Routing](#unique_22) [page ] 48 | Production Engineer - Discrete Manufacturing | Simulate Configuration Models (F2570) | Routing of configurable BOM is simulated with the variant data. |
| [(Optional) Analyze Configurable BOM Simulation](#unique_23)  [page ] 51 | Production Engineer - Discrete Manufacturing | Simulate Configuration Models (F2570) | Trace messages are analyzed for the configurable BOM simulation. |
| Maintain Configurable BOM section |
| [With Requirement Driven Development](#unique_24) [page ] 54 |  |  |  |
| [Without Requirement Driven Development](#unique_25) | Product Configuration Modeler | VC Modeling Environment (PMEVC) | Configurable BOM is simulated with the variant data. |
| [(Optional) Replicate Modeling Changes to SAP Cloud Platform](#unique_26) [page ] 57 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | Knowledge base is updated and replicated to SAP Cloud Platform. |

# Test Procedures

This section describes test procedures for each process step that belongs to this scope item.

## Create Configurable BOM

### Create Characteristic

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create a characteristic.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Characteristics (CT04) app. | The Characteristics screen displays. |  |
| 3 | Enter the characteristic name | Make the following entry, and choose the Create icon.* Characteristic: AVC\_CR\_BCAPACITY\_V01
* The value in the Valid from field is auto-populated.
* If the characteristic AVC\_CR\_BCAPACITY\_V01 already exists, then create the characteristic AVC\_CR\_BCAPACITY\_Vnn, where nn is the running number.
 | The Create Characteristic screen displays. |  |
| 4 | Enter basic data | On the Basic data tab, make the following entries.* Basic data section:
	+ Description: Battery Capacity
	+ Status: Released (default)
* Format section:
	+ Data Type: Numeric Format
	+ Number of Chars: 4
	+ Decimal Places: 0
* Value assignment section:
	+ Select the Single-value radio button.
	+ Select the Restrictable checkbox.
 |  |  |
| 5 | Enter the values | On the Values tab, in the Allowed Values section, make the following entries.Char. Value:* 50
* 80
* 140
 |  |  |
| 6 | Save the characteristic | Choose Save. | The characteristic is created. |  |

### Create Class – Class type 300: Variants

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create a class with the class type - 300.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Classes (CL02) app. | The Class screen displays. |  |
| 3 | Enter the class name | Make the following entries, and choose the Create icon.1. Class: AVC\_CL\_ELECADD\_V01
2. Class Type: 300
3. The value in the Valid from field is auto-populated.
4. If the class AVC\_CL\_ELECADD\_V01 already exists, then create the class AVC\_CL\_ELECADD\_Vnn, where nn is the running number.
 | The Create Class screen displays. |  |
| 4 | Enter basic data | On the Basic data tab, make the following entries.Basic data section:* Description: Add Cstics for electrical forklifter
* Status: Released (Default)

Same classification section:* Select the Do not check radio button. (Default)

Note If you use the same classification, then you can choose the way of checking (warning message, error, none). |  |  |
| 5 | Enter char. | On the Char. tab, make the following entry.* Char.: AVC\_CR\_BCAPACITY\_V01
 |  |  |
| 6 | Save the class | Choose Save. | The class is created. |  |

### Assign Class to Product

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you assign class to a product.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Master Data Specialist - Product Data. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Product Master Data (F1602) app. | The Manage Product Master Data screen displays. |  |
| 3 | Search for the product | Make the following entry, and choose Go.* Product: CM-FL-V01
 | The product is displayed. |  |
| 4 | Open the product details | Select the product. | The Product screen displays. |  |
| 5 | Open the product for editing | Choose Edit. | The object page is now editable. |  |
| 6 | Assign class | 1. On the Classification tab, click the + icon, and choose Using this class type.
2. On the Select: Class dialog box, in the Name field, enter the class that you created in the step Create Class – Class type 300: Variants.
3. Choose Go.
4. Select the item from the search result list.
 | The class is assigned.Tip To verify, look for the newly assigned class in the Class drop-down list. |  |
| 7 | Evaluate characteristic | Select the characteristic Battery Capacity value help, select all the values, and choose OK. | The selected values are assigned to the characteristic. |  |
| 8 | Save the product | Choose Save. | The product is updated. |  |

### Create Variant Table

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create a variant table.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log onto the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.* Material: CM-FL-V01
* Class Type: 300 (Default)
* Plant: 1010
* BOM Application:PP01
 | The configuration screen displays. |  |
| 4 | Select the material | On the configuration screen, select CM-FL-V01. | The material is selected. |  |
| 5 | Enter the table name | 1. Expand the Environment node.
2. Right-click Variant Tables and choose Create Variant Table.
3. On the Create Variant Table dialog box, make the following entry.

Variant Table: AVC\_VT\_BASECMB\_V01Note If the table AVC\_VT\_BASECMB\_V01 already exists, then create the table AVC\_VT\_BASECMB\_Vnn, where nn is the running number.1. Choose Continue.
 | The Create Table screen displays and the Basic Data tab is selected. |  |
| 6 | Enter basic data | On the Basic Data tab, make the following entries.Basic Data section:* Description: Common Model Restriction
* Status: In Preparation (Default)
 |  |  |
| 7 | Enter characteristics | On the Characteristics tab, make the following entries.Characteristic:* AVC\_CR\_LIFTERMODEL\_VXX
* AVC\_CR\_POWERSOURCE\_VXX
* AVC\_CR\_WHEELTYPE\_VXX
* AVC\_CR\_COUNTERWEIGHT\_VXX
 |  |  |
| 8 | Save the table | Choose Save. | The variant table is created. |  |

### Create Variant Table Content

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create variant table content.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler.Note If you are logged on and are currently on the material configuration screen, then skip to the Assign the variant table step. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.* Material CM-FL-V01
* Class Type: 300
* Plant: 1010
* BOM Application: PP01
 | The configuration screen displays. |  |
| 4 | Select the material | On the configuration screen, select CM-FL-V01. | The material is selected. |  |
| 5 | Assign the variant table | 1. Expand the Environment node.
2. Right-click Variant Tables and choose Add Single Variant Table.
3. On the Add Variant Table dialog box, make the following entry.

Variant Table: AVC\_VT\_BASECMB\_V011. Choose Continue.
 | The AVC\_VT\_ BASECMB\_V01 table gets added under the Variant Tables node. |  |
| 6 | Set the table status to Released | 1. Double-click the added table.

The Create Table screen displays and the Basic Data tab is selected.1. Choose the Change icon.

The Open Variant Table dialog box displays.1. Click Continue.
2. Set the Status field to Released.
3. Choose Save.
 | The status of the table is set to Released and its contents can be edited. |  |
| 7 | Add content to the variant table | 1. Choose the Change icon.

The Open Variant Table dialog box displays.1. Choose Continue.
2. On the Contents tab, use the Insert Row icon and make the entries to modify the table to as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| AVC\_ CR\_ LIFTERMODEL\_ VXX | AVC\_ CR\_ POWERSOURCE\_ VXX | AVC\_ CR\_ WHEELTYPE\_ VXX | AVC\_ CR\_ COUNTERWEIGHT\_ VXX |
| STD | COMB | C | 1,000 |
| STD | COMB | C | 2,000 |
| STD | ELEC | C | 1,000 |
| STD | ELEC | C | 2,000 |
| HVY | COMB | P | 5,000 |
| HVY | COMB | C | 5,000 |

Note If you are unable to view the columns, then scroll right. | The entered rows are appended to the table. |  |
| 8 | Save the table | Choose Save. | Content is added to the variant table. |  |

### Create Configuration Profile

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create a configuration profile.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.Material CM-FL-V01Class Type: 300 (Default)Plant: 1010BOM Application:PP01 | The configuration screen displays. |  |
| 4 | Create the configuration profile | 1. In the Object section, right-click CM-FL-V01 and choose Create Configuration Profile.
2. In the Create Configuration Profile dialog box, make the following entry.

Configuration Profile: AVC\_CP\_STANDARD1. Choose Continue.
 | The Configuration Profile screen displays in the right panel and the Basic Data tab is selected. |  |
| 5 | Set the processing mode | In the Processing Mode section, select Advanced Variant Configuration. |  |  |
| 6 | Save the configuration profile | Choose Save. | The configuration profile is created. |  |

### Change Configuration Profile to Assign Characteristic Group

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create and assign characteristic group to configuration profile.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.Material: CM-FL-V01Class Type: 300 (Default)Plant: 1010BOM Application:PP01 | The configuration screen displays. |  |
| 4 | Assign characteristic group to profile | 1. In the Object section, expand the root node and double-click the configuration profile AVC\_CP\_STANDARD node.

The Configuration Profile screen displays in the right pane.1. Select the User Interface tab.
2. Choose Assign Characteristic Groups.

A dialog box to confirm whether to leave the page with unsaved data is displayed.1. Choose Ok.
 | The Configuration Profile screen displays in a new browser tab. |  |
| 5 | Create characteristic group | * Choose Edit.

Note The Edit button is available only for the first time you create a characteristic group.* Choose Create Group.
 | The Configuration Characteristic Group page displays. |  |
| 6 | Add general information | In the General Information section, make the following entry.* Characteristics Group: AVC\_CG\_TECHNICAL\_V01

Note If the characteristic group AVC\_CG\_TECHNICAL\_V01 already exists, then create the class AVC\_CG\_TECHNICAL\_Vnn, where nn is the running number. |  |  |
| 7 | Add description | In the Description section, choose Create, and add the following description:* Language: EN
* Description: Technical
 |  |  |
| 8 | Add characteristics | In the Characteristics section, choose Assign Characteristic. | The Select: Assign Characteristic dialog box displays. |  |
| 9 | Select and assign characteristics | 1. In the Characteristic field, enter AVC\_CR\_FORKSIZE\_VXX and choose Go.
2. In the search result, select the check box corresponding to the characteristic AVC\_CR\_FORKSIZE\_VXX.
3. Repeat the steps 1 and 2 for the following characteristics.
	* AVC\_CR\_WHEELTYPE\_VXX
	* AVC\_CR\_BCAPACITY\_V01
	* AVC\_CR\_COUNTERWEIGHT\_VXX
4. Choose OK.

The Select: Assign Characteristic dialog box closes and the selected characteristics are listed in the Characteristics section.1. Enter the corresponding sorting orders for the characteristics as listed in the following table.

|  |  |
| --- | --- |
| Characteristic | Sorting Order |
| AVC\_CR\_FORKSIZE\_VXX | 1 |
| AVC\_CR\_WHEELTYPE\_VXX | 2 |
| AVC\_CR\_BCAPACITY\_V01 | 3 |
| AVC\_CR\_COUNTERWEIGHT\_VXX | 4 |

1. Choose Save.
 | * The characteristics are assigned to the group.
* The Configuration Profile screen displays.
 |  |
| 10 | Assign group to configuration profile | 1. Choose Assign Group. The Select: Assign Characteristic Groups screen appears
2. In the Name field, search for AVC\_CG\_TECHNICAL, and choose Go.
3. Select the item displayed under the Items section, and choose Ok. On the Configuration Profile screen, the selected characteristic is displayed under the Characteristic Groups section.
4. Maintain the sorting order for the characteristic group as 1.
5. Choose Save.
 | Characteristics group is assigned to the configuration profile. |  |
| 11 | Close the Assign Groups to Profile page | Choose the close button. |  |  |

### Create Constraint Net

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create a constraint net.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.Material CM-FL-V01Class Type: 300Plant: 1010BOM Application: PP01 | The configuration screen displays. |  |
| 4 | Select the configuration profile | 1. On the configuration screen, expand the CM-FL-V01 node.
2. Select AVC\_CP\_STANDARD.
 | The configuration profile is selected. |  |
| 5 | Create the constraint net | 1. Right-click AVC\_CP\_STANDARD and choose Create Dependency > Global (Reusable) .
2. If the Open Configuration Profile dialog box displays, choose Continue.
3. On the Create Dependency on Configuration Profile dialog box, make the following entries:
	* Dependency: AVC\_OD\_CNSTRNET\_V01
	* Dependency Type: Constraint Net (Default)
4. Choose Continue.

Note If the dependency AVC\_OD\_ CNSTRNET\_V01 already exists, then create the dependency AVC\_OD\_ CNSTRNET\_Vnn, where nn is the running number. | The Create Constraint Net screen displays and the Basic Data tab is selected. |  |
| 6 | Enter basic data | On the Basic Data tab, make the following entries:Description: HL: Constraint NetProcessing Mode: Advanced Variant ConfigurationStatus: Released |  |  |
| 7 | Save the constraint net | Choose Save. | The constraint net is created. |  |

### Create and Assign High-Level Dependencies

#### Define Constraint

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you define a constraint assigned to the configuration profile.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.* Material CM-FL-V01
* Class Type: 300
* Plant: 1010
* BOM Application: PP01
 | The configuration screen displays. |  |
| 4 | Select the constraint net | On the configuration screen, double-click the CM-FL-V01 > AVC\_CP\_STANDARD > AVC\_OD\_CNSTRNET\_V01 node. | The Create Constraint Net screen displays and the Basic Data tab is selected. |  |
| 5 | Create the constraint | 1. Choose the Change icon.
2. On the Open Dependency dialog box, choose Continue.
3. On the Constraints tab, make the following entry:

Constraint: AVC\_OD\_RESTRICTMODEL\_V01Note If the constraint AVC\_OD\_ RESTRICTMODEL\_ V01 already exists, then create the constraint AVC\_OD\_ RESTRICTMODEL\_ Vnn, where nn is the running number.1. Double-click the constraint entry to open its details.
 | The Create Constraint screen displays and the Basic Data tab is selected. |  |
| 6 | Enter basic data | On the Basic Data tab, make the following entry.* Description: Constraint Common Restr
 |  |  |
| 7 | Enter the syntax | 1. On the Editor tab, enter the following syntax:

OBJECTS:(300)AVC\_CL\_COMMON\_VXX  WHERE MODEL = AVC\_CR\_LIFTERMODEL\_VXX;  SOURCE = AVC\_CR\_POWERSOURCE\_VXX;  TIRES = AVC\_CR\_WHEELTYPE\_VXX;  WEIGHT = AVC\_CR\_COUNTERWEIGHT\_VXX.   RESTRICTIONS:   TABLE AVC\_VT\_BASECMB\_V01 (  AVC\_CR\_LIFTERMODEL\_VXX = MODEL,  AVC\_CR\_POWERSOURCE\_VXX = SOURCE,  AVC\_CR\_WHEELTYPE\_VXX = TIRES,  AVC\_CR\_COUNTERWEIGHT\_VXX = WEIGHT).   INFERENCES:  MODEL, SOURCE, TIRES, WEIGHT.1. Click the Check icon.

Note If you get any syntax errors, use the Input Help icon to troubleshoot. Also, delete any extra space and tab characters, as they can cause syntax errors. | The Syntax Check Error-Free message displays. |  |
| 8 | Release the constraint | On the Basic Data tab, set the Status field to Released. |  |  |
| 9 | Save the constraint | Choose Save. | The constraint is saved. |  |

#### Define Procedure

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you define a procedure assigned to the configuration profile.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log onto the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model:* Material: CM-FL-V01
* Class Type: 300
* Plant: 1010
* BOM Application: PP01
 | The configuration screen displays. |  |
| 4 | Select the configuration profile | Select the CM-FL-V01 > AVC\_CP\_STANDARD node. | The configuration profile is selected. |  |
| 5 | Create the procedure | 1. Right-click AVC\_CP\_STANDARD and choose Create Dependency > Global (Reusable) .
2. If the Open Configuration Profile dialog box displays, choose Continue.
3. On the Create Dependency on Configuration Profile dialog box, make the following entries:
	* Dependency: AVC\_OD\_DEFPSOURCE\_V01
	* Dependency Type: Procedure
4. Choose Continue.

If the dependency AVC\_OD\_ DEFPSOURCE\_V01 already exists, then create the dependency AVC\_OD\_DEFPSOURCE\_Vnn, where nn is the running number. | The Create Dependency screen displays and the Basic Data tab is selected. |  |
| 6 | Enter basic data | On the Basic Data tab, make the following entries:* Description: HL: Procedure Default Value
* Processing Mode: Advanced Variant Configuration
 |  |  |
| 7 | Enter the syntax | 1. On the Editor tab, enter the following syntax:

$SELF.AVC\_CR\_POWERSOURCE\_VXX ?= 'COMB'.1. Click the Check icon.
 | The Syntax Check Error-Free message displays. |  |
| 8 | Release the procedure | On the Basic Data tab, set the Status field to Released. |  |  |
| 9 | Save the procedure. | Choose Save. | The procedure is saved. |  |

#### Define Precondition on a Characteristic

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you define a precondition assigned to a characteristic.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log onto the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.Material CM-FL-V01Class Type: 300Plant: 1010BOM Application: PP01 | The configuration screen displays. |  |
| 4 | Create the precondition | 1. On the configuration screen, expand the CM-FL-V01 node.
2. Expand the 300 AVC\_CL\_ELECADD\_V01 node.
3. Right-click AVC\_CR\_BCAPACITY\_V01 and choose Create Dependency > Global (Reusable) .
4. If the Open Configuration Profile dialog box displays, choose Continue.
5. On the Create Dependency on Characteristic dialog box, make the following entries:
	* Dependency: AVC\_OD\_CSTICFORELEC\_V01
	* Dependency Type: Precondition (Default)
6. Choose Continue.

If the dependency AVC\_OD\_CSTICFORELEC\_V01 already exists, then create the dependency AVC\_OD\_CSTICFORELEC\_Vnn, where nn is the running number. | The Create Dependency screen displays and the Basic Data tab is selected. |  |
| 5 | Enter basic data | On the Basic Data tab, make the following entry:Description: HL: Show for Electrical LifterProcessing Mode: Advanced Variant Configuration |  |  |
| 6 | Enter the syntax | 1. On the Editor tab, enter the following syntax:

AVC\_CR\_POWERSOURCE\_VXX = 'ELEC'.1. Click the Check icon.
 | The Syntax Check Error-Free message displays. |  |
| 7 | Release the precondition | On the Basic Data tab, set the Status field to Released. |  |  |
| 8 | Save the precondition. | Choose Save. | The precondition is saved. |  |

#### Define Precondition on a Characteristic Value

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you define a precondition assigned to a characteristic value.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log onto the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.* Material CM-FL-V01
* Class Type: 300
* Plant: 1010
* BOM Application: PP01
 | The configuration screen displays. |  |
| 4 | Create the precondition | 1. On the configuration screen, expand the CM-FL-V01 node.
2. Expand the 300 AVC\_CL\_ELECADD\_V01 node.
3. Expand the AVC\_CR\_BCAPACITY\_V01 node.
4. Right-click 140 and choose Create Dependency > Global (Reusable) .
5. If the Open Configuration Profile dialog box displays, choose Continue.
6. On the Create Dependency on Characteristic Value dialog box, make the following entries:
	* Dependency: AVC\_OD\_VALFORLFORK\_V01
	* Dependency Type: Precondition (Default)
7. Choose Continue.

If the dependency AVC\_OD\_VALFORLFORK\_V01 already exists, then create the dependency AVC\_OD\_VALFORLFORK\_Vnn, where nn is the running number. | The Create Dependency on Characteristic Value screen displays and the Basic Data tab is selected. |  |
| 5 | Enter basic data | On the Basic Data tab, make the following entry:Description: HL: Only Large ForkProcessing Mode: Advanced Variant Configuration |  |  |
| 6 | Enter the syntax | 1. On the Editor tab, enter the following syntax:

AVC\_CR\_FORKSIZE\_VXX = 'L'.1. Click the Check icon.
 | The Syntax Check Error-Free message displays. |  |
| 7 | Release the precondition | On the Basic Data tab, set the Status field to Released. |  |  |
| 8 | Save the precondition. | Choose Save. | The precondition is saved. |  |

### Create Super BOM

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create a super BOM.

Note A super BOM is also referred to as a configurable BOM.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Production Engineer - Discrete Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Maintain Bill Of Material - Create, change & display BOMs (F1813) app. | The Maintain Bill of Material screen displays. |  |
| 3 | Create BOM | Choose Create BOM. | The Create BOM dialog box displays. |  |
| 4 | Enter initial data | 1. Make the following entries:
	* Material: CM-FL-V01
	* Plant: 1010
	* BOM Usage: 1
2. Choose OK.

Note The value in the Valid From field is auto-populated. | The Maintain Bill of Material screen displays the details of the BOM. |  |
| 5 | Add the SF-FL-COMB stock item | 1. In the Components section, click the + icon.
2. Enter the following component details:
	* Item: 0010
	* Item Category: Stock item (L)
	* Material: SF-FL-COMB
	* Component quantity: 1
3. Press the Enter key.
 | The material component is added. |  |
| 6 | Add the SF-FL-ELECTRIC stock item | 1. Click the + icon.
2. Enter the following component details:
	* Item: 0010
	* Item Category: Stock item (L)
	* Material: SF-FL-ELECTRIC
	* Component quantity: 1
3. Press the Enter key.
 | The material component is added. |  |
| 7 | Add the SF-FL-CWEIGHT stock item | 1. Click the + icon.
2. Enter the following component details:
	* Item: 0020
	* Item Category: Stock item (L)
	* Material: SF-FL-CWEIGHT
	* Component quantity: 1
3. Press the Enter key.
 | The material component is added. |  |
| 8 | Add the SF-FL-TIRE-CUSH stock item | 1. Click the + icon.
2. Enter the following component details:
	* Item: 0030
	* Item Category: Stock item (L)
	* Material: SF-FL-TIRE-CUSH
	* Component quantity: 4
3. Press the Enter key.
 | The material component is added. |  |
| 9 | Add the SF-FL-TIRE-PNEU stock item | 1. Click the + icon.
2. Enter the following component details:
	* Item: 0030
	* Item Category: Stock item (L)
	* Material: SF-FL-TIRE-PNEU
	* Component quantity: 4
3. Press the Enter key.
 | The material component is added. |  |
| 10 | Add the AVC\_CL\_ FORK\_VXX class item | 1. Click the + icon.
2. Enter the following component details:
	* Item: 0040
	* Item category: Class item (K)
	* Component quantity: 1
	* Press the Enter key.
3. Click the newly created component entry and enter the following details:
	* Class Type: 200
	* Class: AVC\_CL\_FORK\_VXX
	* Res. item category: L
4. Choose Apply.
 | The class component is added. |  |
| 11 | Save the BOM | Choose Save. | The BOM is saved. |  |
| 12 | Edit the BOM | Choose Edit. | The BOM is available to edit. |  |
| 13 | Assign low-level object dependencies to component items | Refer to the table and proceed as follows to assign the respective object dependencies to the component items one-by-one:1. In the Components section, select the component item.
2. Choose Object Dependencies.
3. On the Assigned Dependencies page, enter the corresponding object dependency in the Dependency field.
4. Choose Save.
5. Close the Assigned Dependencies page.

|  |  |  |
| --- | --- | --- |
| Item number | Component item | Dependency |
| 0010 | SF-FL-COMB | AVC\_OD\_COMBONLY\_VXX |
| 0010 | SF-FL- ELECTRIC | AVC\_OD\_ELECONLY\_VXX |
| 0020 | SF-FL-CWEIGHT | AVC\_OD\_CALCCWEIGH\_VXX |
| 0030 | SF-FL-TIRE-CUSH | AVC\_OD\_CTIREONLY\_VXX |
| 0030 | SF-FL-TIRE-PNEU | AVC\_OD\_PTIREONLY\_VXX |
| 0040 | AVC\_CL\_FORK\_ VXX | AVC\_OD\_CALCFORKLEN\_VXX |

 | Assigned Dependencies screen appears. |  |
| 14 | Save the BOM | Choose Save. | The BOM is saved. |  |

### Simulate Single-Level Configurable BOM

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you simulate single-level BOM configurations.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Production Engineer - Discrete Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Simulate Configuration Models (F2570) app. | The Simulation Configuration Models screen displays. |  |
| 3 | Create simulation | 1. Choose Create New Simulation.
2. On the New Simulation dialog box, make the following entries, and choose OK.
	* Product: CM-FL-V01
	* Plant: 1010
	* BOM Application: PP01
	* Simulation Context: Simulation

Tip If you want to analyze the trace messages, then set the Activate Trace switch to On.Note For details on analyzing the trace messages, see [(Optional) Analyze Configurable BOM Simulation](#unique_23)  [page ] 51. | The configurable characteristics and the corresponding value details display in the right pane. |  |
| 4 | Validate the characteristic group | On the Simulate Configurable Models screen, verify whether the characteristics assigned in [Change Configuration Profile to Assign Characteristic Group](#unique_15) [page ] 25 are available. | The characteristics in the characteristic group are available. |  |
| 5 | Validate the default power source (The AVC\_OD\_ DEFPSOURCE\_ V01 dependency) | Note the value in the Default Group > Power Source field. | The default value in the Default Group > Power Source field is Combustion. |  |
| 6 | Validate the battery capacity dependency for the Combustion power source (The AVC\_OD\_ CSTICFORELEC\_ V01 dependency) | Ensure that the Default Group > Power Source field is set to Combustion and that the other fields are either blank or are set to (None). | The Technical > Battery Capacity field is disabled. |  |
| 7 | Validate the battery capacity dependency for the Electrical power source (The AVC\_OD\_ CSTICFORELEC\_ V01 dependency) | In the Default Group > Power Source field, select Electrical. | * The Technical > Battery Capacity field is enabled.
* The Default Group > Lifter Model field is set to Standard and is disabled.
* The Technical > Wheel Type field is set to Cushion Tire and is disabled.
 |  |
| 8 | Validate the variant details for the Standard lifter model (The AVC\_OD\_ RESTRICTMODEL\_ V01 dependency) | 1. Set the fields that you changed in the previous step to (None).
2. Set the Default Group > Lifter Model field to Standard.
 | * The drop-down list in the Default Group > Power Source field displays both Combustion and Electrical.
* The Technical > Wheel Type field is set to Cushion Tire and is disabled.
* The drop-down list in the Technical > Counterweight field:
	+ Displays 1,000 kg and 2,000 kg.
	+ Does not display 5,000 kg.
 |  |
| 9 | Validate the variant details for the Heavy lifter model (The AVC\_OD\_ RESTRICTMODEL\_ V01 dependency) | 1. Set the fields that you changed in the previous step to (None).
2. Set the Default Group > Lifter Model field to Heavy.
 | * The Default Group > Power Source field is set to Combustion and is disabled.
* The drop-down list in the Technical > Wheel Type field displays both Cushion Tire and Pneumatic Tire.
* The Technical > Counterweight field is set to 5,000 kg and is disabled.
 |  |
| 10 | Validate the dependencies for the Large fork size (The AVC\_OD\_ VALFORLFORK\_ V01 dependency) | * Validate the dependency for the electrical power source and the normal fork size:
	1. Set the fields that you changed in the previous step to (None).
	2. Set the Default Group > Power Source field to Electrical and the Technical > Fork Size field to Normal.
* Validate the dependency for the electrical power source and the battery capacity 140:
	1. Set the fields that you changed in the previous step to (None).
	2. Set the Default Group > Power Source field to Electrical and the Technical > Battery Capacity field to 140.
 | * If the Default Group > Power Source field is set to Electrical and the Technical > Fork Size field is set to Normal, then the value help list for the Technical > Battery Capacity field:
	+ Displays 50 and 80.
	+ Does not display 140.
* If the Default Group > Power Source field is set to Electrical and the Technical > Battery Capacity field is set to 140, then the Technical > Fork Size field is set to Large and is disabled.
 |  |
| 11 | Explode BOM | 1. Set the fields that you changed in the previous step to (None).
2. Set the fields as follows:
	* Default Group > Lifter Model : Standard
	* Default Group > Power Source : Electrical
	* Technical > Counterweight : 2,000 kg
	* Technical > Fork Size : Normal
3. In the Exploded BOM pane, choose the Re-explode BOM icon.
 | * The Technical > Wheel Type field is set to Cushion Tire and is disabled.
* The exploded BOM contains the following items:

|  |  |
| --- | --- |
| Product | Qty |
| SF-FL-ELECTRIC | 1 |
| SF-FL-CWEIGHT | 2 |
| SF-FL-TIRE-CUSH | 4 |
| SF-FL-FORK-M | 1 |

* The quantity for SF\_FL\_ CWEIGHT is 2 PC and is determined based on the counterweight of 2,000 kg.
* The component SF-FL-FORK-M is determined based on the Normal fork size.
 |  |
| 12 | Explode BOM | 1. Set the fields that you changed in the previous step to (None).
2. Set the fields as follows:
	* Default Group > Lifter Model : Heavy
	* Technical > Wheel Type : Pneumatic Tire
	* Technical > Fork Size : Large
3. In the Exploded BOM pane, choose the Re-explode BOM icon.
 | * The Default Group > Power Source field is set to Combustion and is disabled.
* The Technical > Counterweight field is set to 5,000 and is disabled.
* The exploded BOM contains the following items:

|  |  |
| --- | --- |
| Product | Qty |
| SF-FL-COMB | 1 |
| SF-FL-CWEIGHT | 5 |
| SF-FL-TIRE-PNEU | 4 |
| SF-FL-FORK-L | 1 |

Note* The quantity for SF\_FL\_ CWEIGHT is 5 PC and is determined based on the counterweight of 5,000 kg.
* The component SF-FL-FORK-L is determined based on the Large fork size.
 |  |
| 13 | Save the simulation | 1. Choose Save.
2. On the Save Simulation dialog box, choose Save and Exit.
 | The simulation is saved. |  |

### (Optional) Replicate Configuration Model to SAP Cloud Platform

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Prerequisite

See <#unique_31>.

Purpose

In this process step, you create knowledge base for a configuration model.

The knowledge base is then replicated on SAP Cloud Platform by activating the communication arrangement SAP\_COM\_0537.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.* Material: CM-FL-V01
* Class Type: 300 (Default)
* Plant: 1010
* BOM Application: PP01
 | The configuration screen displays. |  |
| 4 | Enter knowledge base details | 1. In the left pane, under the Object column, right-click the root node and select Create or Assign KB object.
2. On the Create or Assign KB object dialog box, make the following entries:
	* KB Object: KBO-CM-FL-V01
	* Description: Knowledge base for Fork lifter
	* KB Profile: KBP-CM-FL-V01
	* Description: Profile for Fork lifter
	* Class type: 300
	* Choose Continue.
 | The knowledge base object screen displays. |  |
| 5 | Save the knowledge base object | Choose Save. | The knowledge base object is saved. |  |
| 6 | Create run-time version of the knowledge base | 1. In the left pane, under the Object column, right-click the knowledge base object KBO-CM-FL-V01 node, and choose Create Runtime Version.
2. On the Create Runtime Version dialog box, make the following entry:
	* Version: .01
3. Choose Continue.
4. On the KB object screen, in the Status field, enter 1.
5. Choose the Generate and Save icon.
6. On the Generate and Save Runtime Version dialog box, choose Yes.
 | The run-time version is created and a confirmation message is displayed. |  |
| 7 | Verify whether the knowledge base object is replicated in SAP Cloud Platform | 1. Log on to the Administration Cockpit of SAP Variant Configuration and Pricing with the BusinessExpert role.

Note For details, see the Administration Guide for SAP Variant Configuration and Pricing manual on SAP Help portal.1. In the left pane, choose Replication > Configuration .

The Configuration Replication page is displayed.1. In the search box, enter KBO-CM-FL-V01, and choose the Search icon.
 | The knowledge base object is displayed in the list view. |  |

### (Optional) Simulate Multi-Level Configurable BOM

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In a multi-level configuration, the hierarchy has a configurable material SF-FL-FORKSEAT-VXX as a child of the configurable material CM-MLFL-KM-VXX. To simulate CM-MLFL-KM-VXX, perform the test steps documented in the [Simulate Single-Level Configurable BOM](#unique_19) [page ] 40 test procedure. However, when validating the dependencies, you must use the dependencies with the VXX extension (and not the V01 extension).

In this process step, you simulate the SF-FL-FORKSEAT-VXX in a multi-level BOM configuration and test the behavior of the dependencies that get influenced by CM-MLFL-KM-VXX.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log onto the SAP Fiori launchpad as Production Engineer - Discrete Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Simulate Configuration Models (F2570) app. | The Simulation Configuration Models screen displays. |  |
| 3 | Create simulation | 1. Choose Create New Simulation.
2. On the New Simulation dialog box, make the following entries, and choose OK.
	* Product: CM-MLFL-KM-VXX
	* Plant: 1010
	* BOM Application: PP01
	* Simulation Context: Simulation
 | The configurable characteristics and the corresponding value details display in the right pane. |  |
| 4 | Select configurable items view | In the left pane, choose the Select View icon and choose Configurable Items. | Configurable view of material CM-MLFL-KM-VXX is displayed.Note Simulation of CM-MLFL-KM-VXX would be like the Simulate Configurable BOM (CM-FL-V01). However, the dependency validation should be performed with dependencies which has extension VXX instead of dependencies which has extension V01. |  |
| 5 | Validate the seat type dependency for Standard lifter model (The AVC\_OD\_ HDSEAT\_VXX dependency) | 1. Select the product CM-MLFL-KM-VXX.
2. Set Lifter Model to Standard.
3. Select the product SF\_FL\_FORKSEAT\_VXX.
 | The drop-down list in the Seat Type field displays only Standard seat and Air suspension seat. |  |
| 6 | Validate the seat type dependency for Heavy lifter model (The AVC\_OD\_ HDSEAT\_VXX dependency) | 1. Select the product CM-MLFL-KM-VXX.
2. Set Lifter Model to Heavy.
3. Select the product SF\_FL\_FORKSEAT\_VXX.
 | The drop-down list in the Seat Type field displays Standard seat, Heavy duty seat, and Air suspension seat. |  |
| 7 | Save the simulation | 1. Choose Save.
2. On the Save Simulation dialog box, choose Save and Exit.
 | The simulation is saved. |  |

### Simulate Configurable Routing

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you simulate routing configurations.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log onto the SAP Fiori launchpad as Production Engineer - Discrete Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Simulate Configuration Models (F2570) app. | The Simulation Configuration Models screen displays. |  |
| 3 | Create simulation | 1. Choose Create New Simulation.
2. On the New Simulation dialog box, make the following entries, and choose OK.
	* Product: CM-FL-V01
	* Plant: 1010
	* BOM Application: PP01
	* Simulation Context: Simulation

Note You must execute the preliminary step [Assign Routing for CM-FL-V01](#unique_6) [page ] 10 for this step to work. | The configurable characteristics and the corresponding value details display in the right pane. |  |
| 4 | Select routing view | In the left pane, choose the Click to Select icon corresponding to the product CM-FL-V01.Note If the Select Routing dialog box is displayed, select the entry that corresponds to 41010039. | In the left pane, the routing sequence along with the operations is displayed. |  |
| 5 | Validate the operation 0010 – Assembly w/o engine (The AVC\_OD\_ CALCCLABOR\_ VXX dependency) | 1. In the Counter Weight field, select 5000 KG.
2. Choose the Refresh Routing icon.
3. Select the operation 0010 – Assembly w/o engine.
 | In the Inspector pane, in the Standard Values section, Labor is set to 250.000 MIN. |  |
| 6 | Validate the operation 0031 – Final assembly with combustion engine (The AVC\_OD\_ COMBONLY\_VXX dependency) | 1. In the Power Source field, select Combustion.
2. Choose the Refresh Routing icon.
 | In the left pane, under the routing view, only the following operations are displayed.* 0010 Assembly w/o engine.
* 0031 Final assembly with combustion engine.
 |  |
| 7 | Validate the operations 0011 – Parallel Seq for Elec and 0032 – Final Assembly with electrical engine (The AVC\_OD\_ ELECONLY\_VXX dependency) | 1. In the Power Source field, select Electrical.
2. Choose the Refresh Routing icon.
 | In the left pane, under the routing view, only the following operations are displayed.* →Parallel Seq for Elec
* 0010 Assembly w/o engine.
* ←Parallel Seq for Elec.
* 0032 Final Assembly with electrical engine.
* If you choose the parallel sequence Parallel Seq for Elec, the operation 0011 Preparation of electrical engine is displayed.
* To view the sequence again, choose ←0010 Assembly w/o engine.
 |  |
| 8 | Save the simulation | 1. Choose Save.
2. On the Save Simulation dialog box, choose Save and Exit.
 | The simulation is saved. |  |

### (Optional) Analyze Configurable BOM Simulation

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you analyze trace messages for the configurable BOM simulation.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log onto the SAP Fiori launchpad as Production Engineer - Discrete Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Simulate Configuration Models (F2570) app. | The Simulation Configuration Models screen displays. |  |
| 3 | Open the simulation | 1. Make the following entries, and choose Go:
	* Type: Simulation
	* Product: CM-FL-V01
	* Plant: 1010
2. In the search results, select the simulation.
 | The configurable characteristics of the BOM display on the screen. |  |
| 4 | Filter by high-level trace messages | 1. In the right pane, choose Trace.

Tip If the right pane is not present, choose the Toggle Inspector icon.1. Choose the filter icon.
2. In the Trace Filter dialog box, make the following entry:

Trace Level: High-Level Configuration1. Choose Go.
 | Only high-level trace messages are displayed. |  |
| 5 | Filter by the message type Value Assignment | 1. Choose the filter icon.
2. In the Trace Filter dialog box, make the following entry:

Message Type: Value Assignment1. Choose Go.
 | Only value assignment trace messages are displayed. |  |
| 6 | Remove the filters | 1. Choose the filter icon.
2. In the Trace Filter dialog box, choose Reset.
3. Choose Go.
 | All trace messages are displayed. |  |
| 7 | Filter by a characteristic | 1. In the trace message section, choose a characteristic.

Example AVC\_CR\_POWERSOURCE\_VXX1. From the actions, choose to filter by the characteristic.

Example Filter Trace by Characteristic AVC\_CR\_POWERSOURCE\_VXX | Trace messages related to the selected characteristic only are displayed. |  |
| 8 | Inspect a characteristic | 1. In the trace message section, choose a characteristic.

Example AVC\_CR\_POWERSOURCE\_VXX1. From the actions, choose to inspect the characteristic.

Example Inspect Characteristic AVC\_CR\_POWERSOURCE\_VXX | The properties of the selected characteristic are displayed. |  |
| 9 | Remove the filters | 1. In the right pane, choose Trace.
2. On the filter bar, choose the x icon to reset the filters.
 | All trace messages are displayed. |  |
| 10 | Filter by low-level trace messages | 1. In the right pane, choose Trace.
2. Choose the filter icon.
3. In the Trace Filter dialog box, make the following entry:

Trace Level: Low-Level Configuration1. Choose Go.
 | Only low-level trace messages are displayed. |  |
| 11 | Filter by a BOM item | 1. In the trace message section, choose a BOM item.

Example SF-FL-COMB1. From the actions, choose to filter by the BOM item.

Example Filter Trace by Characteristic SF-FL-COMB | Trace messages related to the selected BOM item only are displayed. |  |
| 12 | Filter by a dependency | 1. In the trace message section, choose a dependency.

Example AVC\_OD\_COMBONLY\_VXX1. From the actions, choose to filter by the dependency.

Example Filter Trace by Dependency AVC\_OD\_COMBONLY\_VXX | Trace messages related to the selected dependency only are displayed. |  |
| 13 | Inspect a dependency | 1. In the trace message section, choose a dependency.

Example AVC\_OD\_COMBONLY\_VXX1. From the actions, choose to inspect the dependency.

Example Inspect Dependency AVC\_OD\_COMBONLY\_VXX | The properties of the selected dependency are displayed. |  |
| 14 | Remove the filters | 1. In the right pane, choose Trace.
2. On the filter bar, choose the x icon to reset the filters.
 | All trace messages are displayed. |  |

## Maintain Configurable BOM

### With Requirement Driven Development

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

If you are using the SAP Enterprise Architecture Designer application to create a new requirement and assign it to the variant model, then refer to the scope item 2G4 - Requirements Driven Development.

### Without Requirement Driven Development

#### Create High-Level Dependency and Simulate

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you change a procedure assigned to the configuration profile.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log onto the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Simulate Configuration Models (F2570) app. | The Simulation Configuration Models screen displays. |  |
| 3 | Create simulation | 1. Choose Create New Simulation.
2. On the New Simulation dialog box, make the following entries, and choose OK.
	* Product: CM-FL-V01
	* Plant: 1010
	* BOM Application: PP01

Tip If you want to analyze the trace messages, then set the Activate Trace switch to On.For details on analyzing the trace messages, see [(Optional) Analyze Configurable BOM Simulation](#unique_23)  [page ] 51. | The configurable characteristics and the corresponding value details display in the right pane. |  |
| 3 | Open the variant configuration modeling environment | Choose Open VC Modeling Env. | The configuration screen displays in a new window or a new tab depending on your browser settings. |  |
| 4 | Select the configuration profile | 1. On the configuration screen, expand the CM-FL-V01 node.
2. Select AVC\_CP\_STANDARD.
 |  |  |
| 5 | Create the procedure | 1. Expand the CM-FL-V01 node.
2. Right-click AVC\_CP\_STANDARD and choose Create Dependency > Global (Reusable) .
3. If the Open Configuration Profile dialog box displays, choose Continue.
4. On the Create Dependency on Configuration Profile dialog box, make the following entries:
	* Dependency: AVC\_OD\_DEFWTYPE\_V00
	* Dependency Type: Procedure

Tip If the dependency AVC\_OD\_DEFWTYPE\_V00already exists, then create the dependency AVC\_OD\_DEFWTYPE\_Vnn, where nn is the running number.1. Choose Continue.
 | The Create Dependency screen displays and the Basic Data tab is selected. |  |
| 6 | Enter basic data | On the Basic Data tab, make the following entry:Description: HL: Procedure Default Value2Processing Mode: Advanced Variant Configuration |  |  |
| 7 | Enter the syntax | 1. On the Editor tab, enter the following syntax:

$SELF.AVC\_CR\_WHEELTYPE\_VXX ?= 'P'.1. Choose the Check icon.
 | The Syntax Check Error-Free message displays. |  |
| 8 | Save the procedure | 1. On the Basic Data tab, set the Status field to Released.
2. Choose Save.
 | The procedure is saved. |  |
| 9 | Reload the variant model | 1. Return to the screen that was displayed in the Create simulation test step.
2. Choose the Reload Configuration Model icon.
 | The configurable characteristics and the corresponding value details of the model are reloaded. |  |
| 10 | Validate the default wheel type (The AVC\_OD\_ DEFWTYPE\_V00 dependency) | Note the value in the Wheel Type field. | The default value in the Wheel Type field is Pneumatic Tire. |  |
| 11 | Save the simulation | 1. Choose Save.
2. On the Save Simulation dialog box, choose Save and Exit.
 | The simulation is saved. |  |

#### (Optional) Replicate Modeling Changes to SAP Cloud Platform

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Prerequisite

See <#unique_31>.

Purpose

If the change is an enhancement to the existing configuration model and should become active in a future release, then you must generate a new run-time version of the knowledge base object for a configuration model.

In this process step, you generate a new run-time version of the knowledge base object for a configuration model.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the VC Modeling Environment (PMEVC) app. | The Initial Screen of Variant Configuration Modeling Environment screen displays. |  |
| 3 | Enter the configuration model data | On the initial screen, make the following entries, and choose Enter Model.* Material: CM-FL-V01
* Class Type: 300 (Default)
* Plant: 1010
* BOM Application: PP01
 | The configuration screen displays. |  |
| 4 | Create the new run-time version of the knowledge base object | 1. In the left pane, under the Object column, right-click the knowledge base object KBO-CM-FL-V01 node, and choose Create Runtime Version.
2. On the Create Runtime Version dialog box, make the following entry:
	* Version: .02
3. Choose Continue.
4. On the KB object screen, in the Status field, enter 1.
5. In the Valid From field, enter <current date> + 1 (the date on the next day).
6. Choose the Generate and Save icon.
7. On the Generate and Save Runtime Version dialog box, choose Yes.

Note If the change is not an enhancement and should become active in the current release, then:1. In the left pane, under the Object column, expand the knowledge base object KBO-CM-FL-V01 node, and double-click the .01 sub-node.
2. On the KB object screen, choose the Change icon.
3. Choose the Generate and Save icon.
4. On the Generate and Save Runtime Version dialog box, choose Yes.
 | A new version of the knowledge base object is created and a confirmation message is displayed. |  |
| 5 | Verify whether the updated knowledge base object is replicated in SAP Cloud Platform | 1. Log on to the Administration Cockpit of SAP Variant Configuration and Pricing with the BusinessExpert role.

Note For details, see the Administration Guide for SAP Variant Configuration and Pricing manual on SAP Help portal.1. In the left pane, choose Replication > Configuration .

The Configuration Replication page is displayed.1. In the search box, enter KBO-CM-FL-V01, and choose the Search icon.

The knowledge base object is displayed in the list view.1. Verify the value in the Build column.
 | If the list view, a new entry for the knowledge base object KBO-CM-FL-V01 is added with the Build value 1. |  |

## (Optional) Create Sales Set

The configuration modeler can also be used to define a configuration model for the Sales set functionality. For that, you must configure a few settings differently. The following list is a compilation of the key points that you must take care of.

* Configuration Profile

On the Basic Data tab:

* + In the Process section, select SALES Order (SET).
	+ In the BOM Explosion section, in the Application field, select SD01 Sales and Distribution.
* Bill of Material
	+ BOM Usage: 5 (Sales and Distribution)
	+ For all the items created under the BOM, on the Status/Long Text tab, select the Relevant to sales field.
* Item Category Group
	+ In the General Item Category Group field:
		- For Sales Set Header material, enter 0004
		- For non-KMAT material, enter NORM
		- For KMAT material, enter 0002

For more information see the Make-to-Order Production for Sales Kits with Variant Configuration (4OC) test script.

Typographic Conventions

|  |  |
| --- | --- |
| Type Style | Description |
| Example | Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.Textual cross-references to other documents. |
| Example | Emphasized words or expressions. |
| EXAMPLE | Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE. |
| Example | Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools. |
| Example | Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation. |
| <Example> | Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system. |
| EXAMPLE | Keys on the keyboard, for example, F2 or ENTER. |

|  |
| --- |
|  |
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