|  |  |
| --- | --- |
|  |  |
| Test ScriptSAP S/4HANA - 21-08-20 | public |
| Requirements Driven Development (2G4\_DE) |

Table of Contents

[1 Purpose 4](#_Toc51212853)

[2 Prerequisites 5](#_Toc51212854)

[2.1 System Access 5](#_Toc51212855)

[2.2 Roles 5](#_Toc51212856)

[2.3 Master Data, Organizational Data, and Other Data 6](#_Toc51212857)

[2.4 Business Conditions 11](#_Toc51212858)

[3 Overview Table 12](#_Toc51212859)

[4 Test Procedures 16](#_Toc51212860)

[4.1 Maintain Engineering BOM 16](#_Toc51212861)

[4.1.1 Create Requirements 16](#_Toc51212862)

[4.1.2 Publish the Requirement Model 19](#_Toc51212863)

[4.1.3 Additional Steps for Using Block Definition Diagram 21](#_Toc51212864)

[4.1.3.1 Create Block Definition Diagram 21](#_Toc51212865)

[4.1.3.2 Link Requirements to Block Definition Diagram 23](#_Toc51212866)

[4.1.3.3 Publish Block Definition Diagram 25](#_Toc51212867)

[4.1.4 Trigger Requirements Assignment for Bill of Material 26](#_Toc51212868)

[4.1.5 Assign Relevant Requirements or Blocks to Bill of Material 27](#_Toc51212869)

[4.1.6 Change Bill of Material 28](#_Toc51212870)

[4.1.7 View Requirements or Blocks Assigned to Bill of Material 31](#_Toc51212871)

[4.1.7.1 Trigger Viewing 31](#_Toc51212872)

[4.1.7.2 View Requirement or Block Details 32](#_Toc51212873)

[4.1.8 Set Change Master Status to Inactive 33](#_Toc51212874)

[4.2 Maintain Design Document 34](#_Toc51212875)

[4.2.1 Create Requirements 34](#_Toc51212876)

[4.2.2 Publish the Requirement Model 38](#_Toc51212877)

[4.2.3 Additional Steps for Using Block Definition Diagram 39](#_Toc51212878)

[4.2.3.1 Create Block Definition Diagram 39](#_Toc51212879)

[4.2.3.2 Link Requirements to Block Definition Diagram 41](#_Toc51212880)

[4.2.3.3 Publish Block Definition Diagram 43](#_Toc51212881)

[4.2.4 Trigger Requirements Assignment for Design Document 44](#_Toc51212882)

[4.2.5 Assign Relevant Requirements or Blocks to Design Document 46](#_Toc51212883)

[4.2.6 Change Design Document 47](#_Toc51212884)

[4.2.7 View Requirements or Blocks Assigned to Design Document 49](#_Toc51212885)

[4.2.7.1 Trigger Viewing 49](#_Toc51212886)

[4.2.7.2 View Requirement or Block Details 50](#_Toc51212887)

[4.3 Maintain Configurable BOM 51](#_Toc51212888)

[4.3.1 Create Requirements 51](#_Toc51212889)

[4.3.2 Publish the Requirement Model 54](#_Toc51212890)

[4.3.3 Additional Steps for Using Block Definition Diagram 55](#_Toc51212891)

[4.3.3.1 Create Block Definition Diagram 55](#_Toc51212892)

[4.3.3.2 Link Requirements to Block definition Diagram 57](#_Toc51212893)

[4.3.3.3 Publish Block Definition Diagram 59](#_Toc51212894)

[4.3.4 Trigger Requirements Assignment for Configuration Profile 60](#_Toc51212895)

[4.3.5 Assign Relevant Requirements or Blocks to Configuration Profile 61](#_Toc51212896)

[4.3.6 Create High-Level Dependencies 62](#_Toc51212897)

[4.3.7 Trigger Requirements Assignment for High-Level Dependency 64](#_Toc51212898)

[4.3.8 Assign Relevant Requirements or Blocks to High-Level Dependency 66](#_Toc51212899)

[4.3.9 Simulate Configurable BOM 67](#_Toc51212900)

[4.4 Maintain Material 68](#_Toc51212901)

[4.4.1 Create Requirement 68](#_Toc51212902)

[4.4.2 Publish the Requirement Model 70](#_Toc51212903)

[4.4.3 Additional Steps for Using Block Definition Diagram 71](#_Toc51212904)

[4.4.3.1 Edit Block Definition Diagram 72](#_Toc51212905)

[4.4.3.2 Link Requirement to Block Definition Diagram 73](#_Toc51212906)

[4.4.3.3 Publish Block Definition Diagram 74](#_Toc51212907)

[4.4.4 Trigger Requirements Assignment for Material 76](#_Toc51212908)

[4.4.5 Assign Relevant Requirements or Blocks to Material 77](#_Toc51212909)

[4.4.6 Change Material 78](#_Toc51212910)

[4.4.7 View Requirements or Blocks Assigned to Material 80](#_Toc51212911)

[4.4.7.1 Trigger Viewing 80](#_Toc51212912)

[4.4.7.2 View Requirement or Block Details 81](#_Toc51212913)

[4.5 Analyze Object Impact (Optional) 82](#_Toc51212914)

# Purpose

With Requirements Driven Development, you can link requirements and block definition diagrams to product lifecycle management objects such as engineering bills of material (EBOM), document info records, materials, and configurable BOMs.

Usually, the Systems Engineer creates requirements models to link different products to block definition diagrams.

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

Use the following resources for the tests:

|  |  |
| --- | --- |
| Resource | Details |
| System | Accessible through the SAP Fiori launchpad. Your system administrator provides you the URL to access various apps assigned to your role. |
| Cloud Foundry System (Enterprise Architecture Designer) | Your system administrator provides you with the URL of the SAP Cloud Foundry to access the SAP Enterprise Architecture Designer application.For more information about administering the application, search for the Administering SAP Enterprise Architecture Designer, cloud edition guide on SAP Help Portal.Ensure that the user is created with the required authorizations. For more information, see the sections Creating Repository Groups, Granting Rights to Users and Groups, and Granting Access Permissions on Repository Items in the guide.Note To assign the requirements as mentioned in each test procedure, you need to select the following check box : Edit Extensions on Web. For more information, refer Granting Rights to Users and Groups, in the guide. |

## 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 |
| BOM Engineer | SAP\_BR\_BOM\_ENGINEER | BOM Management | SAP\_BR\_BOM\_ENGINEER |  |
| Design Engineer | SAP\_BR\_DESIGN\_ENGINEER | Document Management | SAP\_BR\_DESIGN\_ENGINEER |  |
| Product Configuration Modeler | SAP\_BR\_PRODUCT\_CONFIG\_MODELER | Variant Configuration | SAP\_BR\_PRODUCT\_CONFIG\_MODELER |  |
| Master Data Specialist - Product Data | SAP\_BR\_PRODMASTER\_SPECIALIST | Product | SAP\_BR\_PRODMASTER\_SPECIALIST |  |
| Production Engineer - Discrete 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.

|  |  |  |  |
| --- | --- | --- | --- |
| Data | Sample Value | Details | Comments |
| Requirement Model | Windscreen wiper system | New Requirement Model | Create requirement model |
| Requirement | Washers | New Requirement | Create requirements |
| Requirement | Rain Sensor | New Requirement | Create requirements |
| Requirement | Wiper Controller | New Requirement | Create requirements |
| Requirement | Temperature Operational Capability | New Requirement | Create requirements |
| Requirement | Wiper Mechanics | New Requirement | Create requirements |
| Requirement | Wiper Arm | New Requirement | Create requirements |
| Requirement | Blades | New Requirement | Create requirements |
| Requirement | Wiper Motor | New Requirement | Create requirements |
| Requirement | Multi-Functional Forklift | New Requirement | Create requirement model |
| Requirement | Engine | New Requirement | Create requirements |
| Requirement | Transmission | New Requirement | Create requirements |
| Requirement | Tires | New Requirement | Create requirements |
| Requirement | Cushion Tires | New Requirement | Create requirements |
| Requirement | Pneumatic Tires | New Requirement | Create requirements |
| Block | Windscreen wiper system | New Block | New Block |
| Block | Washers | New Block | New Block |
| Block | Rain Sensor | New Block | New Block |
| Block | Wiper Controller | New Block | New Block |
| Block | Temperature Operational Capability | New Block | New Block |
| Block | Wiper Mechanics | New Block | New Block |
| Block | Wiper Arm | New Block | New Block |
| Block | Blades | New Block | New Block |
| Block | Wiper Motor | New Block | New Block |
| Block | Multi-Functional Forklift | New Block | New Block |
| Block | Engine | New Block | New Block |
| Block | Transmission | New Block | New Block |
| Block | Tires | New Block | New Block |
| Block | Cushion Tires | New Block | New Block |
| Block | Pneumatic Tires | New Block | New Block |
| Engineering Bill of Material |  |  | The Engineering Bill of Material is created in scope item , which is a prerequisite scope item. |
| Document |  |  | The Document that will be assigned in this test script is created in scope item 22P - Manage Documents, which is a prerequisite scope item.Document ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Configurable Bill of Material |  |  | The Configurable Bill of Material is created in scope item , which is a prerequisite scope item. |

The following table shows the engineering bill of material structure and the usage of each component if you have activated all optional enhancements:

Table 1: Engineering Bill of Material Structure

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Material | Level | Material Type | Unit | Characteristics of Material | Optional Enhancements |
| FG126 | 0 | FERT | PC | Finished good for MTS processing with serial number |  |
| SG21 | 1 | SEMI | PC | SF Repetitive Manufacturing |  |
| RM12 | 2 | RAW | PC | External procured |  |
| SG22 | 1 | SEMI | PC | SF, Phantom Assembly |  |
| RM16 | 2 | RAW | PC | External procured |  |
| RM17 | 2 | RAW | PC | External procured |  |
| RM18 | 2 | RAW | PC | External procured |  |
| RM120 | 1 | RAW | PC | External procured with Quality Management |  |
| RM122 | 1 | RAW | PC | External procured with Batch Management |  |
| RM128 | 1 | RAW | PC | External procured with Consignment Processing |  |
| SG23 | 1 | SEMI | PC | External procured with subcontract |  |
| RM13 | 2 | RAW | PC | External procured |  |
| RM14 | 2 | RAW | PC | External procured |  |
| SG25 | 1 | SEMI | PC | SEMI25, PD, External Procurement |  |
| SG124 | 1 | SEMI | PC | Internal production of sub-assembly (MTS strategy) |  |
| RM124 | 2 | RAW | PC | External procured using Fixed Bin |  |
| RM20 | 1 | RAW | PC | External procured contract |  |
| RM27 | 1 | RAW | PC | External procured – Packaging Box |  |

The following table shows the configurable bill of material structure and the usage of each component if you have activated all optional enhancements:

Table 2: Configurable Bill of Material Structure

|  |  |  |  |
| --- | --- | --- | --- |
| 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 |  |

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 |
| BNR | Create Product Master of Type "Raw Material" |
| BNS | Create Product Master of Type "Semi-Finished Good" |
| BNT | Create Product Master of Type "Finished Good" |
| 2T7 | Create Product Master of Type "Configurable Material" |

## Business Conditions

Before this scope item can be tested, the following business conditions must be met.

|  |  |
| --- | --- |
| Scope Item ID | Business Condition |
| 1R3 - Engineering Bill of Material - Change Master Management | An engineering bill of materials needs to be created as a prerequisite. This engineering bill of material is used in this scope item as sample data for demonstrating the requirements driven development.  |
| 22P - Manage Documents | A document needs to be created as a prerequisite. This document is used in this scope item as sample data for demonstrating the requirements driven development.  |
| 22T - Setup Configurable Model using Variant Configuration | A configurable BOM needs to be set up using variant configuration as a prerequisite. This configurable BOM is used in this scope item as sample data for demonstrating the requirements driven development.  |

# Overview Table

This scope item consists of several process steps that are listed 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 |
| Maintain Engineering BOM section |
| [Create Requirements](#unique_8) [page ] 16 | EAD User | Enterprise Architecture Designer | Requirements are created. |
| [Publish the Requirement Model](#unique_9) [page ] 19 | EAD User | Enterprise Architecture Designer | Requirements model is published. |
| [Create Block Definition Diagram](#unique_10) [page ] 21 | EAD User | Enterprise Architecture Designer | Block Definition Diagram is created. |
| [Link Requirements to Block Definition Diagram](#unique_11) [page ] 23 | EAD User | Enterprise Architecture Designer | Requirements are linked to the Block Definition Diagram. |
| [Publish Block Definition Diagram](#unique_12) [page ] 25 | EAD User | Enterprise Architecture Designer | Block Definition Diagram is published. |
| [Trigger Requirements Assignment for Bill of Material](#unique_13) [page ] 26 | BOM Engineer | Maintain Bill Of Material - Create, change & display BOMs (F1813) | The SAP Enterprise Architecture Designer application opens in a new window using which the relevant requirements can be assigned. |
| [Assign Relevant Requirements or Blocks to Bill of Material](#unique_14) [page ] 27 | EAD User | Enterprise Architecture Designer | Relevant requirements are linked to the bill of material. |
| [Change Bill of Material](#unique_15) [page ] 28 | BOM Engineer | Maintain Bill Of Material - Create, change & display BOMs (F1813) | The Engineering BOM is changed. |
| [Trigger Viewing](#unique_16) [page ] 31 | BOM Engineer | Maintain Bill Of Material - Create, change & display BOMs (F1813) | The SAP Enterprise Architecture Designer application opens in a new window using which the relevant requirements can be viewed. |
| [View Requirement or Block Details](#unique_17) [page ] 32 | EAD User | Enterprise Architecture Designer | Details of the assigned requirements can be viewed. |
| [Set Change Master Status to Inactive](#unique_18) [page ] 33 | BOM Engineer | Change Change Master (CC02) | Change master status is set to inactive. |
| Maintain Design Document section |
| [Create Requirements](#unique_19) [page ] 34 | EAD User | Enterprise Architecture Designer | Requirements are created. |
| [Publish the Requirement Model](#unique_20) [page ] 38 | EAD User | Enterprise Architecture Designer | Requirements model is published. |
| [Create Block Definition Diagram](#unique_21) [page ] 39 | EAD User | Enterprise Architecture Designer | Block Definition Diagram is created. |
| [Link Requirements to Block Definition Diagram](#unique_22) [page ] 41 | EAD User | Enterprise Architecture Designer | Requirements are linked to the Block Definition Diagram. |
| [Publish Block Definition Diagram](#unique_23) [page ] 43 | EAD User | Enterprise Architecture Designer | Block Definition Diagram is published. |
| [Trigger Requirements Assignment for Design Document](#unique_24) [page ] 44 | Design Engineer | Manage Documents (F2733) | The SAP Enterprise Architecture Designer application opens in a new window using which the relevant requirements can be assigned. |
| [Assign Relevant Requirements or Blocks to Design Document](#unique_25) [page ] 46 | EAD User | Enterprise Architecture Designer | Relevant requirements are linked to the document information record. |
| [Change Design Document](#unique_26) [page ] 47 | Design Engineer | Manage Documents (F2733) | The document information record is changed. |
| [Trigger Viewing](#unique_27) [page ] 49 | Design Engineer | Manage Documents (F2733) | The SAP Enterprise Architecture Designer application opens in a new window using which the relevant requirements can be viewed. |
| [View Requirement or Block Details](#unique_28) [page ] 50 | EAD User | Enterprise Architecture Designer | Details of the assigned requirements can be viewed. |
| Maintain Configurable BOM section |
| [Create Requirements](#unique_29) [page ] 51 | EAD User | Enterprise Architecture Designer | Requirements are created. |
| [Publish the Requirement Model](#unique_30) [page ] 54 | EAD User | Enterprise Architecture Designer | Requirements model is published. |
| [Create Block Definition Diagram](#unique_31) [page ] 55 | EAD User | Enterprise Architecture Designer | Block Definition Diagram is created. |
| [Link Requirements to Block definition Diagram](#unique_32) [page ] 57 | EAD User | Enterprise Architecture Designer | Requirements are linked to the Block Definition Diagram. |
| [Publish Block Definition Diagram](#unique_33) [page ] 59 | EAD User | Enterprise Architecture Designer | Block Definition Diagram is published. |
| [Trigger Requirements Assignment for Configuration Profile](#unique_34) [page ] 60 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | The SAP Enterprise Architecture Designer application opens in a new window using which the relevant requirements can be assigned. |
| [Assign Relevant Requirements or Blocks to Configuration Profile](#unique_35) [page ] 61 | EAD User | Enterprise Architecture Designer | Relevant requirements are linked to the configuration profile. |
| [Create High-Level Dependencies](#unique_36) [page ] 62 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | High-level dependency is created for the linked requirement. |
| [Trigger Requirements Assignment for High-Level Dependency](#unique_37) [page ] 64 | Product Configuration Modeler | VC Modeling Environment (PMEVC) | The SAP Enterprise Architecture Designer application opens in a new window using which the relevant requirements can be assigned. |
| [Assign Relevant Requirements or Blocks to High-Level Dependency](#unique_38) [page ] 66 | EAD User | Enterprise Architecture Designer | Relevant requirements are linked to the high-level dependency. |
| [Simulate Configurable BOM](#unique_39) [page ] 67 | Production Engineer - Discrete Manufacturing | Simulate Configuration Models (F2570) | Configurable BOM is simulated with the variant data. |
| Maintain Material section |
| [Create Requirement](#unique_40) [page ] 68 | EAD User | Enterprise Architecture Designer | Requirements are created. |
| [Publish the Requirement Model](#unique_41) [page ] 70 | EAD User | Enterprise Architecture Designer | Requirements model is published. |
| [Edit Block Definition Diagram](#unique_42) [page ] 72 | EAD User | Enterprise Architecture Designer | Block Definition Diagram is updated. |
| [Link Requirement to Block Definition Diagram](#unique_43) [page ] 73 | EAD User | Enterprise Architecture Designer | Requirements are linked to the Block Definition Diagram. |
| [Publish Block Definition Diagram](#unique_44) [page ] 74 | EAD User | Enterprise Architecture Designer | Block Definition Diagram is published. |
| [Trigger Requirements Assignment for Material](#unique_45) [page ] 76 | Master Data Specialist - Product Data | Manage Product Master Data (F1602) | The SAP Enterprise Architecture Designer application opens in a new window using which the relevant requirements can be assigned. |
| [Assign Relevant Requirements or Blocks to Material](#unique_46) [page ] 77 | EAD User | Enterprise Architecture Designer | Relevant requirements are linked to the material. |
| [Change Material](#unique_47) [page ] 78 | Master Data Specialist - Product Data | Change Material (MM02) | The material is changed. |
| [Trigger Viewing](#unique_48) [page ] 80 | Master Data Specialist - Product Data | Manage Product Master Data (F1602) | The SAP Enterprise Architecture Designer application opens in a new window using which the relevant requirements can be viewed. |
| [View Requirement or Block Details](#unique_49) [page ] 81 | EAD User | Enterprise Architecture Designer | Details of the assigned requirements can be viewed. |
| [Analyze Object Impact (Optional)](#unique_50) [page ] 82 | EAD User | Enterprise Architecture Designer | The impact and lineage analysis is displayed. |

# Test Procedures

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

## Maintain Engineering BOM

### Create Requirements

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create the requirement model and add requirements to it.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.For more information, see [System Access](#unique_3) [page ] 5. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Create new diagram | 1. In the Quick Links section, choose Create New Diagram.

Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5.1. On the Create New Diagram dialog box, make the following entries and choose Create.
	* Name: Windscreen wiper system
	* Type: Requirements List

The requirement model is created and displayed in edit mode.1. In the Description field, enter a description.

Example A windscreen wiper is essential for keeping the windscreen clean for driver’s visibility and is specifically necessary for the modern high-speed vehicles. The washer cleans the driver’s side of the windscreen whenever required.A wiper consists of an arm with pivoting at one end and a long rubber blade attached at the other end. The blade is swung back and forth to clear rainwater, snow, or dirt from the surface of the windscreen.The wiper range must be dimensioned sufficiently and meet legal requirements in order to ensure that the driver has a sufficient view of road signs and traffic lights extending to the edge of the road.The wiper quality must ensure that stray light emanating from vehicles coming from the opposite direction and the blinding effect associated with it are avoided as far as possible. |  |  |
| 3 | Add the Washers requirement to the requirement model | 1. In the upper-left toolbar, choose the Insert Requirement icon.
2. In the Name column, enter Washers.
3. In the Name column, choose the Edit Description icon.
4. In the Washers - Description dialog box, enter a description.

Example As per the statutory regulations in some countries, a screen washer must be installed to clean the driver’s side of the windscreen. Most of the vehicles install an electrically operated pump to supply water or cleaning fluid in the form of two or more jets for spraying on the windscreen. In some vehicles, an extra pump is used for a separate headlamp wash system, and some of the vehicles are also fitted with headlamp wipers.1. Choose Close.
 | The new requirement is added to the requirement model. |  |
| 4 | Add other requirements to the requirement model | Repeat the instructions in the above step to add the following requirements to the requirement model.

|  |  |
| --- | --- |
| Name | Description |
| Rain Sensor | Intelligent windscreen wipers support that detect the presence and amount of rain using a rain sensor. The sensor automatically adjusts the speed and frequency of the blades depending on how fast the rain falls. This control must have a manual override. |
| Wiper Controller | Controller is made of sensors, wiring system, power system, and driver controls. The vehicle electronic control module (ECM) is the on-board computer that controls all automated systems by receiving signals and giving appropriate response, which ensures the coordination of the windshield wiper mechanisms. |
| Temperature Operational Capability | The windscreen wiper system must be capable of operating between temperatures 55 ± 3°C and 0 ± 3°C. |
| Wiper Mechanics | Wiper contains crank, follower, gear, motor, blade, and arm. |
| Wiper Motor | Wiper motors are devices in the wiper system that functions on a power supply in order to move the wiper blades in a smooth motion. Like other motors, the wiper motor rotates continuously in one direction which is converted into a back and forth motion. |

 |  |  |
| 5 | Insert child requirements to the Wiper Mechanics requirement | 1. In the requirements list, select the Wiper Mechanics requirement.
2. In the upper-left toolbar, choose the Insert Child Requirement icon.
3. In the Name column, enter Wiper Arm.
4. In the Name column, choose the Edit Description icon.
5. In the Wiper Arm - Description dialog box, enter a description.

Example The wiper arms must be inspected for the perfect condition of the spring to provide required force (about 350 grams) to the blade. The arm must not be bent, as it can cause the blade to chatter during operation.1. Choose Close.
2. Repeat the previous steps to add the following child requirement to the Wiper Mechanics requirement:

|  |  |
| --- | --- |
| Name | Description |
| Blades | The wiper blades in a vehicle must meet the legal requirements for sufficient all-round vision at all times, thereby, providing an assurance of road safety in the various situations that drivers encounter.Wiper blades are made of rubber compound and are held on to the screen by a spring in the wiper arm. The aerodynamic properties of the wiper blades are extremely important, because with different vehicle designs, different air currents are set on and around the screen area. To reduce air drug, the strip on top of the rubber element is often perforated. The blades have very small contact area on the screen. A good quality blade has a contact width of about 0.01 mm and the tip wipes the surfaces of the screen at an angle of about 45 degrees. The pressure of the blade on the screen should be proper, as the coefficient of friction between the rubber and glass varies from 0.8 to 2.5 when dry and 0.1 to 0.6 when wet. These values are also affected by temperature and velocity. |

 |  |  |
| 6 | Save the requirement model | In the top-right toolbar, choose Save. | The requirement model is saved and a confirmation message displays. |  |

### Publish the Requirement Model

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you publish the requirement model.

Procedure

Tip If you carry out this test procedure in continuation to [Create Requirements](#unique_8) [page ] 16, you can proceed directly to the Publish the requirement model test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the requirement model | In the Draft Diagrams section, click the model that you created in [Create Requirements](#unique_8) [page ] 16.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The requirement model displays. |  |
| 3 | Publish the requirement model | 1. In the top-right toolbar, choose the Publish icon and then select Publish.
2. In the Publish dialog box, add a comment, if required, and choose OK.
 | The requirement model is published. |  |

### Additional Steps for Using Block Definition Diagram

If you are using BDD for designing a product to describe functional, logical and/or physical context with attributes and data flow, then the recommended SAP Best Practice approach is to use BDD and link requirements to BDD and assign it to respective objects.

If you are not using BDD for designing, then skip these steps.

#### Create Block Definition Diagram

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 Block Definition Diagram (BDD).

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.For more information, see [System Access](#unique_3) [page ] 5. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Browse repository | In the Quick Links section, choose Browse Repository. | The Repository Explorer page displays. |  |
| 3 | Create new folder | 1. On the upper-right corner of the screen, choose the Tools icon, and then choose Create New Folder.
2. In the Create New Folder dialog box, enter a folder name, for example, Wiper\_System, and then choose Create.
 | The folder is created and the Wiper\_System node is displayed under the Repository Root node. |  |
| 4 | Create new diagram | 1. Choose the + (Create Diagram in New Model) icon.

Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5.1. On the Create New Diagram dialog box, make the following entries and choose Create.
	* Name: Wiper\_System
	* Type: Block Definition Diagram(SysML)
 | The block definition diagram is created and displayed in edit mode. |  |
| 5 | Add blocks to the BDD | 1. From the toolbar displayed on the left side of the screen, drag the Block icon to the white panel displayed in the middle of the screen.
2. Select the block.
3. In the right pane, in the Name field, enter Wiper System.
4. In the Code field, enter Wiper\_System (if it is not populated automatically).
5. Repeat the previous steps to add the following blocks:
	* Washers
	* Rain Sensor
	* Wiper Controller
	* Temperature Operational Capability
	* Wiper Mechanics
	* Wiper Arm
	* Blades
	* Wiper Motor
 | The new blocks are added to the BDD. |  |
| 6 | Link the Wiper System block to the constituent blocks | 1. Select the Wiper System block in the middle panel.
2. From the displayed set of tools, drag the Link icon to the Washers block.

The Wiper System block gets linked to the Washers block.1. Repeat the previous steps to link the Wiper System block to the following blocks:
	* Rain Sensor
	* Wiper Controller
	* Temperature Operational Capability
	* Wiper Mechanics
	* Wiper Wheelbox
	* Wiper Motor
 | The Wiper System block relations are defined in BDD. |  |
| 7 | Link the Wiper Mechanics block to the constituent blocks | 1. Select the Wiper Mechanics block in the middle panel.
2. From the displayed set of tools, drag the Link icon to the Wiper Arm block.
3. Repeat the previous steps to link the Wiper Mechanics block to the Blades block.
 | The Wiper Mechanics block relations are defined in BDD. |  |
| 8 | Save the BDD | In the upper-right toolbar, choose Save. | The diagram is saved and a confirmation message displays. |  |

#### Link Requirements to Block Definition Diagram

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 link requirements to the Block Definition Diagram (BDD).

Procedure

Tip If you carry out this test procedure in continuation to [Create Block Definition Diagram](#unique_10) [page ] 21, you can proceed directly to the Link requirements to BDD test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the BDD | In the Draft Diagrams section, choose the model that you created in [Create Block Definition Diagram](#unique_10) [page ] 21.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The block definition diagram displays. |  |
| 3 | Link requirements to BDD | 1. Select the Washers block.

The details of the block are displayed in the right pane.1. Choose Dependencies.
2. Expand Outgoing Traceability Links and choose the Select icon.
3. In the Select Object dialog box, enter Washers in the Search field, and press Enter.
4. In the search results, select the Washers checkbox.
5. Choose Insert Items.
6. Choose Save.
7. Repeat the previous steps to link the following blocks to the respective requirements.

|  |  |
| --- | --- |
| BDD Block | Requirement |
| Rain Sensor | Rain Sensor |
| Wiper Controller | Wiper Controller |
| Temperature Operational Capability | Temperature Operational Capability |
| Wiper Mechanics | Wiper Mechanics |
| Wiper Arm | Wiper Arm |
| Blades | Blades |
| Wiper Motor | Wiper Motor |

 |  |  |
| 4 | Save the BDD | Choose Save. | The requirements are linked to the BDD. |  |

#### Publish Block Definition Diagram

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 publish the Block Definition Diagram (BDD).

Procedure

Tip If you carry out this test procedure in continuation to [Link Requirements to Block Definition Diagram](#unique_11) [page ] 23, you can proceed directly to the Publish the requirement model test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the BDD | In the Draft Diagrams section, choose the model that you created in [Create Block Definition Diagram](#unique_10) [page ] 21.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The BDD displays. |  |
| 3 | Publish the BDD | 1. In the upper-right toolbar, choose the Publish icon and then select Publish.
2. In the Publish dialog box, add a comment, if required, and choose OK.
 | The BDD is published. |  |

### Trigger Requirements Assignment for Bill of Material

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you check the requirements assigned to a bill of material.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as BOM Engineer. | 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 | Open the BOM | 1. Make the following entries and choose Go.
	* Material: FG126
	* BOM Usage: 2
2. Select the BOM FG126 in the search results.
 | BOM FG126 is displayed. |  |
| 4 | Trigger requirements assignment for BOM | Choose Requirement Assignments. | The SAP Enterprise Architecture Designer app opens in a new window or a new tab depending on your browser settings. |  |

### Assign Relevant Requirements or Blocks to Bill of Material

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you assign the relevant requirements or blocks to the newly created bill of material.

Procedure

Tip If you are already logged on to the SAP Enterprise Architecture Designer application, you can proceed directly to the Assign the requirement test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note For more information, see [System Access](#unique_3) [page ] 5. | The Bill of Material screen displays. |  |
| 2 | Assign the requirement/block | * If you are using requirement model, then:
	1. Under the Assigned Requirements section, choose Assign.
	2. On the Select Requirements Model dialog box, select Windscreen wiper system, and then select the Blades checkbox.
	3. Choose Assign.
* If you are using BDD, then:
	1. Under the Assigned Blocks section, choose Assign.
	2. On the Select Model dialog box, select Wiper System, and then select the Blades checkbox.
	3. Choose Assign.
 | The requirement or the block Blades is assigned to the BOM. |  |
| 3 | Close the window | Close the SAP Enterprise Architecture Designer app window. |  |  |

### Change Bill of Material

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you add an additional component to the bill of material.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as BOM Engineer. | 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 | Search the BOM | Enter the search criteria and choose Go.* Material: FG126
* BOM Usage: 2
 | The BOM is listed in the search results. |  |
| 4 | Open the BOM for editing | Select the BOM in the search results. | The BOM details display on the screen. |  |
| 5 | Change the Select by Date | If the status of the selected change number is Inactive, then change the Select by Date to a future date.Tip The change number details are available on the Timeline tab. | The date is updated. |  |
| 6 | Edit the BOM | Choose Edit.Note If the Edit button is not visible on the screen, choose the More icon, and then choose Edit. |  |  |
| 7 | Create Change Master | Choose Assign Change Number. | The Assign Change Number dialog box displays. |  |
| 8 | Maintain Change Master data | Proceed as follows:1. In the Assign Change Number dialog box, select the Create option and enter a change number, for example, CN002.
2. Make entries similar to the following example.
	* Start Date: Current date + 1 week.
	* Description: Change number for changes to the FG126 BOM.
3. Choose OK.
 | Change Master is created. |  |
| 9 | Add a new component to the BOM | 1. Choose the + (Add) icon.
2. In the BOM Item Number 0110 line, make the following entries:
	* Item Category: Stock item

Note Press Enter to make the Component and Component quantity fields available.* + Component: RM124
	+ Component quantity: 1 PC
 |  |  |
| 10 | Check the validity date for the new component | Note that the date in the Valid From column of the added component matches the Change Number date in the timeline. |  |  |
| 11 | Save the BOM | Choose Save. | The BOM is changed. |  |
| 12 | Select a change number | Select one of the available change numbers from the timeline and check the corresponding configuration of the BOM.* Change Number: CN001
* Change Number:CN002
 | The newly added component is displayed only when the relevant change number is selected. |  |
| 13 | Use change number tiles at the top to switch | Select the available change numbers and check the corresponding configuration of the BOM.* Change Number: CN001
* Change Number:CN002
 | The BOM configuration that is valid on the selected date is displayed. |  |

### View Requirements or Blocks Assigned to Bill of Material

#### Trigger Viewing

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you trigger viewing of the requirements or blocks assigned to a bill of material.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as BOM Engineer. | 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 | Open the BOM | 1. Make the following entries and choose Go.
	* Material: FG126
	* BOM Usage: 2
2. Select the BOM FG126 in the search results.
 | BOM FG126 is displayed. |  |
| 4 | Trigger requirements or blocks viewing for BOM | Choose Requirement Assignments. | The SAP Enterprise Architecture Designer app opens in a new window or a new tab depending on your browser settings. |  |

#### View Requirement or Block Details

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you view details of the requirement or block assigned to the BOM.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | Depending on whether you are using requirement model or BDD, the Blades link is displayed in the Assigned Requirements or the Assigned Blocks section. |  |
| 2 | View details of the assigned requirement/block | Choose the Blades link. | The details of the requirement or the block Blades are displayed in the right window pane. |  |
| 3 | Close the window | Close the SAP Enterprise Architecture Designer app window. |  |  |

### Set Change Master Status to Inactive

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

Setting the Change Master Status to Inactive so that this specific Change Master cannot be used anymore for managing further changes.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as BOM Engineer. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Change Change Master (CC02) app. | The Change Change Master: Initial Screen displays. |  |
| 3 | Enter change number | In the Change Number field, enter the change number created in [Change Bill of Material](#unique_15) [page ] 28, and press Enter. | The Change Change Master: Change Header screen displays. |  |
| 4 | Set the change number status | 1. In the Change no. status field, select 02-Inactive.
2. Choose Save.
 | The change number status is set to Inactive and cannot be used anymore. |  |

## Maintain Design Document

### Create Requirements

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create the requirement model and add requirements to it.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.For more information, see [System Access](#unique_3) [page ] 5. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Create new diagram | 1. In the Quick Links section, choose Create New Diagram.

Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5.1. On the Create New Diagram dialog box, make the following entries and choose Create.
	* Name: Windscreen wiper system
	* Type: Requirements List

The requirement model is created and displayed in edit mode.1. In the Description field, enter a description.

Example A windscreen wiper is essential for keeping the windscreen clean for driver’s visibility and is specifically necessary for the modern high-speed vehicles. The washer cleans the driver’s side of the windscreen whenever required.A wiper consists of an arm with pivoting at one end and a long rubber blade attached at the other end. The blade is swung back and forth to clear rainwater, snow, or dirt from the surface of the windscreen.The wiper range must be dimensioned sufficiently and meet legal requirements in order to ensure that the driver has a sufficient view of road signs and traffic lights extending to the edge of the road.The wiper quality must ensure that stray light emanating from vehicles coming from the opposite direction and the blinding effect associated with it are avoided as far as possible. |  |  |
| 3 | Add the Washers requirement to the requirement model | 1. In the top-left toolbar, choose the Insert Requirement icon.
2. In the Name column, enter Washers.
3. In the Name column, choose the Edit Description icon.
4. In the Washers - Description dialog box, enter a description.

Example As per the statutory regulations in some countries, a screen washer must be installed to clean the driver’s side of the windscreen. Most of the vehicles install an electrically operated pump to supply water or cleaning fluid in the form of two or more jets for spraying on the windscreen. In some vehicles, an extra pump is used for a separate headlamp wash system, and some of the vehicles are also fitted with headlamp wipers.1. Choose Close.
 | The new requirement is added to the requirement model. |  |
| 4 | Add other requirements to the requirement model | Repeat the instructions in the above step to add the following requirements to the requirement model.

|  |  |
| --- | --- |
| Name | Description |
| Rain Sensor | Intelligent windscreen wipers support that detect the presence and amount of rain using a rain sensor. The sensor automatically adjusts the speed and frequency of the blades depending on how fast the rain falls. This control must have a manual override. |
| Wiper Controller | Controller is made of sensors, wiring system, power system, and driver controls. The vehicle electronic control module (ECM) is the on-board computer that controls all automated systems by receiving signals and giving appropriate response, which ensures the coordination of the windshield wiper mechanisms. |
| Temperature Operational Capability | The windscreen wiper system must be capable of operating between temperatures 55 ± 3°C and 0 ± 3°C. |
| Wiper Mechanics | Wiper contains crank, follower, gear, motor, blade, and arm. |
| Wiper Motor | Wiper motors are devices in the wiper system that functions on a power supply in order to move the wiper blades in a smooth motion. Like other motors, the wiper motor rotates continuously in one direction which is converted into a back and forth motion. |

 |  |  |
| 5 | Insert child requirements to the Wiper Mechanics requirement | 1. In the requirements list, select the Wiper Mechanics requirement.
2. In the upper-left toolbar, choose the Insert Child Requirement icon.
3. In the Name column, enter Wiper Arm.
4. In the Name column, choose the Edit Description icon.
5. In the Wiper Arm - Description dialog box, enter a description.

Example The wiper arms must be inspected for the perfect condition of the spring to provide required force (about 350 grams) to the blade. The arm must not be bent, as it can cause the blade to chatter during operation.1. Choose Close.
2. Repeat the previous steps to add the following child requirement to the Wiper Mechanics requirement:

|  |  |
| --- | --- |
| Name | Description |
| Blades | The wiper blades in a vehicle must meet the legal requirements for sufficient all-round vision at all times, thereby, providing an assurance of road safety in the various situations that drivers encounter.Wiper blades are made of rubber compound and are held on to the screen by a spring in the wiper arm. The aerodynamic properties of the wiper blades are extremely important, because with different vehicle designs, different air currents are set on and around the screen area. To reduce air drug, the strip on top of the rubber element is often perforated. The blades have very small contact area on the screen. A good quality blade has a contact width of about 0.01 mm and the tip wipes the surfaces of the screen at an angle of about 45 degrees. The pressure of the blade on the screen should be proper, as the coefficient of friction between the rubber and glass varies from 0.8 to 2.5 when dry and 0.1 to 0.6 when wet. These values are also affected by temperature and velocity. |

 |  |  |
| 6 | Save the requirement model | In the top-right toolbar, choose Save. | The requirement model is saved and a confirmation message displays. |  |

### Publish the Requirement Model

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you publish the requirement model.

Procedure

Tip If you carry out this test procedure in continuation to [Create Requirements](#unique_19) [page ] 34, you can proceed directly to the Publish the requirement model test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the requirement model | In the Draft Diagrams section, click the model that you created in [Create Requirements](#unique_19) [page ] 34.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The requirement model displays. |  |
| 3 | Publish the requirement model | 1. In the top-right toolbar, choose the Publish icon and then select Publish.
2. In the Publish dialog box, add a comment, if required, and choose OK.
 | The requirement model is published. |  |

### Additional Steps for Using Block Definition Diagram

If you are using BDD for designing a product to describe functional, logical and/or physical context with attributes and data flow, then the recommended SAP Best Practice approach is to use BDD and link requirements to BDD and assign it to respective objects.

If you are not using BDD for designing, then skip these steps.

#### Create Block Definition Diagram

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 Block Definition Diagram (BDD).

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.For more information, see [System Access](#unique_3) [page ] 5. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Browse repository | In the Quick Links section, choose Browse Repository. | The Repository Explorer page displays. |  |
| 3 | Create new folder | 1. On the upper-right corner of the screen, choose the Tools icon, and then choose Create New Folder.
2. In the Create New Folder dialog box, enter a folder name, for example, Wiper\_System, and then choose Create.
 | The folder is created and the Wiper\_System node is displayed under the Repository Root node. |  |
| 4 | Create new diagram | 1. Choose the + (Create Diagram in New Model) icon.

Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5.1. On the Create New Diagram dialog box, make the following entries and choose Create.
	* Name: Wiper\_System
	* Type: Block Definition Diagram(SysML)
 | The block definition diagram is created and displayed in edit mode. |  |
| 5 | Add blocks to the BDD | 1. From the toolbar displayed on the left side of the screen, drag the Block icon to the white panel displayed in the middle of the screen.
2. Select the block.
3. In the right pane, in the Name field, enter Wiper System.
4. In the Code field, enter Wiper\_System (if it is not populated automatically).
5. Repeat the previous steps to add the following blocks:
	* Washers
	* Rain Sensor
	* Wiper Controller
	* Temperature Operational Capability
	* Wiper Mechanics
	* Wiper Arm
	* Blades
	* Wiper Motor
 | The new blocks are added to the BDD. |  |
| 6 | Link the Wiper System block to the constituent blocks | 1. Select the Wiper System block in the middle panel.
2. From the displayed set of tools, drag the Link icon to the Washers block.

The Wiper System block gets linked to the Washers block.1. Repeat the previous steps to link the Wiper System block to the following blocks:
	* Rain Sensor
	* Wiper Controller
	* Temperature Operational Capability
	* Wiper Mechanics
	* Wiper Wheelbox
	* Wiper Motor
 | The Wiper System block relations are defined in BDD. |  |
| 7 | Link the Wiper Mechanics block to the constituent blocks | 1. Select the Wiper Mechanics block in the middle panel.
2. From the displayed set of tools, drag the Link icon to the Wiper Arm block.
3. Repeat the previous steps to link the Wiper Mechanics block to the Blades block.
 | The Wiper Mechanics block relations are defined in BDD. |  |
| 8 | Save the BDD | In the upper-right toolbar, choose Save. | The diagram is saved and a confirmation message displays. |  |

#### Link Requirements to Block Definition Diagram

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 link requirements to the Block Definition Diagram (BDD).

Procedure

Tip If you carry out this test procedure in continuation to [Create Block Definition Diagram](#unique_21) [page ] 39, you can proceed directly to the Link requirements to BDD test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the BDD | In the Draft Diagrams section, choose the model that you created in [Create Block Definition Diagram](#unique_21) [page ] 39.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The block definition diagram displays. |  |
| 3 | Link requirements to BDD | 1. Select the Washers block.

The details of the block are displayed in the right pane.1. Choose Dependencies.
2. Expand Outgoing Traceability Links and choose the Select icon.
3. In the Select Object dialog box, enter Washers in the Search field, and press Enter.
4. In the search results, select the Washers checkbox.
5. Choose Insert Items.
6. Choose Save.
7. Repeat the previous steps to link the following blocks to the respective requirements.

|  |  |
| --- | --- |
| BDD Block | Requirement |
| Rain Sensor | Rain Sensor |
| Wiper Controller | Wiper Controller |
| Temperature Operational Capability | Temperature Operational Capability |
| Wiper Mechanics | Wiper Mechanics |
| Wiper Arm | Wiper Arm |
| Blades | Blades |
| Wiper Motor | Wiper Motor |

 |  |  |
| 4 | Save the BDD | Choose Save. | The requirements are linked to the BDD. |  |

#### Publish Block Definition Diagram

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 publish the Block Definition Diagram (BDD).

Procedure

Tip If you carry out this test procedure in continuation to [Link Requirements to Block Definition Diagram](#unique_22) [page ] 41, you can proceed directly to the Publish the requirement model test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the BDD | In the Draft Diagrams section, choose the model that you created in [Create Block Definition Diagram](#unique_21) [page ] 39.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The BDD displays. |  |
| 3 | Publish the BDD | 1. In the upper-right toolbar, choose the Publish icon and then select Publish.
2. In the Publish dialog box, add a comment, if required, and choose OK.
 | The BDD is published. |  |

### Trigger Requirements Assignment for Design Document

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you check the requirements assigned to a document information record.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Design Engineer. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Documents (F2733) app. | The Manage Documents screen displays. |  |
| 3 | Open the document | 1. Make the following entries and choose Go.
	* Document Number: The ID of the document that is created in , which is a prerequisite scope item.
	* Document Type: AUT
2. Select the document in the search results.
 | The Document screen displays the document details. |  |
| 4 | Trigger requirements assignment for design document | Choose Requirement Assignments. | The SAP Enterprise Architecture Designer app opens in a new window or a new tab depending on your browser settings. |  |

### Assign Relevant Requirements or Blocks to Design Document

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you assign the relevant requirements or blocks to the newly created document information record.

Procedure

Tip If you are already logged on to the SAP Enterprise Architecture Designer application, you can proceed directly to the Assign the requirement test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note For more information, see [System Access](#unique_3) [page ] 5. |  |  |
| 2 | Assign the requirement/block | * If you are using requirement model, then:
	1. Under the Assigned Requirements section, choose Assign.
	2. On the Select Requirements Model dialog box, select Windscreen wiper system, and then select the Blades checkbox.
	3. Choose Assign.
* If you are using BDD, then:
	1. Under the Assigned Blocks section, choose Assign.
	2. On the Select Model dialog box, select Wiper System, and then select the Blades checkbox.
	3. Choose Assign.
 | The requirement or the block Blades is assigned to the design document. |  |
| 3 | Close the window | Close the SAP Enterprise Architecture Designer app window. |  |  |

### Change Design Document

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you edit the design document and the classification data.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Design Engineer. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Documents (F2733) app. | The Manage Documents screen displays. |  |
| 3 | Search document using document description | Enter the document description in the Document Description field and choose Go.Example Document Description: Design | The search results display the details of the document. |  |
| 4 | Change meta data | 1. In the search results, choose the document record.
2. On the Document screen, choose the Edit button.
3. On the Document Data tab, make the following entry:

Document Status: In Work | Meta data is maintained on the Document screen. |  |
| 5 | Save the document | Choose the Save button to save the document. | Document is saved with the new status. |  |
| 6 | Check out an attachment | 1. On the Document screen, choose the Edit button and select the Originals tab.
2. Select a document in the list of attachments.
3. Choose Check-out.
 | The document is downloaded on to your system.Note The document is downloaded to the Download folder of the browser. |  |
| 7 | Make changes in the downloaded document | Search for the downloaded file, make changes in the file, and then save the changes. | The file is updated. |  |
| 8 | Check in the updated document | 1. On the Originals tab of the Document screen, choose Check-in > Check-in Original .
2. Browse and select the updated version of the document.
3. Choose Open.
 | The updated document is uploaded. |  |
| 9 | Assign/Change classification data | 1. On the Classification tab of the Document screen, choose Click here to assign a class.
2. On the Select: Class dialog box, select the class with name BIKE\_CLASS.
3. Make the following entries:
	* Color: Red
	* TORQUE: 122
 | The classification data is maintained in the document. |  |
| 10 | Change meta data | On the Document Data tab of the Document screen, make the following entry:Document Status: Released | The document is saved with the new release status and the new attachment. |  |
| 11 | Save the document | Choose the Save button to save the document. | The updated document is saved. |  |

### View Requirements or Blocks Assigned to Design Document

#### Trigger Viewing

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you trigger viewing of the requirements or blocks assigned to a document information record.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Design Engineer. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Documents (F2733) app. | The Manage Documents screen displays. |  |
| 3 | Open the document | 1. Make the following entries and choose Go.
	* Document Number: The ID of the document information record that you edited in [Change Design Document](#unique_26) [page ] 47.
	* Document Type: AUT
2. Select the document in the search results.
 | The Document screen displays the document details. |  |
| 4 | Trigger requirements or blocks viewing for design document | Choose Requirement Assignments. | The SAP Enterprise Architecture Designer app opens in a new window or a new tab depending on your browser settings. |  |

#### View Requirement or Block Details

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you view details of the requirement or block assigned to the design document.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | Depending on whether you are using requirement model or BDD, the Blades link is displayed in the Assigned Requirements or the Assigned Blocks section. |  |
| 2 | View details of the assigned requirement/block | Choose the Blades link. | The details of the requirement or the block Blades are displayed in the right window pane. |  |
| 3 | Close the window | Close the SAP Enterprise Architecture Designer app window. |  |  |

## Maintain Configurable BOM

### Create Requirements

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create the requirement model and add requirements to it.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.For more information, see [System Access](#unique_3) [page ] 5. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Create new diagram | 1. In the Quick Links section, choose Create New Diagram.

Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5.1. On the Create New Diagram dialog box, make the following entries and choose Create.
	* Name: Multi-Functional Forklift
	* Type: Requirements List
 | The requirement model is created and displayed in edit mode. |  |
| 3 | Add the Forklifter requirement to the requirement model | 1. In the top-left toolbar, choose the Insert Requirement icon.
2. In the Name column, enter Forklifter.
3. In the Name column, choose the Edit Description icon.
4. In the Forklifter - Description dialog box, enter a description.

Example A forklifter is a powered industrial truck used to lift and move materials over short distances.1. Choose Close.
 | The new requirement is added to the requirement model. |  |
| 4 | Add other requirements to the requirement model | Repeat the instructions in the above step to add the following requirements to the requirement model.

|  |  |
| --- | --- |
| Name | Description |
| Engine | The engine must be capable of work load of 7000 pounds. |
| Transmission | The forklift transmission is a crucial part that enables the movement of the forklift. It is a component of the engine assembly which connects both the engine and the wheels, allowing them to rotate in sync with each other. |
| Tires | Usage on uneven and rough surfaces. |

 |  |  |
| 5 | Insert child requirements to the Tires requirement | 1. In the requirements list, select the Tires requirement.
2. In the upper-left toolbar, choose the Insert Child Requirement icon.
3. In the Name column, enter Cushion Tires.
4. In the Name column, choose the Edit Description icon.
5. In the Cushion Tires - Description dialog box, enter a description.

Example Cushion tires are used for indoor applications. They are made for smooth warehouse surfaces or light outdoor use (asphalt only).1. Choose Close.
2. Repeat the previous steps to add the following child requirement to the Tires requirement:

|  |  |
| --- | --- |
| Name | Description |
| Pneumatic Tires | Pneumatic tires are used for outdoor applications. They have greater ground clearance than cushion tires, so you can move around a lot better over gravel and other rough surfaces. |

 |  |  |
| 6 | Save the requirement model | In the top-right toolbar, choose Save. | The requirement model is saved and a confirmation message displays. |  |

### Publish the Requirement Model

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you publish the requirement model.

Procedure

Tip If you carry out this test procedure in continuation to [Create Requirements](#unique_29) [page ] 51, you can proceed directly to the Publish the requirement model test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the requirement model | In the Draft Diagrams section, click the model that you created in [Create Requirements](#unique_29) [page ] 51.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The requirement model displays. |  |
| 3 | Publish the requirement model | 1. In the top-right toolbar, choose the Publish icon and then select Publish.
2. In the Publish dialog box, add a comment, if required, and choose OK.
 | The requirement model is published. |  |

### Additional Steps for Using Block Definition Diagram

If you are using BDD for designing a product to describe functional, logical and/or physical context with attributes and data flow, then the recommended SAP Best Practice approach is to use BDD and link requirements to BDD and assign it to respective objects.

If you are not using BDD for designing, then skip these steps.

#### Create Block Definition Diagram

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 Block Definition Diagram (BDD).

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.For more information, see [System Access](#unique_3) [page ] 5. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Browse repository | In the Quick Links section, choose Browse Repository. | The Repository Explorer page displays. |  |
| 3 | Create new folder | 1. On the upper-right corner of the screen, choose the Tools icon, and then choose Create New Folder.
2. In the Create New Folder dialog box, enter a folder name, for example, Multi-Functional Forklift, and then choose Create.
 | The folder is created and the Multi-Functional Forklift node is displayed under the Repository Root node. |  |
| 4 | Create new diagram | 1. Choose the + (Create Diagram in New Model) icon.

Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5.1. On the Create New Diagram dialog box, make the following entries and choose Create.
	* Name: Multi-Functional Forklift
	* Type: Block Definition Diagram(SysML)
 | The block definition diagram is created and displayed in edit mode. |  |
| 5 | Add blocks to the BDD | 1. From the toolbar displayed on the left side of the screen, drag the Block icon to the white panel displayed in the middle of the screen.
2. Select the block.
3. In the right pane, in the Name field, enter Forklifter.
4. In the Code field, enter Forklifter (if it is not populated automatically).
5. Repeat the previous steps to add the following blocks:
	* Engine
	* Transmission
	* Tires
	* Cushion Tires
	* Pneumatic Tires
 | The new blocks are added to the BDD. |  |
| 6 | Link the Forklifter block to the constituent blocks | 1. Select the Forklifter block in the middle panel.
2. From the displayed set of tools, drag the Link icon to the Engine block.

The Forklifter block gets linked to the Engine block.1. Repeat the previous steps to link the Forklifter block to the following blocks:
	* Transmission
	* Tires
 | The Forklifter block relations are defined in BDD. |  |
| 7 | Link the Tires block to the constituent blocks | 1. Select the Tires block in the middle panel.
2. From the displayed set of tools, drag the Link icon to the Cushion Tires block.
3. Repeat the previous steps to link the Tires block to the Pneumatic block.
 | The Tires block relations are defined in BDD. |  |
| 8 | Save the BDD | In the upper-right toolbar, choose Save. | The diagram is saved and a confirmation message displays. |  |

#### Link Requirements to Block definition Diagram

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 link requirements to the Block Definition Diagram (BDD).

Procedure

Tip If you carry out this test procedure in continuation to [Create Block Definition Diagram](#unique_31) [page ] 55, you can proceed directly to the Link requirements to BDD test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the BDD | In the Draft Diagrams section, choose the model that you created in [Create Block Definition Diagram](#unique_31) [page ] 55.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The block definition diagram displays. |  |
| 3 | Link requirements to BDD | 1. Select the Engine block.

The details of the block are displayed in the right pane.1. Choose Dependencies.
2. Expand Outgoing Traceability Links and choose the Select icon.
3. In the Select Object dialog box, enter Engine in the Search field, and press Enter.
4. In the search results, select the Engine checkbox.
5. Choose Insert Items.
6. Choose Save.
7. Repeat the previous steps to link the following blocks to the respective requirements.

|  |  |
| --- | --- |
| BDD Block | Requirement |
| Transmission | Transmission |
| Tires | Tires |
| Cushion Tires | Cushion Tires |
| Pneumatic Tires | Pneumatic Tires |

 |  |  |
| 4 | Save the BDD | Choose Save. | The requirements are linked to the BDD. |  |

#### Publish Block Definition Diagram

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 publish the Block definition diagram.

Procedure

Tip If you carry out this test procedure in continuation to [Link Requirements to Block definition Diagram](#unique_32) [page ] 57, you can proceed directly to the Publish the requirement model test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the BDD | In the Draft Diagrams section, choose the model that you created in [Create Block Definition Diagram](#unique_31) [page ] 55.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The BDD displays. |  |
| 3 | Publish the BDD | 1. In the upper-right toolbar, choose the Publish icon and then select Publish.
2. In the Publish dialog box, add a comment, if required, and choose OK.
 | The BDD is published. |  |

### Trigger Requirements Assignment for 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 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.

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 launch pad 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 | 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 | Open the configuration profile | On the configuration screen, double-click the CM-FL-V01 > AVC\_CP\_STANDARD node. | The configuration profile displays in the right window pane. |  |
| 5 | Trigger requirements assignment for configuration profile | Choose the Requirement Assignments icon. | The SAP Enterprise Architecture Designer app opens in a new window or a new tab depending on your browser settings. |  |

### Assign Relevant Requirements or Blocks to 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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you assign the relevant requirements or blocks to the configuration profile.

Procedure

Tip If you are already logged on to the SAP Enterprise Architecture Designer application, you can proceed directly to the Assign the requirement test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note For more information, see [System Access](#unique_3) [page ] 5. |  |  |
| 2 | Assign the requirement/block | * If you are using requirement model, then:
	1. Under the Assigned Requirements section, choose Assign.
	2. On the Select Requirements Model dialog box, select Multi-Functional Forklift, and then select the Tires > Pneumatic Tires checkbox.
	3. Choose Assign.
* If you are using BDD, then:
	1. Under the Assigned Blocks section, choose Assign.
	2. On the Select Model dialog box, select Multi-Functional Forklift, and then select the Pneumatic Tires checkbox.
	3. Choose Assign.
 | The requirement or the block Pneumatic Tires is assigned to the configuration profile. |  |
| 3 | Close the window | Close the SAP Enterprise Architecture Designer app window. |  |  |

### Create High-Level Dependencies

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create high-level dependency for the linked requirement.

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 Maintenance:* 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\_DEFWTYPE\_V00
	* Dependency Type: Procedure
4. Choose Continue.
 | The Create Dependency screen displays and the Basic Data tab is selected. | If the dependency AVC\_OD\_DEFWTYPE\_V00already exists, then create the dependency AVC\_OD\_DEFWTYPE\_Vnn, where nn is the running number. |
| 6 | Enter basic data | On the Basic Data tab, make the following entries:* Description: HL: Procedure Default Wheel Type
* Processing Mode: Advanced Variant Configuration
 |  |  |
| 7 | Enter the syntax | 1. On the Editor tab, enter the following syntax:

$SELF.AVC\_CR\_WHEELTYPE\_VXX ?= 'P'.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. |  |

### Trigger Requirements Assignment for High-Level Dependency

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step you will trigger the requirement assignment to the relevant high level dependencies.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Product Configuration Modeler.Tip If you carry out this test procedure in continuation to [Create High-Level Dependencies](#unique_36) [page ] 62, you can proceed directly to the Select the high-level dependency test 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 Maintenance:* Material: CM-FL-V01
* Class Type: 300
* Plant: 1010
* BOM Application: PP01
 | The configuration screen displays. |  |
| 4 | Select the high-level dependency | On the configuration screen, double-click the CM-FL-V01 > AVC\_CP\_STANDARD > AVC\_OD\_DEFWTYPE\_V00 node. | The high-level dependency displays in the right window pane. |  |
| 5 | Trigger requirements assignment for high-level dependency | Choose the Model Object Assignments icon. | The SAP Enterprise Architecture Designer app opens in a new window or a new tab depending on your browser settings. |  |

### Assign Relevant Requirements or Blocks to High-Level Dependency

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you assign the relevant requirements or blocks to the high-level dependency.

Procedure

Tip If you are already logged on to the SAP Enterprise Architecture Designer application, you can proceed directly to the Assign the requirement test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note For more information, see [System Access](#unique_3) [page ] 5. |  |  |
| 2 | Assign the requirement/block | * If you are using requirement model, then:
	1. Under the Assigned Requirements section, choose Assign.
	2. On the Select Requirements Model dialog box, select Multi-Functional Forklift, and then select the Tires > Pneumatic Tires checkbox.
	3. Choose Assign.
* If you are using BDD, then:
	1. Under the Assigned Blocks section, choose Assign.
	2. On the Select Model dialog box, select Multi-Functional Forklift, and then select the Pneumatic Tires checkbox.
	3. Choose Assign.
 | The requirement or the block Pneumatic Tires is assigned to the high-level dependency. |  |
| 3 | Close the window | Close the SAP Enterprise Architecture Designer app window. |  |  |

### Simulate 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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you simulate BOM 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 | Start new 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
 | The configurable characteristics and the corresponding value details display in the right pane. |  |
| 4 | Enter initial data | 1. Choose Parameters.
2. On the Edit Simulation Parameters dialog box, in the BOM Application field, select PP01.
3. Choose OK.
 |  |  |
| 5 | 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. |  |

## Maintain Material

### Create Requirement

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you add a requirement to the requirement model.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. | Ensure that the user is created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. |
| 2 | Open Repository Explorer | In the Quick Links section, choose Browse "Repository". | The Repository Explorer screen displays. |  |
| 3 | Open the requirement model | Open the requirement model that you created in [Create Requirements](#unique_29) [page ] 51. | The requirement model displays. |  |
| 4 | Add the Counterweight requirement to the requirement model | 1. In the top-left toolbar, choose the Insert Requirement icon.
2. In the Name column, enter Counterweight.
3. In the Name column, choose the Edit Description icon.
4. In the Counterweight - Description dialog box, enter description.

Example Counterweights are used to secure a proper weight distribution and maintain stability, to prevent the vehicle from tipping over, and to ensure the safety performance of the vehicle. The unit of measure for counterweights should be PC. The minimum order should be 2 tons, where 1 ton is equal to 2 pieces.1. Choose Close.
 | The new requirement is added to the requirement model. |  |
| 5 | Save the requirement model | In the top-right toolbar, choose Save. | The The diagram has been saved. message displays. |  |

### Publish the Requirement Model

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you publish the requirement model.

Procedure

Tip If you carry out this test procedure in continuation to [Create Requirement](#unique_40) [page ] 68, you can proceed directly to the Publish the requirement model test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. | Ensure that the user is created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. |
| 2 | Open the requirement model | In the Draft Diagrams section, click the model that you created in [Create Requirement](#unique_40) [page ] 68. | The requirement model displays. |  |
| 3 | Publish the requirement model | 1. In the top-right toolbar, choose the Publish icon and then select Publish.
2. In the Publish dialog box, add a comment, if required, and choose OK.
 | The requirement model is published. |  |

### Additional Steps for Using Block Definition Diagram

If you are using BDD for designing a product to describe functional, logical and/or physical context with attributes and data flow, then the recommended SAP Best Practice approach is to use BDD and link requirements to BDD and assign it to respective objects.

If you are not using BDD for designing, then skip these steps.

#### Edit Block Definition Diagram

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 edit the Block Definition Diagram (BDD) created in [Create Block Definition Diagram](#unique_31) [page ] 55.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.For more information, see [System Access](#unique_3) [page ] 5. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the BDD | In the Quick Links section, choose Browse Repository. | The Repository Explorer page displays. |  |
| 3 | Open the BDD | 1. In the Quick Links section, choose Browse Repository.
2. On the Repository Explorer page, in the left pane, choose the Multi-Functional Forklift folder.
3. Choose the Multi-Functional Forklift diagram.
 | The block definition diagram is displayed. |  |
| 4 | Add block to the BDD | 1. From the toolbar displayed on the left side of the screen, drag the Block icon to the white panel displayed in the middle of the screen.
2. Select the block.
3. In the right pane, in the Name field, enter Counterweight.
4. In the Code field, enter Forklifter (if it is not populated automatically).
 | The new block is added to the BDD. |  |
| 5 | Link the Forklifter block to the Counterweight block | 1. Select the Forklifter block in the middle panel.
2. From the displayed set of tools, drag the Link icon to the Counterweight block.
 | The Forklifter block gets linked to the Counterweight block. |  |
| 8 | Save the BDD | In the upper-right toolbar, choose Save. | The diagram is saved and a confirmation message displays. |  |

#### Link Requirement to Block Definition Diagram

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 link requirement to the Block Definition Diagram (BDD).

Procedure

Tip If you carry out this test procedure in continuation to [Edit Block Definition Diagram](#unique_42) [page ] 72, you can proceed directly to the Link requirement to BDD test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the BDD | In the Draft Diagrams section, choose the model that you edited in [Edit Block Definition Diagram](#unique_42) [page ] 72.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The block definition diagram displays. |  |
| 3 | Link requirement to BDD | 1. Select the Counterweight block.

The details of the block are displayed in the right pane.1. Choose Dependencies.
2. Expand Outgoing Traceability Links and choose the Select icon.
3. In the Select Object dialog box, enter Counterweight in the Search field, and press Enter.
4. In the search results, select the Counterweight checkbox.
5. Choose Insert Items.
 |  |  |
| 4 | Save the BDD | Choose Save. | The requirement is linked to the BDD. |  |

#### Publish Block Definition Diagram

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 publish the Block Definition Diagram (BDD).

Procedure

Tip If you carry out this test procedure in continuation to [Link Requirement to Block Definition Diagram](#unique_43) [page ] 73, you can proceed directly to the Publish the requirement model test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open the BDD | In the Draft Diagrams section, choose the model that you edited in [Edit Block Definition Diagram](#unique_42) [page ] 72.Note The user must be created with necessary authorizations. For more information, see [System Access](#unique_3) [page ] 5. | The BDD displays. |  |
| 3 | Publish the BDD | 1. In the upper-right toolbar, choose the Publish icon and then select Publish.
2. In the Publish dialog box, add a comment, if required, and choose OK.
 | The BDD is published. |  |

### Trigger Requirements Assignment for Material

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step you will trigger requirements assignment to the 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. |  |
| 2 | Open the product | 1. Make the following entry and choose Go.
	* Product: SF-FL-CWEIGHT
2. Select the product that displays in the search results.
 | The product information is displayed. |  |
| 5 | Trigger requirements assignment for material | Choose Open In > Model Object Assignments . | The SAP Enterprise Architecture Designer app opens in a new window or a new tab depending on your browser settings. |  |

### Assign Relevant Requirements or Blocks to Material

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you assign the relevant requirements or blocks to the material.

Procedure

Tip If you are already logged on to the SAP Enterprise Architecture Designer application, you can proceed directly to the Assign the requirement test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note For more information, see [System Access](#unique_3) [page ] 5. |  |  |
| 2 | Assign the requirement/block | * If you are using requirement model, then:
	1. Under the Assigned Requirements section, choose Assign.
	2. On the Select Requirements Model dialog box, select Multi-Functional Forklift, and then select the Counterweight checkbox.
	3. Choose Assign.
* If you are using BDD, then:
	1. Under the Assigned Blocks section, choose Assign.
	2. On the Select Model dialog box, select Multi-Functional Forklift, and then select the Counterweight checkbox.
	3. Choose Assign.
 | The requirement or the block Counterweight is assigned to the configuration profile. |  |
| 3 | Close the window | Close the SAP Enterprise Architecture Designer app window. |  |  |

### Change Material

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you add an additional unit of measure to the material.

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 Change Material (MM02) app. | The Change Material (Initial Screen) screen displays. |  |
| 3 | Enter material | Make the following entry and press Enter:Material: SF-FL-CWEIGHT | The Select View(s) dialog box displays. |  |
| 4 | Select the view | Select Basic Data 1 and press Enter. | The Change Material SF-FL-CWEIGHT (Semifinished Product) screen displays. |  |
| 5 | Add alternative unit of measure | 1. Choose Additional Data.
2. Select the Units of measure tab.
3. Make the following entries and press Enter:
* X: 1
* AUn: TO
* Y: 2
 | The additional unit of measure is added. |  |
| 6 | Save the material | Choose Save. | The changes to the material are saved. |  |

### View Requirements or Blocks Assigned to Material

#### Trigger Viewing

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you trigger viewing of the requirements or blocks assigned to the material.

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 | Open the product | 1. Make the following entry and choose Go.
	* Product: SF-FL-CWEIGHT
2. Select the product that displays in the search results.
 | The product information is displayed. |  |
| 4 | Trigger requirements or blocks viewing for material | Choose Open In > Requirement Assignments . | The SAP Enterprise Architecture Designer app opens in a new window or a new tab depending on your browser settings. |  |

#### View Requirement or Block Details

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you view details of the requirement or block assigned to the material.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.Note If you are already logged on to the SAP Enterprise Architecture Designer application, then you may not need to log on again. | Depending on whether you are using requirement model or BDD, the Counterweight link is displayed in the Assigned Requirements or the Assigned Blocks section. |  |
| 2 | View details of the assigned requirement/block | Choose the Counterweight link. | The details of the requirement or the block Counterweight are displayed in the right window pane. |  |
| 3 | Close the window | Close the SAP Enterprise Architecture Designer app window. |  |  |

## Analyze Object Impact (Optional)

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 Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step you analyze the impact of requirement/BDD on the whole model and its constituents like requirement model, BDD, and S/4HANA objects (Material, BOM, Document Information Record, and so on).

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Enterprise Architecture Designer application using the login details provided by your system administrator.For more information, see [System Access](#unique_3) [page ] 5. | The SAP Enterprise Architecture Designer home page displays. |  |
| 2 | Open Repository Explorer | In the Quick Links section, choose Browse Repository. | The Repository Explorer screen displays. |  |
| 3 | Open the requirement model | Open the requirement model that you created in [Create Requirements](#unique_19) [page ] 34. | The requirement model displays. |  |
| 4 | Analyze the object impact | 1. Select the Wiper Blade requirement.

The requirement details are displayed in the right pane.1. On the upper-right corner of the screen, choose the Tools icon, and then choose Impact and Lineage Analysis.
 | The impact and lineage analysis is displayed in a new browser tab.You can view the impact that Wiper Blade makes on Wiper System and on the objects (Engineering BOM created in [Change Bill of Material](#unique_15) [page ] 28 and Document Information Record created in [Change Design Document](#unique_26) [page ] 47) in the overall model. |  |

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. |

|  |
| --- |
|  |
| www.sap.com/contactsap |
| © 2020 SAP SE or an SAP affiliate company. All rights reserved.No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company. The information contained herein may be changed without prior notice. Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty. SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies. See [www.sap.com/copyright](http://www.sap.com/copyright) for additional trademark information and notices. |

