Functional Specification

Create Maintenance Request

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1. Overview

This functional specification defines the behavior of the "Create Maintenance Request" functionality within the SAP Enterprise Asset Management System (EAMS). It focuses on field-level control logic applied during the creation of maintenance notifications of type Y1.

2. Scope

The scope covers the field property configuration for the Technical Object field when creating a new maintenance notification with notification type Y1.

3. Business Requirement

When a user initiates the creation of a maintenance request (notification type Y1), the system must enforce that the Technical Object field is mandatory. This ensures every Y1 maintenance request is linked to a valid technical object for proper asset tracking and maintenance planning.

4. Functional Requirements

4.1 FR-001: Technical Object Field Mandatory Rule

Trigger Conditions (ALL must be met):
- The application mode is **CREATE** (ui_mode = if_eams_ext_base=>ui_mode-create)
- The notification type is **'Y1'** (maintenancenotification-notificationtype = 'Y1')

Expected Behavior:

When both conditions are satisfied, the system shall set the TECHNICALOBJECT field control property to MANDATORY by inserting the following entry into the fieldproperties table:
- fieldname = 'TECHNICALOBJECT'
- option = if_eams_ext_base=>fieldcontrol-mandatory

Implementation Logic (ABAP):

```
IF mode = if_eams_ext_base=>ui_mode-create
   AND maintenancenotification-notificationtype = 'Y1'.
  INSERT VALUE #(
    fieldname = 'TECHNICALOBJECT'
    option = if_eams_ext_base=>fieldcontrol-mandatory
  ) INTO TABLE fieldproperties.
ENDIF.
```

Business Rule Summary:

Condition	Value	Description
Mode	CREATE	User is creating a new notification
Notification Type	Y1	Maintenance Request type Y1
Affected Field	TECHNICALOBJECT	Technical Object reference field
Field Control	MANDATORY	Field must be filled before saving

4.2 FR-002: No Action for Other Scenarios

When the mode is not CREATE or the notification type is not Y1, the system shall NOT add the mandatory field control for TECHNICALOBJECT. The field remains in its default state (optional or as defined by other rules).

5. Assumptions and Dependencies

- The EAMS extension base interface (if_eams_ext_base) is available and properly configured.
- The fieldproperties internal table is initialized before this logic executes.
- Notification type Y1 is configured in the SAP system customizing.
- This logic executes within the BAdI or enhancement implementation for maintenance notification field control.

6. Test Cases

6.1 TC-MR-001 – Positive Test

Technical Object Mandatory on Y1 Create

Test Case ID	TC-MR-001
Test Type	Positive
Priority	High
Objective	Verify that the TECHNICALOBJECT field is set to mandatory when creating a maintenance notification of type Y1.

Preconditions:
- User has authorization to create maintenance notifications
- Notification type Y1 is configured in the system
- The EAMS extension is active

Test Steps:

Step	Action	Expected Result
1	Navigate to Create Maintenance Notification transaction	The creation screen is displayed
2	Select notification type 'Y1'	Notification type Y1 is accepted
3	Leave the Technical Object field empty	The field is highlighted as mandatory (asterisk or red indicator)
4	Attempt to save without filling Technical Object	System displays error: Technical Object is required
5	Enter a valid Technical Object (e.g., equipment or functional location)	The field accepts the value
6	Fill remaining required fields and save	Notification is created successfully with Technical Object populated

Expected Result: The system enforces TECHNICALOBJECT as a mandatory field. The notification cannot be saved without a valid Technical Object when type is Y1 and mode is CREATE.

Pass Criteria: Steps 3–4 confirm mandatory enforcement; Step 6 confirms successful save with the field populated.

6.2 TC-MR-002 – Negative Test

Technical Object Not Mandatory for Non-Y1 Type

Test Case ID	TC-MR-002

Test Type	Negative
Priority	High
Objective	Verify that the TECHNICALOBJECT field is NOT set to mandatory when creating a maintenance notification with a type other than Y1.

Preconditions:

- User has authorization to create maintenance notifications
- A notification type other than Y1 exists (e.g., M1 or M2)
- The EAMS extension is active

Test Steps:

Step	Action	Expected Result
1	Navigate to Create Maintenance Notification transaction	The creation screen is displayed
2	Select a notification type other than 'Y1' (e.g., 'N1')	Notification type N1 is accepted
3	Observe the Technical Object field	The field is NOT marked as mandatory (no asterisk or indicator)
4	Leave the Technical Object field empty	No mandatory field error is raised for Technical Object
5	Fill remaining required fields and save	Notification is created successfully without a Technical Object

Expected Result: The system does NOT enforce TECHNICALOBJECT as mandatory. The notification can be saved without a Technical Object when the notification type is not Y1.

Pass Criteria: Steps 3–5 confirm the field remains optional for non-Y1 notification types.

7. Approval

This document requires the following sign-offs before implementation:

Role	Name	Signature	Date
Business Analyst			
Technical Lead			
Quality Assurance			
Project Manager			

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