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| Test Script  SAP S/4HANA - 21-08-20 | public |
| Embedded Software Management (2G6\_DE) |

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# Purpose

Embedded Software Management enables the Systems Engineer to manage software parts of products together with hardware components in a Bill of Material. The BOM Engineer can maintain relevant software material and software documents in a Bill of Material.

Software, rather than physical attributes (hardware), delivers the functionality according to customers' requirements for various products. With the growing amount of software embedded in physical products, the necessity to manage it as an integral element of the overall product grows continuously. In SAP S/4HANA, software is represented as a combination of material master and document info record. A dedicated material type is specified for software; the linked document version represents the software version.

In this test script/process, the user imports a software into SAP S/4HANA and updates the BOM item with the new software.

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

# Prerequisites

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

## System Access

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

## Roles

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

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

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name (Role) | ID (Role) | Description (Space) | ID (Space) | Log On |
| BOM Engineer | SAP\_BR\_BOM\_ENGINEER | BOM Management | SAP\_BR\_BOM\_ENGINEER |  |
| Systems Engineer | SAP\_BR\_SYSTEMS\_ENGINEER | Software Constraints | SAP\_BR\_SYSTEMS\_ENGINEER |  |

## Master Data, Organizational Data, and Other Data

The organizational structure and master data of your company has been created in your 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 procedure

|  |  |  |  |
| --- | --- | --- | --- |
| Data | Sample Value | Details | Comments |
| Material | SWNIPD001 | ARM Software 1 |  |
| Material | SWNIPD002 | ARM Software 2 |  |
| Material | RMIPD001 | ARM Hardware 1 |  |
| Material | RMIPD002 | ARM Hardware 2 |  |
| Material | SEAT\_ADJUSTMENT\_XX |  | Type: Software |
| Material BOM | FGIPD001 /2/1 | Material: FGIPD001  Usage: 2 (Engineering/Design)  Alternative: 1 | BOM item include SEAT\_ADJUSTMENT\_XX |
| Document | SEAT\_SW\_DOC\_XX | Document type: SWV | Upload software build package to the document |

# Overview Table

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

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

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

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

|  |  |  |  |
| --- | --- | --- | --- |
| Process Step | Business Role | App/Transaction | Expected Results |
| [Create Software Material](#unique_7) [page ] 6 | Systems Engineer | Create Material (MM01) | New software material will be created |
| [Create Software Document and Link the Software Material](#unique_8)  [page ] 7 | Systems Engineer | Create Document (CV01N) | New software imported into SAP System successfully. |
| [Add new Software Item to BOM](#unique_9) [page ] 9 | BOM Engineer | Maintain Bill Of Material - Create, change & display BOMs (F1813) | New software is maintained in BoM. |
| [Create New Software Version](#unique_10) [page ] 11 | Systems Engineer | Create Document (CV01N) | New software version imported into SAP successfully |
| [Update Software Item with New Version in BoM](#unique_11) [page ] 13 | BOM Engineer | Maintain Bill Of Material - Create, change & display BOMs (F1813) | Update software BoM item with new software version |

# Test Procedures

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

## Create Software 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 the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

In this process step you can create software material.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori Launchpad as a Systems Engineer. |  |  |
| 2 | Access App | Open Create Material (MM01) app. |  |  |
| 3 | Create Material | On the Create Material screen, provide the following data:  Material: SEAT\_ADJUSTMENT\_XX  Material Type: Software Non-Valuated  Choose Continue | The Select View(s) pop-up window appears |  |
| 4 | Select Views | Select Basic Data 1 and Basic Data 2 views and choose Continue |  |  |
| 5 | Enter Material Detail information | Enter the following data:  Description: Seat auto adjustment software  Base Unit of Measure: PC |  |  |
| 6 | Save Change | Choose Save | The material is created. |  |

## Create Software Document and Link the Software 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 the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

In this process step you can create document, provide URL to the software document and link document to software material.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori Launchpad as a Systems Engineer. |  |  |
| 2 | Access App | Open Manage Documents (F2733) | The Manage Documents screen appears |  |
| 3 | Manage Documents | On the Manage Documents , screen, choose + to create a new document and make the following entries:  Document number: SEAT\_SW\_DOC\_XX  Document Type: SWV  Document part: 000  Press Enter | The Document screen appears |  |
| 4 | Enter description | Make the following entries:  Document Description: Arm software initial version |  |  |
| 5 | Link Document to Material (Object Links) | Go to the Object Links section, choose Create to add material. | The SAP Object screen appears |  |
| 6 | Enter material information | Choose MARA from the SAP Object screen .  The Select: Material Master screen appears.  Enter the following material information and choose GO  Material :SEAT\_ADJUSTMENT\_XX  Select the same material from the Items table | The material information is linked to the document. |  |
| 7 | Add a Link | Go to the Originals section  Click Add a Link | The Add a Link screen appears |  |
| 8 | Add software document URL | Provide the URL where the software document is stored and also the URL description.  Choose OK | The URL is added to the document |  |
| 9 | Save Document | Choose Save | The following message is displayed:  Object saved |  |
| 10 | Edit Document | Choose Edit | The document is opened in Edit mode. |  |
| 11 | Release document | From the Document Data section, set the Document Status to RE (Released) by using document status value help. | The document status is set to released. |  |
| 12 | Save Document | Choose Save | The following message appears:  Object saved |  |

## Add new Software Item to BOM

Test Administration

Customer project: Fill in the project-specific parts.

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

Purpose

In this process step you create software material.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori Launchpad as a BOM Engineer. |  |  |
| 2 | Access App | Open Maintain Bill Of Material - Create, change & display BOMs (F1813) | The Maintain Bill of Material screen appears. |  |
| 3 | Find Target Item | On the Maintain Bill of Material screen, set the following filters:  Material: FGIPD001  BoM Usage: 2  Alternative BoM: 1  Choose Go | BoM FGIPD001 /2/1 is displayed in the result list. |  |
| 4 | Open target item | Choose FGIPD001 /2/1 in the result list | The detail information of BoM FGIPD001 /2/1 is displayed. |  |
| 5 | Change to Edit mode | Choose Edit.  Note If Edit is not appearing on the screen, select More (depicted by three dots) and choose Edit. | The BoM is displayed in Edit mode. |  |
| 6 | Add New Item | Choose + to add new item with the following data  Item Category: (L) Stock Item  Component: SEAT\_ADJUSTMENT\_XX  Component quantity: 1 PC  Press Enter |  |  |
| 7 | Select this new BoM item | Select the radio button for this new BoM item, | Maintain Software button on table toolbar will be available. |  |
| 8 | Maintain Software Version | Choose Maintain Software button on the table toolbar  A pop-up window will be shown. On the Maintain Software screen, make the following entries in the search criteria:  Document: SEAT\_SW\_DOC\_XX  Document Type: SWV  Document part: 000  Document version: 00  Select radio button of this document and choose OK  Choose OK to confirm the message | A successful pop-up message appears confirming that the selected software document has been added to the line item. |  |
| 9 | Check document in BoM item detail screen | Click arrow of this BoM item to navigate to BoM detail screen | On BoM item detail screen following data will be shown:  Document: SEAT\_SW\_DOC\_XX  Document Type: SWV  Document part: 000  Document version: 00 |  |
| 10 | Save Changes | Choose Apply and then Save |  |  |

## Create New Software Version

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 new document version and provide URL for new software version.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori Launchpad as a Systems Engineer. |  |  |
| 2 | Access App | Open Manage Documents (F2733) |  |  |
| 3 | Create New Software Version | On the Manage Documents screen, make the following entries:  Document number: SEAT\_SW\_DOC\_XX  Document Type: SWV  Choose Go | SWV SEAT\_SW\_DOC\_XX 000 00 is displayed in the document list |  |
| 4 | Create New Software Version | Select SEAT\_SW\_DOC\_XX.  Choose Create New Version. | The Document screen appears. |  |
| 5 | Link Document to Material (Object Links) | Go to the Object Links section, | The SAP Object screen appears |  |
| 6 | Check the material information | Check if this Material is already linked to the Document: : SEAT\_ADJUSTMENT\_XX | The material information is already linked to the document. |  |
| 7 | Add a Link | Go to the Originals section  Choose Add a Link | The Add a Link screen appears |  |
| 8 | Add new software document URL | Provide the URL where the new software document version is stored and also the URL description.  Choose OK | The URL is added to the document |  |
| 9 | Save Document | Choose Save | A message confirming that the object is saved is displayed: |  |
| 10 | Edit Document | Choose Edit | The document is opened in Edit mode. |  |
| 11 | Release document | From the Document Data section, set the Document Status to RE (Released) by using document status value help. | The document status is set to released. |  |
| 12 | Save Document | Choose Save | A message confirming that the object is saved is displayed: |  |

## Update Software Item with New Version in BoM

Test Administration

Customer project: Fill in the project-specific parts.

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

Purpose

In this process step you will update software BoM item with new software version

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori Launchpad as a BOM Engineer |  |  |
| 2 | Access App | Open Maintain Bill Of Material - Create, change & display BOMs (F1813) | The Maintain Bill of Material screen appears. |  |
| 3 | Find target item | On the Maintain Bill of Material screen, set the following filters:  Material: FGIPD001  BoM Usage: 2  Alternative BoM: 1  Choose Go | BoM FGIPD001/2/1 is displayed in the result list. |  |
| 4 | Open target item | Choose FGIPD001/2/1 in the result list | The detail information of BoM FGIPD001/2/1 is displayed. |  |
| 5 | Change to Edit mode | Choose Edit | The BoM opens in Edit mode. |  |
| 6 | Select Software BoM item | Select the radio button of the new BoM item whose Component is maintained with material SEAT\_ADJUSTMENT\_XX | Maintain Software button on table toolbar will be available. |  |
| 7 | Maintain Software Version | Choose Maintain Software on the table toolbar  A pop-up window will be shown. On Maintain Software screen, enter the following data in the search criteria:  Document: SEAT\_SW\_DOC\_XX  Document part: 000  Document version: 01  Select radio button of this document and choose OK  Choose OK to confirm the message | A system message tells you that the selected software document has been added to the line item. |  |
| 8 | Check document in BoM item detail screen | Select and click this BoM item to navigate to the BoM Detail screen | On the BoM Item section of the Maintain Bill of Material screen, the following data will be shown:  Document: SEAT\_SW\_DOC\_XX  Document Type: SWV  Document part: 000  Document version: 01 |  |
| 9 | Save Changes | Choose Apply and then Save |  |  |

Typographic Conventions

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

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