



Certificate

SAP INTEGRATION CERTIFICATION

SAP SE hereby confirms that the ABAP interface software for the product

Industry Standard Solution for Plant Maintenance 100

of the company **Reliability Dynamics LLC**

has been certified for integration with SAP S/4HANA on-premise edition 1709 via the SAP integration scenario *ABAP Add-On Deployment for SAP S/4HANA*.

This certificate confirms the technical and syntactical consistency of the Add-On in accordance with SAP certification procedures. SAP only certifies successful integration of the product with SAP solutions. Vendor is responsible for the product itself and its error-free operation.

The certification test is documented in report no. 12405 and expires September 13, 2021.

Vendor Hardware: PC x86-64
Vendor Operating System: Linux
SAP Test System: SAP S/4HANA on-premise edition 1709

This configuration meets the requirements for deploying Industry Standard Solution for Plant Maintenance 100 on SAP S/4HANA on-premise edition 1709.

Certified Functions:

Assign Software Component with a registered Namespace
Package Add-On using SAP Add-On Assembly Kit (AAK)
Deploy using SAP Add-On Installation Tool (SAINT)
Integrate with SAP S/4HANA on-premise edition
Technical Un-Installation Test
SAP Solution Manager Ready functionality

Montreal, September 13, 2018

Saurav Chetry, SAP SE

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<http://www.sap.com/icc>



SAP® Certified
Integration with SAP S/4HANA®

Interface Certification

ABAP Add-On Deployment on SAP S/4HANA

Test Report

SAP Integration and Certification Center

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Interface Certification #12405

SAP Interface incl. Release: ABAP Add-On Deployment for SAP S/4HANA
SAP Product incl. Release: SAP S/4HANA on-premise edition 1709

Hardware used for SAP test system: PC x86-64
Operating System of SAP test system: Linux

Name of Vendor: Reliability Dynamics LLC
Vendor Number (SAP internal): 1223132

Vendor Product Name: Industry Standard Solution for Plant Maintenance
Release Vendor Product: 100
Vendor Product Number (SAP internal): 9379

Vendor Interface Software Name: Interface for ISPM
Release Vendor Interface Software: 100

Hardware used for Vendor Test System: PC x86-64
Operating System of Vendor Test System: Linux

Language Version tested: English

Certification Date: September 13, 2018
Expiration Date: September 13, 2021
Location: remote
Persons present - Vendor: Tony Ciliberti

Persons present - SAP: Saurav Chetry

Certified Functions:

- ☒ Assign Software Component with a registered Namespace
 - ☒ Package Add-On using SAP Add-On Assembly Kit (AAK)
 - ☒ Deploy using SAP Add-On Installation Tool (SAINT)
 - ☒ Integrate with SAP S/4HANA on-premise edition
 - ☒ Technical Un-installation Test
 - ☒ SAP Solution Manager Ready functionality
-

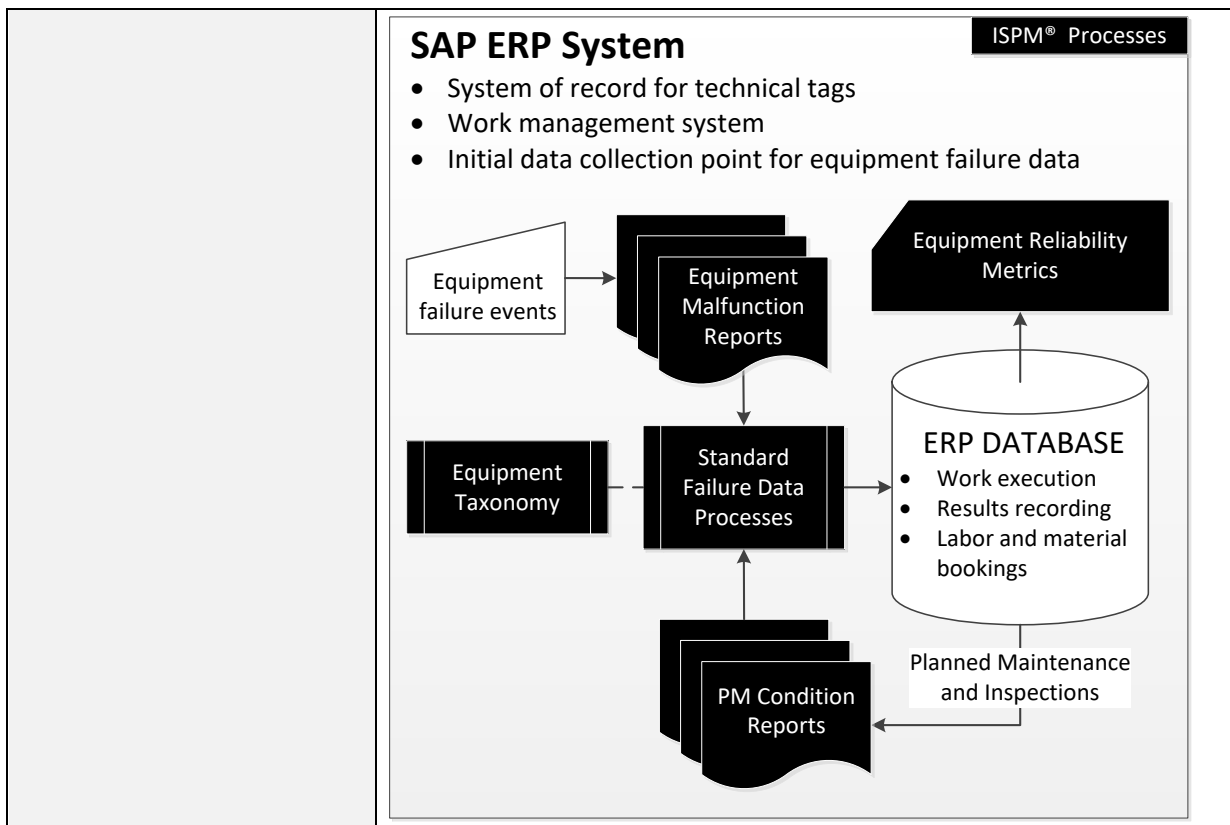
1. Product Information

Product information	
Product web page:	
Which releases of the SAP Business Solutions does partner's software support?	☒ SAP S/4HANA, on-premise edition 1709 corresponding version of partner's product: RDEAM 100
Support contact information:	support@rd-eam.com

2. Functional Overview

The information in this section is provided to SAP by the vendor for information purposes. SAP cannot guarantee the functional correctness of the below as it is beyond the scope of this certification testing. Please refer section 6.2 of this test report for the list of test cases executed to check the integration during the certification drive.

Supported Functions and Business Processes – General Description	
Overview on the functionality and the purpose of the 3 rd party product.	The Industry Standard Solution for SAP Plant Maintenance (ISPM®) helps asset-intensive industries improve equipment availability and minimize hazards with high-quality equipment reliability data. High-quality, structured reliability data give companies better insight into equipment reliability and performance, enable data-driven decision making for equipment assets, and thus help companies improve their bottom-line. ISPM methods are consistent with international standard ISO 14224. * ISPM is an add-on solution for application of ISO 14424 methods and content in the SAP Plant Maintenance module. Business processes include technical hierarchy, malfunction reporting, preventive maintenance and inspections reporting, consequence accounting, reliability data quality management, reliability data aggregation, corporate reliability metrics, and industry benchmarking of reliability metrics. ISPM has been tried, tested, and refined through 13 years of application in industry. Reliability Dynamics is a licensed engineering company and an SAP-certified solution provider. Tony Ciliberti, Reliability Dynamics' Principal Engineer, is an American National Standards Institute (ANSI) appointed US Expert in the ISO 14224 project group (TC67/WG4/PG1). * ISO 14224:2006 Petroleum, petrochemical and natural gas industries -- Collection and exchange of reliability and maintenance data for equipment



3. Product Implementation

3.1 S/4HANA Conversion Strategy

There is a conversion strategy available, that supports customers to migrate the Add-On from SAP Business Suite to SAP S/4HANA on-premise edition.	
Details:	No changes to the existing Add-On are required. Customer can apply the very same Add-On for SAP S/4HANA. An appropriate Attribute Change Package (ACP) with the necessary import conditions is provided, to support the conversion of the customer's SAP system to SAP S/4HANA.
Consultants Remark:	All checks and corrections suggested by S4HANA READINESS assessment have been implemented by the vendor.

3.2 Complete List of used and released SAP objects

The list below has been given to SAP by the Vendor, for reference purposes.
SAP cannot guarantee that it's a complete list.

<u>Complete List of used BAPIs / RFCs / IDocs / ESs or other SAP building blocks <i>that are officially released</i> by SAP.</u>	
Please list all items of SAP integration technologies used in detail. Only list released SAP objects here! For example, you can see the status of function modules in transaction SE37, on the attributes-tab. You could also send the list in a separate document or spreadsheet.	Name of BAPI/RFC/IDoc/Message/etc.
Released BAPIs: ☐ SalesOrder.Simulate ☐ bapi_customer_getdetail ☐ ...	BAL_DB_LOAD
	BAL_DB_SAVE
Released RFCs or function modules: ☐ BANK_KEY_CHECK ☐ ...	BAL_DSP_LOG_DISPLAY
	BAL_LOG_CREATE
Enterprise Services: ☐ EmployeeAddressByEmployeeQueryResponse_In	BAL_LOG_HDR_READ
	BAL_LOG_MSG_ADD
Released IDocs/Message (from SAP): ☐ ORDERS01/ORDERS ☐ CREMAS01/CREMAS ☐ ...	BAL_LOG_REFRESH
	BAPI_ALM_NOTIF_CHANGEUSRSTAT
IACs: ☐ Available to Promise on the Internet (SD-BF-AC) ☐ ...	BAPI_ALM_NOTIF_SAVE
	BAPI_ALM_ORDER_GET_DETAIL
SAP Standard Reports for data migration: ☐ RIIBIP00 ☐	BAPI_ALM_ORDER_MAINTAIN
	BAPI_TRANSACTION_COMMIT
CMOD exit/enhancement: ☐ CUBX0001-Configuration: determine superior material ☐ ...	BAPI_TRANSACTION_ROLLBACK
	CONVERSION_EXIT_ALPHA_INPUT
BADIs/BTEs: ☐ BOM_UPDATE ☐ ...	CONVERSION_EXIT_ALPHA_OUTPUT
	DYNP_VALUES_READ
	F4IF_FIELD_VALUE_REQUEST
	MESSAGE_STORE
	MESSAGES_INITIALIZE
	MESSAGES_SHOW
	POPUP_GET_VALUES
	RS_VARIANT_EXISTS
	STATUS_READ
	UNIT_CONVERSION_SIMPLE

3.3 Complete List of used and *unreleased* SAP objects

The list below has been given to SAP by the Vendor, for reference purposes.
SAP cannot guarantee that it's a complete list. In addition, the correct functionality of the objects listed below is not in the scope of this ABAP Add-On Deployment certification.

<u>Complete List of used but unreleased SAP objects, such as function modules and reports.</u>			
	Name of BAPI/RFC/IDoc/Message/etc.	write	
Please list all items of SAP integration technologies used in detail. Only list unreleased SAP objects here! Please also mark all the used objects that <i>write data</i> to the SAP database with an X in the "write"-column. You could also send the list in a separate document or spreadsheet. Example: RFCs: ☐ l_to_confirm ☐ rfc_read_table ☐ ... Function modules: ☐ convert_code_non_uc ☐ cacs_unicode_checker ☐ ... Reports: ☐ rp512tfi Others:	ALM_ME_FUNCLOC_INSTALLED_EQUI		
	CO_BH_DATA_RESET		
	CRM_MESSAGE_TEXT_SPLIT		
	DIWPS_REV_RESET		
	F4_FILENAME		
	FUNC_LOCATION_HIERARCHY		
	IQS0_BUFFER_GET		
	IQS4_CREATE_NOTIFICATION		
	IQS4_GET_NOTIFICATION		
	IQS4_MODIFY_NOTIFICATION		
	ITOB_GET_CLASS_STANDARD		
	LVC_FIELDCATALOG_MERGE		
	PM_HLP_QMEL_LIST		
	QMHL_HELP_QMEL_ART		
	STATUS_CHANGES_GET		
	STATUS_PROFILE_CHANGE		
	STATUS_RESET_INTERN		
	STATUS_SET_INTERN		

4. Quality

The Information below (4.1, 4.2 and 4.3) is provided by the vendor/3rd party Add-On provider. It has neither been tested nor validated by SAP.

4.1 Performance and Scalability

Overview on the architecture and design of the product including performance and scalability.	The ISPM Add-On is a built-in product within the SAP ECC system. All development is done using ABAP under our namespace. Performance and scalability are ensured by following relevant SAP Best Practices for ABAP code development and testing. Relevant SAP Best Practices include: • Official ABAP Programming Guidelines • SAP Guidelines for Best-Built Applications that Integrate with SAP Business Suite • SAP Change and Transport Management Best Practices for Designing, Developing, and Testing to Ensure Optimum System Scalability and Performance
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4.2 Quality Assurance

Overview on Quality Assurance procedures from the vendors to assure that the interface design and performance consistently conform to specified requirements.	1. ISPM testing of configuration and development objects is done in a manner consistent with enterprise software due-diligence as outlined in SAP publication, <i>SAP Change and Transport Management</i>. This includes a landscape with separate DEV and QAS instances, and with DEV separate clients for development (Gold Client) and unit testing (Unit Test Client). 2. Custom IMG nodes were created for population of custom tables. This ensures all customization settings made in these custom tables are subject to the same level of enterprise software due-diligence and quality assurance as standard configuration activities. 3. Each functional specification for development includes detailed unit test and UAT scripts. These scripts are performed and documented within the respective functional specifications. All test must pass before a development object can be released to customers. 4. The ISPM product has been tried, tested, and refined through ten years of application in industry. This addresses both technical performance and practicality of the solution. We encourage feedback from our customer base through our ISPM Enterprise Support program.
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The following quality documents exist:

Test Plan Documentation	☒ yes Comments:
Test Report Documentation	☒ yes Comments:
Benchmark Results Documentation	☒ no Comments:

4.3 Security

The Add-On Development Lifecycle ensures security	OK
The Add-On does not contain any Cross-Site Scripting (XSS) vulnerabilities	OK
The Add-On does not contain any memory corruption vulnerabilities	OK
The Add-On does not contain any SQL or other data query and manipulation language injection vulnerabilities	OK
The Add-On does not contain any Path Traversal vulnerabilities	OK
The Add-On does not contain any intentionally hidden and non-documented features that circumvent security measures (backdoor)	OK
Remarks:	

5. Software Product Assessment

5.1 Check Documentation

Functional Documentation	☒ yes Comments:
Installation Documentation	☒ yes Comments:
Maintenance Documentation	☒ yes Comments:
End User Documentation	☒ yes Comments:

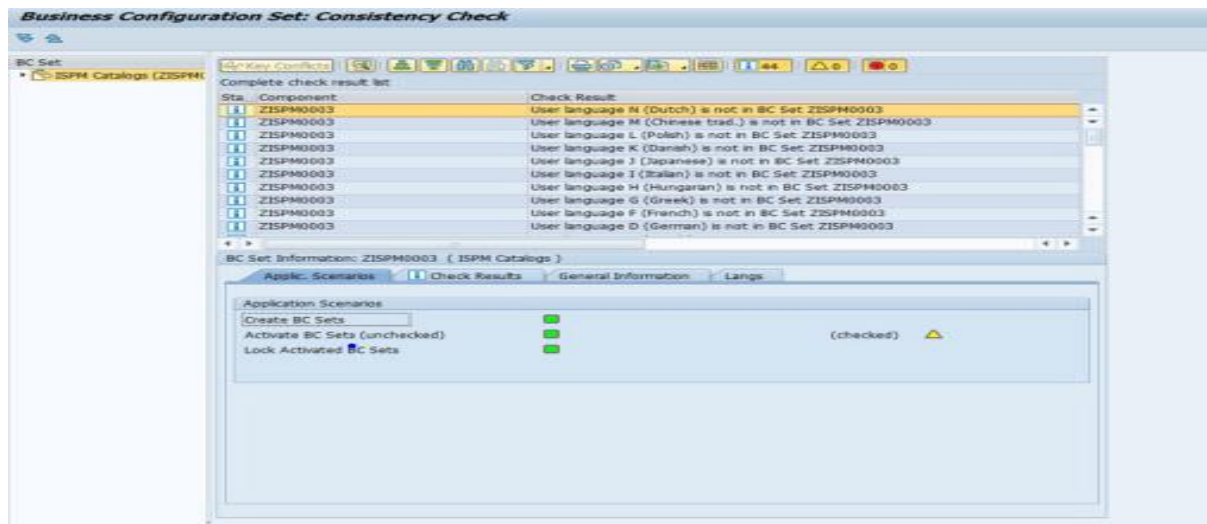
Reliability Dynamics provides the following documentation deliverables with ISPM product. Documentation is customer specific.

SO000100	Solution Overview
BP000100	Equipment Taxonomy Structuring Procedure
BP000300	Equipment Type Taxonomy and Classification
BP000400	Equipment Reliability Data Processes
BP000410	Equipment Reliability Data Quality Management Processes
BP000420	Glossary of Terms
CD000100	Configuration and Change Documentation
TS000100	Technical Specifications
TD000100	Test Documentation
EC000100	ISO 14224:2006 Extended Taxonomy

5.2 Install and Configure Product for SAP Integration

How is the installation and setup of the product integration part done?	☒ good ☐ average ☐ poor
Remarks	SAPK-100COINRDEAM installed with the below logs in the ICC Test System EY2. Add-On was successfully uninstalled as well.

BC Set sent separately to customers for customizing:



6. Test Cases

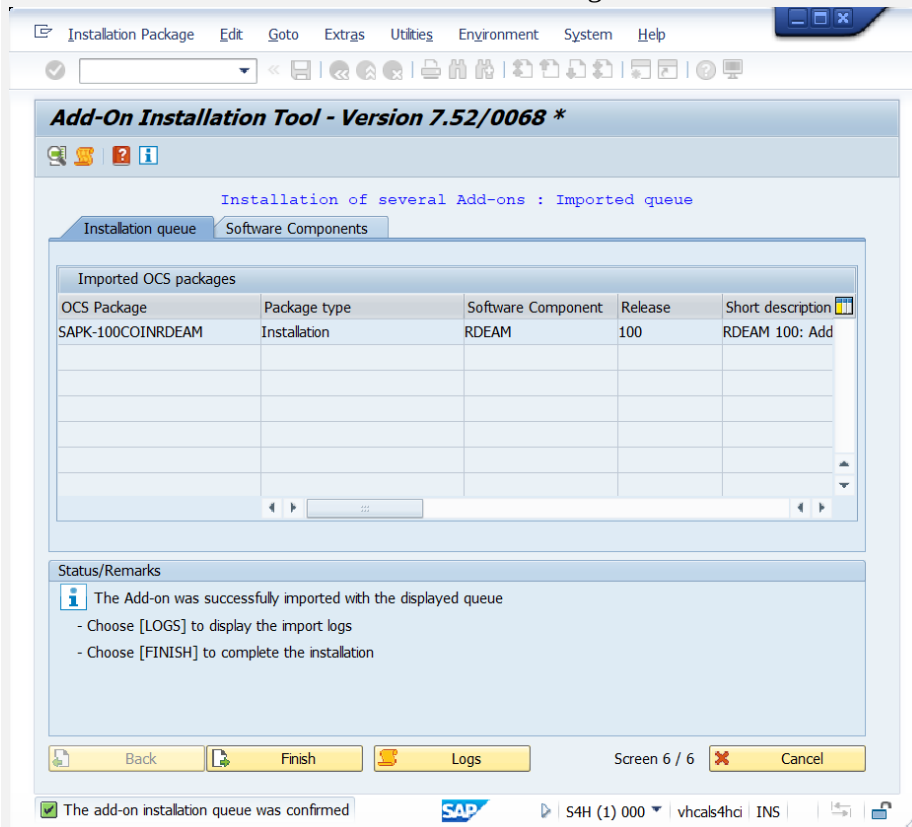
6.1 Checks performed by the AddOn Assembly Kit (AAK)

Invalid objects	OK
Existence of objects and table entries to be delivered	OK
Assignment to namespace	OK
Delivery of CVERS entries (R3TR VERS) not possible	OK
New objects (entries) in Support Package/CRT	OK
Table entries (check if delivery-relevant/delivery behavior)	OK
Assignment to development class and software component	OK
Table entries in customer name range (protected: TRESC)	OK
Included AAK Log of Performed Checks	☐ yes ☒ no
Remarks: No log included, because everything was ok.	

6.2 Test Cases Executed during the functional demo

1. Install Add-on in S/4HANA 1709 instance using transaction SAINT.

OK

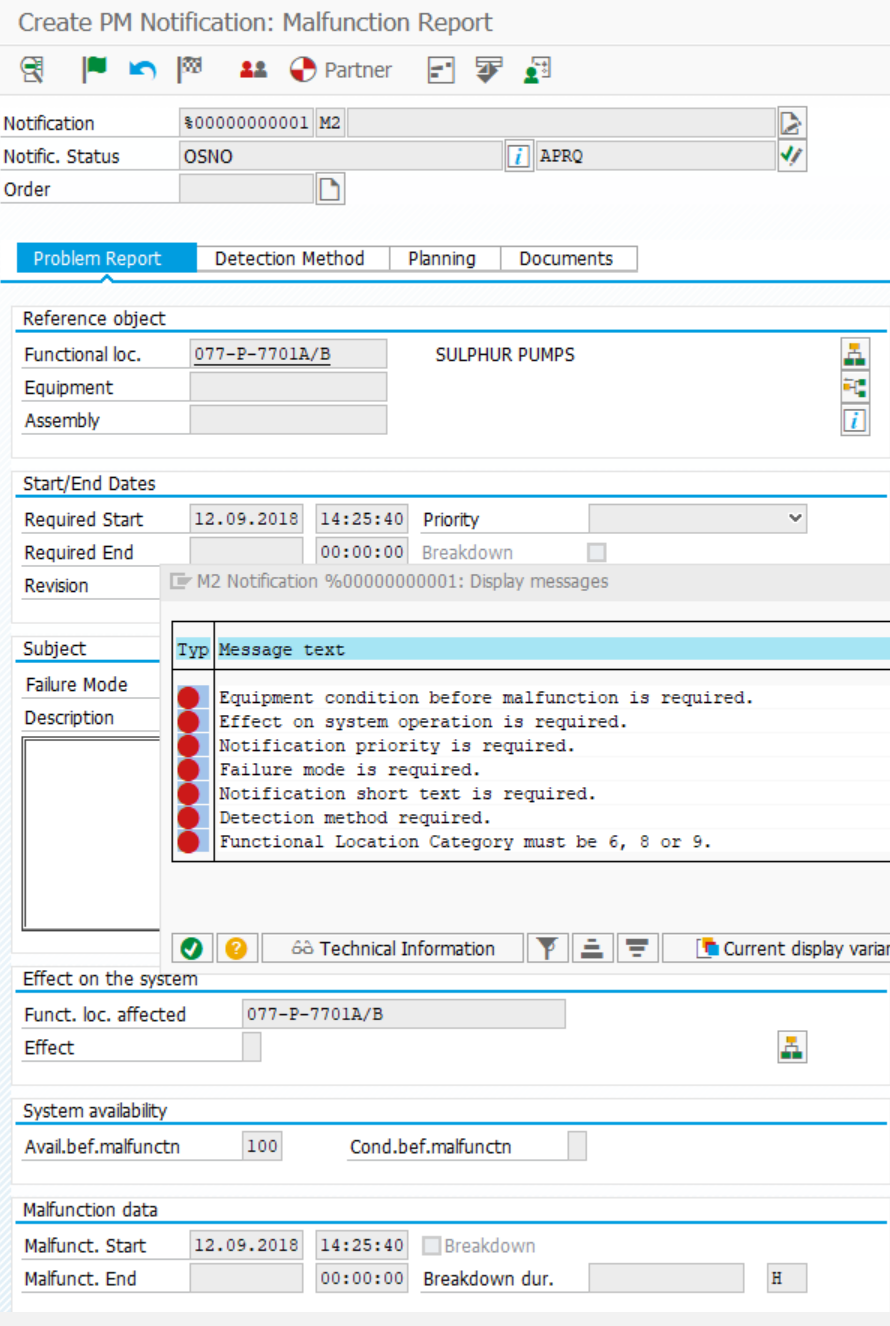


2.

OK

Use transaction /RDEAM/FUNC_LOC_CHK (create favorite and execute) to check the functional location structure for inconsistencies. Specify TPF as the top node in the structure to be checked. Note the functional location LLAk-8400-P-001-F-02 (among others) has an error. Confirm report output and the ability to fix errors within report results.

Functional Location Consistency Report										
Functional loc.	PIPI	C	Primary	Func Loc	Sub-Unit	Func Loc	Component	Func Loc	Class	Inconsistent
077-P-7701B	USRD	6								CRTE
077-P-7701A	USRD	6								CRTE
077-PM-7701B	USRD	6								CRTE
077-P-7702A	USRD	6								CRTE
077-P-7702B	USRD	6								CRTE
077-PM-7702B	USRD	6								CRTE
077-P-7703B	USRD	6								CRTE
077-P-7703A	USRD	6								CRTE
077-PM-7703B	USRD	6								CRTE
077-P-7701A-03	USRD	7	Y			Y		N	X	CRTE

	
5. Update the reference object in Step 4 to 077-P-7701-A. Complete data fields in the notification and specify a value of 3 for “Effect” (Effect on the system screen group). Save the notification and reopen using transaction IW22. Observe two things: (i) The breakdown indicator is set, and (ii) the functional location affected has been updated to match the functional location reference object.	OK

Notification 10000010 M2 Pump noisy Notific. Status OSNO APRQ Order Problem Report Repair Report Tasks Activities Planning Documents Reference object Functional loc. 077-P-7701A SULPHUR PUMP A Equipment 10000220 Pump, Centrifugal Assembly Start/End Dates Required Start 13.09.2018 14:28:37 Priority 2-High Required End 14.09.2018 14:28:37 Breakdown Revision USD Subject Failure Mode PU000100 NOI Pumps - Noise Description Pump noisy Effect on the system Funct. loc. affected 077-P-7701A SULPHUR PUMP A Effect 3 Critical failure-shutdown/forced outage System availability Avail.bef.malfuncn 100 Cond.bef.malfuncn 1 Running / Online Malfunction data Malfuncn. Start 12.09.2018 14:25:40 Breakdown Malfuncn. End 00:00:00 Breakdown dur. H	
6. Attempt to complete the notification created in Step 5 by clicking the complete notification push-button. The system should generate an error message specifying missing data. Enter the missing data and then complete the notification (system status NOCO).	OK

Field validations

Notification	10000010	M2	Pump noisy	
Notific. Status	OSNO		APRQ	
Order				

Problem Report Repair Report Tasks Activities Planning Documents

Reference object

Functional loc.	077-P-7701A	SULPHUR PUMP A
Equipment	10000220	Pump, Centrifugal
Assembly		

Start/End Dates

Required Start	13.09.2018	14:28:37	Priority	2-High
Required End	14.09.2018	14:28:37	Breakdown	☒
Revision		USRD		

Subject

Failure Mode	PU000100	NOI	Pumps - Noise
Description	Pump noisy	M2 Notification 10000010: Display messages	

Typ	Message text
	Malfunction end date required.
	Failure mechanism is required.
	Maintainable item is required.
	Corrective maintenance action required.
	Root cause code is required.

Effect on the system

Funct. loc. affected	077-P-7701A				Technical Information			
Effect	3 Critical failure-shutdown/forced outage							

System availability

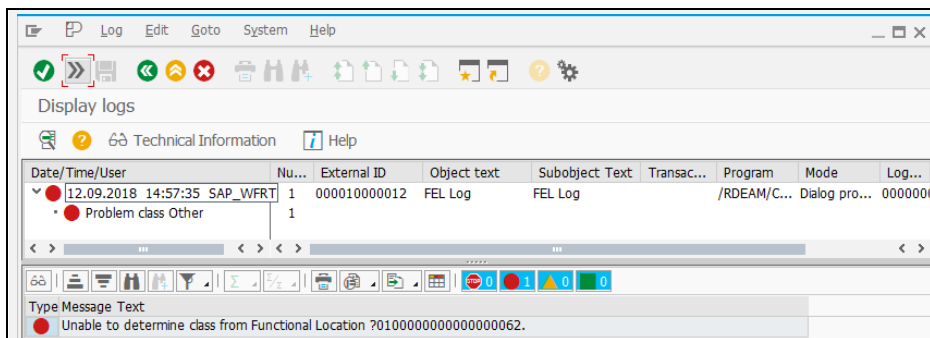
Avail.bef.malfunction	100	Cond.bef.malfunction	1	Running / Online
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Malfunction data

Malfunction. Start	12.09.2018	14:25:40	☒ Breakdown
Malfunction. End		00:00:00	Breakdown dur. H

Completed record

PM Notification	Edit	Goto	Extras	Environment	System	Help
Change PM Notification: Initial Screen						
Notification						
Notification 10000010						
Notification 10000010 completed S4H (2) 400 vhcals4hci INS						



Display logs

Technical Information Help

Date/Time/User	Nu...	External ID	Object text	Subobject Text	Transac...	Program	Mode	Log...
12.09.2018 14:57:35 SAP_WFRT	1	000010000012	FEL Log	FEL Log		/RDEAM/C...	Dialog pro...	0000000
Problem class Other								

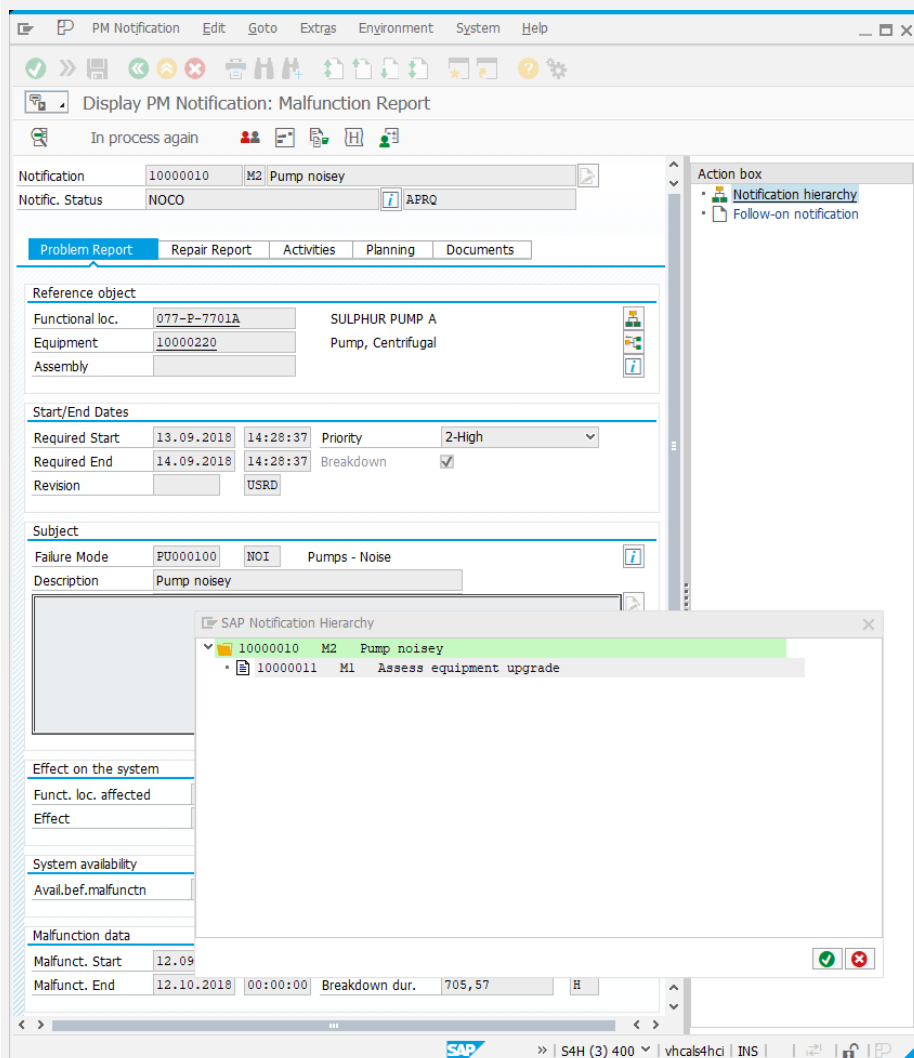
Type Message Text

Unable to determine class from Functional Location 70100000000000000062.

7.

OK

Create a follow-on notification for the notification created in Step 5 using the appropriate command in the action box. Specify notification type M1, input details, and save the record. Click the notification hierarchy button in the action box of the first notification to display the relationship between the two notifications.



PM Notification Edit Goto Extras Environment System Help

Display PM Notification: Malfunction Report

In process again

Notification 10000010 M2 Pump noisy

Notific. Status NOCO AFRQ

Problem Report Repair Report Activities Planning Documents

Reference object

Functional loc. 077-P-7701A SULPHUR PUMP A

Equipment 10000220 Pump, Centrifugal

Assembly

Start/End Dates

Required Start 13.09.2018 14:28:37 Priority 2-High

Required End 14.09.2018 14:28:37 Breakdown ☒

Revision USRD

Subject

Failure Mode F0000100 NOI Pumps - Noise

Description Pump noisy

SAP Notification Hierarchy

- 10000010 M2 Pump noisy
 - 10000011 M1 Assess equipment upgrade

Effect on the system

Funct. loc. affected

Effect

System availability

Avail.bef.malfunction

Malfunction data

Malfunction. Start 12.09

Malfunction. End 12.10.2018 00:00:00 Breakdown dur. 705,57

8.

OK

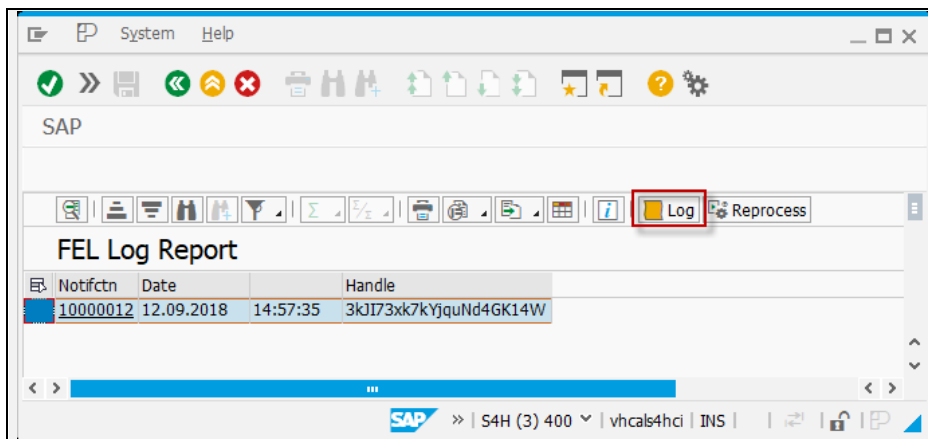
Use transaction IW24 to initiate a malfunction report. Specify "077-PI-118" as the reference object. Complete, release, and save the notification. Reopen the notification using transaction IW22, use the action box to display

notification hierarchy, and observe that no statistical FEL notification has been created. Use the Log Report to troubleshoot, transaction /RDEAM/FEL_LOG (create favorite and execute). Execute, observe the error, and navigate to the technical structure to fix the structural issue (introduced for this test). Open functional location LLAk-8400-P-001-F-02 in change mode, specify class number PU000200, and save record. Navigate back to the Log Report and reprocess. Reopen the original notification using transaction IW22, click the notification hierarchy button in the action box, and observe the new statistical record.

Create native malfunction report

The screenshot displays the SAP 'Change PM Notification: Malfunction Report' transaction. The interface includes a menu bar (Maintenance notification, Edit, Goto, Extras, Environment, System, Help) and a toolbar. The main area is divided into several sections: 'Notification' (10000012, M2 PI reading zero), 'Notific. Status' (NOPR), 'Order', 'Reference object' (Functional loc. 077-PI-118, Equipment PI, P-7701A DISCH.), 'Start/End Dates' (Required Start 19.09.2018, Required End 26.09.2018), 'Subject' (Failure Mode IP0001, Description PI readi), 'Effect on the system' (Funct. loc. affected 0, Effect 3), 'System availability' (Avail.bef.malfunctn 100, Cond.bef.malfunctn 1 Running / Online), and 'Malfunction data' (Malfunct. Start 12.09.2018, Malfunct. End 00:00:00). An 'Action box' on the right contains 'Notification hierarchy' and 'Follow-on notification'. A 'SAP Notification Hierarchy' dialog box is open, showing the notification 10000012 M2 PI reading zero.

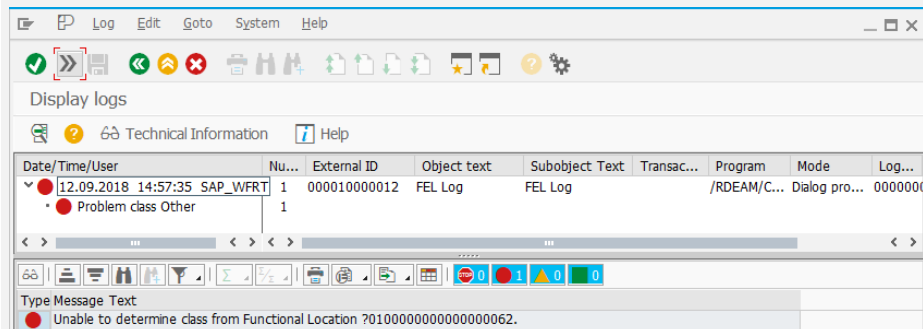
Run Log Report



The screenshot shows the SAP FEL Log Report interface. The top menu bar includes 'System' and 'Help'. The main toolbar contains various icons, with the 'Log' icon highlighted by a red rectangle. Below the toolbar, the title 'FEL Log Report' is displayed. A table lists log entries with columns: 'Notifctn', 'Date', 'Time', and 'Handle'. The first entry is highlighted with a blue background.

Notifctn	Date	Time	Handle
10000012	12.09.2018	14:57:35	3kJI73xk7kYjquNd4GK14W

The bottom status bar shows 'SAP' and 'S4H (3) 400'.

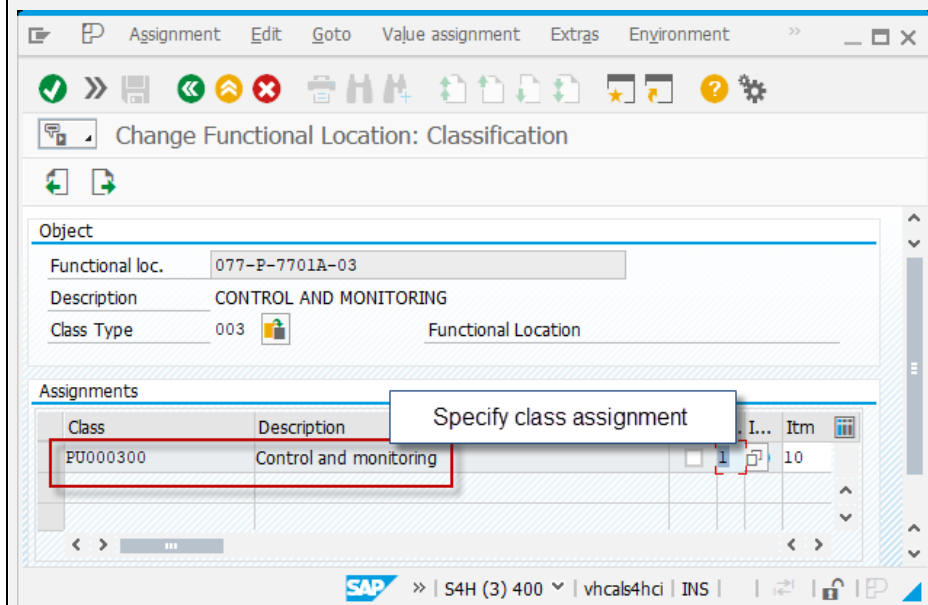


The screenshot shows the 'Display logs' window in SAP. The top menu bar includes 'Log', 'Edit', 'Goto', 'System', and 'Help'. The main toolbar contains various icons. Below the toolbar, the title 'Display logs' is displayed. A table lists log entries with columns: 'Date/Time/User', 'Nu...', 'External ID', 'Object text', 'Subobject Text', 'Transac...', 'Program', 'Mode', and 'Log...'. The first entry is highlighted with a red background.

Date/Time/User	Nu...	External ID	Object text	Subobject Text	Transac...	Program	Mode	Log...
12.09.2018 14:57:35 SAP_WFRT	1	000010000012	FEL Log	FEL Log		/RDEAM/C...	Dialog pro...	0000000

The bottom status bar shows 'SAP' and 'S4H (3) 400'.

Navigate to relevant functional location from the log report, fix the issue, and reprocess log report.



The screenshot shows the 'Change Functional Location: Classification' window in SAP. The top menu bar includes 'Assignment', 'Edit', 'Goto', 'Value assignment', 'Extras', and 'Environment'. The main toolbar contains various icons. Below the toolbar, the title 'Change Functional Location: Classification' is displayed. The 'Object' section shows 'Functional loc.' as '077-P-7701A-03', 'Description' as 'CONTROL AND MONITORING', and 'Class Type' as '003'. The 'Assignments' section shows a table with columns: 'Class', 'Description', 'I...', and 'Itm'. The first entry is highlighted with a red background.

Class	Description	I...	Itm
PU000300	Control and monitoring		10

The bottom status bar shows 'SAP' and 'S4H (3) 400'.

The image displays two screenshots of the SAP FEL Log Report interface, illustrating the process of reprocessing a log entry.

Top Screenshot: The SAP FEL Log Report is shown. The table contains one entry:

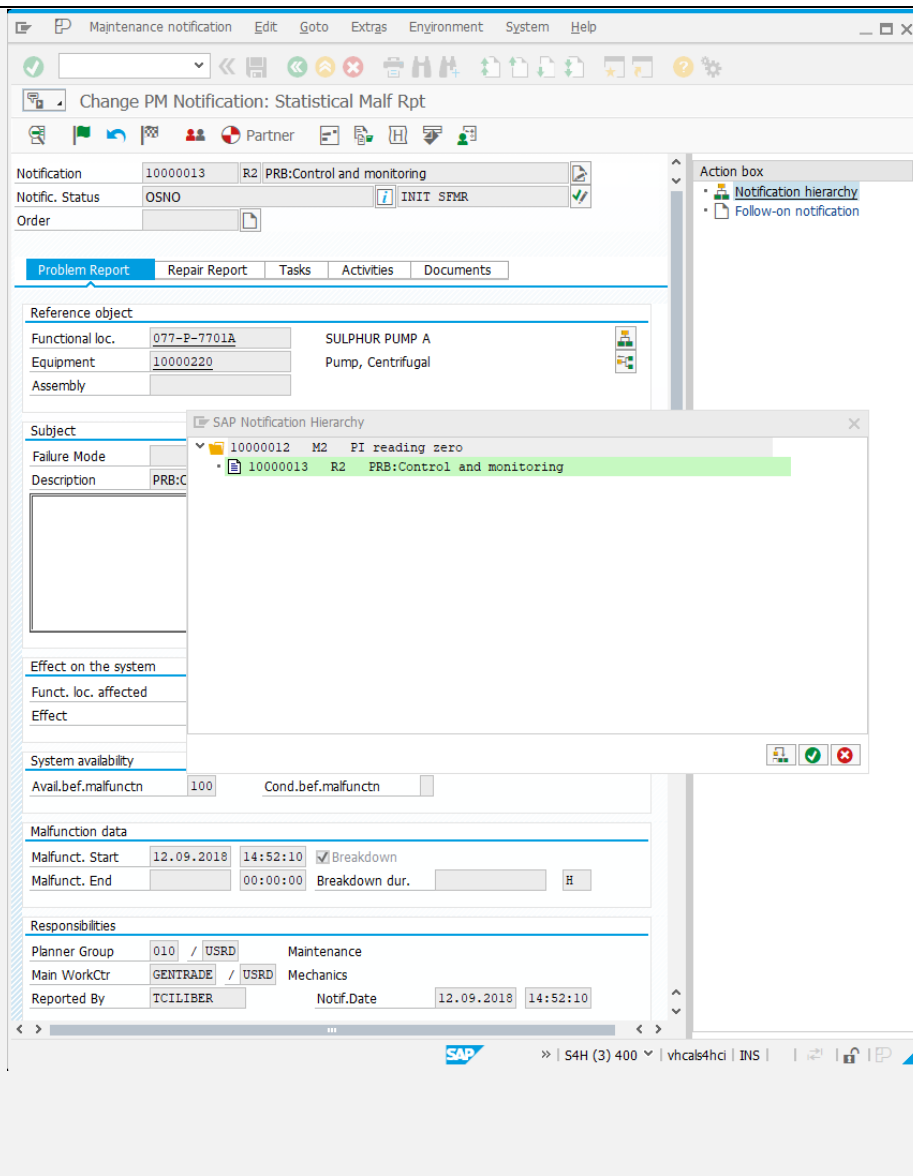
Notifctn	Date	Time	Handle
10000012	12.09.2018	14:57:35	3kJI73xk7kYjqNd4GK14W

The 'Reprocess' button is highlighted in the top right corner of the report area.

Bottom Screenshot: The SAP FEL Log Report is shown again. The table is empty, and a message box displays "No exceptions".

Notificati...	Date	Handle
---------------	------	--------

The status bar at the bottom indicates "Execution date reset according..." and the SAP logo is visible.

	
9. Execute transaction IL05, Function location list report, and click on the multi-select for functional locations. Navigate to “Hierarchical Selection,” specify functional location TPF, and click the Execute push-button . Double click on location TPF-077 in the resulting display and then Click the button in the ensuing pop-up. Execute the report, which should display all subordinate objects.	OK

Change Functional Location: Functional Location Selection

Selection of Input Help

Choose

- Asset
- Cost center
- Uppermost locations by structur...
- Uppermost locations by category
- Uppermost locations by compan...
- Uppermost FunctLocations by lo...
- Address
- Text (= Description)
- Structural display
- Classification
- Historical labels
- Real Estate Object
- Simple Search for Functional Lo...
- Advanced Search for Functiona...
- ☒ Hierarchical Selection
- Hierarchical Equipment Level

Hot key

Exclude Single Values

Exclude Ranges

Multiple selection..

Change Functional Location: Structure List

Expand whole

Functional Location TPF Valid From

Description TRINIDAD REFINERY

2 TPF TRINIDAD REFINERY

4 TPF-077 SULFUR RECOVERY UNIT

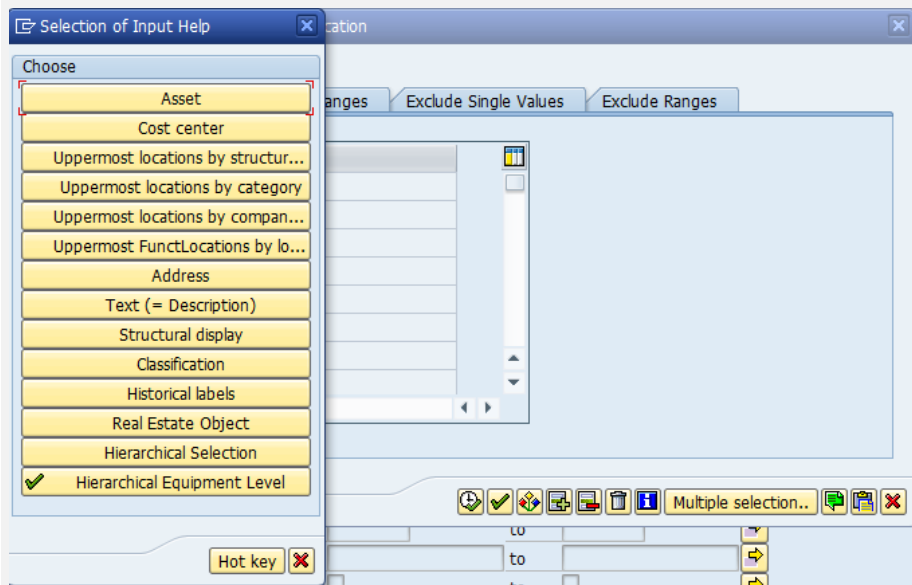
- 5 077-EL ELECTRICAL EQUIPMENT
- 5 077-ME MECHANICAL
- 5 077-RO ROTATING EQUIPMENT
- 5 077-SC SAFETY AND CONTROL

C	Functional Location	Description of functional location
4	TPF-077	SULFUR RECOVERY UNIT
5	077-EL	ELECTRICAL EQUIPMENT
	077-LP-A-101	ANL, E-7711 CONDENSATE PUMPS DISCHARGE
	077-LP-P-153	P-7703A/B DISCH. PRESSURE
	077-LP-T-161	P-7703A/B DISCH. TEMP
	077-ME	MECHANICAL
	077-ME-HB	HEATERS AND BOILERS
	077-ME-HE	HEAT EXCHANGERS
	077-ME-PI	PIPING
	077-ME-PI-SP	SPECIALTY ITEMS
	077-ME-PI-TI	TIE-INS
	077-ME-VE	VESSELS
	077-P-7701A/B	SULPHUR PUMPS
	077-P-7702A/B	CONDENSATE PUMPS
	077-P-7703A/B	E-7711 CONDENSATE PUMPS
	077-P-7703A/B-SC	COMMON CONTROL AND MONITORING

10.

Repeat Test Case 8 using the “Hierarchical Equipment Level” multi-select option, which will display all main equipment (FL Category 6 only).

OK



</

Schedule Maintenance Plan: Single cycle plan 000000000001

Start Start in cycle New Start Manual call Schedule overview list

Maintenance plan 1 Pump oil change

Scheduled calls Manual calls Maintenance plan scheduling parameters Maintenance plan additional data

List of Manual Calls

Call Number	PlanDate	Call date	Completion date	Scheduling Type / Status	Released by
90.000.000	09.09.2018	09.09.2018		Manual Called	TCILIBER

Order Edit Goto Extras Environment System Help

Change Preventive Maintenance 4000000: Central Header

Order PM03 4000000 Pump oil change

Sys.Status CRTD MANC NMAT PRC INIT

HeaderData Operations Components Costs Objects Additional Data Location

Person responsible

PlannerGrp 010 / USRD Maintenance

Mn.wk.ctr GENTRADE / USRD Mechanics

Notifctn

Costs USD

PMActType 300 Preventive mai...

SystCond.

Dates

Bsc start 09.09.2018 Priority 2-High

Basic fin. 09.09.2018 Revision

Reference object

Func. Loc. 077-P-7701A SULPHUR PUMP A

Equipment 10000220 Pump, Centrifugal

Assembly

SAP S4H (1) 400 vhcals4hci INS

13.

Create a notification with functional location 077-P-7701A as a reference object. Note that equipment 10000223 will default into the equipment reference object field. Change the notification malfunction date/time to a date/time before the equipment exchange. The previous equipment installation can be input.

OK

Equipment Usage Periods by FunctLocation

Equipment installed at functional locations
frm 01.09.2018 to 12.09.2018

Functional Location	Description of functional location	Equipment	Description of technical object	Valid From	Valid To
077-P-7701A	SULPHUR PUMP A	10000223	Pump, Centrifugal	12.09.2018	31.12.9999
		10000220	Pump, Centrifugal	08.09.2018	12.09.2018
		10000220	Pump, Centrifugal	08.09.2018	08.09.2018

Change PM Notification: Malfunction Report

Notification: 10000014 M2 Pump noisy

Notific. Status: OSNO APRQ

Order:

Problem Report Repair Report Tasks Activities Planning Documents

Responsibilities

Planner Group: 010 / USRD Maintenance

Main WorkCtr: GENTRADE / USRD Mechanics

Reported By: TCILIBER Notif.Date: 12.09.2018 16:43:01

Notification: 10000014 M2 Pump noisy

Notific. Status: OSNO APRQ

Order:

Problem Report Repair Report Tasks Activities Planning Documents

Reference object

Functional loc.: 077-P-7701A SULPHUR PUMP A

Equipment: 10000223 Pump, Centrifugal

Assembly:

Notification: 10000014 M2 Pump noisy

Notific. Status: OSNO APRQ

Order:

Problem Report Repair Report Tasks Activities Planning Documents

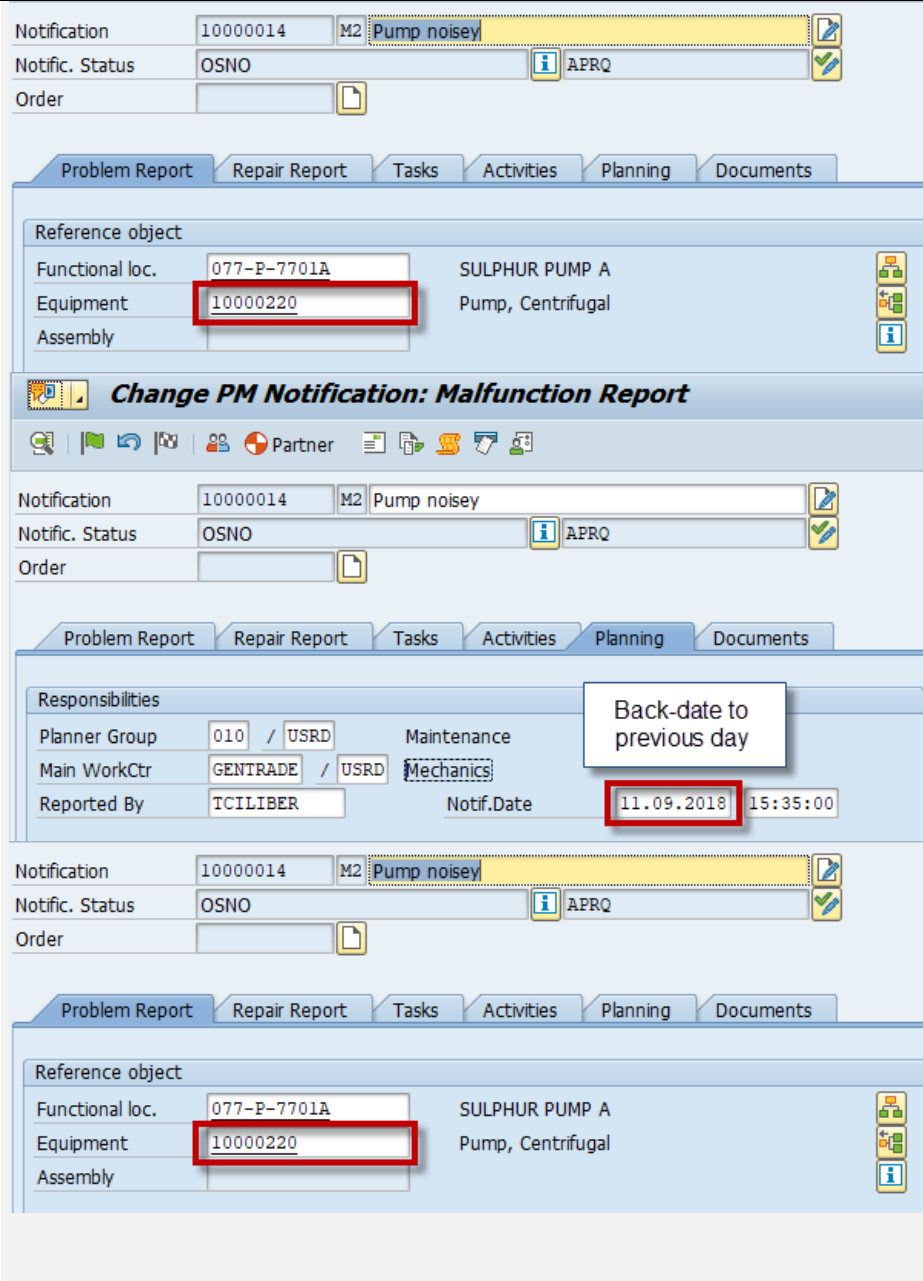
Responsibilities

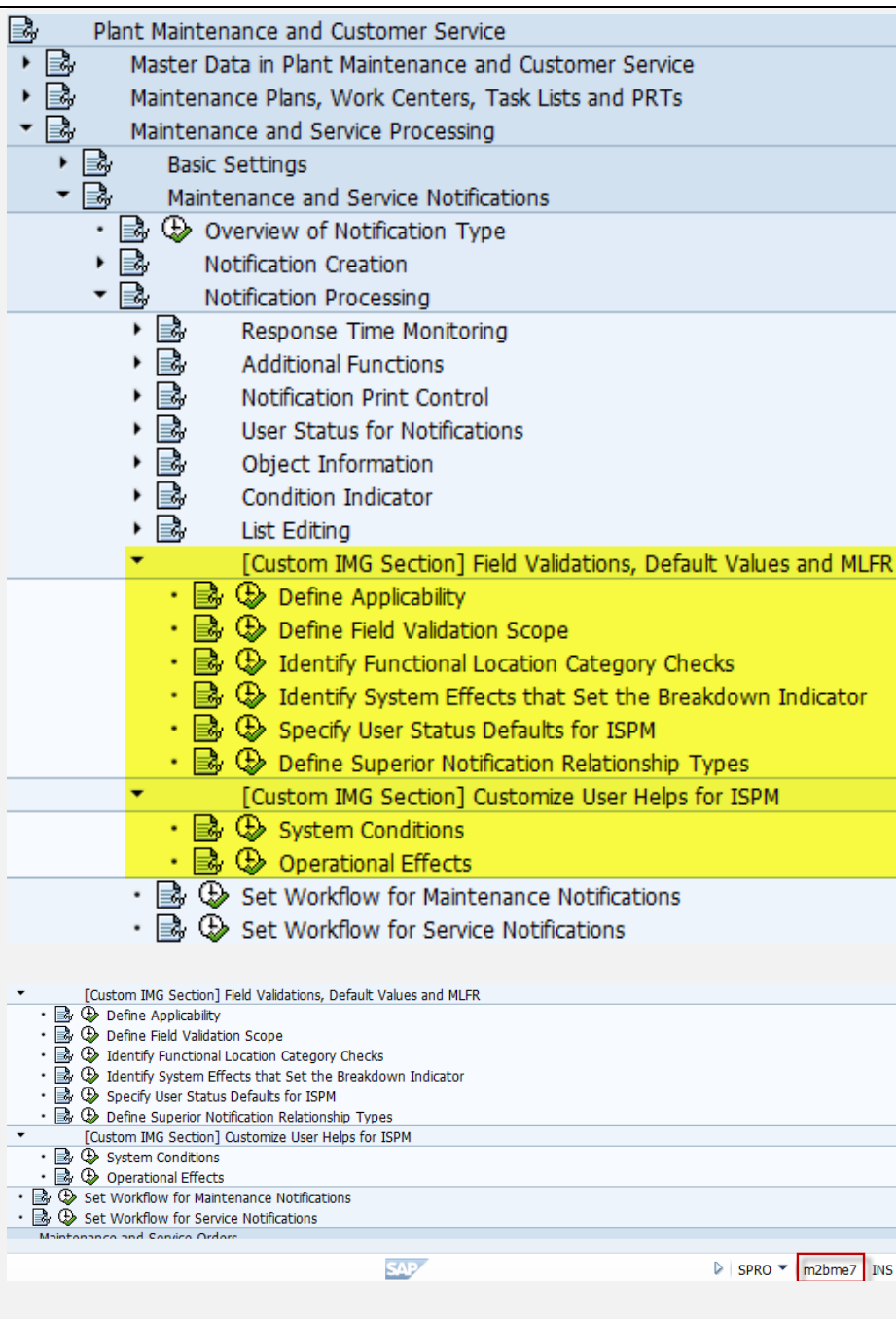
Planner Group: 010 / USRD Maintenance

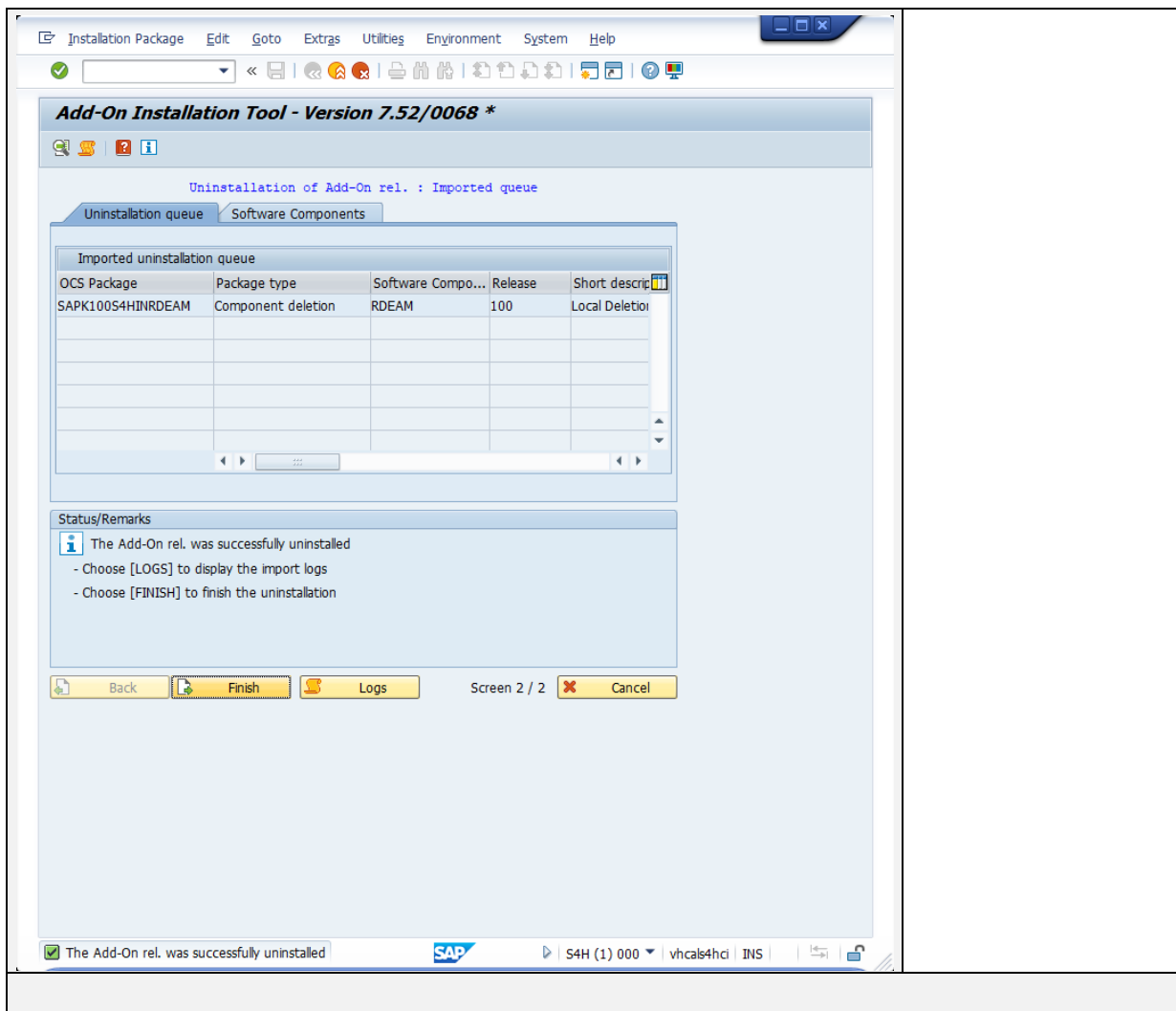
Main WorkCtr: GENTRADE / USRD Mechanics

Reported By: TCILIBER Notif.Date: 12.09.2018 14:43:01

Back-date time-of-day

	
14. Open the IMG and navigate to <Plant Maintenance and Customer Service, Maintenance and Service Processing, Notification Processing>, and confirm custom nodes as shown in the figure below.	OK

	
15. Uninstall add-on using the SAINT transaction using ISPM Add-on uninstallation instructions	OK



7. ISV/Partner Confirmation

Partner states that by following the guidelines of the ICC Integration Assessment or ICC Integration Guide, only the integration technologies listed in this document are used in the described interface software.

ABAP add-on deployment Certification is only valid for the SAP release and partner product release noted in this document; in the event of SAP **or** partner release changes SAP offers re-certification of the interface software.

The partner solution **has not been deployed or tested on SAP Solution Manager** as part of the certification procedure. It's therefore not "certified for SAP Solution Manager".