

5. Functional Specification

1. Functional Description

User Requirement

Every time, a Maintenance Plan or Item is saved, the system has to check if the maintenance plan is CMX relevant. If yes, transfer data to CMX.

Identification of Maintenance plan relevant for CMX interface:

It is not requested that the transfer is done real-time at the moment when the maintenance plan is saved. Periodical transfer (for example, every hour) is also acceptable.

Maintenance Plan with Functional Location that are CMX-relevant and Order Type “YA07” in the Maintenance Item have to be transferred to CMX. The selection criteria such as the order type may change, so they need to be parametric, not fixed.

Identification of Functional Locations relevant for CMX interface: the Functional Location is assigned with characteristic INTERFACE with value “CMX”.

Maintenance Plan with Equipment that are CMX-relevant and Order Type “YA07” in the Maintenance Item have to be transferred to CMX. The selection criteria such as the order type may change, so they need to be parametric, not fixed.

Identification of Equipment relevant for CMX interface: the Equipment is assigned with characteristic INTERFACE with value “CMX”.

Plant and order type should be among the selection parameters for maintenance plans, with the flexibility to change them in S/4HANA.

- A log must be readily accessible to Lonza IT S/4HANA PM support team to facilitate error identification during message transmission. It should support diagnostic capabilities by clearly indicating the point of failure (e.g., SAP, iSuite, CMX).
- On error detection, an automated email notification should be triggered to a predefined distribution list (e.g., IT support team)
- Reprocessing functionality should be available for transfers that ended in error.
- One unique point of access to display all errors for the different CMX outbound and inbound interfaces should be made available

Functional Description

If the Maintenance Plan Item is assigned to a Functional Location or Equipment that is CMX-relevant and Order Type “YA07” in the Maintenance Item, transfer data to CMX initial and after change.

The possibility to re-send maintenance plans with errors must be there.

Processing

After save Maintenance Plan transfer data to CMX Position.

Functional Location number (respect alternative labelling)

Functional Location with base label or alternative label_internal unique number (separator is _ “underscore”)

Equipment number (If Maintenance Item is assigned to an Equipment)

Cycle

Internal Unit shall be translated in English.

Order type, plant and characteristic value should be set as parameters, to be easily changed directly in S/4HANA.

*If there is the possibility to transfer the orders real-time, without impacting the performance of the system while the user is saving the plan, this is the preferred method. As an alternative, a delay of transfer every hour is also acceptable.

The program should allow re-execution, in case of errors during the transfer. To allow this flexibility, the “last time the program ran” should also be flexible, for example through the usage of a dynamic date, but manually changeable.

The new interface in S/4 HANA will be triggered by a background job that will run at regular intervals (or on demand) and which will evaluate all of the conditions described before and send the plan data that meet them, independently of whether the plan itself was updated or not.

Search Algorithms

A program will run with the following selection criteria:

Field	Mandatory	Data Element	Default	Format / Options
Plant	Yes	IWERK	None	Multiple Selection
Maintenance Plan		WARPL	None	Multiple Selection
Maintenance Item		WAPOS	None	Multiple Selection
Order Type	Yes	AUART	None	Multiple Selection
Main Work Center		GEWRK (ARBPL)	None	Multiple Selection

Functional Location		TPLNR	None	Multiple Selection
Equipment		EQUNR	None	Multiple Selection
Characteristic	Yes	ATINN	None	Multiple Selection
Characteristic Value	Yes	ATWRT	None	Multiple Selection
Check from Date	Yes	SY-DATUM	System date	Single value
Check from Time	Yes	SY-UTIME	00:00:00	Single value
Test Run		NA	None	Check Box

The interface shall only get data based on the selection criteria, for example, for Order Type, the current selection criteria is only for “YA07” and in the future, other order type can be added. This means the interface shall dynamically pick-up the changes made in the selection parameter.

CMX Message type CREATE or CHANGE

Communication:

The Interfaces are realized following the Documentation “Business Bridge Configuration” provided by Beamex.

SAP Field Mapping and Logic

Note: Double Asterisk(**) initial criteria relevant to data transfer to CMX. Fields with Asterisk(*) are key fields in order to joined the table. Fields with red text are common field

name to rename with extended name MI, MP, TL and SC, ST, FL, EQ as shown in the table below to identified which table they came from.

S	Descri	SAP	SAP Field	SAP CDS	SAP Odata Field	Logic
N	ption	Backe		Views or		
o.		nd		API/Entity		
		Table				
						Get System ID (T30,Q30,P10,Q10...) from the API Odata Service url.
1	Maintenanc e Plan Status		'CREATE' or 'CHANGE'	C_MAINTENAN CEITEMDEX C_MAINTENAN CEPLANDEX I_FUNCTIONAL LOCATION I_FUNCTIONAL OCATIONLABE L I_EQUIPMENT I_CHANGEDO CUMENT I_CHANGEDO CUMENTITEM		<p>For create status:</p> <p>Check UDATE and UTIME of Maintenance Plan (MPLAN Object) in the CDHDR table and when it is BLANK it means it is newly created plan.</p> <p>If true passed the data to CMX</p> <p>For change status:</p> <p>Check UDATE and UTIME of Maintenance Plan (MPLAN Object) in the CDHDR table and get all the latest change and when it there is a value greater than in the selection criteria "Check from Date / Check from Time" then check in the CDPOS for the table</p>

						<p>MMPT_CD in field names ZYKL1 and CD_ZYKL1_OFFSET_UNIT if has new value. This means there is a changes in cycle and cycle unit.</p> <p>If true passed the data to CMX</p> <p>If true Get Equipment, if Equipment = "no value" get Functional Location else get Equipment, Package cycle (in seconds) and Unit,</p> <p>convert the cycle value based on unit and round-off to whole number</p> <p>Else</p> <p>If true, Get Equipment, if Equipment = "no value" get Functional Location else get Equipment, Package cycle (in seconds) and Unit,</p> <p>convert the cycle value based on unit and round-off to whole number</p>
2	Main Work Center	MPOS	GEWRK (ARBPL)	C_MAINTENANCEITEMDEX	MAINWORKCENTER	Get data

3	Maintenance Item	MPOS	WAPOS	C_MAINTENANCEITEMDEX	MAINTENANCEITEM	Get data
4	Maintenance Plan	MPOS MPLA	WARPL	C_MAINTENANCEITEMDEX C_MAINTENANCEPLANDEX	MAINTENANCEPLAN*	Join the table C_MAINTENANCEPLANDEX to the main table and match the field Maintenance Plan as the key field then get the data required.
5	Last Change DateTime in Maintenance Item (Short Time Stamp)	MPOS	TSTMP_BW	C_MAINTENANCEITEMDEX	LASTCHANGEDATEITEM	Extend the field name then get data
6	Maintenance item text	MPOS	PSTXT	C_MAINTENANCEITEMDEX	MAINTENANCEITEMDESCRIPTION	Get data
7	Order Type	MPOS	AUART	C_MAINTENANCEITEMDEX	MAINTENANCEORDERTYPE**	Selection Criteria: MAINTENANCEORDERTYPE = YA07 (Based on the selection criteria selected on the program)
8	Maintenance Plant	MPOS	IWERK	C_MAINTENANCEITEMDEX	MAINTENANCEPLANT	Get data

9	CMX-relevant Functional Location	IFLOT AUSP	TPLNR ATINN	I_FunctionalLocation I_ClfnObjectCharacteristicValueDEX	FunctionalLocation CLFNOBJECTID CHARACTERISTIC* CHARCVALUE**	Selection Criteria: FunctionalLocation with CHARACTERISTIC** = INTERFACE with CHARCVALUE** = CMX (Based on the selection criteria selected on the program)
10	Functional Location	MPOS MPLA IFLOT	TPLNR OBJNR	C_MAINTENANCEITEMDEX I_FUNCTIONALLOCATION I_FUNCTIONALLOCATIONLABEL	FUNCTIONALLOCATION* FUNCTIONALLOCATIONLABELNAME MAINTOBJECTINTERNALIDFL	<p>Join the table I_FUNCTIONALLOCATION and I_FUNCTIONALLOCATIONLABEL to the main table and match the field FUNCTIONALLOCATION as the key field then get the data required.</p> <p>a. IF FUNCTIONALLOCATION have same value with FUNCTIONALLOCATIONLABELNAME GET FUNCTIONALLOCATION value then concatenate with “MAINTOBJECTINTERNALID” value with underline () separator.</p> <p>Example: Y11-AHU-RMS-PDT412370 is to Y11-AHU-RMS-PDT412370</p>

						<p>Result: Y11-AHU-RMS-PDT412370_IF000000000000000000004</p> <p>b. IF FUNCTIONALLOCATION have different value with FUNCTIONALLOCATIONLA BLENAM GET FUNCTIONALLOCATIONLA BLENAM value then concatenate with “MAINTOBJECTINTERNAL D” value with underline () separator.</p> <p>Example: Y11-BF6-FCV361221 to Y11-BF6-FCV361221- ALTLABEL01234567890123</p> <p>Result: Y11-BF6-FCV361221- ALTLABEL01234567890123_IF?0100000000000000000001</p>
1	CMX- 1 relevant Equipment	EQUI AUSP	EQUNR ATINN	I_Equipment I_ClfnObjectC harcValueDEX	EQUIPMENT CLFNOBJECTID	<p>Selection Criteria:</p> <p>FunctionalLocation with CHARACTERISTIC** = INTERFACE with CHARCVALUE** = CMX</p>

					CHARACTERISTIC* * CHARCVALUE**	(Based on the selection criteria selected on the program)
1 2	Equip ment	MPOS MPLA EQUI	EQUNR OBJNR	C_MAINTENAN CEITEMDEX I_EQUIPMENT	EQUIPMENT* MAINTOBJECTINTE RNALIDEQ	Get data and concatenate EQUIPMENT_MAINTOBJIN TERNALIDEQ (underline “_” as separator)
1 3	Create d on in Maint enanc e Item	MPOS	ERSDT	C_MAINTENAN CEITEMDEX	CREATIONDATEMI	Extend the field name then get data
1 4	Chang ed On in Maint enanc e Item	MPOS	AEDAT	C_MAINTENAN CEITEMDEX	LASTCHANGEDAT EMI	Extend the field name then get data
1 5	Chang ed By in Maint enanc e Item	MPOS	AENAM	C_MAINTENAN CEITEMDEX	LASTCHANGEDBY USERMI	Extend the field name then get data
1 6	Last Chang e DateTi me in Maint enanc e Plan (Short Time	MPLA	CHANGEDD ATETIME	C_MAINTENAN CEPLANDEX	LASTCHANGEDAT ETIMEMP	Extend the field name then get data

	Stamp)					
17	Maintenance PlanText	MPLA	WPTXT	C_MAINTENANCEPLANCEPLINDEX	MAINTENANCEPLANDESC	Get data
18	Package cycle – Single Cycle	MMPT	ZYKL1	C_MAINTENANCEPLANCEPLINDEX	MAINTPLANCYCLERCINTERVALQTY	Get data
19	Unit – Single Cycle	MMPT	ZEIEH / CD_ZYKL1_ OFFSET_UNIT	C_MAINTENANCEPLANCEPLINDEX	MAINTPLANCYCLERCINTERVALUNIT	Get data
20	Create On in Maintenance Plan	MPLA	ERSDT	C_MAINTENANCEPLANCEPLINDEX	CREATIONDATEMP	Extend the field name then get data
21	Changed On In Maintenance Plan	MPLA	ERNAM	C_MAINTENANCEPLANCEPLINDEX	LASTCHANGEDATEMP	Extend the field name then get data
22	Changed By in Maintenance Plan	MPLA	AENAM	C_MAINTENANCEPLANCEPLINDEX	LASTCHANGEDBYUSERMP	Extend the field name then get data

23	Change Document Object	OBJECTCLASS	CDHDR	I_CHANGEDOCUMENT	CHANGEDOCOBJECTCLASS	To be used in the selection criteria. CHANGEDOCOBJECTCLASS = MPLAN
24	Object Value	OBJECTID	CDHDR	I_CHANGEDOCUMENT	CHANGEDOCOBJECT	To be used in the selection criteria. Same value with Maintenance Plan.
25	Document Number	CHANGENR	CDHDR	I_CHANGEDOCUMENT	CHANGEDOCUMENT	To be used in the selection criteria
26	Date	UDATE	CDHDR	I_CHANGEDOCUMENT	CREATIONDATE	To be used in the selection criteria
27	Time	UTIME	CDHDR	I_CHANGEDOCUMENT	CREATIONTIME	To be used in the selection criteria
28	Table Name	TABNAME	CDPOS	I_CHANGEDOCUMENTITEM	DATABASETABLE	To be used in the selection criteria DATASETTABLE = MMPT_CD
29	Field Name	FNAME	CDPOS	I_CHANGEDOCUMENTITEM	CHANGEDOCDATABASETABLEFIELD	To be used in the selection criteria CHANGEDOCDATABASETABLEFIELD = ZYKL1 and CD_ZYKL1_OFFSET_UNIT

30	New Value	VALUE_NEW	CDPOS	I_CHANGEDOCUMENTITEM	CHANGEDOCNEWFIELDVALUE	To be used in the selection criteria

Note: Both Backend Tables and CDS Views can be viewed in Tcode SE16H.

CMX Fields and SAP Field Mapping

Only the fields below will be sent to CMX.

S. No.	CMX Fields	SAP Fields	Sample Value
1	MaintenancePlan_Order_Status	Based on Logic	Create or Change
2	MaintenancePlan_FLoc_Number	FUNCTIONALLOCATION_MAINTOBJECTINTERNALID Or EQUIPMENT_MAINTOBJECTINTERNALID	Y11_F6_SC21111_IF0000000000 0000000033 Or 10000119_ IE000000000010000119
3	MaintenancePlan_Cycle	MAINTPLANCYCRCRRRCINTERVALQTY	3
4	MaintenancePlan_Unit	MAINTPLANCYCRCRRRCINTERVALUNIT	MON
5	MaintenancePlan_Item_Description	MAINTENANCEITEMDESCRIPTION	6538 Test Data - CALIB SCALE 32KG 3M
6	System ID	SY-SYSID	T30,_Q30,_P10,_Q10 etc.

2. Flow Diagram

SAP INTEGRATION SUITE

BEAMEX

SAP® S/4HANA



End User

Application Client

Create/Change
Maintenance Plan/Item





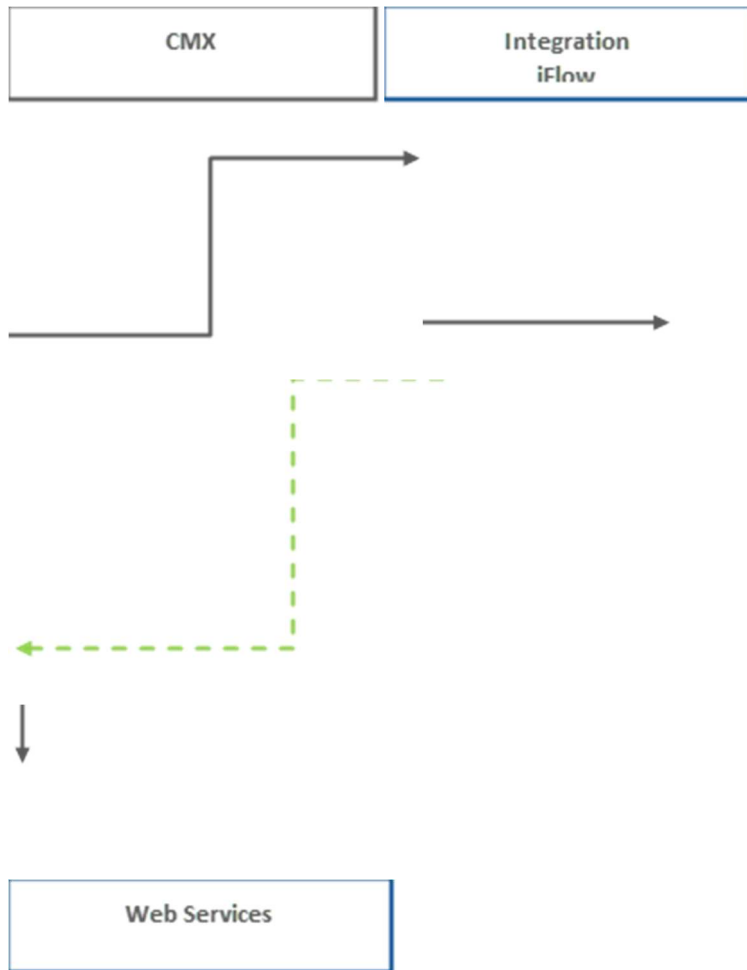
Standard CDS Views:

C_MAINTENANCEITEMDEX
C_MAINTENANCEPLANDEX
I_FUNCTIONALLOCATION
I_FUNCTIONALLOCATIONLABEL
I_EQUIPMENT

1. Create Custom CDS View
2. Exposed the Custom CDS View as an API

Standard APIs:

API_FUNCTIONALLOCATION
API_EQUIPMENT



Error Handling w/ Re-process

Error – SAP, Suite & CMX



On-premise
system

Note: Error Handling with re-processing will be tackled on a different FDS consolidating all CMX Interfaces.

3. Unit Testing

<<<Provide step by step example for unit testing >>>


4.3.1. Creation of new Maintenance Plan (for Functional Location with and without alternative label and Equipment):

- a. Logon to Fiori Launchpad
- b. Go to app Create Maintenance Plan
- c. In the Maintenance Plan For field choose “Maintenance Order” and in the Maintenance Plan Type field choose Single Cycle (Time-Based)


< **SAP** Create Maintenance Plan ▾

Maintenance Plan For: * Maintenance Order ▾

Maintenance Plan Type: * Single Cycle (Time-Based) ▾

Maintenance Plan: 

Copy With Reference To

Maintenance Plan: 

d. Enter the required data for setting up Calibration Maintenance Plan.

Following fields should have value:


Main Work Center

Technical Object

Cycle

Unit

< **SAP** Change Maintenance Plan: Single-Cycle Plan 800027 ▾


Alt ▾ Search 





Read Only Check Entries Additional Functions ▾ You can also ▾

Maintenance Plan: 800027 Description: 6538 Test Data - Interface for MP_Q2_D Maintenance Plan For: Maintenance Order Scheduling Indicator: Time

Items Planning Data Maintenance Calls Classification

Items

Standard ▾ 

Item	Item Description	Technical Object	Order Type	Plant	Work Center	Plant of Work...	Planner Group	Business Area	Task List
400039	6538 Test Data - CALIB RTD Q2 184D	Y11-F6-R21003-TES96672-ALTERNATIVE LABEL1	Proactive Maintenance with QM	ZKZZ	CALIBCMX	ZKZZ	MFH		
				▾					
				▾					
				▾					
				▾					

Details for Item 400039 - 6538 Test Data - CALIB RTD Q2 184D

General Data Object List Location Data


Long Text:

Technical Object: Y11-F6-R21003-TES96672-ALTERNATIVE LABEL1 RTD Temperature Probe 2a

Identifying Assets: Y11

Superior Technical Object: Y11 Manufacturing


Material:

Maintenance Activity Type: SCL  Scheduled Calibration

Do Not Release Immediately: ☐

Technical Object Type: Functional Location

Serial Number:

Assembly: 

Priority: Half-yearly +620 ▾ Half-yearly +620

System Condition: not in operation ▾ not in operation

Task List

Task List: [Assign Task List](#)

< **SAP** Change Maintenance Plan: Single-Cycle Plan 800027 All | Search

Read Only [Check Entries](#) [Additional Functions](#) [You can also](#)

Maintenance Plan: 800027 Description: 6538 Test Data - Interface for MP_02_D Maintenance Plan For: Maintenance Order Scheduling Indicator: Time

Items **Planning Data** Maintenance Calls Classification

Long Text:

Description: 6538 Test Data - Interface for MP_02_D Authorization Group: P

Sort Field: P

Date Determination

Start Date for Scheduling: 29.08.2025 P End Date for Scheduling: 29.08.2035 P

Shift Factor for Late Completion: 100 % Shift Factor for Early Completion: 100 %

Tolerance (+): 0 % Tolerance (-): 0 %

Scheduling Indicator: Time Cycle Modification Factor: 1.00

Call Control

Scheduling Period: 10 YR P Call Horizon: 75 % P

Completion Required: ☐

Cycle

Cycle Unit: 184 D P Cycle Description: Half-yearly

Offset Unit: D

- e. Enter other required fields of the maintenance plan and item.
- f. Press “Save” button.

4.3.2. Updating an existing Maintenance Plan:

- a. Logon to Fiori Launchpad
- b. Go to app Manage Maintenance Plans

< **SAP** Manage Maintenance Plans All | Search

Standard Application Logs

Editing Status: Maintenance Plan: Plan Type: Plan Category: Start Date of Scheduling: P Adapt Filters

Scheduled (25) Created (2) Deactivated (1) Marked For Deletion (0) All Plans (30)

Maintenance Plan	Plan Type	Plan Category	Start Date of Sch...	End Date for Sche...	Remaining Period	Remaining Counter	Created By	Created On	Changed By
<input type="checkbox"/> Maintenance Plan "I"					3652 Days				
<input type="checkbox"/> Test C_MAINTENANCEPLANEX with TL 800035	Single Cycle (Time-Based)	Maintenance Order (PM)	01.09.2025	01.09.2035	3652 Days	1 Day	M541218	01.09.2025	
<input type="checkbox"/> Test C_MAINTENANCEPLANEX 800034	Single Cycle (Time-Based)	Maintenance Order (PM)	01.09.2025	01.09.2035	3652 Days	1 Day	M541218	01.09.2025	M541218
<input type="checkbox"/> C_MAINTENANCEITEMEXC_MAINTENANCEPI 800033	Strategy	Maintenance Order (PM)	01.09.2025	01.09.2035	3652 Days	1 Day	M541218	01.09.2025	
<input type="checkbox"/> 6538 Test Data - Interface for MP_04_MON 800031	Single Cycle (Time-Based)	Maintenance Order (PM)	27.05.2025	27.05.2030	1326 Days	1 Day	M541218	29.08.2025	M541218
<input type="checkbox"/> 6538 Test Data - Interface for MP_03_MON 800030	Strategy	Maintenance Order (PM)	27.05.2025	27.05.2035	1594 Days	1 Day	M541218	29.08.2025	M541218
<input type="checkbox"/> 6538 Test Data - Interface for MP_02_D 800027	Single Cycle (Time-Based)	Maintenance Order (PM)	29.08.2025	29.08.2035	3652 Days	4 Day	M541218	29.08.2025	M541218
<input type="checkbox"/> 6538 Test Data - Interface for MP_01_YR 800026	Single Cycle (Time-Based)	Maintenance Order (PM)	29.08.2025	29.08.2035	3652 Days	4 Day	M541218	29.08.2025	M541218

- c. Go to the Maintenance Plan that needs to change.

Before change:

The screenshot shows the SAP Maintenance Plan 800034 configuration. The 'Cycle' section is highlighted with a red box, showing 'Cycle Length (Unit): 6 MON'. The 'Remaining Period' bar chart shows a duration of 3652 Days. The 'Schedule' section shows 'Scheduling Duration: 10 Years' and 'Start Date for Scheduling: 01.09.2025'. The 'Scheduling Parameters' section shows 'Late Completion' and 'Early Completion' settings.

800034
Test C_MAINTENANCEPLANEX

Plan Type: Single Cycle (Time-Based)
Plan Category: Maintenance Order (PM)

Remaining Period: 3652 Days
3651 Days
1 Day

Basic Details

Plan Description: Test C_MAINTENANCEPLANEX
Plan Category: Maintenance Order (PM)
Strategy: --
Long Text: --
Authorization Group: --
Sort Field: --

Administrative Information

Created On: 01.09.2025
Created By: MS41218
Changed On: 01.09.2025
Changed By: MS41218

Maintenance Item

Maintenance Items (1) Standard

Item	Reference Object	Reference Object Type	Priority	Order Type	Planning Plant	Main Work Center
Test C_MAINTENANCEPLANEX (400046)	Floor Scale Capacity 32kg (10000118)	Equipment	Half-yearly +62D (D)	Proactive Maintenance with QM (YQ02)	Lenze Template SG Plant A (ZXZZ)	CMX Calibration (W3476CMX)

Task List:

Cycle

Cycle Length (Unit): 6 MON
Cycle Offset: 0 MON
Cycle Text: Half-yearly

Schedule

Scheduling Duration: 10 Years
Start Date for Scheduling: 01.09.2025
End Date for Scheduling: 01.09.2035

Scheduling Parameters

Late Completion
Shift Factor for Late Completion (as Percentage):

Early Completion
Shift Factor for Early Completion (as Percentage):

Call Control Parameters
Call Horizon:

Scheduling Indicators
Scheduling Indicator:

d. Change the Cycle and Unit (e.g from 6 MON to 1 YR)

After change:

The screenshot shows the SAP Maintenance Plan 800034 configuration after changes. The 'Cycle' section is highlighted with a red box, showing 'Cycle Length (Unit): 1 YR'. The 'Remaining Period' bar chart shows a duration of 3652 Days. The 'Schedule' section shows 'Scheduling Duration: 10 Years' and 'Start Date for Scheduling: 01.09.2025'. The 'Scheduling Parameters' section shows 'Late Completion' and 'Early Completion' settings.

800034
Test C_MAINTENANCEPLANEX

Plan Type: Single Cycle (Time-Based)
Plan Category: Maintenance Order (PM)

Remaining Period: 3652 Days
3651 Days
1 Day

Basic Details

Plan Description: Test C_MAINTENANCEPLANEX
Plan Category: Maintenance Order (PM)
Strategy: --
Long Text: --
Authorization Group: --
Sort Field: --

Administrative Information

Created On: 01.09.2025
Created By: MS41218
Changed On: 02.09.2025
Changed By: MS41218

Maintenance Item

Maintenance Items (1) Standard

Item	Reference Object	Reference Object Type	Priority	Order Type	Planning Plant	Main Work Center
Test C_MAINTENANCEPLANEX (400046)	Floor Scale Capacity 32kg (10000118)	Equipment	Half-yearly +62D (D)	Proactive Maintenance with QM (YQ02)	Lenze Template SG Plant A (ZXZZ)	CMX Calibration (W3476CMX)

Task List:

Cycle

Cycle Length (Unit): 1 YR
Cycle Offset: 0 YR
Cycle Text: Annual

Schedule

Scheduling Duration: 10 Years
Start Date for Scheduling: 01.09.2025
End Date for Scheduling: 01.09.2035

Scheduling Parameters

Late Completion
Shift Factor for Late Completion (as Percentage):

Early Completion
Shift Factor for Early Completion (as Percentage):

Call Control Parameters
Call Horizon:

Scheduling Indicators
Scheduling Indicator:

e. Press "Save" button.

4.3.3. Validate in the Integration Suite of the successful transfer.

6. Design Specification

1. Configuration

<<< Rename Section 5.1.1 “Configuration reference” with the configuration node and repeat it for each unique configuration item.

- Specify the SPRO configuration required for this custom development >>>

1. Configuration reference

N/A

Configuration path (IMG, table, ...)	
---	--

1. Purpose of configuration

<<< Describe here the purpose and relevant information related to the configuration. >>>

2. Workflow

1. Technical Reference

<<< Technical Object References (class, program, t-code, ...) >>>

N/A

Object Name	Object Type	Object Description

2. Flow Diagram

<<< Please provide the technical process flow diagram >>>

N/A

3. Steps Description

<<< Process steps should be descriptive in nature. The aim of the process step is to describe the overall technical process >>>

N/A

4. Technical Details

N/A

Trigger Mechanism	Mention the start condition for the workflow, e.g. on creation of a purchase document, batch program etc. s
Start Condition	Example – The workflow should start only for certain document type, workflow should start only if credit amount is greater than 250000 etc.
Business Object	Mention the business object, if possible. Otherwise indicate the object in general terms (e.g., Purchase Requisition)
Standard Workflow Task / Template	In case of enhancement required for delivery workflow is required.
Level of Approval Required	
Agent Determination Technique	Role - Security Role Org Unit - HR Org Structure Custom Table - Agents in custom table Distribution Lists

	<p>Unspecified - To be decided in Functional Specification</p> <p>Other <use to elaborate on a selection of "Other"></p> <p>If the agent determination technique is different for each foreground step then please repeat this section.</p>
Mention Logic for Agent Determination (if any)	
Notification Destination	<p>Internal User (Mail Inbox)</p> <p>External User (email address)</p>
Workflow Notifications Text	If any specific work item text/work item subject to be used.
Escalation Handling (if any)	If any deadline monitoring is to be done. Example: If approver does not approve for 3 business days notify his supervisor.
Integration with Portal	
Configuration Dependencies	Example setting up a new organization structure.
Error Handling (if any)	An exception situation could occur if workflow routes to a one position is vacant/not available (i.e. no user is assigned to that position.) If a specific report or additional information is required. Add attachment if necessary.
Substitution	

5. Authorization

<<< Explain which roles should be added or used to approve/reject and execute workflow items. Enter any custom authorization required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

3. Report

1. Technical Reference

<<< Technical Object References (class, program, t-code, ...) >>>

N/A

Object Name	Object Type	Object Description

2. Selection Screen Details

<<< The functional designer should be able to detail exactly what he/she wants at the selection screen merely by using this table. The programmer will be able to construct the screen directly from the details in this table. Some technical knowledge will be needed for the complete production of this table>>>

N/A

Name	Type	Parameter or Select Option	Comments (Range, Single/Multiples selections, Patterns Mandatory etc.)	Default Value
	Table-Field Check Box Radio Button with Group	Parameter Select Option		
	Table-Field Check Box Radio Button with Group	Parameter Select Option		

3. Desired Screen Design

<<< *Enter attachment if necessary* >>>

N/A

4. Technical Details

<<< *Information like relevant database tables, data retrieval logic, type of report like (simple list report or ALV), sorting order, detail functionality, other display attributes, special interaction on clicking one or more columns etc. can mentioned here* >>>

N/A

5. Starting Conditions

<<< *When should the report be run? Does an interface need to be run before the report is valid, and (more commonly), should it be a batch only program (with added security) or is it needed on-line as well?*

E.g. 'This program will be run after month-end billing.'

E.g. 'This program will be run each time a sales order is saved >>>

N/A

6. Data Mapping Tables

<<< List of all the fields along with their details are to be mentioned here. Look and feel wise, a desired report design can also be specified here >>>

N/A

Field Name	Field Description	Output Length	Output Type	Format	Position	Screen No / Field Name

7. Report Example

<<< Use Attachment if necessary >>>

N/A

8. Authorization

<<< Explain which roles should be added or used for these reports. Enter any custom authorization if required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

4. Interface

1. Technical Reference

<<< *Technical Object References (class, program, t-code, ...)* >>>

Object Name	Object Type	Object Description

2. Technical Details

Interface Name	
Direction (with respect to this system)	Inbound Outbound other If other, please specify exactly
Interface Type	Batch near real-time real-time other If other, please specify exactly
Interface Frequency	Hourly Details: Daily Details: Weekly Details: Monthly Details: Quarterly Details: Yearly Details: On-Demand Details: Other Details:
Type of Records Sent	Delta Fields Delta full-record other If other, please specify exactly

Volume (per single execution)	Average Volume: <Volume> records per interface execution Peak Volume: <Lower Volume – Upper Volume>
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3. Flow logic

<<< Please explain any flow logic, calculations, rules, etc.. that should be implemented in this interface >>>

4. Interface Data Layout

<<< Please list the source and destination data elements, plus any mapping that will be required for this interface. If IDOC, include segment name in structure column. Excel matching this format can be attached in place of this table. >>>

Source Structure	Source Field	Description	Data Type	Length	Transformation	Target Structure	Target Field	Description	Data Type	Length	Mapping / Opt.	Comments/Remarks

5. Mapping Rules & Conversion Criteria

<<< This section should contain any additional mapping rules and conversion criteria not covered in the previous section. >>>

6. Special Case: Bi-Directional Real-Time Interface

<<< If you know this interface will be a bi-directional real-time interface (i.e. the “Source” system sends and receives data in the same execution), then a second data mapping is required. If applicable, duplicate the table from Section 4.4.4 and capture the “return data” mapping rules for the “Source” system >>>

7. Sample Data

<<< Please provide two attachments of sample source data with the expected target data after this interface is executed. Please supply the sample data in the native format or .csv, and preferably zipped >>>

8. Data Retention

<<< In file based interfaces a “backup” copy of interface data can be retained in the middleware for each execution. This can be useful for reconciliation purposes. Please indicate the retention period for this interface. If not file based, then the source or target system must fill any data retention requirements >>>

Selection		Comments
	None	
	7 Days	
	15 Days	
	30 Days	
	Other	

9. Middleware Solution

<<< This section should contain an outline of the chosen middleware solution and the processes involved. Middleware specific configuration should be specified >>>

10. Interface Scheduling

<<< Please describe any requirements around the timing of this interface >>>

11. Authorization

<<< Explain which roles should be created / added or users / IT for reprocessing errors or ad hoc requests. Enter any custom authorization if required. Enter the file path or folder structure to which users/IT will need access to >>>

No	Business Catalog	Authorization Parameter	Parameter Value

12. Other system documentation

<<< Reference the other system's documentation, when relevant >>>

5. Conversion

1. Technical Reference

<<< Technical Object References (class, program, t-code, ...) >>>

N/A

Object Name	Object Type	Object Description

2. Technical Details

N/A

Conversion Name	
-----------------	--

3. Conversion Data Layout

<<< Please list the source and destination data elements, plus any mapping that will be required for this conversion. If uploading from file, source structure can be omitted. Excel matching this format can be attached in place of this table. >>>

N/A

Source Structure	Source Field	Description	Data Type	Length	Transformation	Target Structure	Target Field	Description	Data Type	Length	Mapping / Opt.	Comments/Remarks

4. Mapping Rules & Conversion Criteria

<<< This section should contain any additional mapping rules and conversion criteria not covered in the previous section. >>>

N/A

5. Sample Data

<<< Please provide two attachments of sample source data with the expected target data after this conversion is executed. Please supply the sample data in the native format or .csv, and preferably zipped >>>

N/A

6. Authorization

<<< Explain which roles should be created/added or used for loading data. Enter any custom authorization if required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

6. Enhancement

1. Business Add-Ins (BADIs)

NA

BADI Property	Value/Object
System	<<< BTP, S/4 HANA, ...>>>
Transaction	
Enhancement Spot	
BADI Name	
Enhancement Implementation	
BADI Implementation	

Class	
Method	
Filter	
OData Service	

2. Implicit Enhancement

N/A

Property	Value/Object
Transaction	
Enhanced Object	
Implementation	

3. User-Exits

N/A

Property	Value/Object
Transaction	
Main Program	
Includes	
Form Routines	

4. CDS Views Extension

1. Technical Reference

N/A

Property	Value/Object
Original CDS View Name	
Extended CDS View Name	
Purpose of Extension	
Extension Type	<input type="checkbox"/> CDS View Extension <input type="checkbox"/> Custom CDS consuming Standard CDS <input type="checkbox"/> View with Additional Associations or Joins <input type="checkbox"/> Metadata Extension
Odata Exposure	<input type="checkbox"/> Yes <input type="checkbox"/> No
Input Field Parameters	
Service Definition	
Service Binding	

2. Fields Added

Field Name	Data Element	Source Table	Description	Annotations

5. Function Exits

N/A

Property	Value/Object
Transaction	
Enhancement	
Function Module Name	
Includes	

6. Field Exits

N/A

Property	Value/Object
Enhancement	
Main Program Name	
Function Module Name	
Field Exit Id	
Screen Number	
Screen Field Name	
Conditions for execution	

7. Menu Exits

N/A

Property	Value/Object
Enhancement	
Menu/Path	
Function/Transaction Code	

8. Screen Exits

N/A

Property	Value/Object
Enhancement	
Main Program Name	
Screen Number	
Program Name & Sub-Screen Number	

9. Search Help Exits

N/A

Field Name	Field Description	Import / Export (I/E)	Key Field (Y/N)	Data Element	Type (CHAR, NUMC)	Length	Default Value

10. Search Help assignment

N/A

Property	Value/Object
Standard Search Help	
Collective Search Help	
Elementary Search Help	

11. Business Transaction Events (BTE)

N/A

Property	Value/Object
Transaction	
BTE Number	
Product Name	
Function Module	

12. Custom Transaction

<<< Functional details of custom transaction can be incorporated here. Number of screens required and flow diagram can be included and provide the selection screen shot along with the table name and field name and screen shot for the required output >>>

N/A

13. Requirement routine

N/A

Menu/Submenu	
Routine number	
Business logic required	

14. Substitution

N/A

Validation Description	Fields required for validation	Point of Validation	Table used in validation	Business Rules

Substituted Field	Derived from Field	Table used in Substitution	Business Rules

15. Flow logic

<<< Please explain any flow logic, calculations, rules, etc that should be implemented in this enhancement >>>

N/A

16. Authorization

<<< Which authorization object should be used for controlled execution? Enter any custom authorization if required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

7. Form

1. Technical Reference

<<< Technical Object References (class, program, t-code, ...) >>>



N/A

Object Name	Object Type	Object Description

2. Form Layout

<<< Refer to the following for an output samples for Window mapping, Label Description and Field mapping >>>

N/A

 
C:\Documents and Settings\sutapa\My C:\Documents and Settings\sutapa\My D

3. Layout Windows

N/A

Reference	Print on page	Label Position
		X: Y:
		X: Y:
		X: Y:
		X: Y:
		X: Y:
		X: Y:
		X: Y:

4. Field Mapping

N/A

Field	Field Description	Functionality	Logic	Print on page	Font	Font Format	Window

5. Standard Texts / Text Modules

N/A

Reference	Text	Print on page	Label Position	Font	Output Format	Font Format

6. Translation

N/A

Reference	Description of use (in Language1)	Description of use (in Language2)	Description of use (in Language3)	Text Module Name	Notes

7. Layout Details

N/A

Position of Left Margin (specify unit)	
Position of Right Margin (specify unit)	
Position of Logo (specify unit)	

Logo (specify logo)	
Position of Main Window (specify unit)	

8. Flow logic

<<< Please explain any flow logic, calculations, rules, etc that should be implemented in this form >>>

N/A

9. Authorization

<<< Explain which roles should be created/added or used for printing and testing forms. Enter any custom authorization if required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

8. Fiori Application

1. Header Information

N/A

Application Title	
--------------------------	--

Application ID	
Type of Enhancement	<input type="checkbox"/> Custom Application <input type="checkbox"/> Standard Application
Development Type	<<< <i>Fiori Elements AppFree Style UI5 App</i> >>>
Application Type	<<< <i>List Report, Object Page , Over view Page ,etc</i> >>>
UI Enhancements	<input type="checkbox"/> Custom Fields Added <input type="checkbox"/> UI Layout Modified <input type="checkbox"/> Extensibility Hook Used <input type="checkbox"/> Fragments or Views Introduced

2. Technical Reference

N/A

Object Name	Object Type	Object Description
<<< <i>Odata Object</i> >>>		
<<< <i>CDS View</i> >>>		
<<< <i>Custom Fields</i> >>>		
<<< <i>Catalogs</i> >>>		
<<< <i>Rules</i> >>>		

3. Desired Screen Design

<<< *Enter attachment if necessary* >>>

N/A

4. Technical Details

<<< Information like relevant database tables,CDS Views,ODATA services , data retrieval logic, detail functionality, other display attributes, special interaction on clicking one or more columns etc. can mentioned here >>>

N/A

5. Authorization

<<< Enter Authorization Objects/fields, to be used and specific user Groups >>>

N/A

No	Business Catalog	Name of Space (L2)	Name of Page (L3)	Name of Section (L4)	Name of App/Tile(L5)	Authorization Parameter	Parameter Value

7. Custom Tables/Structure

<<< This section should detail the attributes of any new custom table created for one of the above sections, and the properties of its fields.

NB: Existing Data Elements and/or Domains should be used whenever possible when creating custom table fields, in order to avoid unnecessary typos. In this instance, the data table row for that field should not be completed beyond 'Domain', as the remaining attributes will be default values for the selected Domain. >>>

N/A

Table Name								
Short text								
Size category								
Table maintenance allowed								
Maintenance Type		Manual / Automatic Maintenance (application table) Transportable Maintenance (customizing table)						
Data class								
Buffering								
Table maintenance generation								
Authorization Group								
Change Log Enabled (Y/N) <i>(mandatory for GxP related table)</i>								
SPRO Path <i>(mandatory for customizing tables)</i>								
Field Name	Data Element	Domain	Type	Length	Check Table-Field	Key Field	Foreign Key	Description
Comments								

8. Error Handling

<<< Provide Error Handling details here. Job run notifications, error notifications, E-Mail messaging, custom programming, etc. may be required >>>

1. Error Messages

<<< Describe the expected error messages for different error conditions >>>

Note: Error Messages S = SAP Origin, I = Integration Origin, C = CMX Origin

Error Message Number	Error Message Text (70 characters)	Error Conditions
01S		
02I		
03C		

9. Validation

1. Test Case References

<<< List the Test Case(s) used to validate the functionality / configuration covered in this document (IQ / OQ). >>>

Test Case ID	Test Case	Comment
