|  |  |
| --- | --- |
|  |  |
| Test Script  SAP S/4HANA - 15-09-20 | public |
| Emergency Maintenance (BH2\_DE) |

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# Purpose

This scope item uses order recording after an event to log unforeseen and urgent maintenance work by creating and confirming an order in the same operation. The technician can identify an issue affecting a piece of equipment, immediately fix the issue, and then report the time spent and the material consumed. The technician can enter required data quickly. It can be used for planning objects (such as maintenance orders) and actual recording (order confirmation, notification data, and goods movements). Planned data does not differ from the actual data, which is the work recorded on an operation corresponding to the confirmed actual work. The order is created, released, and if required, technically completed. In addition, you can install, dismantle, or replace pieces of equipment.

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 |
| Maintenance Planner | SAP\_BR\_MAINTENANCE\_PLANNER | Maintenance Planning | SAP\_BR\_MAINTENANCE\_PLANNER |  |
| Maintenance Technician | SAP\_BR\_MAINTENANCE\_TECHNICIAN | Maintenance Execution | SAP\_BR\_MAINTENANCE\_TECHNICIAN |  |
| Inventory Manager | SAP\_BR\_INVENTORY\_MANAGER | Inventory Management | SAP\_BR\_INVENTORY\_MANAGER |  |
| Warehouse Clerk | SAP\_BR\_WAREHOUSE\_CLERK | Inventory Processing | SAP\_BR\_WAREHOUSE\_CLERK |  |
| Inventory Manager | SAP\_BR\_INVENTORY\_MANAGER | Inventory Management | SAP\_BR\_INVENTORY\_MANAGER |  |

## Master Data, Organizational Data, and Other Data

The organizational structure and master data of your company have 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 to go through the test procedure. You can also use the following sample data:

|  |  |  |  |
| --- | --- | --- | --- |
| Data | Sample Value | Details | Comments |
| Equipment | 210100091 | Cooling Water Circulation Pump |  |
| Spare Parts Material | SP001 | Bearing |  |
| Spare Parts Material | SP002 | Coupling |  |
| Spare Parts Material | SP003 | Shaft |  |
| Spare Parts Material | SP004 | Gaskets 1mm |  |
| Spare Parts Material | SP005 | Mechanical Seal |  |
| Spare Parts Material | SP006 | Spur gear IS651 |  |
| Plant | 1010 | Plant 1 DE |  |
| Storage Location | 101B | Std. storage 2 |  |

## Business Conditions

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

Note For 1709 On-premise, the Overall Status Schema is delivered without the Active flag set. This means that the system will not calculate the overall status unless customer set the Active flag manually. In order to run this scope item correctly, please follow the detailed process according to released note [2488413](https://service.sap.com/sap/support/notes/2488413) - Release Information Note: EAM Apps on SAP S/4HANA 1709. For cloud version, this step is not required.

Note For On-Premise system, please make sure that system user has its own employee number and is assigned correctly. For the detailed procedure about How to create employee number and How to assign employee number to system user, please refer to [Administration Guide for the Implementation of SAP Best Practices for SAP S/4HANA (1709 FPS0)](https://websmp201.sap-ag.de/~sapidb/012002523100006043712017E/frameset.htm?1297bfd3f9354142a2f16097203ad1c3.html) in Chapter Implementation → Activating your solution → Carrying out post-activation steps → Creating approvers → Creating an employee & Assigning a user to an employee & Business partner synchronization. If you have any question that related with employee creation or assignment, please create a BCP ticket on the component PA-PA-XX.

|  |  |
| --- | --- |
| Scope Item | Business Condition |
| BNZ - Create New Open MM Posting Period | You have completed the step described in the Create New Open MM Posting Period(BNZ) master data script. Posting Period is up to date. |

## Preliminary Steps

### Initializing Material Stock

Test Administration

Customer project: Fill in the project-specific parts.

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

Purpose

In a real business case, the materials are usually purchased from external suppliers. In this case, the process is covered by the standard purchasing or subcontracting processes. This process step shows you how to post initial stock directly to the storage locations.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as an Inventory Manager. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Manage Stock (F1062). | The Manage Stock screen displays. |  |
| 3 | Input Material | Make the following entries and choose Enter:   * Material: < material number>. Select one of the Spare Parts Material mentioned in the previous section Master Data, Organizational Data, and Other Data. * Plant: Plant 1 DE (1010) |  |  |
| 4 | Select Stock | Select the icon beside the stock that you want to add initial stock, for example:   * Storage Location: Std. storage 2 (101B) * Unrestricted-Use Stock | A dialog box opens. The Storage Location, Stock Type and Current Quantity display according to your entries in the previous steps. |  |
| 5 | Add Initial Entry | Make the following entries and choose Post:   * Document Date: <today> * Posting Date: <today> * Stock Change: initial entry * Quantity: <quantity number> | The system displays Material document XXX created. The stock has been added. |  |

# Overview Table

The scope item Emergency Maintenance (BH2) 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 | Transaction/App | Expected Results |
| [Report Malfunction](#unique_9) [page ] 9 | Maintenance Planner | Report Malfunction (F2023) | Unplanned job is created. |
| [Repair Malfunction](#unique_10) [page ] 11 | Maintenance Technician | Repair Malfunction | Unplanned job is confirmed incl. time recording, con-firming material used. |
| [Post Goods Issue](#unique_11) [page ] 13 | Warehouse Clerk | Post Goods Movement (MIGO) | Spare parts are consumed. |
| [Complete Malfunction Report](#unique_12) [page ] 14 | Maintenance Technician | Manage Malfunction Reports (F2023) |  |
| [Review Asset Maintenance Object Page](#unique_13) [page ] 16 | Maintenance Planner |  |  |

# Test Procedures

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

## Report Malfunction

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

After Event recording or confirm unplanned job suites the purpose that an event has occurred which requires quick and immediate intervention from the maintenance technician. In such an emergency, the maintenance technician performs the required maintenance activity to restore the condition of the equipment. Maintenance technician identifies an issue at a piece of equipment, immediately fixes the issue and reports later the time spent and the material consumed. In most cases, he is not able to identify the equipment number and searches along the hierarchy of the Functional Location.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1. | Log On | Log on to the SAP Fiori launchpad as a Maintenance Technician. | The SAP Fiori launchpad displays. |  |
| 2. | Access the App | Open Report Malfunction (F2023). | The Create Malfunction Report screen displays. |  |
| 3 | Report Malfunction | On the Create Malfunction Report screen, make the following entries:  Technical Object: 210100091  Note You can also search for an object by plain text. Use the value help button and provide a keyword, such as <water pump>. In the result list, select the equipment with number 210100091, a description of Cooling Water Circulation Pump, and Maintenance Planning Plant 1010. To see all details regarding technical objects, use the app Find Technical Objects. There you can search either by plain text in Search field or by applying different filters.  Description: <Describe the unforeseen event>  Effect: For example, <Production restricted (2)>.  If default report time need to be ajusted, make the following entries:  Reported on: <Date> <Time>  Choose Save.  Please note down the Order Number as well as the Notification Number for following test. | Order 4XXXXXX saved with notification 1XXXXXXX. |  |
| 4 | Add Attachment/URL (Optional) | In the Attachments area, Choose "+" Icon and select JPG or PNG file to upload local photo. | Picture or photo is uploaded to your notification. |  |

## Repair Malfunction

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

After event recording suites the purpose that an event has occurred which requires quick and immediate intervention from the maintenance technician. In such an emergency, the maintenance technician performs the required maintenance activity to restore the condition of the equipment. The maintenance technician identifies an issue at a piece of equipment, immediately fixes the issue and reports later the time spent and the material consumed. Very often he is not able to identify the equipment number and searches along the hierarchy of the Functional Location.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Maintenance Technician. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Repair Malfunctions. | The Manage Maintenance Jobs screen displays.  This app can be used to show the user’s work items only. |  |
| 3 | Search for Malfunction Report | On the Manage Maintenance Jobs screen, choose filter and make the following entries:   * Jobs: Mine only * Technical Object: 210100091   Choose Go. | Malfuntion Report list in the Manage Maintenance Jobs screen. |  |
| 4 | Choose Malfunction Report number | Choose the line of the Malfunction Report from the previous section. | Navigate to Process Malfunction Report Screen. |  |
| 5 | Add Work Items | On the Process Malfunction Report screen. Go to Job Details Section.  In the Work area, choose pencil icon.  In the Edit Work Item pop-up dialog box, make the following entries:   * Work Center: RES-0100 * Planned Effort: For example: <1 Hour>   Choose Save. |  |  |
| 6 | Add Spare parts used | On the Process Malfunction Report screen. Go to Job Details Section.  In the Parts area, choose “+” icon.  On the select parts screen, in the Bill of Material tab, select Material SP001.   * Quantity: For example: <1 pc> * Choose Add then choose back button on the top left corner.   Note Check material availability in the column In Stock; If the material shows Not Available in that column, you can create initial material stock according to Preliminary Steps in the previous chapter. | Item SP001 has been added to your report. |  |
| 7 | Release Malfunction Report | On the Process Malfunction Report screen, choose Release button at the floating toolbar. The work item status is changed to Ready for Work. | The status of Malfunction Report changed from Created to Released. |  |
| 8 | Start work | On the Process Malfunction Report screen, choose In Process button at the work item level.  Please note down the exact time when you choose In Process. | The status of Malfunction Report changed to In Process. |  |
| 9 | Process Maintenance Job offline | Wait several minutes:  For example: 5-6 minutes | This step is not related with operation in system. It simulates in real business scenario that a technician has several minutes of preparation. |  |
| 10 | Pause Work | On the Process Malfunction Report screen, choose Work Paused at the work item level. Choose Waiting for Parts in Select Reason Dialog box.  Choose OK. |  |  |
| 11 | Partial Confirmation | In Pause Work dialog box, choose checkbox Create partial time confirmation, and check the system proposed Actual Work hour automatically.  Choose OK. | Actual Work is 0.1 Hours if you wait 6 minutes after choosing status In Process. |  |
| 12 | Restart Work | On the Process Malfunction Report screen, choose In Process button at the work item level. |  |  |
| 13 | Mark Work is Done | On the Process Malfunction Report screen, choose Work is done button at the work item level. |  |  |
| 14 | Edit Work Item | On the Process Malfunction Report screen, go to Job Details section.  In the Work area, choose Add Time Confirmation icon.  In the Confirm Actual Effort dialog box, make the following entries:   * Additioinal Effort: 0.8 Hour * Posting Date: keep the default date * Choose Save. | Actual Effort is proposed automatically by system. |  |

## Post Goods Issue

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

The material which is actually consumed will be posted by Warehouse Clerk.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Warehouse Clerk. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Post Goods Movement (MIGO). | The Post Goods Movement screen displays. |  |
| 3 | Choose Goods Issue-Order | Choose Goods Issue-Order. |  |  |
| 4 | Specify Order Number | Enter the Maintenance Order Number which created at the previous step, and choose Execute. | The General Information of this order displays. |  |
| 5 | Specify Quantity | In Quantity tab, enter quantity of spare parts, for example, <1 PC> |  |  |
| 6 | Select Item Ok | Choose Item OK. |  |  |
| 7 | Check | Choose Check. |  |  |
| 8 | Post | Choose Post. | Material document XXX posted. |  |

## Complete Malfunction Report

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

Maintenance technician record the damage details, causes and activity code for future analysis. After that, technician will set this malfunction report as complete and close it.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Maintenance Technician. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Manage Malfunction Reports (F2023). | The Manage Malfunction Reports screen displays. |  |
| 3 | Search for Malfunction Report | On the Manage Malfunction Reports screen, choose filter and make the following entries:   * Notification Type: M2, Malfunction Report * Tech. Object: 210100091 * Status: Work is done   Choose Go. |  |  |
| 4 | Choose Malfunction Report Number | Choose the line of the Malfunction Report from the previous section. | Navigate to Process Malfunction Report screen. |  |
| 5 | Enter Malfunction Details | On the Process Malfunction Report screen. Go to Malfunction Details section.  In the Item area, choose “+” icon.  In the Add Malfunction Details dialog box, make the following entries:   * Object Part: ME01 Bearing * Damage: for example, Bearing damage   Choose Save. |  |  |
| 6 | Edit Malfunction Details | 1. On the Process Malfunction Report screen, go to Malfunction Details section. 2. In the Item area, choose Pencil icon at the line of you added at previous step. 3. In the Edit Malfunction Details dialog box, make the following entries:    * Select Cause tab: for example: ME02 Corrosion.    * Check the Root Cause indicator.    * Select Activity tab: for example: ME00 Part replaced.    * Choose Save. |  |  |
| 7 | Mark Breakdown Indicator | On the Process Malfunction Report screen, go to Malfunction Duration section, choose Edit;  In the Malfunction Duration dialog box, check Breakdown indicator and choose Save. |  |  |
| 8 | Complete Malfunction Report | On the Process Malfunction Report screen, choose Complete button at the floating toolbar. |  |  |
| 9 | Close Malfunction Report | On the Process Malfunction Report screen, choose Close Report button on the floating toolbar. |  |  |

## Review Asset Maintenance Object Page

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 activity, you review the different objects pages available for different roles in the area of Asset Management.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Maintenance Planner.  Note You can use any of the maintenance roles from the sections above. | The SAP Fiori launchpad displays. |  |
| 2 | Start Search | Choose Search in the upper right area of the launchpad. | An input field displays. |  |
| 3 | Search Criteria | In the dropdown list, choose Equipment and input Equipment, for example, 210100091. |  |  |
| 4 | Tailor the Result Display | Below the search line, choose a symbol (for example, filter, display as table, sort, and so on) to filter the results list. | The results list is filtered according to your selections. |  |
| 5 | Review Object Page | Review overview information for Equipment via Object page. |  |  |
| 6 | Repeat Steps | Repeat steps 1 to 5 for any other role in this test script and any other object offered in the search function.  For example:   * Notification * Order * Order Confirmation | The list of objects offered for search differs by the role you used to log on. |  |

# Appendix

## Process Integration

### Preceding Processes

You may first have completed the following processes and conditions before you start with the test steps:

|  |  |
| --- | --- |
| Process | Business Condition |
| MDS: Create New Open MM Posting Period | ScopeItem\_BusinessCondition |

### Succeeding Processes

After completing the activities in this test script, you can continue testing the following business processes:

|  |  |
| --- | --- |
| Process | Business Condition |
| BF7-Period-End Closing - Maintenance Orders | A maintenance order technically completed as part of Emergency Maintenance |

## Additional Features

After completing the activities in this test script, you can also continue testing the Fiori App: Technical Object Breakdowns. You can log on system as business role: Maintenance Planner and find this app in tile EAM - Asset Information System. The test results (one or several maintenance orders for technical objects) which you created in this test script can be the sample data for Technical Object Breakdowns app to display graphical analysis.

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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