

Batch Blueprint (MultiUnit)

Exported on February 09, 2022

Status: Approved

Confidentiality: Internal

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Table of Contents

1 General.....	5
2 Prerequisites	6
3 Step 1 - Business Fields.....	9
4 Step 2 - Form Templates	13
5 Step 3 - Categories.....	15
6 Step 4 - List Template Layout Definition	16
7 Step 5 - Process Cell / Structure Item Preparation.....	18

Valid from version	Link to Jira task	Document URL	Internal Status	Version	Confidentiality
3.1.0.8		1QqcBg	 Approved	5	Internal

1 General

This Guide shows you how to Setup / Prepare your Shiftconnector Instance / Tenant / Structure Item for setting Up a Multi Unit Tab.

Please follow each step in the given Order.

In Case of open Questions please reach out to the Eschbach Project Team.

This Blue Print is valid for:

- Batch Production Units

2 Prerequisites

Abbreviations:

SU = Single Unit

MU = Multi Unit

OR = Organisational Register

Data Source:

1. Create a Data Source called "{TenantShortName}_Reason Codes"
2. Export a Reason Tree from an existing Tenant
 - a. In Case there is no Reason Tree defined yet, please just create the static Reason Code "Changeover"
3. Import it to the Tenant you want to prepare for OEE

Global Rights:

Please make sure, that following rights are assigned to the correct User Roles on a global Level (AD_...):

Right	Global Administrator	Local Administrator	Key User	Standard User
AD_CAM_00000_OEE_MultiUnit_Administration_Calculator	Yes	No	No	No
AD_CAM_00000_OEE_MultiUnit_Administration_Connection	Yes	No	No	No
AD_CAM_00000_OEE_MultiUnit_Administration_General	Yes	No	No	No
AD_CAM_00000_OEE_MultiUnit_Administration_Importer	Yes	No	No	No
AD_CAM_00000_OEE_MultiUnit_Administration_Layout	Yes	No	No	No
AD_CAM_00000_OEE_MultiUnit_Administration_Splitter	Yes	No	No	No

Right	Global Administrator	Local Administrator	Key User	Standard User
AD_CAM_00000_OEE_MultiUnit_Administration_Unit_Configuration	Yes	No	No	No
AD_CAM_00000_OEE_MultiUnit_Configuration	Yes	No	No	No
AD_CAM_00000_OEE_MultiUnit_Create_Configuration	Yes	No	No	No
AD_CAM_00000_OEE_MultiUnit_Reporting_Pareto	No	No	No	No
AD_CAM_00000_OEE_MultiUnit_Reporting_Waterfall	Yes	No	No	No

Tenant Rights:

Please make sure, that following rights are assigned to the correct User Roles on a Tenant Level (BR...):

Right	Global Administrator	Local Administrator	Key User	Standard User
BR_CAM_00000_OEE_MultiUnit_Administration_Calculator	Yes	Yes	No	No
BR_CAM_00000_OEE_MultiUnit_Administration_Connection	Yes	Yes	No	No
BR_CAM_00000_OEE_MultiUnit_Administration_General	Yes	Yes	No	No
BR_CAM_00000_OEE_MultiUnit_Administration_Importer	Yes	Yes	No	No
BR_CAM_00000_OEE_MultiUnit_Administration_Layout	Yes	Yes	No	No

Right	Global Administrator	Local Administrator	Key User	Standard User
BR_CAM_00000_OEE_MultiUnit_Administration_Splitter	No	No	No	No
BR_CAM_00000_OEE_MultiUnit_Administration_Unit_Configuration	Yes	Yes	No	No
BR_CAM_00000_OEE_MultiUnit_Configuration	Yes	Yes	No	No
BR_CAM_00000_OEE_MultiUnit_Create_Configuration	Yes	Yes	No	No
BR_CAM_00000_OEE_MultiUnit_Reporting_Pareto	No	No	No	No
BR_CAM_00000_OEE_MultiUnit_Reporting_Waterfall	Yes	Yes	No	No
BR_CM_00000_OEE_MultiUnit_API	Yes	Yes	No	No
BR_CM00000OEE_CloseProductionPeriod	Delete	Delete	No	No
BR_CM00000OEE_ShowAddAmountButton	Delete	Delete	No	No
BR_CM00000OEE_ShowAddTimeEventButton	Delete	Delete	No	No
BR_Display_CAM_00000_OEE_MultiUnit_Administration	Yes	Yes	No	No
BR_Display_CAM_00000_OEE_MultiUnit_Reporting	Yes	Yes	No	No

3 Step 1 - Business Fields

Configure all needed BusinessFields in the Field Library. Please create new BusinessFields only when they do not exist yet.

Required BusinessFields:

SystemFields:

- AssignedShiftbooks

Copy value from parent element

Is mandatory
 Only editable in creation mode
 Is read only field
 Allow multi selection

- Attachments

Copy value from parent element

Is mandatory
 Only editable in creation mode
 Is read only field
 Allow multi selection

- Batch

Copy value from parent element

Default string

Is mandatory
 Only editable in creation mode
 Is read only field

• Category

Is mandatory
 Only editable in creation mode
 Is read only field

• Description

Copy value from parent element

Default string

Is mandatory
 Only editable in creation mode
 Is read only field

Min. length

Max. length

• EventStartDateTime

Copy value from parent element

Default date time 1

Default date time 2

End date is mandatory
 Only editable in creation mode
 Is read only field

Difference to business field name

Minimum difference(hours)

Maximum difference(hours)

• EventStatus

Copy value from parent element

Default status

Is mandatory

Only editable in creation mode

Is read only field

Selected per default

Use checkbox for create

- FuncLocs

Copy value from parent element

Is mandatory

Only editable in creation mode

Is read only field

Allow multi selection

Restrict selectable hierarchy level

allow from top levels

- ProductList

Copy value from parent element

Is mandatory

Only editable in creation mode

Is read only field

Allow multi selection

Custom Fields

- {TenantShortName}_ReasonCodes
 - **Select the List that you defined in the Prerequisites.**

List

Reason Codes Speke

Copy value from parent element

Default list item

No list items assigned

Is mandatory

Only editable in creation mode

Is read only field

Allow multi selection

4 Step 2 - Form Templates

Configure all necessary Form Templates. These Templates are created locally for each Tenant (not Global Forms)

1. OEE - Time Loss MU

Required Business Fields (incl. Deviations)

Business Field	Deviation
AssignedShiftbooks	Invisible
Attachments	Invisible
Batch	None
Category	Invisible
Description	Not mandatory
EventStartDateTime	End date mandatory
EventStatus	None
FuncLocs	None
ProductList	Not Mandatory Readonly
{TenantShortName}_ReasonCodes	None

Functional Location	ReasonCode	Event Start Date Time	Priority
	Batch	Description	
	Prodotto		

5 Step 3 - Categories

Configure the necessary Categories for each Tenant (No Global Categories) as described in following table.

Name	Form Template Name	Deviations
OEE - Performance Loss MU	OEE - Time Loss MU	None
OEE - Availability Loss MU	OEE - Time Loss MU	None

6

Step 4 - List Template Layout Definition

To create an OEE specific Layout Definition, copy the "Default" Layout Definition. Name it "OEE"

Make sure that all the following Business Fields are included on the new OEE Layout Definition:

Name	Grouping	Default Grouping	Ad hoc filter	Visible	Width	Sorting
Category (Category)	ON	OFF	ON	ON	100	None
Functional Location	ON	OFF	ON	ON	100	None
Batch (Batch)	ON	OFF	ON	ON	100	None
Product (ProductList)	ON	OFF	ON	ON	100	None
Reason Codes	ON	OFF	ON	ON	100	None
Description (SummaryDescription)	ON	OFF	ON	ON	100	None

Name

OEE + Add column

Name	Grouping	Default Grouping	Ad hoc filter	Visible	Width	Sorting
Start/End or Open (Event.StartAndEndDateTimeOr...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100	Descending ▾
Category (Category)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100	None ▾
Functional Location (FunctionalLocationPathAndNa...	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100	None ▾
Functional Location (FunctionalLocationLastCodeA...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	100	None ▾
Batch (Batch)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100	None ▾
Prodotto (ProductList)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100	None ▾
Reason Code (SPP_ELS_ReasonCode_c8ef31e... a96a-4073-b433-fb201fdcd15c)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100	None ▾
Description (SummaryDescription)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	350	None ▾
Created/Modified by (CreationUser_LastEditUser)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	70	None ▾
Attachment (AttachmentAvailable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	30	None ▾
Priority (Event.Status)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	50	None ▾

Example:

1. Copy all List Filter Templates from the Tenant Level and Paste them to the OEE Structure Item.
 - a. If the Structure Item has the List Filter Templates already configured and doesn't inherit them from a tenant level, DO NOT DO STEP 1. You can proceed with 2.
2. Change the Layout Definition to "OEE". (the previously created Layout) But ONLY for the copied List Filters from the Tenant Level. Do not change the Layout for other List Filters like "PlantStatus" etc.
3. Set the Checkmark for the Default Listfilter to 24 hours (or as set on a Tenant Level)
4. Switch off the Toggle Button "Inherited from Tenant"

7 Step 5 - Process Cell / Structure Item Preparation

Now the Tenant / Structure Item will be prepared for the MU Setup. Several Steps are necessary.

Category Assignment

1. Assign the Categories created in Step 3 to all Structure Items that will get the MU Tab via the OR.

Configuration > Categories > Events of the Structure Item you want to prepare.

2. Uncheck "Visible in Forms" for all OEE categories.

Selected categories ^		Visible in form	Default category
<input checked="" type="checkbox"/> OEE - Changeover	Tenant: Spinetta PFVE Form template: OEE - Time Loss	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> OEE - Production Amount	Tenant: Spinetta PFVE Form template: OEE - Production Amount	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> OEE - Production Time	Tenant: Spinetta PFVE Form template: OEE - Production Time	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> OEE - Availability Loss	Tenant: Spinetta PFVE Form template: OEE - Time Loss	<input type="checkbox"/>	<input type="checkbox"/>

OEE Administration

1. Check Rights on StructureItem Level:

Description	Name	Global Administr...	KeyUser	Local Administra...
Show "print bar codes" button in generic re...	WC_SC7_ShowPrintBarCodeButton	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Show workcenter in menu	WC_MenuVisibility	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
allow status change to 'deleted'	WC_CanChangeStatusToDeleted	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage Sheets configuration	WC_CAM_00000_SheetsAdministration_ML	Delete	Nothing	Delete
Manage OEE Reporting Waterfall settings	WC_CAM_00000_OEE_MultiUnit_Reportin...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE Reporting Pareto settings	WC_CAM_00000_OEE_MultiUnit_Reportin...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Create Multi Unit OEE configuration	WC_CAM_00000_OEE_MultiUnit_Create...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage Multi Unit OEE unit group	WC_CAM_00000_OEE_MultiUnit_Administ...	Create	Nothing	Create
Enable OEE unit configuration	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE toolbox settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE template settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Allow OEE target value reset	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE target settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE event frame splitter settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE recovery mode settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE layout settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE importer settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE general settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE OSI-PI connection settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage OEE calculator settings	WC_CAM_00000_OEE_MultiUnit_Administ...	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Sheets	CM_00000_SheetsUserApp	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes
Manage Multi Unit OEE	CM_00000_OEE_MultiUnit_Configuration	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes	no <input type="checkbox"/> yes

- 2.
3. Go to Configuration > Modules > Multi Unit OEE Administration
4. Set the Toggle to "All Structure Items"
5. Click on the Tenant you are working on.
6. Confirm the Pop Up that asks whether you want to create a new OEE configuration for this Structure Item
7. Click on the Structure Item that will get a MU Tab and ONLY THAT.
8. Confirm the Pop Up that asks whether you want to create a new OEE configuration for this Structure Item
9. Repeat step 5. and 6. for each Structure Item that will get a MU Tab

Step 6 - Waterfall Report Configuration

This Part can be only done after finishing all Parts of Step 5.

Go to Configuration > Modules > Multi Unit OEE Reporting

1. As in Step 5 switch the Toggle to "All Structure items"
2. Click on a Structure Item that was prepared in the earlier Steps
3. Confirm the Pop Up
4. Configure the Waterfall and the KPI's as defined / look them up on an existing Tenant