



# SAP Event Management

## How to Generate your own Transactional Fiori Apps

### A Guide for Developers

#### Applies to:

- SAP Event Management 9.2 SP4 and above
- SAP Fiori for Event Management 1.0 or above
- SAP Web IDE
- SAP Web IDE Full-Stack
- Doc version: 1.3

#### Summary

This guide supports developers implementing custom transactional Fiori apps for their tracking scenarios that are set-up in their **SAP Event Management** system. It describes all the steps that you need to use the **SAP Web IDE** template '*Transactional App for SAP Event Management*' to generate Fiori apps for **SAP Event Management**. It provides additional information on how to enhance the generated app to meet further requirements.

**Created on:** 11 September 2018



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# Introduction

## Custom Transactional Fiori Apps

**SAP Event Management 9.2** introduced the EM OData service, used to retrieve EM data and send event messages in a generic way. **SAP Fiori for SAP Event Management 1.0** introduced the first EM transactional Fiori app '*Freight Order Visibility*' (FOV), based on the EM OData service.

To make the FOV app easily extensible by customer developers, the **SAP Event Management plugin/extension for SAP Web IDE** is available. It is also known as the *Transactional App for SAP Event Management* and can be used by customer developers to generate their own custom transactional Fiori apps. This guide explains how to do this.

The **SAP Event Management plugin/extension for SAP Web IDE**:

- is available in the **SAP Web IDE** as a plugin
- is available in the **SAP Web IDE Full-Stack** as an extension.

### Note

For information on how to migrate an **SAP Web IDE plugin** to an **SAP Web IDE Full-Stack extension**, see:

<https://help.sap.com/viewer/825270ffffe74d9f988a0f0066ad59f0/CF/en-US/67a97b85476c41048f4203940f43766d.html>

The **SAP Event Management plugin/extension for SAP Web IDE**:

- uses the EM OData service
- can be used by SAP EM customers to generate their own transactional Fiori app based on their own customizations without any custom development. This is done by means of a wizard designed for developers that allows them to accelerate and simplify development.

### Note

The **SAP Event Management plugin/extension for SAP Web IDE** requires as a minimum the backend to have release **SAP Event Management 9.2** with support package SP4. Alternatively SAP Note [2175612](#) can be installed on top of lower support package.

The transactional Fiori apps generated by the wizard:

- are fully functional apps
- have the same look and feel along with similar functionality to the standard EM FOV app
- can be enhanced by manually modifying the code if additional detailed functions not provided by the wizard are required
- run on desktops, as well as tablet devices that have a screen format wide enough to display side by side the overview section and the detailed section of the screen.

## Disclaimers

1. In most case, the settings made by the wizard result in a working Fiori app. However, in certain cases there might be mismatched settings that cannot automatically be detected by the wizard that result in a non-working app. In such cases, re-running the wizard with revised settings or manually modifying the code may be necessary.
2. Once generated an app can only be modified manually, not by means of the wizard.
3. The generation process is one-time only. After completing the wizard, you cannot use the wizard again to change the generated coding. To change the properties that you have already included in your app, you can either:
  - start from scratch by starting the wizard again and generate the app once more or
  - manually adjust them in your coding. For more information about manually adjusting your code, see step 3 [Modify the Generated Fiori App to Enable Non-Standard Functionality \(Optional\)](#)

## About this guide

This guide provides an overview of the process that generates your own transactional Fiori app. It does not attempt to explain details if they are already documented elsewhere. In this case, it directs you to the existing documentation. However, it does provide details if they are previously undocumented or specific to this process.

This document guides you through the process to generate your own app involving the following steps:

1. [Configure the Backend System](#)
2. [Generate a New Fiori App](#)
3. [Modify the Generated Fiori App to Enable Non-Standard Functionality \(Optional\)](#)
4. [Set Up the ABAP Front-End Server](#)

### Note

Throughout this guide the TM-EM freight unit tracking scenario, **ODT30\_FU** is used as a reference as it is one of the most popular EM scenarios. However, the guide can be applied to any EM scenario, not only those involving TM. In fact, this means that the guide can be used to create a custom Fiori app for any tracking scenario that you have defined in your SAP Event Management system.

More information regarding the **ODT40\_TO** scenario, which is the underlying scenario for the FOV app, can be found in the [Freight Order Visibility scenario guide](#).

# Step 1: Configure the Backend System

## 1-1. Activate the EM OData Service

To activate the EM OData service, *EM\_SRV*, in the **SAP Event Management** backend system, first activate the gateway then configure the system alias.

For more information on the individual steps involved with details, see Customizing under Event Management → Event Messages, Status Queries, Web Interface and EM OData Service → EM OData Service → **Define EM OData Service**.

## 1-2. Configure the EM OData Service

The generated app for the example scenario looks as shown in the following screen shot:

The screenshot displays the SAP Event Management OData service interface. At the top, there are two tabs: "Freight Units (1)" and "Freight Unit Details". The "Freight Unit Details" tab is active, showing the following information:

- Freight Unit ID:** 4100027281
- Route:** EM\_ROTTERDAM\_ST to EM\_MANNHEIM\_ST (2 h)
- Status:** On Time
- Trucking:** EM Trucking D-69190 Walldorf (EM\_CARR\_01)
- Consignee:** EM Consignee Quadrat D-68159 Mannheim (EM\_CONS\_03)
- Block Status:** Not Blocked
- Transp. Status:** In Transit

Below the details, there is a section for "Event Messages(7)". This section contains a table with the following columns: Event Code, Expected Event Date/Time, Actual Event Date/Time, Location, and Reason. Each row also includes an edit icon.

Event Code	Expected Event Date/Time	Actual Event Date/Time	Location	Reason
◆ Scheduling (SCHEDULED)	Jul 8, 2015 1:00:00 PM CET	Jul 10, 2015 9:33:12 AM UTC		
✓ Loading Begin (LOAD_BEGIN)	Jul 10, 2015 3:39:20 PM CET	Jul 10, 2015 12:13:00 PM CET	EM Rotterdam Station (EM_ROTTERDAM_ST)	
✓ Loading End (LOAD_END)	Jul 10, 2015 3:59:20 PM CET	Jul 10, 2015 3:28:00 PM CET	EM Rotterdam Station (EM_ROTTERDAM_ST)	
▲ Arrival at Destination (ARRIV_DEST)	Jul 10, 2015 9:40:00 PM CET		EM Mannheim Station (EM_MANNHEIM_ST)	
▲ Unloading Begin (UNLOAD_BEGIN)	Jul 10, 2015 9:40:00 PM CET		EM Mannheim Station (EM_MANNHEIM_ST)	
▲ Unloading End (UNLOAD_END)	Jul 10, 2015 10:00:00 PM CET		EM Mannheim Station (EM_MANNHEIM_ST)	
✓ Departure (DEPARTURE)	Jul 10, 2015 3:59:20 PM CET	Jul 13, 2015 2:56:00 PM CET	EM Rotterdam Station (EM_ROTTERDAM_ST)	

For every property that is to be displayed or used for selection in the generated Fiori app, a corresponding configured field has to be created.

For properties to be used for:

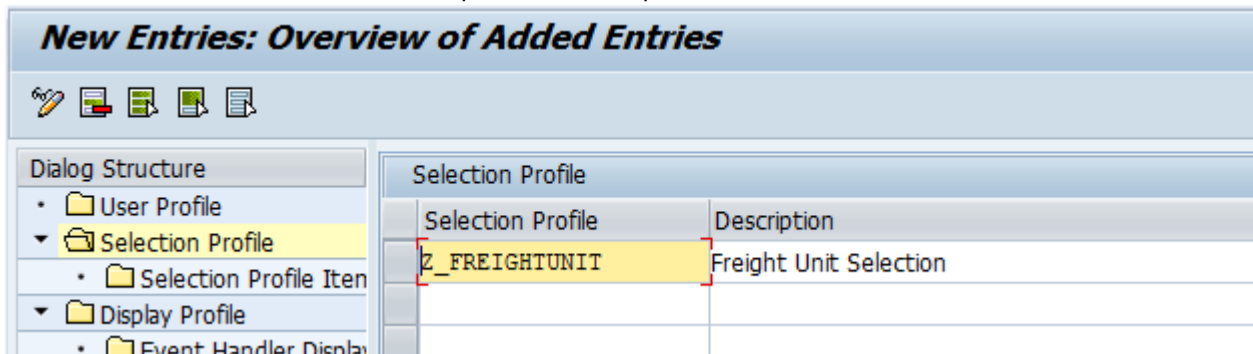
- selection, create a configured field and add the configured field to a new selection profile
- display, create a configured field and add the configured field to a new display profile.

Selection and display profiles need to be assigned to a new user profile.

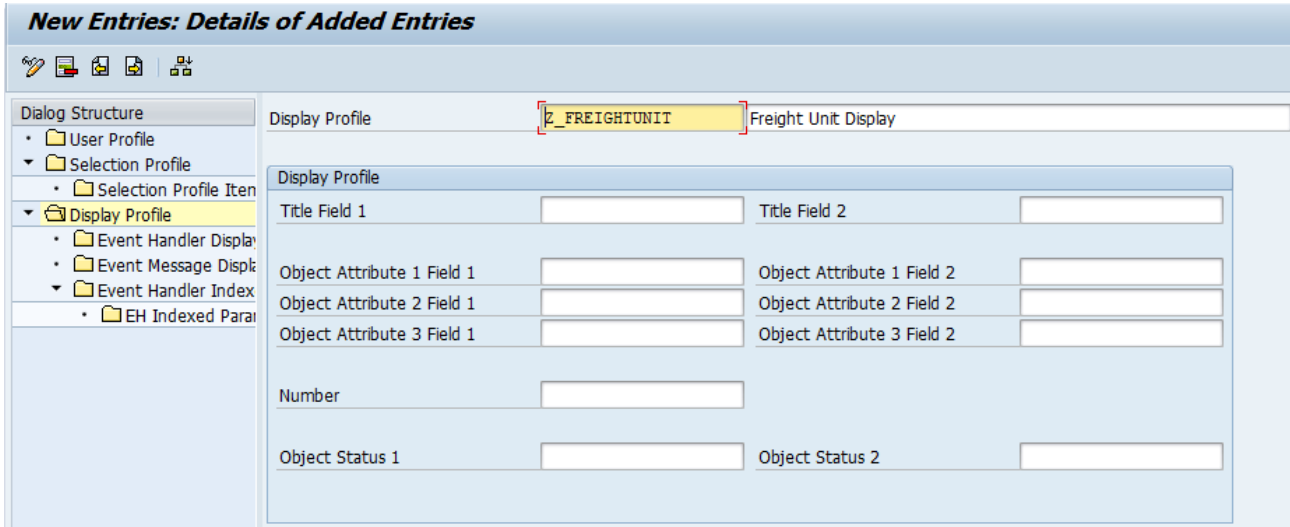
OData specific properties, such as the mandatory external field name, need to be set which means you must create your own configured fields and cannot re-use existing ones from the standard content (without making modifications). However, you can copy a standard configured field and modify the appropriate settings that are relevant for the EM OData service. This is how the configured fields have been created that are used in this example.

Note: Configured fields starting with “Z” have been copied from a standard configured field that is used in the **ODT30\_FU** scenario. Configured fields starting with “ZN” have been created from scratch for the example app.

1. Define selection, display and user profiles as follows:
  - a. Start transaction **/SAPTRX/UCUP5** to create the new profiles
  - b. Create a new selection profile, for example **Z\_FREIGHTUNIT**



- c. Create a new display profile, for example **Z\_FREIGHTUNIT** without adding any further details



- d. Create a new user profile such as **Z\_FREIGHTUNIT** and make the following settings:
  - Select your selection profile
  - Select your display profile
  - Enter the OData ID, which serves as a unique identifier for your scenario (more information is available via F1-help)
  - Select the event handler type used for your scenario



- Set the indicator to disable the profile for now. By doing this your new user profile will have no impact on the EM OData service as long as you are setting it up

The screenshot shows the SAP configuration interface for a User Profile. The 'Dialog Structure' tree on the left is expanded to show 'User Profile'. The main configuration area contains the following fields:

- User Profile: Z\_FREIGHTUNIT
- Selection Profile: Z\_FREIGHTUNIT
- Display Profile: Z\_FREIGHTUNIT
- OData ID: ZFreightUnit
- Ev. Hand. Type: ODT30\_FU
- Disabled Prof. Ind.:

## 2. Define the configured fields for selection

For each property that is to be used for selection in the app, you have to create a configured field. When these configured fields are assigned to the selection profile (next step) one of the following usage types has to be selected, which determines how the selection criteria will be used in the app (for more info see the F1-Help):

- Search Field
- Drill-down/Filter
- Drill-down only

The following examples illustrate what has to be done. You can create configured fields for selection by executing transaction **/SAPTRX/UCCF**.

### a. Selection with the freight unit ID (usage type in selection profile: search field)

A feature you want in the app is to be able to search for specific event handlers by entering a freight unit ID in to the search field. To enable this you have to create a configured field like *Z\_ODT30\_FU\_ID*. It refers to the system parameter *ODT20\_TOR\_ID*, in which the freight unit ID is stored with leading zeros. Therefore the *Leading Zeros Indicator* is set to allow searching without having to enter the leading zeros. On the *OData Service* tab you must enter a unique external field name (see [naming conventions](#)), which will be the property name in the entity type *ZFreightUnitEventHandlerOverview* in the EM OData service later. Since we do not want to use the freight unit ID as a filter, the TAANA related settings can be left empty.



Configured Field

General Data | WebDynpro | OData Service

EM Attribute ID	<input type="text" value="SYST_ODT20_TOR_ID"/>
EM Object	Event Handler
Short Description	<input type="text" value="Freight Unit"/>
Long Description	Freight Unit
Display Length	<input type="text" value="20"/>

Lead. Zeros Ind.

---

Configured Field

General Data | WebDynpro | OData Service

Semantics for Conf. Field	<input type="text" value=""/>
External Field Name	FreightUnitIDFilter
TAANA View	<input type="text" value=""/>
TAANA Variant	<input type="text" value=""/>

- b. Selection with the shipper ID (usage type in selection profile: Drill-down/Filter)  
 The shipper ID (-> system parameter **ODT20\_SHIPPER\_INT**) is one of the parameters we want to have as possible filter categories available in the app. The long description will be used as filter category name in the app.  
 Since the selection field will be used as a usage type Drill-down/Filter in the selection profile, you need to determine how to retrieve the values and descriptions for the value help of the filter control. One option is the usage of TAANA (Table Analysis) to determine all the values that occur for a specific parameter.  
 TAANA must be setup for the parameters to be used and specified for each configured field separately. For information of how to use TAANA and retrieve filter values and filter descriptions, see the document Table Analysis (TAANA) - Usage for Filters in SAP Event Management transactional Applications (Fiori):  
<http://go.sap.com/documents/2016/06/4092ce1b-767c-0010-82c7-eda71af511fa.html>

Configured Field

General Data | WebDynpro | OData Service

EM Attribute ID	<input type="text" value="SYST_ODT20_SHIPPER_INT"/>
EM Object	Event Handler
Short Description	<input type="text" value="Shipper"/>
Long Description	<input type="text" value="Shipper"/>
Display Length	<input type="text" value=""/>

Lead. Zeros Ind.

---

Configured Field

General Data | WebDynpro | OData Service

Semantics for Conf. Field	<input type="text" value=""/>
External Field Name	<input type="text" value="ShipperIDFit"/>
TAANA View	<input type="text" value="/SAPTRX/ODT20"/>
TAANA Variant	<input type="text" value="ZODT_30_COLLECT"/>

- c. Selection with delivery status value (usage type in selection profile: Drill-down/Filter)  
 The delivery status (status type *ODT20\_DELIVERY*) is to be available as filter category as well in the app. The long description will be used again as filter category name in the app. For configured fields that refer to a status type no TAANA related fields are visible. For status types the possible status values are defined already in the customizing. Therefore no further logic like TAANA is necessary, which could be used to determine these values.

Configured Field ZODT20\_STAT\_TOR\_DLVS

General Data WebDynpro OData Service

EM Attribute ID	STATUS_TYPE:ODT20_DELIVERY
EM Object	Event Handler
Short Description	Deliv. Status
Long Description	Delivery Status
Display Length	

Lead. Zeros Ind.

---

Configured Field Dialog Structure ZODT20\_STAT\_TOR\_DLVS

General Data WebDynpro OData Service

Semantics for Conf. Field	
External Field Name	DeliveryStatusFit

- d. Selection of active event handlers (usage type in selection profile: Drill-down only)

The app is to only display active event handlers (EH header field EH\_ACTIVE = 'X'). The corresponding property in the EM OData service *EventHandlersActiveFit* will be selected as a static filter in the wizard to generate the app later. Since we do not want to offer this property as a filter category in the app, we can leave the TAANA related fields empty.

Configured Field **ZODT30\_EH\_ACTIVE**

General Data | WebDynpro | OData Service

EM Attribute ID	EH ACTIVE
EM Object	Event Handler
Short Description	EH Active
Long Description	EH Active
Display Length	<input type="text"/>
<input type="checkbox"/> Lead. Zeros Ind.	

Configured Field **ZODT30\_EH\_ACTIVE**

General Data | WebDynpro | OData Service


Semantics for Conf. Field	<input type="text"/>
External Field Name	EventHandlerIsActiveFlt
TAANA View	<input type="text"/>
TAANA Variant	<input type="text"/>

### 3. Assign configured fields to selection profile

As soon as you have defined all required configured fields for selection you can assign them to your selection profile. For each field you have to select the usage type (refer to the F1 help for further information). For all fields with usage type Drill-down/Filter a collection ID (-> naming convention, F1 help) has to be entered.

In addition to the configured fields from above, some standard fields are used in the example:

- *EXP\_EVENT\_ACT\_DT\_SEL*: Filter category will be available to select event handler with expected events which have actual dates that lie in a specific time range, for example Current Day or Previous Week,...
- *EXP\_EVENT\_ACT\_TZ\_SEL*: Filter category will be available to define the time zone to which the actual dates of *EXP\_EVENT\_ACT\_DT\_SEL* refer to
- *EXP\_EVENT\_CNTRY\_SEL*: Filter category will be available to select event handlers with expected events that refer to specific countries

New entries 


Dialog Structure


- User Profile
- Selection Profile
  - Selection Profile Item
- Display Profile
  - Event Handler Display
  - Event Message Display
  - Event Handler Index
    - EH Indexed Parameter

Selection Profile: Z\_FREIGHTUNIT

Selection Profile Item		
Configured Field	Usage Type	Collection ID
EXP_EVENT_ACT_DT_SEL	Drill-down/Filter	▼ EventDateTimeFilter
EXP_EVENT_ACT_TZ_SEL	Drill-down/Filter	▼ EventTimeZoneFilter
EXP_EVENT_CNTRY_SEL	Drill-down/Filter	▼ EventCountryFilter
ZODT20_STAT_TOR_DLVS	Drill-down/Filter	▼ DeliveryStatusFit
ZODT30_EH_ACTIVE	Drill-down only	▼
Z_ODT30_FU_ID_SEL	Search Field	▼
Z_ODT30_FU_SHIP_SEL	Drill-down/Filter	▼ ShipperFilter

This makes the following filter categories available in the generated app later:

Filter Categories 

Default 

Deliv. Status	>
Expected Event Country	>
Calendar Time Frame	>
Calendar Time Frame Time Zone	>
Shipper	>

Apply Cancel

More information on the BAdI implementation for the ODT40\_TO scenario (BAdI /SAPTRX/BADI\_ODATA\_FO) is available in the [Freight Order Visibility scenario guide](#).

#### 4. Define configured fields for display

Configured fields for display are needed for all the properties that shall be displayed in the several areas of the app which refer to the following entity types of the EM OData service (which will be generated as soon as the user profile is enabled):

- *ZFreightUnitEventHandlerOverview*
- *ZFreightUnitEventHandlerDetails*
- *ZFreightUnitEventMessageOverview*
- *ZFreightUnitEventMessageDetails*
- *ZFreightUnitAssignedFreightOrders*

The following examples illustrate what has to be done. You can create configured fields for display by executing transaction **/SAPTRX/UCCF**.

##### a. Display the freight unit ID

The freight unit ID (system parameter *ODT20\_TOR\_ID*) is definitely one of the attributes that should be displayed in the master area of the app. Again the external field name has to be unique and to comply with the naming conventions (link) and will serve as property name in the OData service.

The image shows two screenshots of the SAP UCCF transaction. The first screenshot shows the 'Configured Field' 'Z\_ODT30\_FU\_ID' with the 'OData Service' tab selected. The 'EM Attribute ID' is 'SYST\_ODT20\_TOR\_ID', 'EM Object' is 'Event Handler', 'Short Description' is 'Freight Unit', and 'Long Description' is 'Freight Unit'. The 'Display Length' is empty. There are checkboxes for 'Lead. Zeros Ind.' (checked) and 'Suppr. Field' (unchecked). The second screenshot shows the same field configuration but with the 'WebDynpro' tab selected. The 'Semantics for Configured Field' is set to 'FreightUnitID' in a dropdown menu. The 'External Field Name' is 'FreightUnitID' and the 'Use Value State' checkbox is unchecked.

##### b. Display the shipper ID with description

To display the shipper of the freight unit in a format like <Shipper description (Shipper ID)> two configured fields have to be defined – one for the description (control parameter

ODT20\_SHIPPER\_DESC) and one for the ID (system parameter ODT20\_SHIPPER\_INT). When generating the app they can be combined to achieve the desired format.

Configured Field `ZN_ODT30_SHIPPERDESC`

General Data | WebDynpro | OData Service

EM Attribute ID	<code>CNTR_ODT20_SHIPPER_DESC</code>
EM Object	Event Handler
Short Description	Shipper
Long Description	Shipper
Display Length	<input type="text"/>

Lead. Zeros Ind.  
 Suppr. Field

Configured Field `ZN_ODT30_SHIPPERDESC`

General Data | WebDynpro | OData Service

Semantics for Configured Field	<input type="text"/>
External Field Name	ShipperDescription

Use Value State

Configured Field `Z_ODT30_FU_SHIPPER`

General Data | WebDynpro | OData Service

EM Attribute ID	<code>SYST_ODT20_SHIPPER_INT</code>
EM Object	Event Handler
Short Description	Shipper
Long Description	Shipper
Display Length	<input type="text"/>

Lead. Zeros Ind.  
 Suppr. Field

Configured Field **Z\_ODT30\_FU\_SHIPPER**

General Data | WebDynpro | OData Service

Semantics for Configured Field [ ]

External Field Name ShipperID

Use Value State

c. Display the current delay in hours

One configured field can be used to display the current delay in hours of a freight unit in the master area. To be able to display this number in a specific color which is determined by the actual delay the indicator *Use Value State* is set. Then a second configured field is needed which will provide the value state. (More info regarding the value state is in [Appendix 2](#)).

Configured Field **ZN\_ODT30\_FU\_DELAY**

General Data | WebDynpro | OData Service

EM Attribute ID INFO\_ZODI30\_CURRENT\_FU\_DELAY

EM Object Event Handler

Short Description Current Delay

Long Description Current Delay

Display Length [ ]

Lead. Zeros Ind.

Suppr. Field

Configured Field **ZN\_ODT30\_FU\_DELAY**

General Data | WebDynpro | OData Service

Semantics for Configured Field [ ]

External Field Name FreightUnitDelay

Use Value State

Configured Field for Value State ZN\_ODT30\_FU\_DELAY\_VS



The semantics of this configured field has to be set to *Value State* and the external field name must end with 'VS' (refer to the [naming conventions](#) in Appendix 2). One possibility to provide the values for these configured fields is to implement method *AFTER\_GET\_DATA\_DISP* of BAdI */SAPTRX/BADI\_EH\_S*. You can check BAdI implementation */SAPTRX/ODATA\_FIORI\_APPS* for reference, which was created for the FOV app. You can find more information regarding this BAdI implementation in the [Freight Order Visibility scenario guide](#).

The image contains two screenshots of the SAP configuration interface for a configured field named `ZN_ODT30_FU_DELAY_VS`.

**Top Screenshot (General Data Tab):**

- EM Attribute ID: `INFO_ZODT30_CURRENT_FU_DELAY_VS`
- EM Object: Event Handler
- Short Description: Delay Value State
- Long Description: Delay Value State
- Display Length: (empty field)
- Lead. Zeros Ind.
- Suppr. Field

**Bottom Screenshot (OData Service Tab):**

- Semantics for Configured Field: Value State
- External Field Name: FreightUnitDelayVS
- Use Value State

d. Display the delivery status

The delivery status (status type *ODT20\_DELIVERY*) is also to be displayed with value state that is with a color code. For configured fields that refer to a status type no additional configured field has to be defined for the value state. For status types the relation between status value and value state can be defined in the status attribute customizing.

Status Attr. Value	Description	Seq.	Icon	Icon Name	Value State
CANCELLED	Cancelled	3			Warning (Yellow)
DELAYED	Delayed	2			Error (Red)
ON_TIME	On Time	1			Success (Green)

A property for the value state is generated automatically into the EM OData service. The property name is generated by concatenating 'VS' to the property name of the related status type.

Configured Field: ZODT20\_STAT\_TOR\_DLV

General Data | WebDynpro | OData Service

EM Attribute ID: STATUS\_TYPE:ODT20\_DELIVERY

EM Object: Event Handler

Short Description: Deliv. Status

Long Description: Delivery Status

Display Length: [ ]

Lead. Zeros Ind.

Suppr. Field

---

Configured Field: ZODT20\_STAT\_TOR\_DLV

General Data | WebDynpro | OData Service

Semantics for Configured Field: [ ]

External Field Name: DeliveryStatusFreightUnit

Use Value State

- e. Display the event status icon  
To display the event status icon, the standard configured field EVENT\_STATUS\_EXTEND has to be used. If you use this field the standard icons are automatically used for the different event status.
- f. Display the expected event date  
For displaying the expected event date the standard configured field EXP\_DATE\_TS can be used. The semantics is set to *Timestamp*, which requires an additional configured field to

provide the related time zone, which is *EXP\_TIMEZONE*. (For more information see [Appendix 2](#)).

Configured Field

General Data | WebDynpro | OData Service

EM Attribute ID	EVENT EXPECTED TIMESTAM
EM Object	Event Message
Short Description	Expected Event Date/Time
Long Description	Expected Event Date/Time
Display Length	<input type="text"/>

Configured Field

General Data | WebDynpro | OData Service

Semantics for Configured Field	Timestamp
External Field Name	EventExpectedDateTime
<input type="checkbox"/> Use Value State	
Configured Field for Timezone	EXP_TIMEZONE

The semantics of configured field *EXP\_TIMEZONE* has to be set to *Timezone*. This configured field has not to be assigned in the display profile, it is automatically taken into account for the generation of the EM OData service since it is referenced by *EXP\_DATE\_TS*.

Configured Field

General Data | WebDynpro | OData Service

EM Attribute ID	EVENT EXPECTED TIMEZONE
EM Object	Event Message
Short Description	Expd Date/Time Time Zone
Long Description	Time Zone for Expected Date/Time
Display Length	<input type="text"/>
<input type="checkbox"/> Lead. Zeros Ind.	
<input type="checkbox"/> Suppr. Field	

Configured Field **EXP\_TIMEZONE**

General Data | WebDynpro | OData Service

Semantics for Configured Field: **Timezone**

External Field Name: **EventExpectedTimeZone**

Use Value State

- g. Display the IDs of the assigned freight orders  
 This is the configured field for the leading indexed parameter to display additional data regarding the assigned freight orders in a table on an additional tab in the app. All values in one table row refer to indexed parameters that have the same index as the leading parameter.

Configured Field **ZN\_ODT30\_ASSIGNED\_FO**

General Data | WebDynpro | OData Service

EM Attribute ID: **CNTR\_ZODT30\_ASSIGNED\_FREIGHT\_ORDER\_ID**

EM Object: **Event Handler**

Short Description: **Freight Order**

Long Description: **Freight Order ID**

Display Length:

Lead. Zeros Ind.

Suppr. Field

Configured Field **ZN\_ODT30\_ASSIGNED\_FO**

General Data | WebDynpro | OData Service

Semantics for Configured Field: **AssignedFreightOrderID**

External Field Name: **AssignedFreightOrderID**

Use Value State

- h. Display the number of assigned freight orders  
 This configured field can be used to provide the number of assigned freight orders. The number will be displayed for the additional tabs to indicate the number of entries. The

semantics has to be set to Number and the external field name has to begin with 'NumberOf' (refer to Appendix 2 for more information regarding [semantics](#) and [naming conventions](#)).

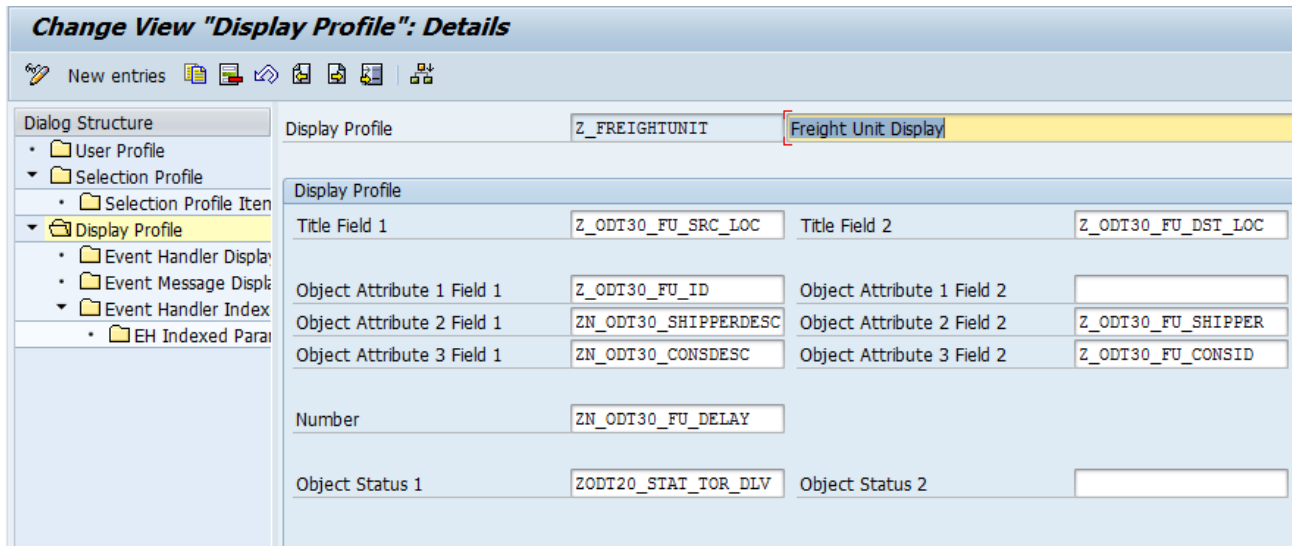
The image shows two screenshots of the SAP configuration interface for a configured field named 'ZN\_ODT30\_NO\_ASS\_FOS'. The top screenshot shows the 'General Data' tab with the following fields: EM Attribute ID (CNTR\_ZODT30\_TO\_NUMBER\_OF\_ASSIGNED\_FOS), EM Object (Event Handler), Short Description (Number of Assigned FOs), Long Description (Number of Assigned Freight Orders), and Display Length (empty). There are also checkboxes for 'Lead. Zeros Ind.' and 'Suppr. Field'. The bottom screenshot shows the 'OData Service' tab with the following fields: Semantics for Configured Field (Number), External Field Name (NumberOfAssignedFreightOrders), and a checkbox for 'Use Value State'.

5. Assign configured fields to display profile

As soon as you have defined all required configured fields for display you can assign them to your display profile as shown in the next screen shots.

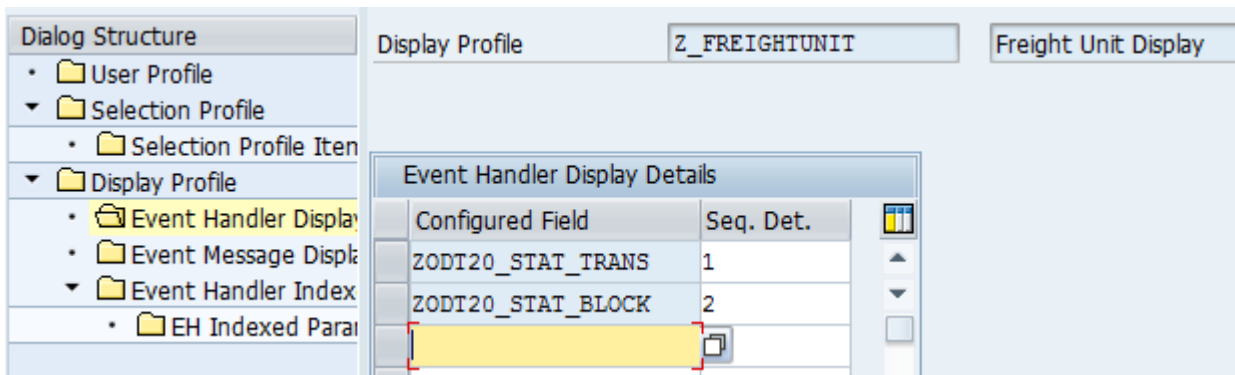
a. Event Handler Overview

The number of fields for the event handler overview is fixed. For the attributes *Number*, *Object Status 1* and *Object Status 2*, the use of the value state concept is supported.



b. Event Handler Details

The number of fields that can be displayed in the event handler details is not limited.



c. Event Message Overview and Details

The fields that are to be displayed in the event message overview or the event message details are defined together in one table.

Dialog Structure		Display Profile	Z_FREIGHTUNIT	Freight Unit Display
• User Profile				
▼ Selection Profile				
• Selection Profile Item				
▼ Display Profile				
• Event Handler Display				
• Event Message Display				
▼ Event Handler Index				
• EH Indexed Parameter				

Event Message Display Details				
Configured Field	Entity Type	Seq. Table	Seq. Det.	
EVENT_CODE	EventMessageOverview and Ev...	90	90	
EVI_DESC	EventMessageOverview and Ev...	1	1	
EVI_LOCATION_DESC	EventMessageOverview and Ev...	2	2	
EVI_LOCATION_ID	EventMessageOverview and Ev...	2	2	
EVI_REASON_TEXT	EventMessageOverview and Ev...	3	3	
EXP_DATE_TS	EventMessageOverview and Ev...	4	4	
MSG_DATE_TS	EventMessageDetails (Detail...		7	
REP_DATE_TS	EventMessageOverview and Ev...	5	5	
EVENT_STATUS_EXTEND	EventMessageOverview and Ev...	91	91	

d. Event Handler Indexed Parameters

For each additional tab that is to be displayed in the app one leading indexed parameter has to be assigned here.

Dialog Structure		Display Profile	Z_FREIGHTUNIT
• User Profile			
▼ Selection Profile			
• Selection Profile Item			
▼ Display Profile			
• Event Handler Display			
• Event Message Display			
▼ Event Handler Index			
• EH Indexed Parameter			

Event Handler Indexed Parameters		
Leading Index Param.	Collection ID	Number
ZN_ODT30_ASSIGNED_FO	AssignedFreightOrder	ZN_ODT30_NO_ASS_FOS

For each leading indexed parameter a list of configured fields that refer to control or info parameters can be assigned.

Dialog Structure		Display Profile	Z_FREIGHTUNIT
• User Profile			
▼ Selection Profile			
• Selection Profile Item			
▼ Display Profile			
• Event Handler Display			
• Event Message Display			
▼ Event Handler Index			
• EH Indexed Parameter			

EH Indexed Parameter Details	
Configured Field	
ZN_ODT30_CARRIER_FO	
ZN_ODT30_LOADING_LOC	
ZN_ODT30_UNLOAD_LOC	

6. Enable the user profile

As soon as you are finished with the customizing of the selection profile and the display profile you can enable the user profile by removing the flag on the indicator *Disabled Prof. Ind..* The next time the EM OData service will be called, it will be regenerated and the new entity types which refer to the new user profile should be available.

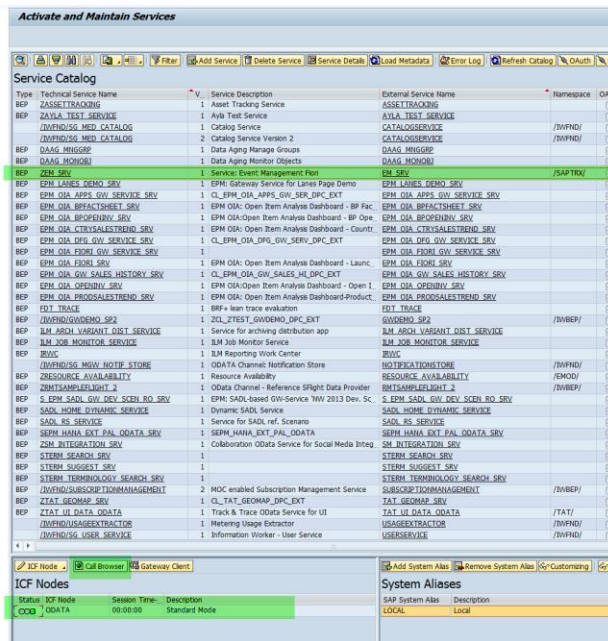
For more information, see:

- Customizing under Event Management → Event Messages, Status Queries, Web Interface and EM OData Service → EM OData Service → **Configure Fields for User Profiles**.
- Customizing under Event Management → Event Messages, Status Queries, Web Interface and EM OData Service → EM OData Service → **Define EM OData Service**
- F1 help on specific fields.

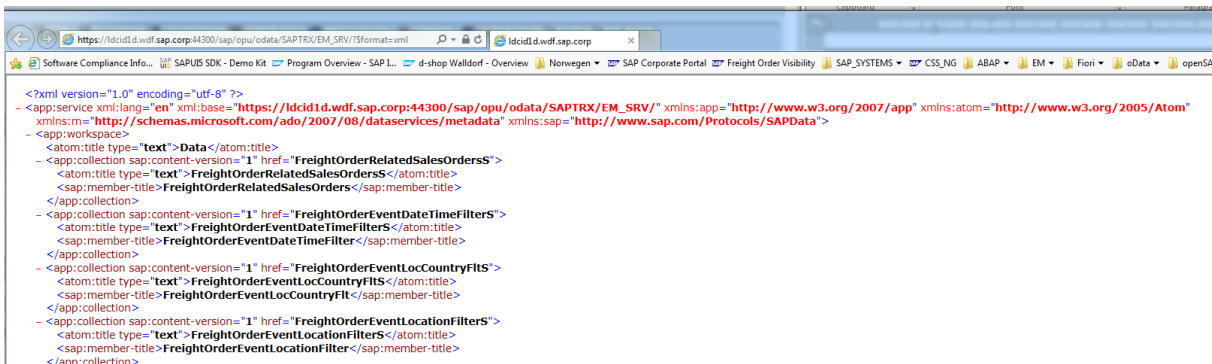
### 1-3. Test the Configuration of the EM OData Service

Once the EM OData service is activated and configured, test its configuration:

- Delete the metadata cache using transaction: **/IWFND/CACHE\_CLEANUP**
- Start transaction: **/iwfnd/maint\_service**
- Double-click: **EM\_SRV**



- In the bottom window, click the *Call Browser* button
- This displays your metadata in the *EM OData* service. Check that it is all present and correct.





# Step 2: Generate a New Fiori App

## 2-1. Setting Up SAP Web IDE and SAP Web IDE Full-Stack

You need a customer account for **SAP Cloud Platform**.

For information on purchasing a customer account, see

<https://help.hana.ondemand.com/help/frameset.htm?a71a081b39e343e097046bf487f57af3.html>.

For general information on **SAP Cloud Platform**, see

<https://help.sap.com/viewer/65de2977205c403bbc107264b8eccf4b/Cloud/en-US/a8d6db47b1714a8d87f043a3546962c9.html>

The **SAP Cloud Platform** account gives you a subscription to **SAP Web IDE** and **SAP Web IDE Full-Stack**. With this subscription you can install any of the available plugins/extensions. Select the tile: *Transactional App for SAP Event Management*.

This starts a wizard that is designed to be easy to use. Initially you need to enter set up info including:

- a project name for your app (this creates a folder inside **SAP Web IDE**, or **SAP Web IDE Full-Stack**, of the same name)
- a data connection to the system that you are to run your Fiori app on, for example your **SAP Event Management** backend system. You need to set up the **Cloud Connector** in the system that you are to run your Fiori app. For more information see:
  - **SAP Cloud Platform Connectivity:**  
<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/e54cc8fbbb571014beb5caaf6aa31280.html>
  - Cloud Connector:  
<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/e6c7616abb5710148cfcf3e75d96d596.html>
  - Download of SAP HANA Cloud Connector: <https://tools.hana.ondemand.com/#cloud>
  - SCN Community for SAP HANA Cloud Platform: <http://developers.sap.com/cloud>
- the name of the OData service, in this case *EM\_SRV*

### Notes

1. While using the wizard, if you need to switch your scenario (OData ID), you have to re-start the wizard.
2. If the backend configuration is changed and the EM OData service is regenerated while using the wizard, you have to re-start the wizard as well.
3. While using the wizard, it is not possible to save your work. Either, you must finish the wizard and generate an app, or if you need to stop before reaching the end, next time you must start the wizard again from the first step.

Once your set up info is entered, the wizard guides you through the remaining steps. You need to provide values that correspond, or point, to the settings that you configured in step 1 in the **SAP Event Management** backend system.

The following table, Table 1, relates some example values entered in the backend system during step 1 to the corresponding entries required in the wizard during step 5, Master List Area.



**Table 1: Example Backend Values from Step 1 with Corresponding Wizard Entries**

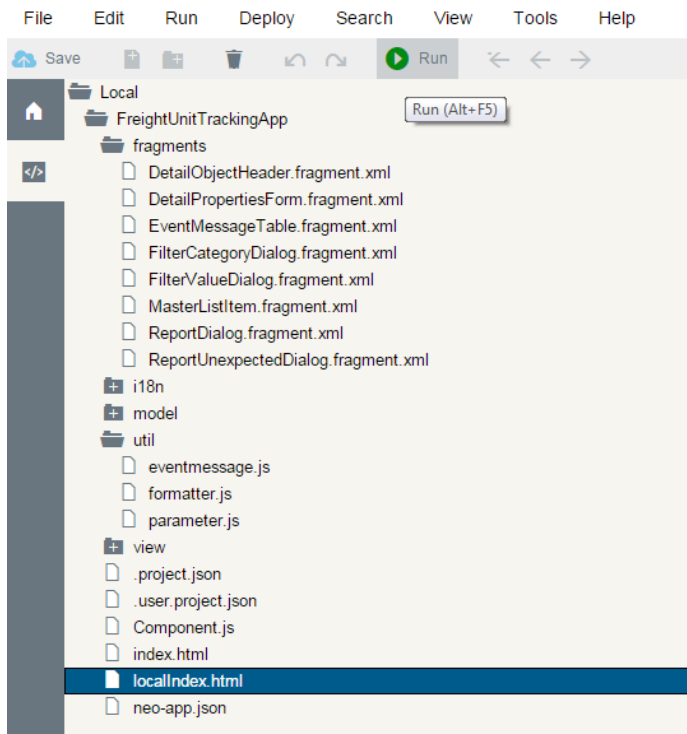
	<b>Example Backend Value (configured field)</b>	<b>Wizard Entry (Step no.) (property name)</b>
Static Filter	ZODT30_EH_ACTIVE	EventHandlersActiveFlt (5-2)
Title Field 1	Z_ODT30_FU_SRC_LOC	SourceLocationID (5-4)
Title Field 2	Z_ODT30_FU_DST_LOC	DestinationLocationID (5-4)
Number	ZN_ODT30_FU_DELAY	FreightUnitDelay (5-4)
Object Attribute 1 Field 1	Z_ODT30_FU_ID	FreightUnitID (5-4a)
Object Attribute 2 Field 1	ZN_ODT30_SHIPPERDESC	ShipperDescription (5-4a)
Object Attribute 2 Field 2	Z_ODT30_FU_SHIPPER	ShipperID (5-4a)
Object Attribute 3 Field 1	ZN_ODT30_CONSDESC	ConsigneeDescription (5-4a)
Object Attribute 3 Field 2	Z_ODT30_FU_CONSID	ConsigneeID (5-4a)
Object Status 1	ZODT20_STAT_TOR_DLV	DeliveryStatus (5-4b)

Key:

- Z or Z\_ prefix indicates a copy of an existing standard configured field
- ZN\_ prefix indicates a new configured field

When you finish the wizard, the coding for the Fiori app is generated.

- You can find the coding in the new project folder (you defined the name in step 2 of the wizard).
- You can directly test the app by executing *Run* for the `localIndex.html`.





## 4. Scenario

NEW PROJECT > 1 Template Selection > 2 Basic Information > 3 Data Connection > **4 Scenario** > Next

### 4 Scenario

Choose the OData ID for the scenario you want to create the app for. The OData ID is configured in the user profile customizing in the backend.

OData ID Choose your OData ID



## 5. Master List Area

### a. Static Filter

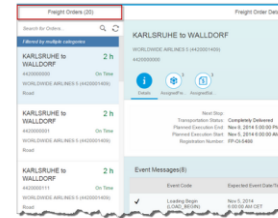
NEW PROJECT > 1 Template Selection > 2 Basic Information > 3 Data Connection > 4 Scenario > **5 Master List Area** > Next

#### 5 Master List Area

In this step you define the heading of the master list, the pre-set filters that cannot be changed by the user interactively (static filters), the standard text displayed in the search field if it is empty and the attributes shown for each entry in the master list.



1. Static Filter Property   
Value



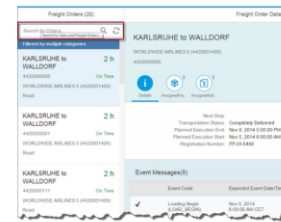
### b. Search

#### 5 Master List Area

In this step you define the heading of the master list, the pre-set filters that cannot be changed by the user interactively (static filters), the standard text displayed in the search field if it is empty and the attributes shown for each entry in the master list.



Search Field Placeholder   
Tooltip



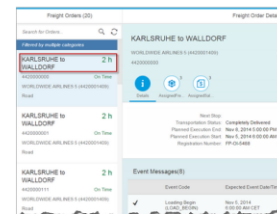
### c. List Item

#### 5 Master List Area

In this step you define the heading of the master list, the pre-set filters that cannot be changed by the user interactively (static filters), the standard text displayed in the search field if it is empty and the attributes shown for each entry in the master list.



Title First Property   
Second Property   
Conjunction   
Number Property   
Value State

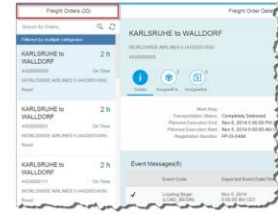


## 5 Master List Area

In this step you define the heading of the master list, the pre-set filters that cannot be changed by the user interactively (static filters), the standard text displayed in the search field if it is empty and the attributes shown for each entry in the master list.



1. Attribute	First Property	FreightUnitID
	Second Property	
	Formatter	
2. Attribute	First Property	ShipperDescription
	Second Property	ShipperID
	Formatter	First (Second)
3. Attribute	First Property	ConsigneeDescription
	Second Property	ConsigneeID
	Formatter	First (Second)

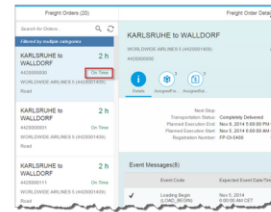


## 5 Master List Area

In this step you define the heading of the master list, the pre-set filters that cannot be changed by the user interactively (static filters), the standard text displayed in the search field if it is empty and the attributes shown for each entry in the master list.



1. Status	Property	FUDeliveryStatus
	Value State	FUDeliveryStatusVS
2. Status	Property	
	Value State	



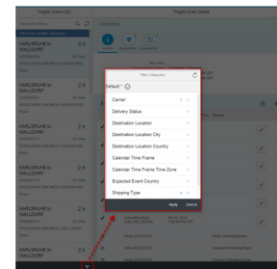
## 6. Filter Dialog

### 6 Filter Dialog

Choose the entity types of the filter categories to be shown in the filter dialog. For each entity type you can define whether selection of single or multiple values is possible.

#### Filter Entity Table

Entity Type	Single / Multi	Add Row	Delete Row
ZFreightUnitDeliveryStatusFIS	Multi		
ZFreightUnitEventCountryFilterS	Multi		
ZFreightUnitEventDateTimeFilterS	Single		
ZFreightUnitEventTimeZoneFilterS	Single		
ZFreightUnitShipperFilterS	Multi		



## 7. Details Area

### 7 Details Area

In this step you define the heading of the detail area, the fields you want to display in the details tab, the columns to be defined in the event message table and if needed, additional tabs.



Add Tab  
Delete Tab



### Properties

First Property	Second Property	Formatter	Label
BlockStatus			First Property
TransportationStatus			First Property

Add Row Delete Row

### 7 Details Area

In this step you define the heading of the detail area, the fields you want to display in the details tab, the columns to be defined in the event message table and if needed, additional tabs.



Add Tab  
Delete Tab



1. Event Message Column	First Property	EventCodeName
	Second Property	EventCode
	Formatter	First (Second)
	Label	Second Property
2. Event Message Column	First Property	EventExpectedDateTime
	Second Property	EventExpectedTimeZone
	Formatter	Date/Time new line TimeZone
	Label	First Property
3. Event Message Column	First Property	EventDateTime
	Second Property	EventTimeZone
	Formatter	Date/Time new line TimeZone
	Label	First Property
4. Event Message Column	First Property	EventLocationName
	Second Property	EventLocation
	Formatter	First (Second)
	Label	Second Property
5. Event Message Column	First Property	EventReasonText

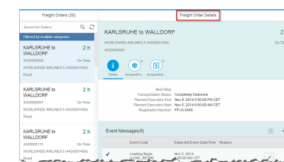
Previous Next

### 7 Details Area

In this step you define the heading of the detail area, the fields you want to display in the details tab, the columns to be defined in the event message table and if needed, additional tabs.



Add Tab  
Delete Tab



Tab Icon	Entity Type	Property
	Tab Icon	ShippingStatus
	Description	Assigned Freight Orders
	Count	NumberOfAssignedFreightOrders
	Tooltip	Assigned Freight Orders
1. Column	First Property	AssignedFreightOrderID
	Second Property	
	Formatter	
	Label	First Property
2. Column	First Property	CarriedFreightOrder
	Second Property	
	Formatter	
	Label	First Property
3. Column	First Property	LoadingLocationOfFreightOrder
	Second Property	
	Formatter	
	Label	First Property
4. Column	First Property	UnloadingLocationOfFreightOrder
	Second Property	
	Formatter	
	Label	

## 8. Reporting Events

### 8 Reporting Events

Choose whether the app supports expected and/or unexpected events. For unexpected events, choose the event code.



#### Event Code

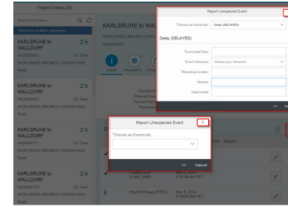
Event Code	Enable
Block for Execution (BLOCK_FOR_EXEC)	<input type="checkbox"/>
Cancel (CANCEL)	<input type="checkbox"/>
Damage (DAMAGE)	<input type="checkbox"/>
Unplanned Event - Delay Freight Line (DELAYED_FU)	<input checked="" type="checkbox"/>
Proof of Delivery (POD)	<input type="checkbox"/>

#### DELAYED\_FU



#### Properties

Property	Required	Label
EventReasonText	<input type="checkbox"/>	



Sequence
Actual Date/Time
Location
EventReasonText

### Tip

In the backend system, no special customizing is needed for event reporting. To see unexpected events, enter them in the Unexpected Events Codes list.

For more information, see [Customizing under Event Management](#) → [Event Handlers and Event Handler Data](#) → [Event Handlers](#) → [Define Event Handler Types](#) → [Unexpected Event Codes](#).

## 9. Event Details Area

### 9 Event Details Area

In this step you define the heading of the event message detail screen and the fields displayed on the screen. Separate sets can be defined for expected or unexpected events.



Title	Field Property	Value State
	EventCodeName	
	EventLocationName	
	First (Second)	
Number	Property	
	Value State	

#### Properties

First Property	Second Property	Formatter	Label
EventCodeName			First Property





9 Event Details Area



Attribute	Value
EventStatus	EventStatus
EventExpectedTime	EventExpectedTime
EventExpectedTimeZone	EventExpectedTimeZone
EventTime	EventTime
EventTimeZone	EventTimeZone
EventReasonText	EventReasonText



Attribute	Property	Value
1. Attribute	First Property	EventStatus
	Second Property	
	Formatter	
2. Attribute	First Property	
	Second Property	
	Formatter	
3. Attribute	First Property	
	Second Property	
	Formatter	

Properties

First Property	Second Property	Formatter	Label
EventExpectedDate/Time	EventExpectedTime/Zone	Date/Time Timezone	First Property
EventDate/Time	EventTime/Zone	Date/Time Timezone	First Property
EventReasonText			First Property



## Step 3: Modify the Generated Fiori App to Enable Non-Standard Functionality (Optional)

This step is optional. You only need it if you want to extend the standard functionality by manually changing the generated coding.

The following two examples of additional features are used in this step of the guide to illustrate how to manipulate the generated coding. These are not the only possibilities, there are no constraints to the changes that you can make in the coding.

### 3-1. Change the Attributes in the Detail area

By default all attributes from the **Masterlistitem** are also displayed in the *Detailarea*. If you want to change that, you must manually adjust the **DetailObjectHeader.fragment.xml**.

- As it is an XML-view, you can delete the attributes by simply clearing the xml tag of the specific attribute you do not want to be displayed.
- To change the attribute value you need to provide the right property included in the *EventHandlerOverview* collection of your *OData-ID*.

### 3-2. Logic to sync two Timezone Comboboxes

Suppose you want to report an unexpected event. You want the user to report the:

- time and the timezone of the event and
- new time and timezone of when you expect the next event.

In most cases the timezone of the event and the timezone of the next event will be the same. To provide this logic, there are two steps:

- In the **ReportUnexpectedDialog.fragment.xml** find the two timezone comboboxes that should be attached to each other. Give them an id and change their press function to your choice.
- In the **Detail.controller.js** write your own function for the press event, call **fnOnTimeZoneChange** and pass the event to it. (It provides the logic to attach the values to the send event message function). When you enter the function, check the id (through the event) of the combobox you're coming from and apply the following logic:  
The value of the first combobox overrides the value of the second one.

# Step 4: Set Up the ABAP Front-End Server

## 4-1. The ABAP Front-End Server

You need to install an ABAP Front-End Server. You can either install it within the **SAP Event Management** backend system or on a separate system. For more information, see SAP Library for Fiori on SAP Help Portal at <http://help.sap.com/fiori> → **System Landscape Required for SAP Fiori**.

There are various set up and configuration tasks required including the following:

- For app implementation information, see SAP Library for Fiori on SAP Help Portal at <http://help.sap.com/fiori> App Implementation Information for SAP Fiori → App Implementation → **App Implementation for Transactional Apps**.
- You need to set up the **SAP Fiori Launchpad**. For more information, see SAP Library for Fiori on SAP Help Portal at <http://help.sap.com/fiori> then Additional Information → **SAP Fiori Launchpad**.
- As part of setting up the **SAP Fiori Launchpad**, you need SICF services for the application resources from the front end system. For more information, see SAP Library for Fiori on SAP Help Portal at <http://help.sap.com/fiori> then Additional Information → SAP Fiori Launchpad → Setting Up the Launchpad → Configuring ICF Nodes → **SICF Services**..
- As part of setting up the **SAP Fiori Launchpad**, you need to set up roles and authorizations. For more information, see SAP Library for Fiori on SAP Help Portal at <http://help.sap.com/fiori> then Additional Information → SAP Fiori Launchpad → Setting Up the Launchpad → **Configuring Authorization Roles**

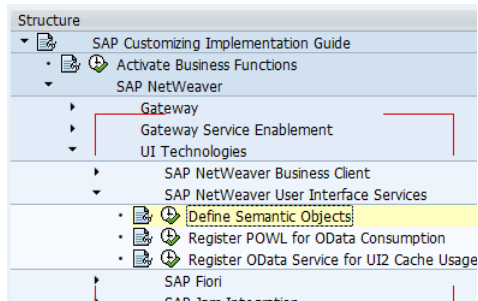
For general information about the Fiori system, see SAP Library for Fiori on SAP Help Portal at <http://help.sap.com/fiori> and check for documentation that is relevant for you such as the following:

- **SAP Fiori Overview**
- System Landscape Required for SAP Fiori → **System Landscape**
- Configuration of SAP Fiori Infrastructure → **Configuration Information**
- App Implementation Information for SAP Fiori → **Implementation Information**.

## 4-2. Define Semantic Objects

To create a tile, you need semantic objects for navigational purposes. In the system you set up as a Fiori gateway, you need to define the semantic objects.

For more information, see Customizing under SAP NetWeaver → UI Technologies → SAP NetWeaver User Interface Services → **Define Semantic Objects**.



### 4-3. Customize Your SAP Fiori Launchpad

Finally, you need to customize your **SAP Fiori Launchpad** to include your generated app.

For more information, see SAP Library for Fiori on SAP Help Portal at <http://help.sap.com/fiori>

➔ Additional Information ➔ **SAP Fiori Launchpad**.

Having gone through all the required steps and completed everything that is relevant for you, you should now be able to use your generated app.

# Appendix 1 Related Documents and SAP Notes

## Related Documents

Document Type	Document Name (Link)
SAP Help for SAP EM 9.2	<a href="http://help.sap.com/em92">http://help.sap.com/em92</a>
SAP Help for SAP Fiori 1.0 for SAP Event Management	<a href="http://help.sap.com/fiori_bs2013/helpdata/en/74/401954990b8a24e10000000a4450e5/frameset.htm">http://help.sap.com/fiori_bs2013/helpdata/en/74/401954990b8a24e10000000a4450e5/frameset.htm</a>
Table Analysis (TAANA) - Usage for Filters in SAP Event Management transactional Applications (Fiori)	<a href="http://go.sap.com/documents/2016/06/4092ce1b-767c-0010-82c7-eda71af511fa.html">http://go.sap.com/documents/2016/06/4092ce1b-767c-0010-82c7-eda71af511fa.html</a>
Freight Order Visibility Scenario (ODT40_TO) for SAP Transportation Management	<a href="http://go.sap.com/documents/2016/05/68791fb4-737c-0010-82c7-eda71af511fa.html">http://go.sap.com/documents/2016/05/68791fb4-737c-0010-82c7-eda71af511fa.html</a>

## Related SAP Notes

SAP Note	Description
<a href="#">2093429</a>	Create your own transactional Fiori app for SAP Event Management 9.2
<a href="#">2143816</a>	Filter values provided by EM OData service are not sorted by default
<a href="#">2144507</a>	OData Service EM_SRV cannot be generated
<a href="#">2162500</a>	EM OData Service: It is not possible use property 'Identifier' as a filter for the filter entity types
<a href="#">2175612</a>	EM OData service EM_SRV cannot be used for Web IDE template 'Transactional App for SAP Event Management'
<a href="#">2181284</a>	Runtime error in /IWCOR/CL_DS_EP_WRITER_XML - property of type Edm.DateTime or Edm.DateTimeOffset
<a href="#">2337317</a>	Calling a generated Fiori app for SAP Event Management from SAP Smart Business for SAP Event Management

# Appendix 2 General Information

## Usage of Specific Semantic Settings for Configured Fields

### Semantics for Configured Fields:

Semantics for configured fields are used to identify specific configured fields in the customizing. Depending on a certain semantic there are particular checks in the backend customizing for example in F4 helps and if configured fields can be assigned in the user profile customizing. In the following sections the most important semantic setting which can be used for generating a Fiori app are explained.

**Note:** When coding a Fiori app it is currently not possible to use the semantics or annotations which are generated in the OData metadata to determine automatically the link between them such as the corresponding valuestate field. Therefore it is necessary to know the property which is generated and address it statically in your coding or when selecting the fields in the template wizard.

### Semantic valuestate

A configured field with semantic valuestate carries information for example in which color the field value should be displayed. Possible values which can be assigned to a valuestate field are:

- 'None' = black
- 'Error' = red
- 'Warning' = yellow
- 'Success' = green.

For a configured field which refers to an EM status attribute, a new property is generated with the suffix 'VS' for valuestate which is then referenced in this property. You use the valuestate information to display the data in a particular color. As a sample configured field you can check *ODT40\_TO\_DEL\_STAT*.

Configured Field	
ODT40_TO_DEL_STAT	
General Data	
EM Attribute ID	STATUS_TYPE:ODT40_TO_DELIVERY
EM Object	EH Event Handler
Short Description	Delivery Status
Long Description	Delivery Status
Display Length	<input type="text"/>

Example:

OData Service metadata:

```
<Property Name="DeliveryStatusVS" Type="Edm.String" MaxLength="30" sap:filterable="false"/>  
<Property Name="DeliveryStatus" Type="Edm.String" MaxLength="80" sap:emMasterField="ObjectStatus1"  
sap:emValueStateProperty="DeliveryStatusVS" sap:label="Delivery Status" sap:filterable="false"/>
```

Event Handler Overview – Master List:

KARLSRUHE to WALLDORF	2 h
4420000000	On Time
WORLDWIDE AIRLINES 5 (4420001409)	
Road	



For configured fields which do not reference an EM status attribute, you must explicitly reference a valuestate field so that the valuestate property is generated in the EM OData service. As a sample configured field you can check *ODT40\_CURRENT\_DELAY*.

Configured Field	
ODT40_CURRENT_DELAY	
General Data   WebDynpro   OData Service	
EM Attribute ID	INFO_ODT40_CURRENT_DELAY
EM Object	EH Event Handler
Short Description	Current Delay
Long Description	Current Delay
Display Length	

Configured Field	
ODT40_CURRENT_DELAY	
General Data   WebDynpro   OData Service	
Semantics for Configured Field	
External Field Name	CurrentDelayInHours
<input checked="" type="checkbox"/> Use Value State	
Configured Field for Value State	ODT40_DELAY_VS

Example:

OData Service metadata:

```
<Property Name="CurrentDelayInHoursVS" Type="Edm.String" MaxLength="30" sap:label="Current Delay Value State"
sap:filterable="false"/>
<Property Name="PlannedExecutionStartTimeZone" Type="Edm.String" MaxLength="6" sap:label="Planned Exec Start Timezone"
sap:filterable="false" sap:semantics="timezone"/>
<Property Name="PlannedExecutionStartDateTime" Type="Edm.DateTimeOffset" Precision="0" sap:emSequence="02"
sap:emTimeZoneProperty="PlannedExecutionStartTimeZone" sap:emValueStateProperty="CurrentDelayInHoursVS" sap:label="Planned
Execution Start" sap:filterable="false" sap:semantics="timestamp"/>
<Property Name="PlannedExecutionEndTimeZone" Type="Edm.String" MaxLength="6" sap:label="Planned Exec End Timezone"
sap:filterable="false" sap:semantics="timezone"/>
```

Event Handler Overview – Master List:

KARLSRUHE to WALLDORF	2 h
4420000000	On Time
WORLDWIDE AIRLINES 5 (4420001409)	
Road	

### Semantic Number

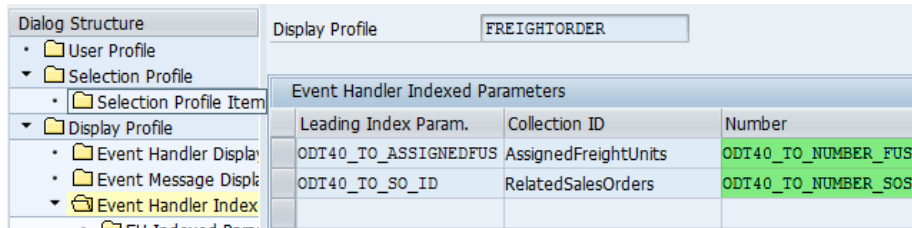
Configured fields with semantics number are intended to be used for the Event Handler Indexed Parameters customizing. You can only assign configured fields with semantics number to the Number field in the user profile customizing. As it is not possible to have multiple values for a single property in an *EntityType* we have to use the indexed parameter concept. Therefore a new *EntityType* is generated which can have repeating lines. Imagine that your transport was based on several sales orders which you want to display. The number of the sales orders is not fixed and is dynamically determined when displaying the object on the



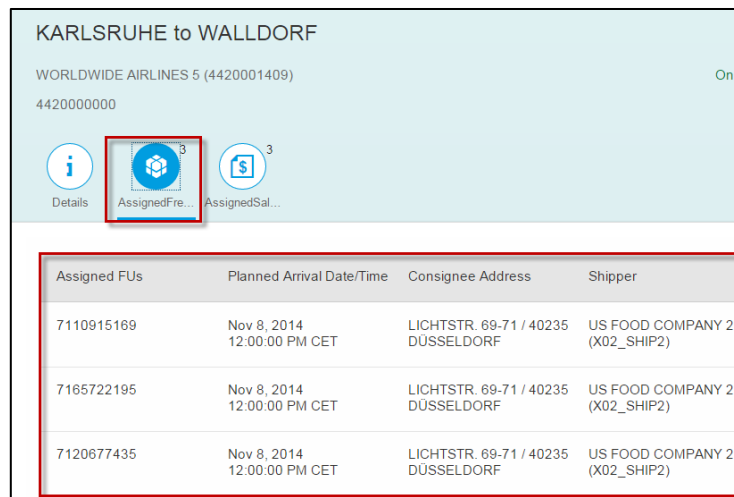
UI. Using the indexed parameter you have the possibility to display repeating information on a separate tab on the UI.

Example:

### Event Handler Indexed Parameters Customizing



Fiori UI Display:



The number field which has the semantic number is used to be display on the tab for which the indexed parameters should be displayed.

This number field is generated into the *Event Handler Overview EntityType*.

```
<Property Name="NumberOfAssignedFreightUnits" Type="Edm.String" MaxLength="60" sap:label="Number of Freight Units"
sap:filterable="false"/>
<Property Name="NumberOfRelatedSalesOrders" Type="Edm.String" MaxLength="60" sap:label="Number of Sales Orders"
sap:filterable="false"/>
```

The reason for this is that the information about how many indexed parameters are available are retrieved from the backend system when retrieving the event handler overview data. The details for the indexed parameter are not pre-loaded, the data is retrieved when selecting the corresponding tab.



## Semantic Timestamp and Timezone

- **Timestamp:** Setting the semantic timestamp activates a new input field for Configured Field for Timezone. Specifying a field for the timezone then generates a new property into the corresponding OData service

Configured Field: ODT40\_TO\_EXEC\_END

General Data | WebDynpro | OData Service

Semantics for Configured Field: timestamp Timestamp

External Field Name: PlannedExecutionEndDateTime

Use Value State

Configured Field for Timezone: ODT40\_TO\_EXEC\_END\_TZ

- **Timezone:** the timezone formats the timestamp field in the timezone which is specified in the timezone field.

Configured Field: ODT40\_TO\_EXEC\_END\_TZ

General Data | WebDynpro | OData Service

Semantics for Configured Field: timezone Timezone

External Field Name: PlannedExecutionEndTimeZone

Use Value State

Example:

```
<Property Name="PlannedExecutionEndTimeZone" Type="Edm.String" MaxLength="6" sap:label="Planned Exec End Timezone"
sap:filterable="false" sap:semantics="timezone"/>
<Property Name="PlannedExecutionEndDateTime" Type="Edm.DateTimeOffset" Precision="0" sap:emSequence="03"
sap:emTimeZoneProperty="PlannedExecutionEndTimeZone" sap:label="Planned Execution End" sap:filterable="false"
sap:semantics="timestamp"/>
```

## Naming Conventions and Restrictions

Before you start configuring the EM OData service we would like to give you some input you might need to consider when establishing your naming conventions in the configured fields and user profile customizing.

### Configured fields

The customizing for the configured fields has been enhanced; beyond the already existing customizing which was intended to be used for the WebDynpro UI a new tab for specific OData settings is now available.

### Configured Fields for Display

#### Naming Convention:

External Field names must be unique for all existing display and selection fields
External Field Names cannot end with <i>Filter</i> and <i>Flt</i>
External Field Names must start with <i>NumberOf</i> for semantic <i>number</i> others can't
External Field Names must end with <i>VS</i> for semantic <i>valuestate</i> others can't
External Field Names can only contain A-Z, a-z, 0-9, _

#### Restrictions:

When setting the semantic to "valuestate" the field is not directly used within any profiles (VS properties are automatically generated) - when the configured field is already used in a profile you cannot change the semantics to "value state"
Changes in external field name may not result in duplicate external field names within one of the profiles - external field names are unique for all configured fields in the system.
You cannot copy an existing configured field and keep the external field name.
Configured fields used in any profile cannot have an empty external field name - when the configured field is already used in a profile you cannot change the external field name to blank

### Configured fields for selection

#### Naming Convention:

External Field names must be unique for all existing display and selection fields
External Field Names must end with <i>Filter</i> and <i>Flt</i>
External Field Names can only contain A-Z, a-z, 0-9, _

#### Restrictions:



Changes in external field name may not result in duplicate external field names within one of the profiles - external field names are unique for all configured fields in the system.

You cannot copy an existing configured field and keep the external field name.

Configured fields used in any profile cannot have an empty external field name - when the configured field is already used in a profile you cannot change the external field name to blank

## User Profile Customizing

### User Profile

#### Naming Convention:

ODataID can only contain A-Z, a-z, 0-9, \_

### Selection Profile - Selection Profile Item

#### Naming Convention:

For Usage Type Drill-down/Filter a Collection ID has to be specified – Collection ID must be unique for the selection profile

For Usage Type Drill-down/Filter a Collection ID has to be specified – Collection ID must end with *Filter* or *Flt*

#### Restrictions:

It is not possible to include fields with blank external field name

It is not possible to include configured fields with identical configured field IDs -> selection, display and index parameter numbers are generated in the EH Overview collection.

Therefore it is also not possible to include fields with an identical ID even if it is a display and selection field

It is not possible to include fields with semantic "valuestate"

### Display Profile

#### Restrictions:

It is not possible to include configured fields with identical configured field IDs -> selection, display and index parameter numbers are generated in the EH Overview collection therefore it is also not possible to include fields with an identical ID even if it is a display and selection field

It is not possible to include fields with semantic "valuestate"

### Event Handler Display Details

#### Restrictions:

It is not possible to include fields with semantic "valuestate"

It is not possible to include fields with blank external field name

## Event Message Display Details

### Restrictions:

It is not possible to include fields with blank external field name

It is not possible to include fields with semantic "valuestate"

It is not possible to include fields with blank external field name

## Event Handler Indexed Parameters

### Naming Convention:

Collection ID must be unique within a display profile

Collection ID can only contain A-Z, a-z, 0-9, \_

Collection ID cannot end with *Filter* or *Flt*

### Restrictions:

It is not possible to include configured fields with identical configure field id -> selection, display and index parameter number are generated in the EH Overview collection therefore it is also not possible to include fields with identical ID even it's a display and selection field

Number field & assigned external field name must be unique for all index parameter collections within one display profile.

It is not possible to include fields with blank external field name

Number field must be specified and the configured field cannot be used twice within a display profile – only fields with semantics number are allowed

It is not possible to include fields with semantic value state

## EH Indexed Parameter Details

### Restrictions:

It is not possible to include fields with blank external field name

It is not possible to include configured fields with identical configured field ids.

Leading Index Parameter in EH Index Parameters and configured fields EH Indexed Parameter Details must be unique as these fields are generated into the same OData Collection.

For example, you cannot use ODT40\_TO\_SO\_ID as leading index parameter and use it again in EH Indexed Parameter Details.

It is not possible to include fields with semantic value state

## Appendix 3 Frequently Asked Questions

For the list of FAQs online see:

<http://go.sap.com/docs/download/2016/06/18abc6ba-757c-0010-82c7-eda71af511fa.pdf>

Q1: Why do I not get my filter values in the filter control in my logon language e.g. for business partners or locations?

A:

1. Check the trusted RFC connection which is used on the Fiori Launchpad system to the EM OData service → /IWFND/MAINT\_SERVICE.  
Search for External Service Name EM\_SRV and check in the System Aliases section the RFC destination. If you use current user make sure the language is not set.
2. Check if the corresponding master data system has been maintained for the EH Type used.

Q2: How do I retrieve further information such as filter IDs, descriptions, sorting and searching?

A: See the documentation for BAdI /SAPTRX/BADI\_ODATA\_FO.

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