

potential of predictive maintenance and IoT-scenarios for your business



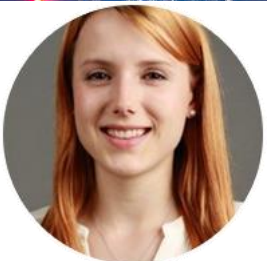
WINDOW!!

AIRCONDITION!!!

LIFT!!

Fascade!!

LIGHTS!!



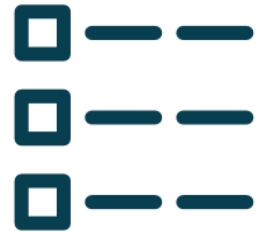
**Charline
Luebkekmann**



**Stefan
Lehmann**



**Detlef
Aden**



Why should
maintenance
processes
be integrated
into business
processes?

The future begins today. The requirements and possibilities
(condition-oriented maintenance, what about predictive
maintenance? What is there what's coming?



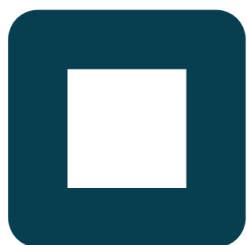
EAM4CLOUD

Features and functions of Release 1709

Can you **answer** me



Ask us your
questions!!





- **Introduction** – Detlef Aden
- **Why should maintenance processes be integrated into business processes** – Detlef Aden
- **The future begins today. The requirements and possibilities (condition-oriented maintenance, what about predictive maintenance? What is there what's coming?** – Detlef Aden
- **Features of the eam4cloud "What's new?"** - Stefan Lehmann
- **Questions & Answers**





2015 founded
>190 happy companies
60+ customer projects
30+ employees are there for you
8 years experience w/ SAP Cloud
8 renowned awards



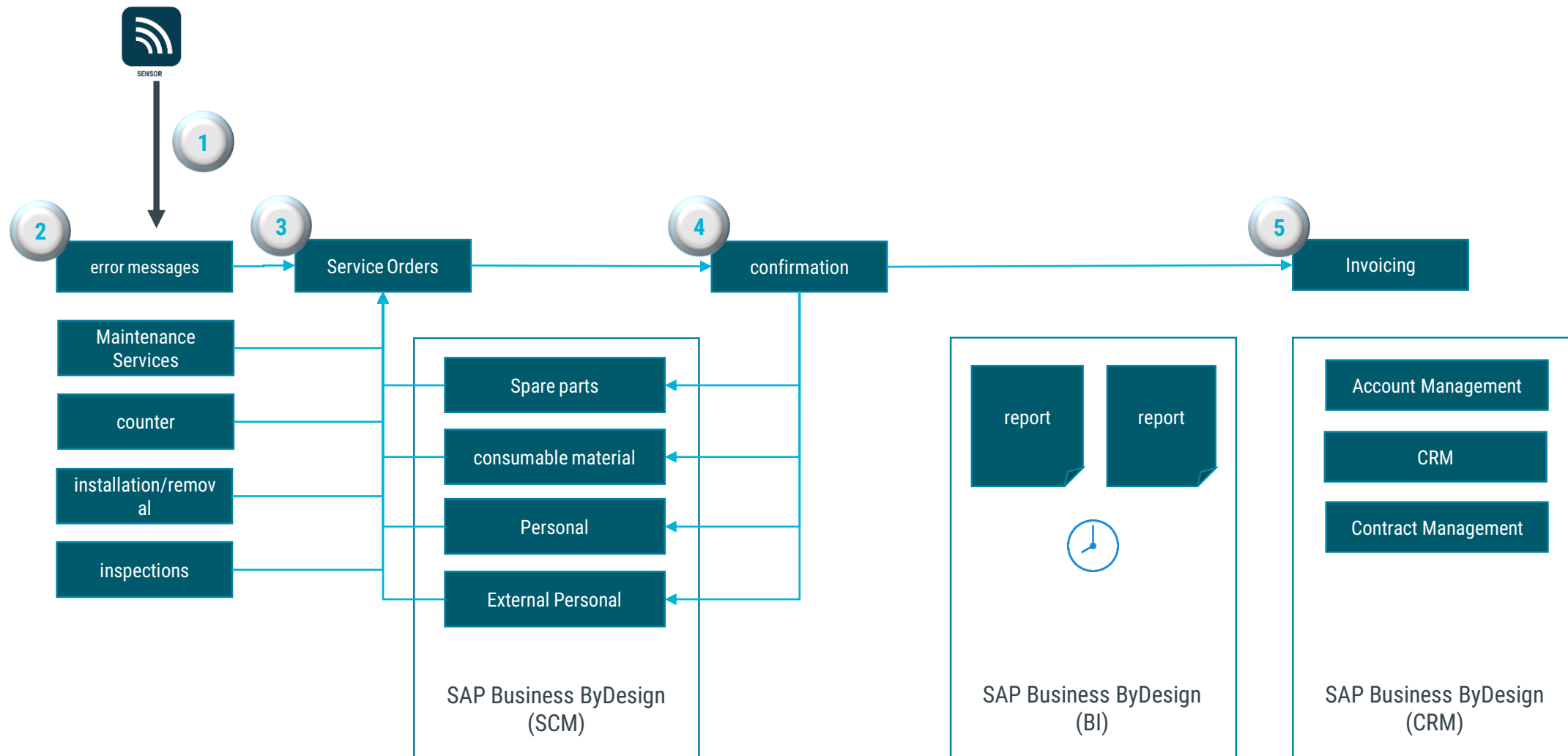
SAP® Recognized Expertise
in SAP Business ByDesign®



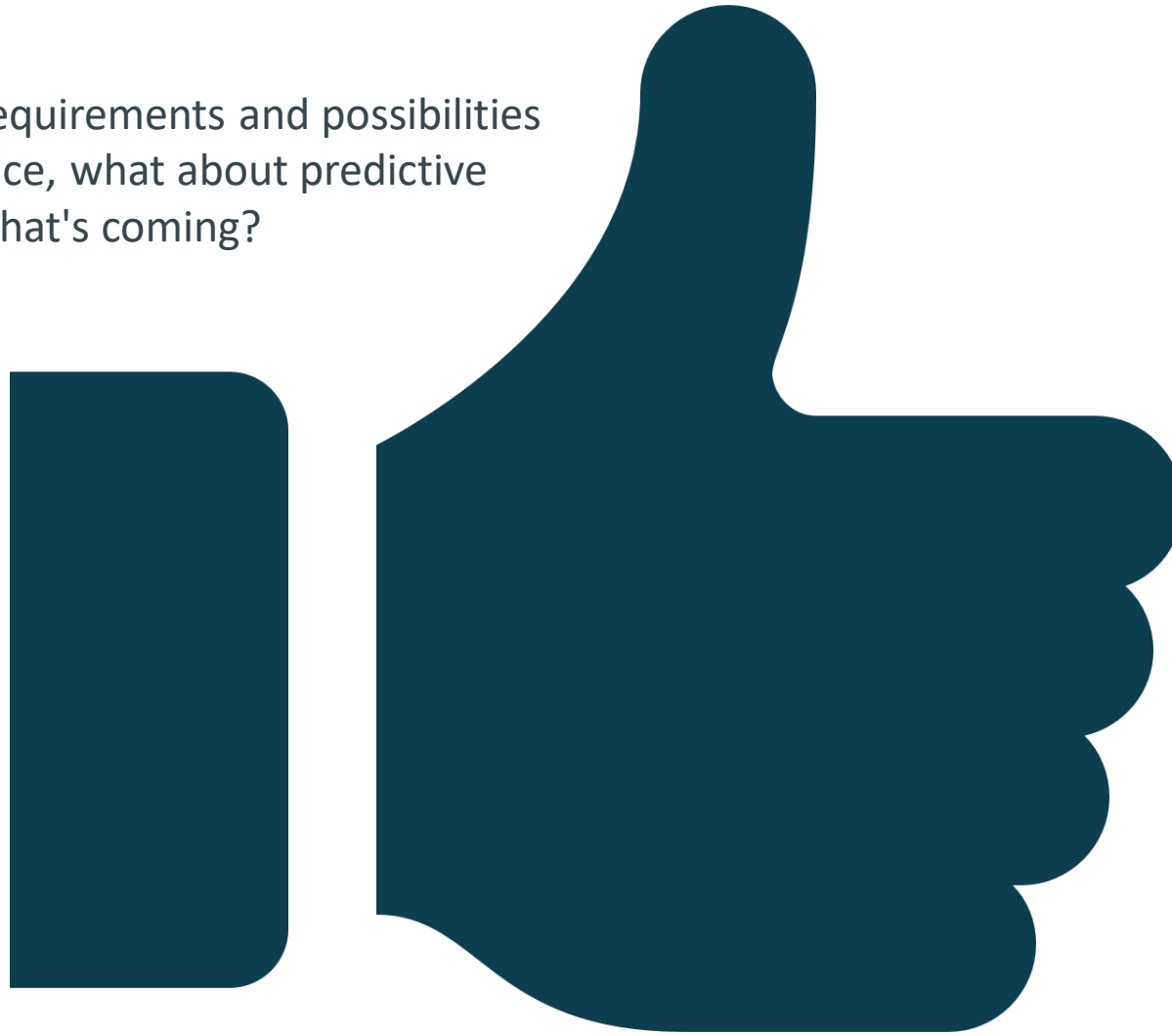
**Why should
maintenance
processes
be integrated
into business
processes?**



Art: facade element
manufactur: priedschüfeld
modell: SGT-200
installation date: 10.11.2016
Warranty: 09.11.2019
operating hours:
Serial #: SN3457SGT34578



The future begins today. The requirements and possibilities (condition-oriented maintenance, what about predictive maintenance? What is there what's coming?



DEVELOPMENT PHASES FROM INDUSTRY 1.0 TO INDUSTRY 4.0



Reactive Maintenance

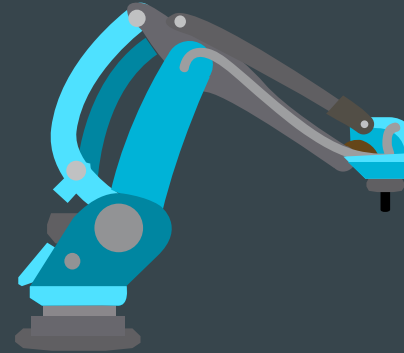
Preventive Maintenance

Condition based Maintenance

Predictive Maintenance



Second Industrial Revolution: electric energy makes mass production possible
(Beginning of the 20th century)



Fourth Industrial Revolution: Internet of Things makes networked manufacturing possible
(Since the 21st century)

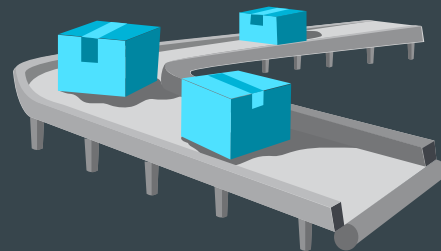
1

2

3

4

First Industrial Revolution: steam power makes mechanical production possible
(Late 18th century)



Third Industrial Revolution: IT and computer technology allow for more manufacturing automation
(Beginning of the 1970s)



added value of Industry 4.0

A nighttime photograph of a city skyline, likely Dubai, featuring several illuminated skyscrapers. In the foreground, the curved, glass-fronted building of the Dubai Opera House is brightly lit from within. Palm trees and a waterfront promenade with streetlights are visible at the bottom. Four teal speech bubbles are overlaid on the image, each pointing to a different building and containing text about modern amenities.

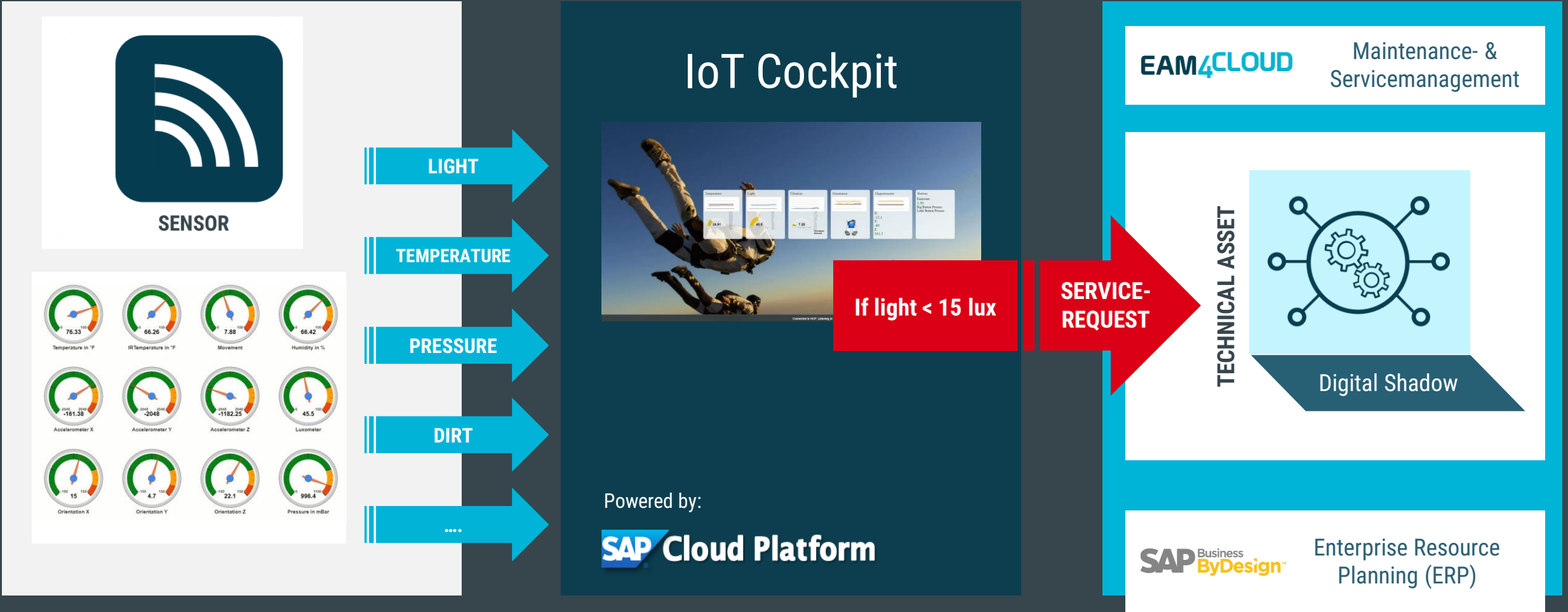
WINDOW!!

AIR CONDITION!!!

ELEVATOR!!

LIGHTS!!

AUTOMATED MAINTENANCE & SERVICE PROCESSES



EAM4CLOUD

Features and functions of Release 1709

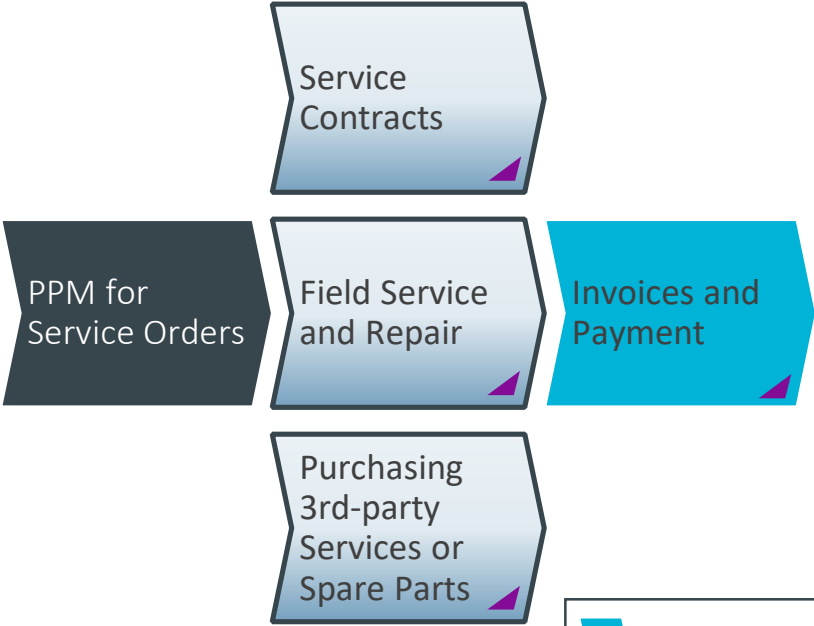



Maintenance
Object


Equipment


Manufacturer
Type


Service Provider Scenario



 ByD Standard

 eam4cloud solution

 eam4cloud Extension of ByD STD

 Relevant to financials

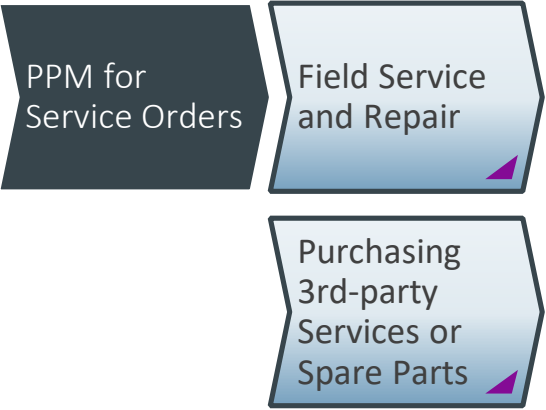






Maintenance
Object

Equipment

Manufacturer
Type

Inhouse Maintenance Scenario



	ByD Standard
	eam4cloud solution
	eam4cloud Extension of ByD STD
	Relevant to financials

EAM4CLOUD

Release 1709 – enhancements

- HTML 5 Readiness
- Preventive Measures
- Service Task Planning
- Service Order Automization by Runs
- New technical attributes



Release 1709 – Enhancements



EAM4CLOUD

HTML 5 Readiness

- All WoC views of the eam4cloud are usable under HTML5

SAP Business ByDesign Periodic Preventive Measure : PREV-000000070

Buttons: Save, Close, Obsolete, Schedule, View All

General Data

ID: PREV-000000070
Name: Weekly services on electric motors
Type: Periodic - plan based
Status: Released

Validity

*Valid From: 09/20/2017
Valid To:

Scheduling

Recurrence: Weekly
5 - Friday Every 1 Week(s)
Sequence Length: 3
Preview Period: 100 Day(s)

Service Orders

Service Order Templates
Preventive Measures
Maintenance Plans
Periodic Tasks
Planning Runs for Preventive Measures
Service Order Creation Runs

Main Affected Objects

Add Row | Remove

ID
OBJ-900001004 - Assembling Line 1

Service Order Templates

Add Row | Remove

Number	Service Order Template
1	SROT-000000069 - Lubrication Services
2	SROT-000000069 - Lubrication Services
3	SROT-000000070 - A-Services

Release 1709 – Enhancements



EAM4CLOUD

Preventive Measures

- Relevant WoC and View's

Home

Shortcuts

Maintenance Technical Administr...

Maintenance Configuration

Maintenance Master Data

Maintenance Service Center

Maintenance Preventive Measures

Maintenance Processing

Maintenance Budgeting

Service Entitlements

Service Desk

Service Orders

Field Service and Repair

Supply Planning

Purchase Requests and Orders

SAP Business ByDesign

Preventive Measures

Released Measures

EditNewExportDelete

ID	Name
PREV-000000073	Regular Maintenance for P800100-004
PREV-000000072	Clark Annual Services for Silberstern V
PREV-000000057	Quarterly Inspection of PowerTrac Hole
PREV-000000055	400 hours Inspection

Service Orders

Service Order Templates

Preventive Measures

Maintenance Plans

Periodic Tasks

Planning Runs for Preventive Measures

Service Order Creation Runs

Common Tasks

New Service Order Template

New Maintenance Plan

Release 1709 – Enhancements



EAM4CLOUD

Service Order Template

- If Maintenance Object is assignment is mandatory is controlled by scoping question
- More Planning fields
 - Duration
 - Time Need
 - Planned Measure

SAP Business ByDesign Service Order Template: SROT-000000055

Obsolete Save Close Create Service Order

General Information

ID: SROT-000000055

Creator: Stefan Lehmann (MCS)

Priority: Normal

Status: Released

Service Order Type: Preventive

Service Location

Location of Service Provision: On-Site

Affected Product

Maintenance Object:

Equipment:

Order Description

Subject: SOT Elevators V1

Incident Description:

Order Planning and Dispatching

Service Execution Team:

Service Performer:

Supplier:

Services Spare Parts

Add Row Remove

Line	*Service	Description	Quantity
20	S400101 - Maintenance Internal (SECO)	Travel Service V1	0,25 h - Hour(s)
30	S400101 - Maintenance Internal (SECO)	After Care Service V1	0,2 h - Hour(s)
10	S400101 - Maintenance Internal (SECO)	Elevator Service V1	0,5 h - Hour(s)

SAP Business ByDesign Service Order Template: SROT-000000055

Status: Released Priority: Normal Service Order Type: Preventive Location of Service Provision: On-Site Service Execution Team:

Obsolete Save Close Create Service Order

General Services Spare Parts Changes Notes Attachments

Add Row Remove

Line	*Service	Description	Quantity	Duration	Time Need	Service Performer
20	S400101 - Maintenance Internal (S)	Travel Service V1	0,25 h - Hour(s)	0 Hour(s) 15 Minute(s)	0 Hour(s) 15 Minute(s)	
30	S400101 - Maintenance Internal (S)	After Care Service V1	0,2 h - Hour(s)	0 Hour(s) 12 Minute(s)	0 Hour(s) 12 Minute(s)	
10	S400101 - Maintenance Internal (S)	Elevator Service V1	0,5 h - Hour(s)	0 Hour(s) 30 Minute(s)	0 Hour(s) 30 Minute(s)	

Service Planning Affected Objects Task List Safety Precautions Notes

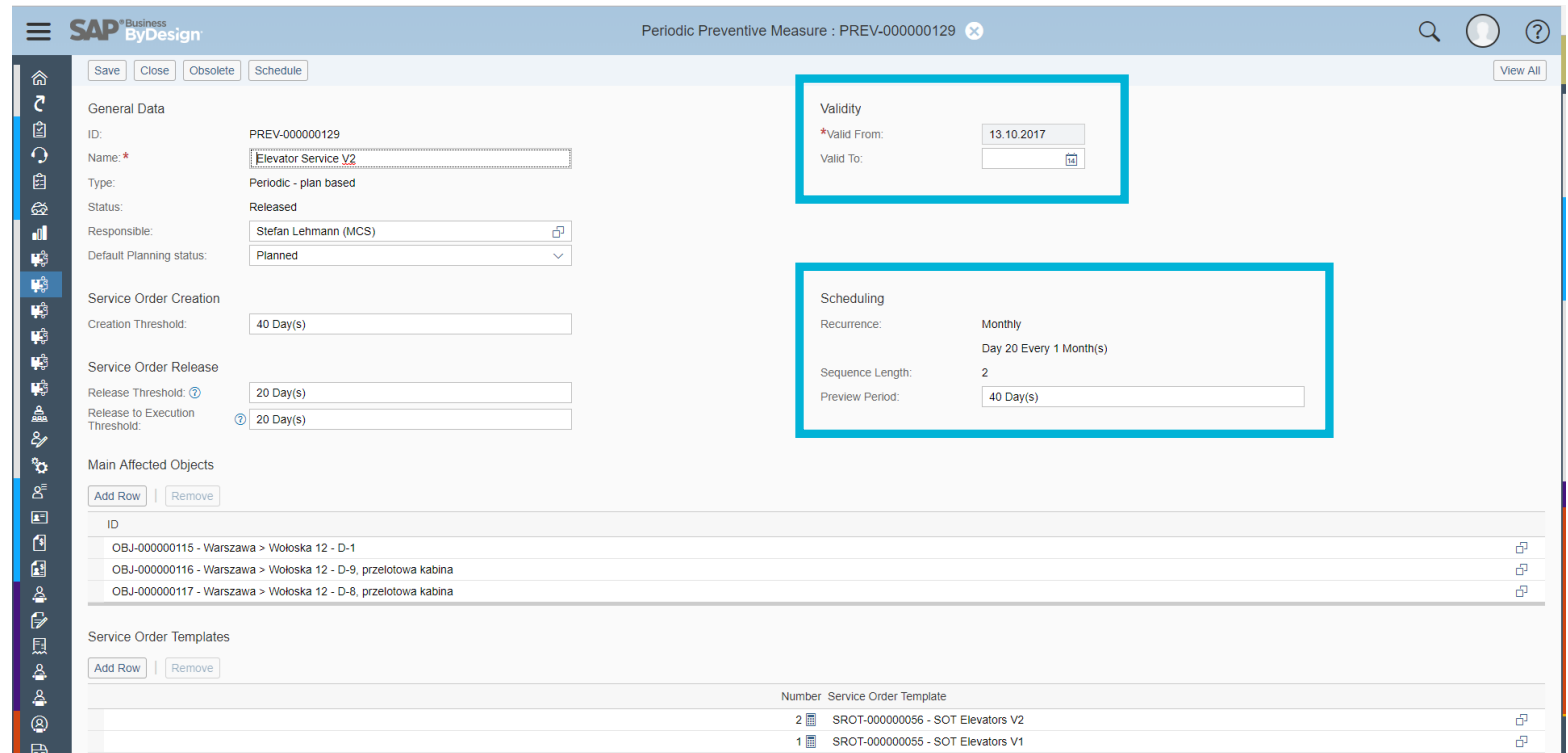
Execution

Planned Measure: Cleaning

EAM4CLOUD

(Periodic) Preventive Measures - PPM

- Validity Period controls when the PPM is going to be picked-up by “Planning Runs for Preventive Measures”
- Periodic Scheduling (daily, weekly, monthly, yearly)
- Generates “Service Tasks” representing the dates for a specific service



The screenshot displays the SAP ByDesign configuration interface for a Periodic Preventive Measure (PPM) with ID PREV-000000129. The interface is divided into several sections:

- General Data:** Contains fields for ID (PREV-000000129), Name (Elevator Service V2), Type (Periodic - plan based), Status (Released), Responsible (Stefan Lehmann (MCS)), and Default Planning status (Planned).
- Service Order Creation:** Includes a Creation Threshold set to 40 Day(s).
- Service Order Release:** Includes Release Threshold (20 Day(s)) and Release to Execution Threshold (20 Day(s)).
- Main Affected Objects:** A table listing three objects: OBJ-000000115 - Warszawa > Wołoska 12 - D-1, OBJ-000000116 - Warszawa > Wołoska 12 - D-9, przelotowa kabina, and OBJ-000000117 - Warszawa > Wołoska 12 - D-8, przelotowa kabina.
- Service Order Templates:** A table listing two templates: 2 SROT-000000056 - SOT Elevators V2 and 1 SROT-000000055 - SOT Elevators V1.
- Validity:** A section with fields for *Valid From (13.10.2017) and Valid To.
- Scheduling:** A section with fields for Recurrence (Monthly), Day 20 Every 1 Month(s), Sequence Length (2), and Preview Period (40 Day(s)).



Save Close Obsolete Schedule

View All

General Data

ID: PREV-000000129

Name: * Elevator Service V2

Type: Periodic - plan based

Status: Released

Responsible: Stefan Lehmann (MCS)

Default Planning status: Planned

Validity

*Valid From: 13.10.2017

Valid To: 14

Service Order Creation

Creation Threshold: 40 Day(s)

Scheduling

Recurrence: Monthly
Day 20 Every 1 Month(s)

Sequence Length: 2

Preview Period: 40 Day(s)

Service Order Release

Release Threshold: 20 Day(s)

Release to Execution Threshold: 20 Day(s)

Main Affected Objects

Add Row Remove

ID	
OBJ-000000115 - Warszawa > Wołoska 12 - D-1	
OBJ-000000116 - Warszawa > Wołoska 12 - D-9, przelotowa kabina	
OBJ-000000117 - Warszawa > Wołoska 12 - D-8, przelotowa kabina	

Service Order Templates

Add Row Remove

Number	Service Order Template	
2	SROT-000000056 - SOT Elevators V2	
1	SROT-000000055 - SOT Elevators V1	

Periodic Service is executed per each Maintenance Object

SOTs of different Numbers will result in individual service orders. Same number will combine SOT-items in one common service Order



Service Tasks

PREV-000000129 Group By None

Search

Edit Export

ID	Preventive Measure ID	Preventive Measure	Maintenance Object ID	Maintenance Object	Task Description	Requested Date/Time	Planned Date/Time	Duration	Service Order ID	Service Order Item ID
6540	PREV-000000129	Elevator Service V2	OBJ-000000115	Warszawa > Wołoska 12 - D-1	Travel Service V1	20.10.2017 00:00 CET	20.10.2017 00:00 CET	35 Minute(s)	9211	10
6541	PREV-000000129	Elevator Service V2	OBJ-000000115	Warszawa > Wołoska 12 - D-1	After Care Service V1	20.10.2017 00:00 CET	20.10.2017 00:00 CET	0 Hour(s) 12 Min...	9211	20
6542	PREV-000000129	Elevator Service V2	OBJ-000000115	Warszawa > Wołoska 12 - D-1	Elevator Service V1	20.10.2017 00:00 CET	20.10.2017 00:00 CET	70 Minute(s)	9211	30
6546	PREV-000000129	Elevator Service V2	OBJ-000000117	Warszawa > Wołoska 12 - D-8, pr...	Travel Service V1	20.10.2017 00:00 CET	20.10.2017 00:00 CET	0 Hour(s) 15 Min...	9213	10
6547	PREV-000000129	Elevator Service V2	OBJ-000000117	Warszawa > Wołoska 12 - D-8, pr...	After Care Service V1	20.10.2017 00:00 CET	20.10.2017 00:00 CET	20 Minute(s)	9213	20
6548	PREV-000000129	Elevator Service V2	OBJ-000000117	Warszawa > Wołoska 12 - D-8, pr...	Elevator Service V1	20.10.2017 00:00 CET	20.10.2017 00:00 CET	0 Hour(s) 30 Min...	9213	30
6543	PREV-000000129	Elevator Service V2	OBJ-000000116	Warszawa > Wołoska 12 - D-9, pr...	Travel Service V1	20.10.2017 00:00 CET	20.10.2017 00:00 CET	0 Hour(s) 15 Min...	9212	10
6544	PREV-000000129	Elevator Service V2	OBJ-000000116	Warszawa > Wołoska 12 - D-9, pr...	After Care Service V1	20.10.2017 00:00 CET	20.10.2017 00:00 CET	0 Hour(s) 12 Min...	9212	20
6545	PREV-000000129	Elevator Service V2	OBJ-000000116	Warszawa > Wołoska 12 - D-9, pr...	Elevator Service V1	20.10.2017 00:00 CET	20.10.2017 00:00 CET	0 Hour(s) 30 Min...	9212	30
6569	PREV-000000129	Elevator Service V2	OBJ-000000116	Warszawa > Wołoska 12 - D-9, pr...	Travel Service V2	20.11.2017 00:00 CET	20.11.2017 00:00 CET	0 Hour(s) 15 Min...	9219	10
6570	PREV-000000129	Elevator Service V2	OBJ-000000116	Warszawa > Wołoska 12 - D-9, pr...	After Care Service V2	20.11.2017 00:00 CET	20.11.2017 00:00 CET	0 Hour(s) 12 Min...	9219	20
6571	PREV-000000129	Elevator Service V2	OBJ-000000116	Warszawa > Wołoska 12 - D-9, pr...	Elevator Service V2	20.11.2017 00:00 CET	20.11.2017 00:00 CET	0 Hour(s) 30 Min...	9219	30
6572	PREV-000000129	Elevator Service V2	OBJ-000000117	Warszawa > Wołoska 12 - D-8, pr...	Travel Service V2	20.11.2017 00:00 CET	20.11.2017 00:00 CET	0 Hour(s) 15 Min...	9218	10
6573	PREV-000000129	Elevator Service V2	OBJ-000000117	Warszawa > Wołoska 12 - D-8, pr...	After Care Service V2	20.11.2017 00:00 CET	20.11.2017 00:00 CET	0 Hour(s) 12 Min...	9218	20
6574	PREV-000000129	Elevator Service V2	OBJ-000000117	Warszawa > Wołoska 12 - D-8, pr...	Elevator Service V2	20.11.2017 00:00 CET	20.11.2017 00:00 CET	0 Hour(s) 30 Min...	9218	30
6566	PREV-000000129	Elevator Service V2	OBJ-000000115	Warszawa > Wołoska 12 - D-1	Travel Service V2	20.11.2017 00:00 CET	20.11.2017 00:00 CET	0 Hour(s) 15 Min...	9217	10
6567	PREV-000000129	Elevator Service V2	OBJ-000000115	Warszawa > Wołoska 12 - D-1	After Care Service V2	20.11.2017 00:00 CET	20.11.2017 00:00 CET	0 Hour(s) 12 Min...	9217	20
6568	PREV-000000129	Elevator Service V2	OBJ-000000115	Warszawa > Wołoska 12 - D-1	Elevator Service V2	20.11.2017 00:00 CET	20.11.2017 00:00 CET	0 Hour(s) 30 Min...	9217	30

In October V1 services are executable (template sequence number "1") and in November V2 service are executable

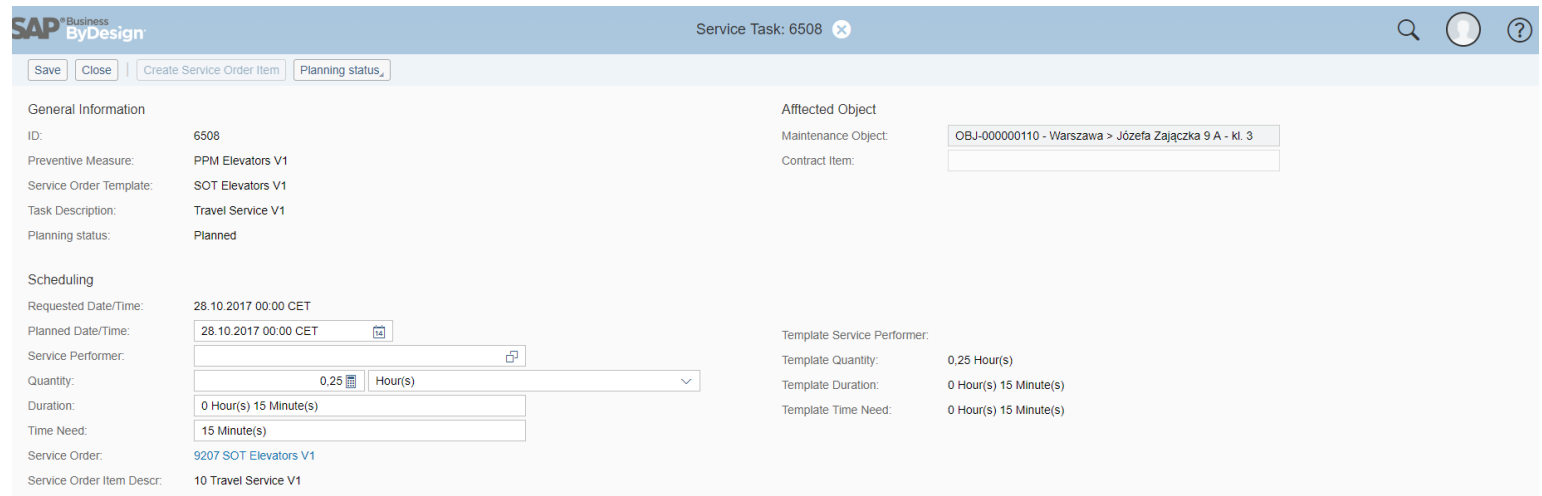
Three services according to the three items within the service order template

Three service orders in October according to the three main Maintenance Objects

EAM4CLOUD

(Periodic) Preventive Measures - PPM

- Service Tasks are made for planning purposes
- Generate **Service Tasks** for the **far future**
- Generate **service orders** out of service tasks only for the **near future**



The screenshot displays the SAP ByDesign interface for a Service Task (ID: 6508). The interface is divided into several sections: General Information, Scheduling, Affected Object, and Template Service Performer. The General Information section includes fields for ID, Preventive Measure, Service Order Template, Task Description, and Planning status. The Scheduling section includes fields for Requested Date/Time, Planned Date/Time, Service Performer, Quantity, Duration, Time Need, Service Order, and Service Order Item Description. The Affected Object section includes fields for Maintenance Object and Contract Item. The Template Service Performer section includes fields for Template Quantity, Template Duration, and Template Time Need.

General Information	
ID:	6508
Preventive Measure:	PPM Elevators V1
Service Order Template:	SOT Elevators V1
Task Description:	Travel Service V1
Planning status:	Planned

Scheduling	
Requested Date/Time:	28.10.2017 00:00 CET
Planned Date/Time:	28.10.2017 00:00 CET
Service Performer:	
Quantity:	0.25 Hour(s)
Duration:	0 Hour(s) 15 Minute(s)
Time Need:	15 Minute(s)
Service Order:	9207 SOT Elevators V1
Service Order Item Descr:	10 Travel Service V1

Affected Object	
Maintenance Object:	OBJ-000000110 - Warszawa > Józefa Zajączka 9 A - kl. 3
Contract Item:	

Template Service Performer	
Template Quantity:	0.25 Hour(s)
Template Duration:	0 Hour(s) 15 Minute(s)
Template Time Need:	0 Hour(s) 15 Minute(s)

Release 1709 – Enhancements



(Periodic) Preventive Measures - PPM

- The Maintenance Object assignment controls how many service orders are generated in the end
- For each Maintenance Object of the PPM it is possible to **assign a contract position**
- When the system generates a service order it tries to set this contract position to each service order item
 - Will work if contract item is valid for the planned date of the service position and if service is covered by contract item
 - If not applicable the contract item is not set

SAP Business ByDesign

Periodic Preventive Measure : PREV-00000111

Save Close Obsolete Schedule Basic View

General Main Affected Objects Service Order Templates Affected Objects Changes

Add Row Remove

Maintenance Object	Contract Item	Contract Item Validity Start	Contract Item Validity End
OBJ-000000077 - Gdynia 10 lutego 25 U000003	861-10	01.01.2017 00:00 CET	02.01.2018 00:00 CET

SAP Business ByDesign

Service Order: 8530

Status: In Preparation Priority: Normal Subject: TK: Oil & Grease Service (Contract) Service Category: Account: Berliner Elektrobetriebe Contact: Thomas Meyer Registered Product: Reference Product: Warranty Until:

Net Value w/o Freight: 0,00 EUR

Submit Save Close Preview New Copy Follow-Up You Can Also

General Services and Spare Parts Knowledge Base Pricing and Invoicing Involved Parties Document Flow Changes Attachments Output History Mail to Supplier

Add Row Remove Release Execution Complete Execution Reopen Assign Source of Supply Replace Product

Line	ATP	Status	Product	Description	Contract Item	Coverage	Quantity	Net Value	List Price	Required for Service
10	In Preparation	S400200 - (A) Oil & Gre	(A) Oil & Grease Service	861-10		3	Hour(s)			

Details: (A) Oil & Grease Service

General Service Planning Taxes Notes Affected Objects Safety Precautions Task List

Service/Spare Part

Product ID: S400200

Description: (A) Oil & Grease Service

Item Type: Contract Service - fixed price w/o act.

Non-Billable: ☐

Confirmed Quantity:

Reason for Rejection:

Status Information

Status: In Preparation

Service Status: Not Released

Delivery Status: Not Started

Invoice Status: Not Relevant

Cancellation Status: Not Canceled

Release 1709 – Enhancements



(Periodic) Preventive Measures - PPM

- It is possible to overrule planned service durations by the PPM
- Combination of template service and Maintenance Object could determine other work durations

SAP Business ByDesign

Periodic Preventive Measure : PREV-000000129

SaveCloseObsoleteSchedule

Basic View

GeneralMain Affected ObjectsService Order TemplatesAffected ObjectsChanges

Affected Objects Allocation

Add RowRemove

Maintenance Object	Service Order Template	Service Line	Service ID	Quantity	Duration	Time Need
OBJ-000000115 - Warszawa > W	SROT-000000055 - SOT Elevator	10 - Elevator Service V1	S400101	1.2	h - Hour(s)	70 Minute(s)
OBJ-000000115 - Warszawa > W	SROT-000000055 - SOT Elevator	20 - Travel Service V1	S400101	0.5	h - Hour(s)	35 Minute(s)
OBJ-000000117 - Warszawa > W	SROT-000000055 - SOT Elevator	30 - After Care Service V1	S400101	0.2	h - Hour(s)	20 Minute(s)

Affected Objects

Add RowRemove

Maintenance Object

OBJ-000000115 - Warszawa > Woloska 12 - D-1

Release 1709 – Enhancements



(Periodic) Preventive Measures - PPM

- “Preview Period” controls how long the **Planning Runs for Preventive Measures** looks in the future for generating Service Tasks
- Planning Runs for Preventive Measures is not configurable. It always picks-up ALL released Preventive Measures, checks the preview period and the amount of existing tasks. If necessary the run creates or deletes tasks.
- By shrinking the preview period and schedule it is possible to delete Service Tasks (but not if there are released Service Orders assigned to the task)

SAP ByDesign

Periodic Preventive Measure : PREV-000000129

Save Close Obsolete Schedule

General Data

ID: PREV-000000129

Name: Elevator Service V2

Type: Periodic - plan based

Status: Released

Responsible: Stefan Lehmann (MCS)

Default Planning status: Planned

Service Order Creation

Creation Threshold: 40 Day(s)

Service Order Release

Release Threshold: 20 Day(s)

Release to Execution Threshold: 20 Day(s)

Scheduling

Recurrence: Monthly

Day 20 Every 1 Month(s)

Preview Period: 40 Day(s)

Main Affected Objects

ID
OBJ-000000115 - Warszawa > Woloska 12 - D-1
OBJ-000000116 - Warszawa > Woloska 12 - D-9, przelotowa kabina
OBJ-000000117 - Warszawa > Woloska 12 - D-8, przelotowa kabina

Service Order Templates

Number	Service Order Template
2	SROT-000000056 - SOT Elevators V2
1	SROT-000000055 - SOT Elevators V1

Maintenance Preventive Measures - Planning Runs for Preventive Measures

Planning Runs for Preventive Measures

Search

Edit

New

Export

Delete

Schedule

View Jobs

Refresh

Actions

Group By

None

Status	Run ID	Run Description	Created By	Created On
Active	PPM_CREATION_RUN	Creates Service Tasks from PPM	Stefan Lehmann (MCS)	17.01.2017 11:01 CET

Execution Details: PPM_CREATION_RUN - Creates Service Tasks from PPM

Processing Status

Maximum Severity

Application Log ID

Created By

Date/Time

Finished		350415	Stefan Lehmann (MCS)	30.05.2017 14:13 CET
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Release 1709 – Enhancements



(Periodic) Preventive Measures - PPM

- “Creation Threshold ” controls how long the **Service Order Creation Run** looks in the future for generating Service Orders out of Service Tasks
- Service Order Creation Run for Preventive Measures is configurable. It is possible to have multiple runs for dedicated ranges of PPM-IDs
- Provides better control over specific PPMs, e.g. temporarily switch-off one PPM run
- Parallel Jobs possible => Better performance

SAP Business ByDesign

Periodic Preventive Measure : PREV-000000129

Save Close Obsolete Schedule View All

General Data

ID: PREV-000000129

Name: Elevator Service V2

Type: Periodic - plan based

Status: Released

Responsible: Stefan Lehmann (MCS)

Default Planning status: Planned

Validity

*Valid From: 13.10.2017

Valid To:

Scheduling

Recurrence: Monthly

Day 20 Every 1 Month(s)

Sequence Length: 2

Preview Period: 40 Day(s)

Service Order Creation

Creation Threshold: 40 Day(s)

Service Order Release

Release Threshold: 20 Day(s)

Release to Execution Threshold: 20 Day(s)

Main Affected Objects

Add Row Remove

ID
OBJ-000000115 - Warszawa > Woloska 12 - D-1
OBJ-000000116 - Warszawa > Woloska 12 - D-9, przelotowa kabina
OBJ-000000117 - Warszawa > Woloska 12 - D-8, przelotowa kabina

Service Order Templates

Add Row Remove

Number	Service Order Template
2	SROT-000000056 - SOT Elevators V2
1	SROT-000000055 - SOT Elevators V1

SAP Business ByDesign

Service Order Creation Run: NEW RUN SO_CREATE_PREV-000000129

Status: In Revision

Save and Close Save Close Schedule Set to Active

General Data

Status: In Revision

Description: SO_CREATE_PREV-000000129

Preventive Measure

Selection Criteria

Add Row Remove

Inclusion/Exclusion Search Pattern

I - Inclusion EQ - Equal to

From PREV-000000129 To

Maintenance Preventive Measures

Maintenance Processing

Maintenance Budgeting

Service Entitlements

Service Desk

Service Orders

Field Service and Repair

Service Orders

Service Order Templates

Preventive Measures

Maintenance Plans

Periodic Tasks

Planning Runs for Preventive Measures

Service Order Creation Runs

Release 1709 – Enhancements



(Periodic) Preventive Measures - PPM

- “Release Threshold ” controls how long the **Service Order Release Run** or the **Service Order Release to Execution Run** look in the future for releasing Service Orders
- Service Order Release (for Execution) Runs are configurable. It is possible to have multiple runs for dedicated ranges of Types, PPM-IDs or companies
- Provides better control over specific PPMs, e.g. temporarily switch-off one PPM run
- Parallel Jobs possible => Better performance

Periodic Preventive Measure : PREV-00000129

Save Close Obsolete Schedule View All

General Data

ID: PREV-00000129

Name: Elevator Service V2

Type: Periodic - plan based

Status: Released

Responsible: Stefan Lehmann (MCS)

Default Planning status: Planned

Service Order Creation

Creation Threshold: 40 Day(s)

Service Order Release

Release Threshold: 20 Day(s)

Release to Execution Threshold: 20 Day(s)

Validity

*Valid From: 13.10.2017

Valid To:

Scheduling

Recurrence: Monthly

Day 20 Every 1 Month(s)

Sequence Length: 2

Preview Period: 40 Day(s)

Main Affected Objects

Add Row Remove

ID
OBJ-00000115 - Warszawa > Wlooska 12 - D-1
OBJ-00000116 - Warszawa > Wlooska 12 - D-9, przelotowa kabina
OBJ-00000117 - Warszawa > Wlooska 12 - D-8, przelotowa kabina

Service Order Templates

Add Row Remove

Number	Service Order Template
2	SROT-000000056 - SOT Elevators V2
1	SROT-000000055 - SOT Elevators V1

Service Order Release To Execution Run

Status: Active

Save and Close Save Close Schedule Set to Active

General Data

Status: Active

Run Description: Service Order are Released to Execution

Administrative Data

Changed On: 08/31/2017 02:12 PM CET

Changed By: Gundula Adam

Created On: 08/31/2017 02:12 PM CET

Created By: Gundula Adam

Service Order Type

Preventive Measure ID

Company

Selection Criteria

Add Row Remove

Inclusion/Exclusion

I - Inclusion

Search Pattern

EQ - Equal to

Service Order Type

Preventive

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Configurable Attributes

- Additional functionality to add technical attribute to Maintenance Objects
- FT task “Definition of dynamic attributes”
- Attribute value has optional time dependence
- File Upload possible
- Not usable in OWL query

The screenshot shows the 'Definition of dynamic attributes' screen in SAP Business ByDesign. The header includes the SAP logo and the title 'Definition of dynamic attributes'. Below the header, there is a section for 'Version: Customer Specific' and 'Business Option: Project Management: Project Planning and Execution: eam4cloud by all4cloud: Definition of dynamic attributes'. There are buttons for 'Save and Close', 'Save', 'Close', 'Restore Defaults', and 'Translate'. The main area is titled 'Attribute Definition' and contains a table with three columns: 'Type', 'ID', and 'Name'. The table has three rows: '01 - Text' with ID 'Z001' and Name 'Additional Text', '02 - Float' with ID 'Z002' and Name 'Additional Decimal', and '03 - Integer' with ID 'Z003' and Name 'Additional Number'. There are also buttons for 'Add Row', 'Copy', and 'Delete'.

Type	ID	Name
01 - Text	Z001	Additional Text
02 - Float	Z002	Additional Decimal
03 - Integer	Z003	Additional Number

The screenshot shows the 'Maintenance Object' screen in SAP Business ByDesign. The header includes the SAP logo and the title 'Maintenance Object: OBJ-990000002'. Below the header, there is a section for 'Designation: Elevator Services Hamburg', 'Identification Code: AL-ES-HH', 'Status: Released', and 'Maintenance Object Category: General'. There are buttons for 'Save', 'Close', 'Obsolete', and 'Follow-Up'. The main area is titled 'Attributes' and contains a table with four columns: 'Attribute', 'Value', 'Valid From', and 'Valid To'. The table has three rows: 'Additional Text' with value 'This is my instruction. Second line. Third line' and valid from '01/01/2017' to 'Unlimited', 'Additional Number' with value '12' and valid from '09/01/2017' to '12/31/2017', and 'Additional Decimal' with value '13,775' and valid from 'Unlimited' to 'Unlimited'. There are also buttons for 'Add Row' and 'Remove'.

Attribute	Value	Valid From	Valid To
Additional Text	This is my instruction. Second line. Third line	01/01/2017	Unlimited
Additional Number	12	09/01/2017	12/31/2017
Additional Decimal	13,775	Unlimited	Unlimited

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Second identification Code

- Identifies Maintenance Objects
- Usable for autocompletion
- Search criterion in service order OWL

SAP Business ByDesign

Maintenance Object: C

Designation: Europa Passage Hamburg - Elevator North Identification Code: EPH-EL-N / CONTRACT Status: Released Maintenance Object Category: Elev

Save Close Obsolete Follow-Up

General Technical Data Attributes Service Orders Counters and Meters Work Health and Safety Involved Parties Fin

General Information

ID: OBJ-990000003

Status: Released

Designation: * Europa Passage Hamburg - Elevator North

Identification Code: EPH-EL-N / CONTRACT

Second Identification Code: U000001

Condition: Very Good

Service Orders - Service Order Processing

Service Orders

All Orders Group By: None

Service Order Data

Subject: [Field]

Service Order ID: [Field]

Priority: [Field]

Status: [Field]

Service Category: [Field]

Incident Category: [Field]

Initial Response By: [Field]

Completion By: [Field]

Reference Request ID: [Field]

Cancellation Status: [Field]

Service Order Type: [Field]

Planned Date: [Field]

Account and Affected Product

Account: [Field]

Contact: [Field]

Registered Product: [Field]

Reference Product: [Field]

Main Maintenance Object: [Field]

Ident Code 1 (MO): [Field]

Ident Code 2 (MO): U000001

Organizational Data

Processor: [Field]

Service Performer: [Field]

Service and Support Team: [Field]

Service Execution Team: [Field]

Item

Product ID: [Field]

Fulfillment: [Field]

Administrative Data

Changed By: [Field]

Changed On: [Field]

Created By: [Field]

Go Reset Save Query Organize Queries

Edit New Preview Export Copy Delete Follow-Up Create Down Payment

Service Order ID	Subject	Status	Priority	Requested Date	Service Status	Delivery Status	Cancellation ...	Completion By	Service Pe...	Main Affected Object
5266	Emergency Call - elevator stuck	In Process	Urgent	11/21/2017 12:00 AM CET	Released	In Process	Not Canceled	11/21/2017 08:20 PM CET		OBJ-990000003 - Europa Pass

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Service Quote -> Service Order

- If a Follow-up Service Order is created from the Service Quote the relevant data are copied over, esp the Maintenance Object.
- In case that the Maintenance Object is covered by a contract but the customer of this contract is different from the customer of the Quote, than the customer of the Quote is used for the Service Order.
- Involved party flow applies as well. Configuration possible by "Maintenance Configuration / Involved Party Configuration"

SAP Business ByDesign Involved Party Configuration

Save and Close Close

Add Row Remove

*Party Role	Service Request	Consider Hierarchy for Service Requ...	Service Order	Consider Hierarchy for Service Order	Service Quote	Consider Hierarchy for Service Quote
Sales Unit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Contact Responsible	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service Execution Team	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Account	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Service Performer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service and Support Team	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAP Business ByDesign Service Quote : 423

Status: Open Subject: Quote for meter-installation Service Category: Account: Silberstern Grosshandel GmbH Contact: Frank Sander Registered Product: Reference Product: Warranty Until: Net Value w/o Freight: 85.00 EUR

Submit Save Close Preview New Copy Follow-Up Change Status

Account Name: CP100110 - Silberstern Grosshandel Description: Konrad-Wolf-Strasse 14 13055 Berlin Germany Address Details

Main Affected Object: OBJ-990000003 Main Affected Object Designation: Europa Passage Hamburg Elevator

Contact Name: Frank Sander Phone: Mobile: E-mail: customer01@bydmail.com

Quote Description Subject: Quote for meter-installation External Reference: Currency: EUR - Euro Notes: Incident Description Internal Note

Incident Description: Posting Date: 11/21/2017 12:11 PM CET

Service Location Location of Service Provision: On-Site Address: Talsweg 19 35583 Wetzlar Germany

Affected Products Registered Product: Reference Product: Warranty Reference Date: Warranty Until:

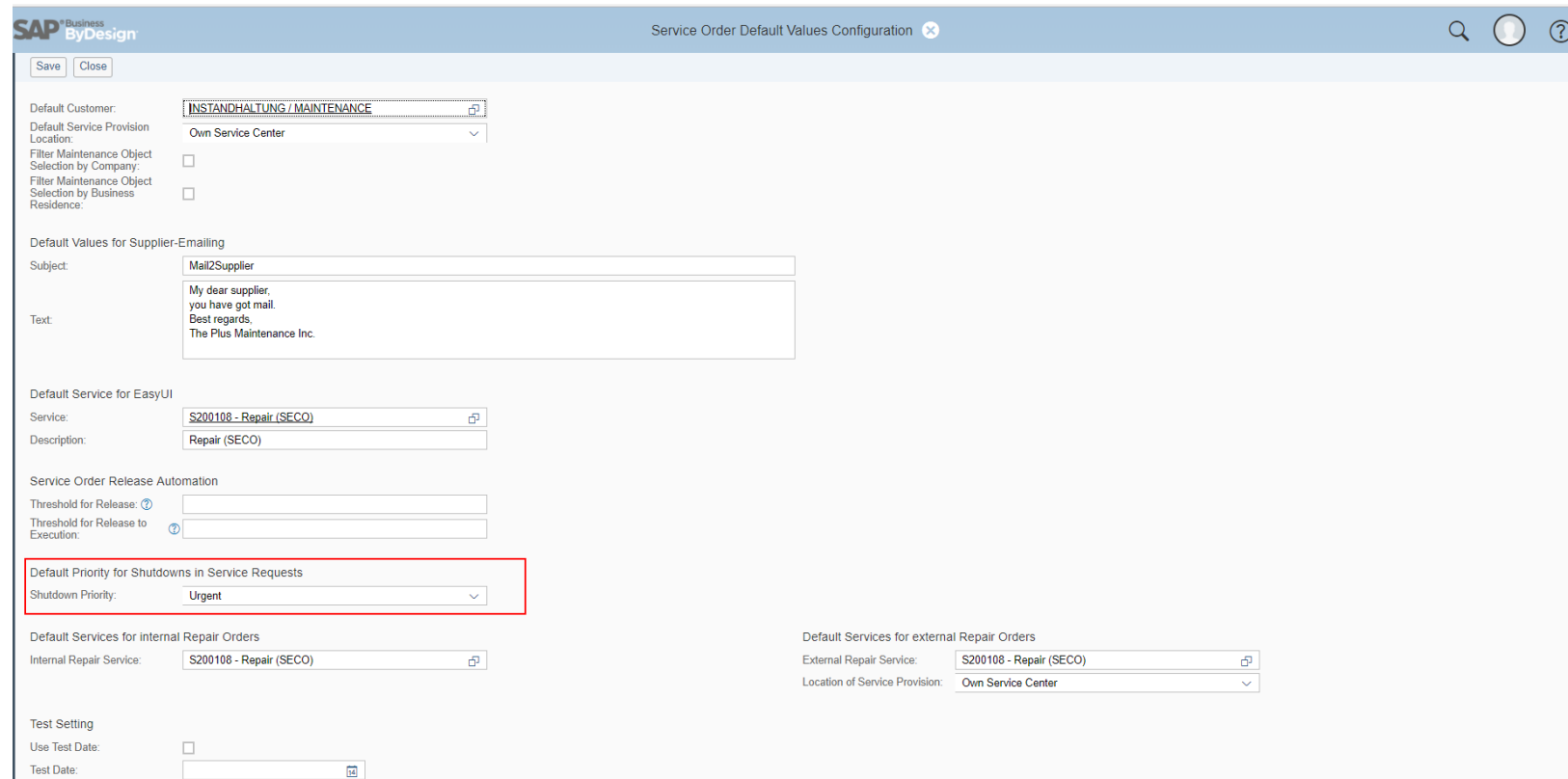
Categorization Service Category: Incident Category:

Order Planning and Dispatching Requested Date: 11/21/2017 12:00 AM CET Requested End: 11/22/2017 12:00 AM CET Supplier: Seller: 1000 - Almika GmbH Service Performer: Processor:

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Shutdowns

- **Default Priority Configuration**
- Service Request shutdown indicator and date
- Service Confirmation shutdown duration



The screenshot displays the 'Service Order Default Values Configuration' window in SAP ByDesign. The interface includes a header with the SAP ByDesign logo and a search icon. Below the header, there are several configuration sections:

- Default Customer:** A dropdown menu showing 'INSTANDHALTUNG / MAINTENANCE'.
- Default Service Provision Location:** A dropdown menu showing 'Own Service Center'.
- Filter Maintenance Object Selection by Company:** A checkbox that is currently unchecked.
- Filter Maintenance Object Selection by Business Residence:** A checkbox that is currently unchecked.
- Default Values for Supplier-Emailing:**
 - Subject:** A text field containing 'Mail2Supplier'.
 - Text:** A text area containing the message: 'My dear supplier, you have got mail. Best regards, The Plus Maintenance Inc.'
- Default Service for EasyUI:**
 - Service:** A dropdown menu showing 'S200108 - Repair (SECO)'.
 - Description:** A text field containing 'Repair (SECO)'.
- Service Order Release Automation:**
 - Threshold for Release:** A text field.
 - Threshold for Release to Execution:** A text field.
- Default Priority for Shutdowns in Service Requests:** A dropdown menu showing 'Urgent'.
- Default Services for Internal Repair Orders:**
 - Internal Repair Service:** A dropdown menu showing 'S200108 - Repair (SECO)'.
- Default Services for external Repair Orders:**
 - External Repair Service:** A dropdown menu showing 'S200108 - Repair (SECO)'.
 - Location of Service Provision:** A dropdown menu showing 'Own Service Center'.
- Test Setting:**
 - Use Test Date:** A checkbox that is currently unchecked.
 - Test Date:** A text field.

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Shutdowns

- Default Priority Configuration
- **Service Request shutdown indicator and date**
- Service Confirmation shutdown duration

The screenshot displays the SAP ByDesign interface for Service Request 1172. The top header bar shows the request ID 'Service Request: 1172' in a red box. Below the header, the status is 'Open' and priority is 'Urgent'. The service category is 'Category Rent' and the account is 'INSTANDHALTUNG / MAINTENANCE'. The incident description field is empty. The 'Incident Description' tab is selected. The 'Shutdown' checkbox is checked, and the 'Shutdown At' date is '11/20/2017 12:21 PM CET', both highlighted with a red box. The 'Service Request Data' section shows the priority as 'Urgent' and the reported on date as '11/21/2017 12:20 PM CET'. The 'Organizational Assignment' section shows the seller as 'Almika GmbH', processor as 'Stefan Lehmann', and service and support team as 'Service & Support'. The 'Due Dates' section shows the initial response by date as '11/21/2017 01:20 PM CET' and completion by date as '11/21/2017 08:20 PM CET'.

SAP ByDesign

Service Request: 1172

Status: Open Priority: Urgent Subject: Service Category: Category Rent Account: INSTANDHALTUNG / MAINTENANCE Contact: Registered Product: Reference Product: Warranty Until:

Submit Save Close Preview New Copy Follow-Up Take Over Change Status

Geo Coordinates

Latitude: 53.5516 degree 53°33'5.8"N

Longitude: 9.9948 degree 9°59'41.3"E

Open Map: 53°33'5.8"N 9°59'41.3"E (53.551600°, 9.994800°)

Incident Description Notes and History

Categorization

Service Category: CA_18 - Category Rent

Incident Category: CA_22 - Customer request

Service Request Data

Priority: Urgent

Reported On: 11/21/2017 12:20 PM CET

Requested For:

Shutdown: ☒

Shutdown At: 11/20/2017 12:21 PM CET

Organizational Assignment

Seller: Almika GmbH

Processor: Stefan Lehmann

Service and Support Team: Service & Support

Due Dates

Initial Response By: 11/21/2017 01:20 PM CET

Completion By: 11/21/2017 08:20 PM CET

2 Messages

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Shutdowns

- Default Priority Configuration
- Service Request shutdown indicator
- Service Confirmatuion shutdown duration

SAP ByDesign Service Confirmation: 1281

Status: Not Started Subject: Emergency Call - elevator stuck Service Category: Category Rent Account: INSTANDHALTUNG / MAINTENANCE Contact: Registered Product: Reference Product: Service Performer: Reference Service Order ID: 5266 Net Value w/o Freight: 85.00 EUR

Release Save Close New Follow-Up

Confirmation Description

Notes: ☒ Work Description ☐ Internal Note

Work Description: Elevator restarted.

Arrived On: 11/21/2017 12:35 PM CET

Fixed On:

Shutdown Duration: 45 Minute(s)

After Care

After Care Required: No

Categorization

Service Category: CA_18 - Category Rent

Incident Category: CA_22 - Customer request

Service Cause:

Executed By

Service Performer:

Services and Spare Parts

To confirm a service, click Release. Then choose With Order Completion if the service or parts consumption is finished (no further confirmations are allowed and the related order item is completed). Alternatively, choose Without Order Completion if the service or parts consumption is not finalized (further confirmations are allowed and the related order item remains in process).

Add Row Remove Release

Line	Item Type	Status	Product	Description	Service Performer	Quantity	Reference Co...	Reference Service Order/Item	Purchase Order Item	L...	Start Date/Time	End Date/Time	Labo...
10	Service - tim	Not Started	S200108	Reparatur	Karla Purkart	1 h	5...	10			11/21/2017 12:35 PM	11/21/2017 12:35 PM	RE

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Languages

- German
- English
- Dutch
- Polish
- <French> under discussion
- <Chinese> under discussion

SAP[®]Business ByDesign

Startscherm

Snelkoppelingen

Onderhoud technisch beheer

Configuratie onderhoud

Onderhoud Stamgegevens

Onderhoud servicecenter

Onderhoud van Preventief Onder...

Onderhoud orderverwerking

Onderhoudsbudget

Serviceaanspraken

Serviceesk

Serviceorders

Buitendienst service en reparatie

Aanvoerplanning

Aanvragen tot bestellen en inkoo...

Inkomende logistiek

Ontvangstbewijzen goederen en ...

Beheer uitgaande logistiek

Uitgaande logistiek

Preventief Onderhoud

Vrijgegeven preventief onderhoud

Bewerken Nieuw Exporteren Verwijder

ID	Naam	Type	Status	Verwerkingsstatus
PREV-000000073	Regular Maintenance for P800100-004 @ Silbers...	Periodiek - op plan gebaseerd	Vrijgegeven	Wordt uitgevoerd
PREV-000000072	Clark Annual Services for Silberstern V1	Periodiek - op plan gebaseerd	Vrijgegeven	Wordt uitgevoerd
PREV-000000071	Clark Annual Services for Silberstern	Periodiek - op plan gebaseerd	Vrijgegeven	Wordt uitgevoerd
	Gepland preventief onderhoud	Algemene taken		
	Serviceorder sjablonen	Nieuw serviceorder sjabloon		
	Onderhoudsplannen	Nieuw onderhoudsplan		
	Serviceorder vrijgave Run	Nieuwe herontwikkelingsperiode		
	Serviceorder vrijgave naar Uitvoering Run	Nieuw tellerstand document		
	Herontwikkelingsperiodes			
	Servicetaken			
	Tellerstand Documenten			
	Rapporten			
	Lijst			
PREV-000000051	Dyf - Replacement of Screen	Teller - plan gebaseerd	Vrijgegeven	Wordt uitgevoerd

How to configure Runs in ByDesign



Important note (ByDesign standard, not eam4cloud specific)

If a user “U1” configures a run that creates business objects the following facts have to be considered

- U1 is stored as the creator of the business objects
- If U1 is blocked or terminated the run will no longer work! I.e. the run is coupled with the validity of the user.

Consequences:

- Runs have to be configured by the customer’s key users and not by implementation partner’s users.
- Be careful when blocking or terminating a user that is used in runs

Can you **answer** me



Ask us your
questions!!

Thank you!



**Charline
Luebke**



**Stefan
Lehmann**



**Detlef
Aden**

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