PUBLIC

SAP S/4HANA Cloud
Key User Extensibility in Sales

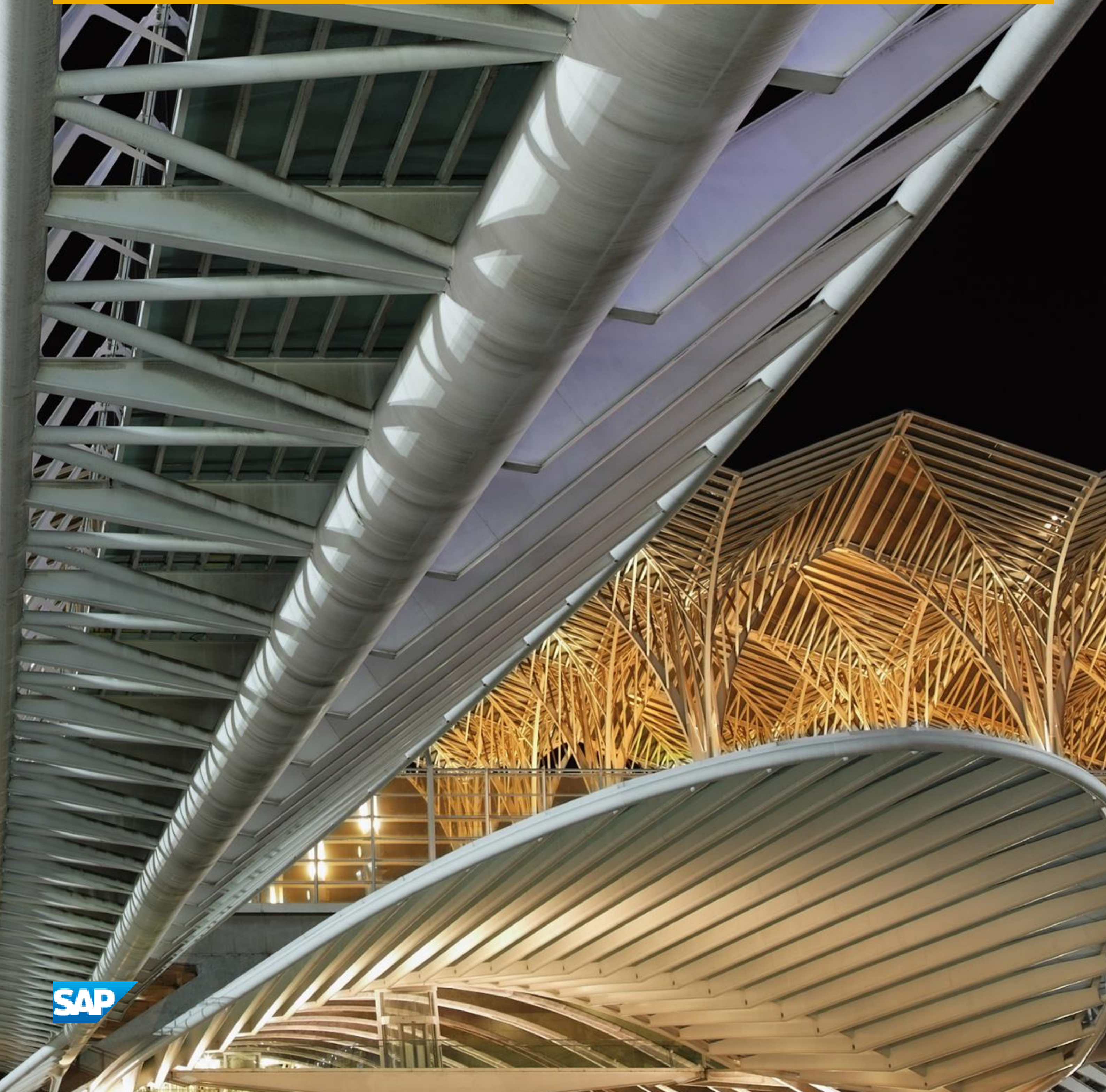


Table of Contents

1 Overview

This document will give you some basic knowledge about how to use key user extensibility for Sales in SAP S/4HANA Cloud so that you can adapt the standard sales processes to your business needs.

Document History

Revision	Date	Change
1.0	2021-07-22	Initial Version

2 Prerequisites

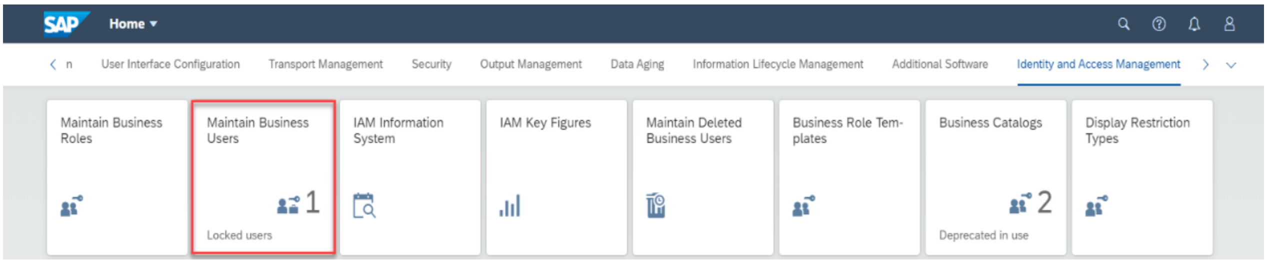
2.1 Business User

First of all, you need to have a business user in the system to set up and execute all the scenarios from this document. To create a business user, you can use the *Import Employees* app.

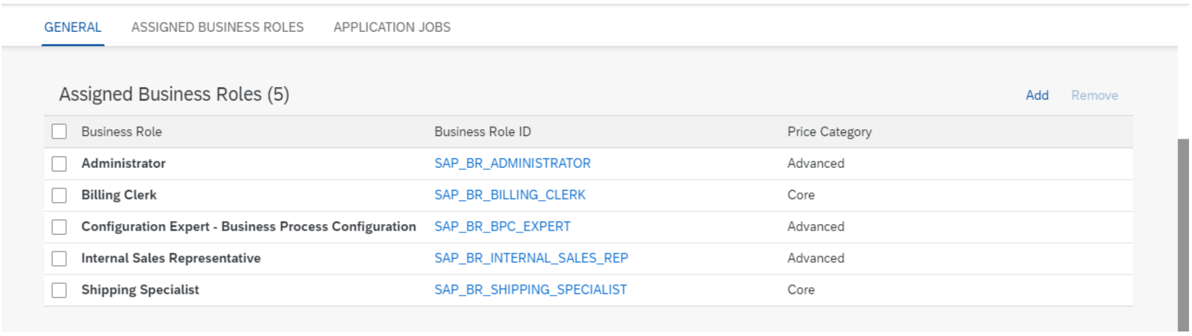
You can find more information about the app here.

2.1.1 Business Roles

For all the scenarios you need to assign specific business roles to your business user. This can be done in the *Maintain Business Users* app. To get access to this application, you need to log on to the system with a user that has a business role assigned that is based on the SAP_BR_ADMINISTRATOR business role template.



In the app, you can select your user and assign the necessary business roles.



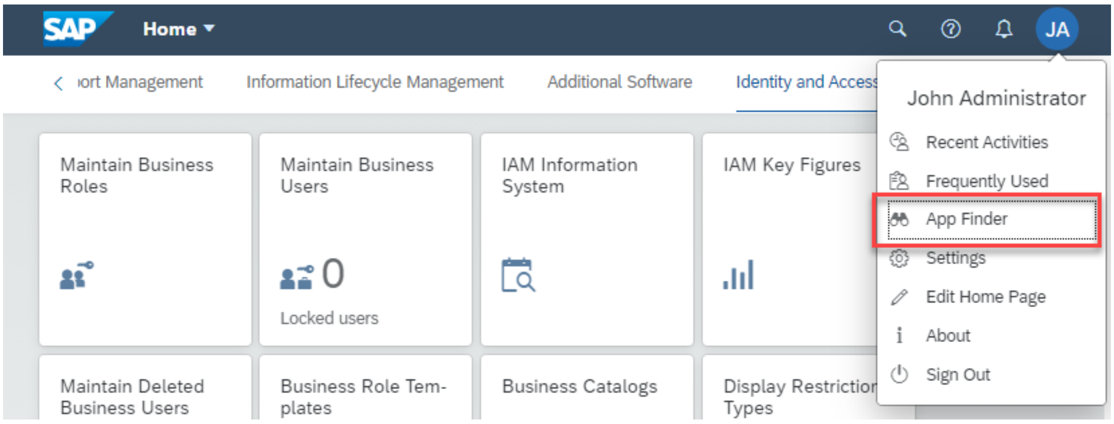
Business Role	Business Role ID	Price Category
Administrator	SAP_BR_ADMINISTRATOR	Advanced
Billing Clerk	SAP_BR_BILLING_CLERK	Core
Configuration Expert - Business Process Configuration	SAP_BR_BPC_EXPERT	Advanced
Internal Sales Representative	SAP_BR_INTERNAL_SALES_REP	Advanced
Shipping Specialist	SAP_BR_SHIPPING_SPECIALIST	Core

Tip: To get access to all the key user tools, the business catalog SAP_CORE_BC_EXT needs to be assigned. By default, this catalog is included in the business role template SAP_BR_ADMINISTRATOR, but you can also create your own role and assign this catalog.

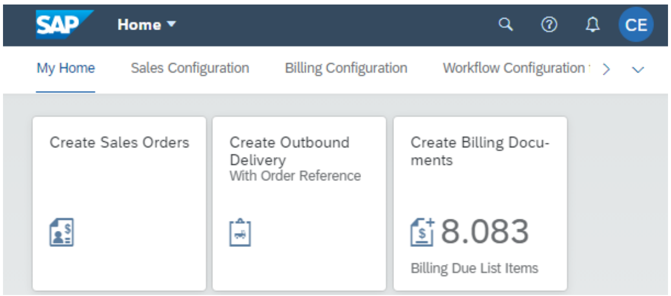
You can find more information about the app here.

2.2 Fiori Apps

Once you have assigned all the business roles for the scenario to your user, you can find all the apps with the app finder:



You can also adjust the SAP Fiori launchpad to better fit your business needs. For example, you can put all the apps for the scenario in your *My Home* group of the SAP Fiori Launchpad:



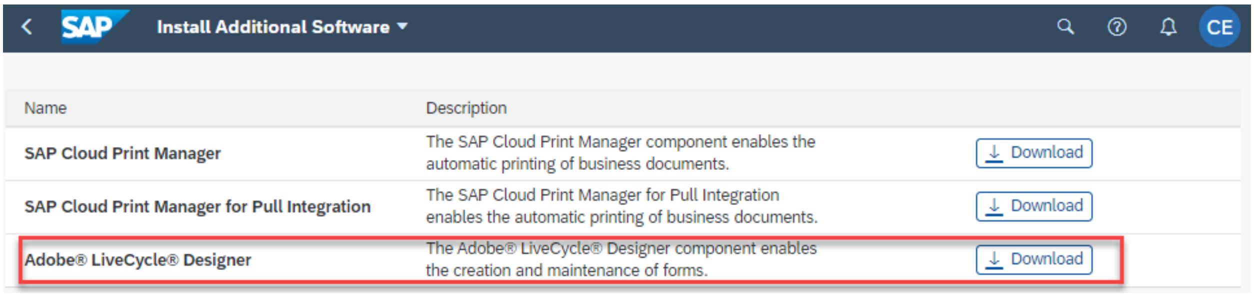
You can find more information about personalizing the launchpad here.

2.3 HTTP Client (optional)

In some scenarios you will use OData or SOAP APIs. You need an HTTP client to send requests. You can find tools online.

2.4 Adobe LiveCycle Designer

In some scenarios, you need to adjust output form templates. This can be done with Adobe LiveCycle Designer. If your business user has a business role assigned that is based on the SAP_BR_ADMINISTRATOR business role template, you can download the software using the *Install Additional Software* app:

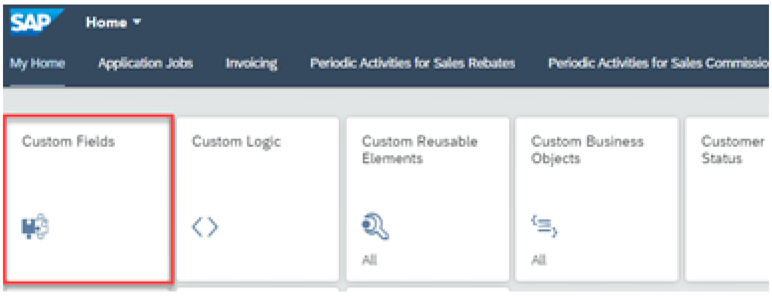


3 Extensibility Basics

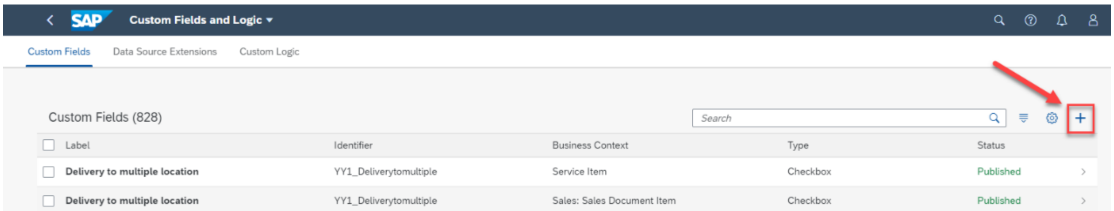
3.1 Custom Fields

3.1.1 How to Create a Custom Field

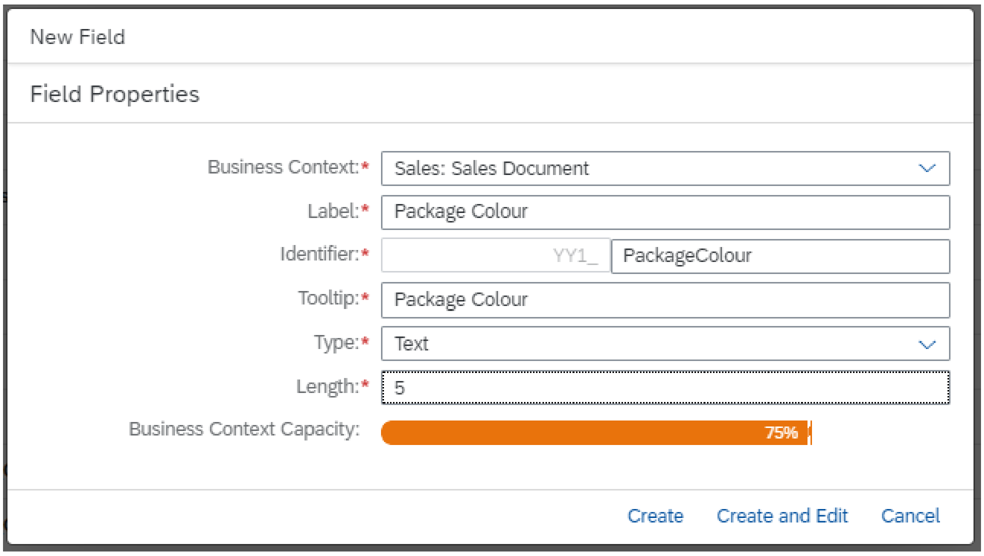
Open the *Custom Fields* app:



Click on the + button:



Define the field properties:



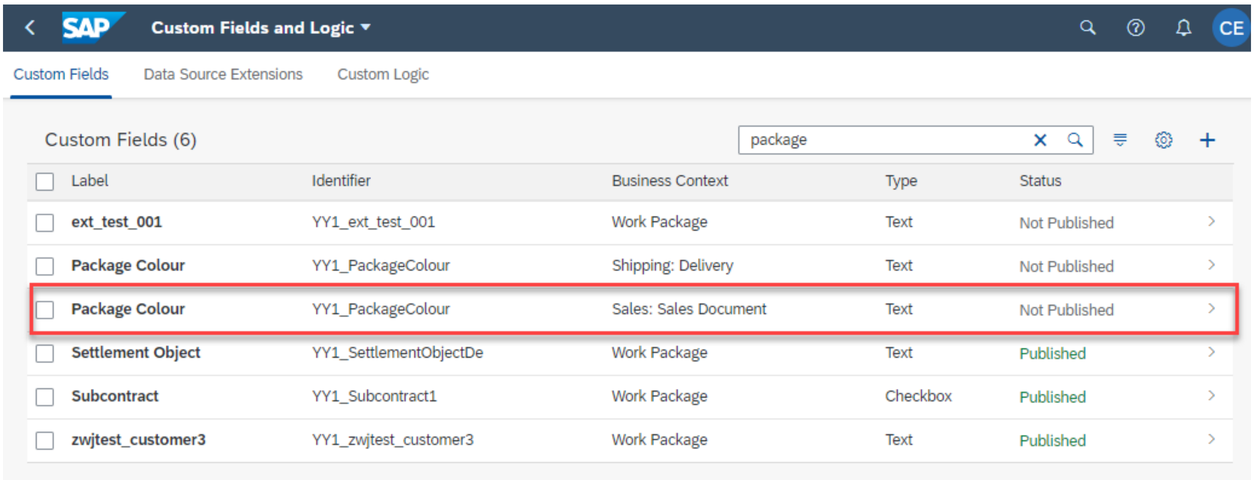
Tip: For sales documents, SAP provides the "Sales: Sales Document" and "Sales: Sales Document Item" business contexts.

You can also find the free business context capacity on this screen. The capacity of a business context in sales documents is limited to 1020 characters and 102 fields.

Choose *Create* to create the custom field in the system.

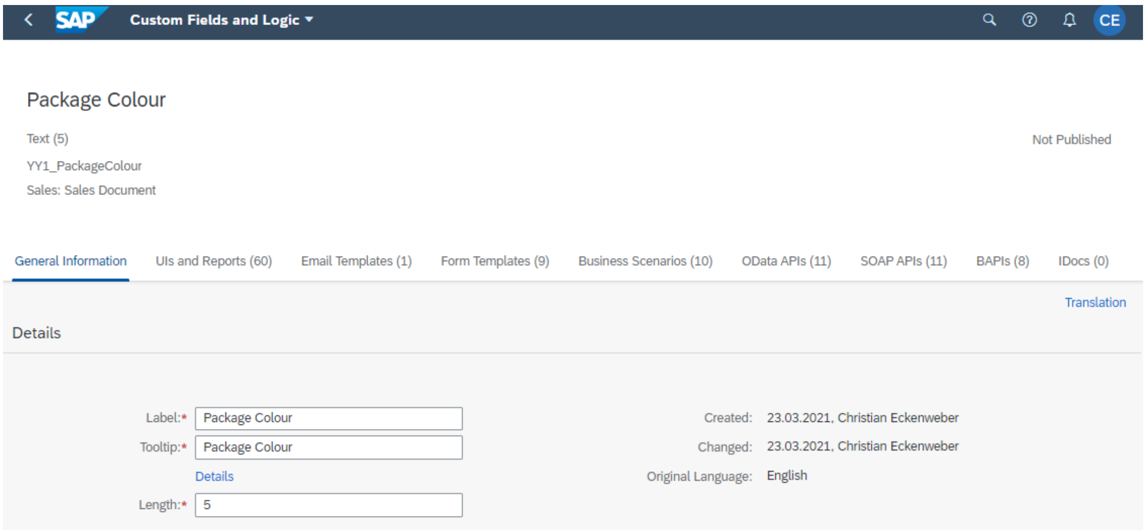
3.1.2 How to Configure a Custom Field

In the list of custom fields, click on the custom field to navigate to the settings of that specific field:



The following sections explain which settings you can make on the single tabs:

General Information



On this tab, you can edit specific information for the custom field, like label, tooltip, length, and also translation.

UIs and Reports

General Information | UIs and Reports (60) | Email Templates (1) | Form Templates (9) | Business Scenarios (10) | OData APIs (11) | SOAP APIs (11) | BAPIs (8) | IDocs (0)

UIs and Reports

Data Source	Description	Visibility Control	Behavior	Search Relevance	Field Usage	
/CPD/SC_PROJ_ENGMT_CREATE_UPD_SRV	Create / Update Commercial Projects				Disabled	Enable Usage
SD_SALESDOC_GUI	Create, Change, or Display Sales Documents (Header)				Disabled	Enable Usage
C_BSORDPROCFLWCRDTMEMOREQ	Credit Memo Request Attributes for Soln Ord Prgrs			☐	Disabled	Enable Usage
SD_F1846_CMR_FS_SRV	Credit Memo Request Object Page			☐	Disabled	Enable Usage
SD_F2187_CUST360_SRV	Customer - 360° View: Credit Memo Requests			☐	Disabled	Enable Usage

On this tab, you can enable the usage of the specific custom field for UIs and reports. If you do not enable the usage, the custom field will not be available in these UIs and reports.

Email Templates:

General Information | UIs and Reports (60) | Email Templates (1) | Form Templates (9) | Business Scenarios (10) | OData APIs (11) | SOAP APIs (11) | BAPIs (8) | IDocs (0)

Email Templates

Description	Field Usage	
Sales Document Default Email Template	Enabled	Disable Usage

On this tab, you can enable the usage for email templates. If you do not enable the usage, the custom field will not be available in these email templates.

Form Templates:

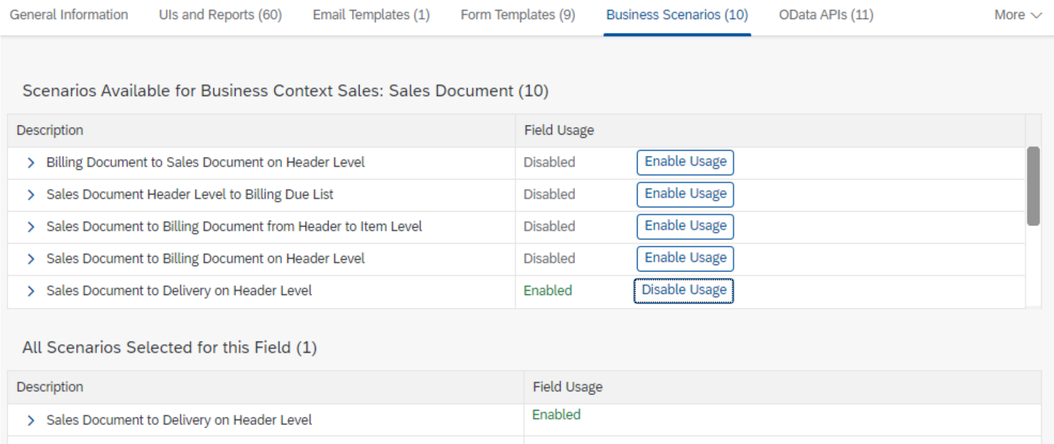
General Information | UIs and Reports (60) | Email Templates (1) | Form Templates (9) | Business Scenarios (10) | OData APIs (11) | SOAP APIs (11) | BAPIs (8) | IDocs (0)

Form Templates

Data Source	Name	Description	Field Usage	
SD_SLS_FDP_V1_CREDITMEMOREQ_SRV	SD_SLS_CREDIT_MEMO_REQUEST	Credit Memo Request PDF Output	Disabled	Enable Usage
SD_SLS_FDP_V1_DEBITMEMOREQ_SRV	SD_SLS_DEBIT_MEMO_REQUEST	Debit Memo Request PDF Output	Disabled	Enable Usage
FDP_V1_ORDER_CONFIRM_SRV	SD_SLS_CASH_SALE	Sales Cash Sale PDF Output	Disabled	Enable Usage

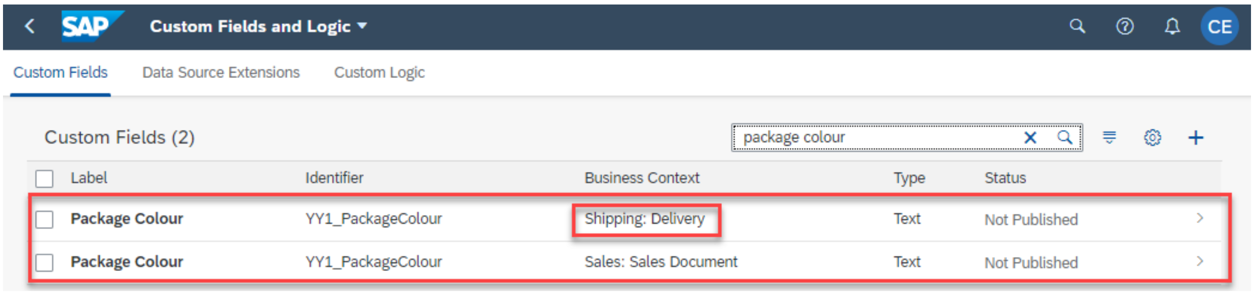
On this tab, you can enable the usage of the specific custom field for form templates. This is necessary if you want to extend your custom forms with your custom fields. If you do not enable the usage, the custom field will not be available in these form templates.

Business Scenarios:



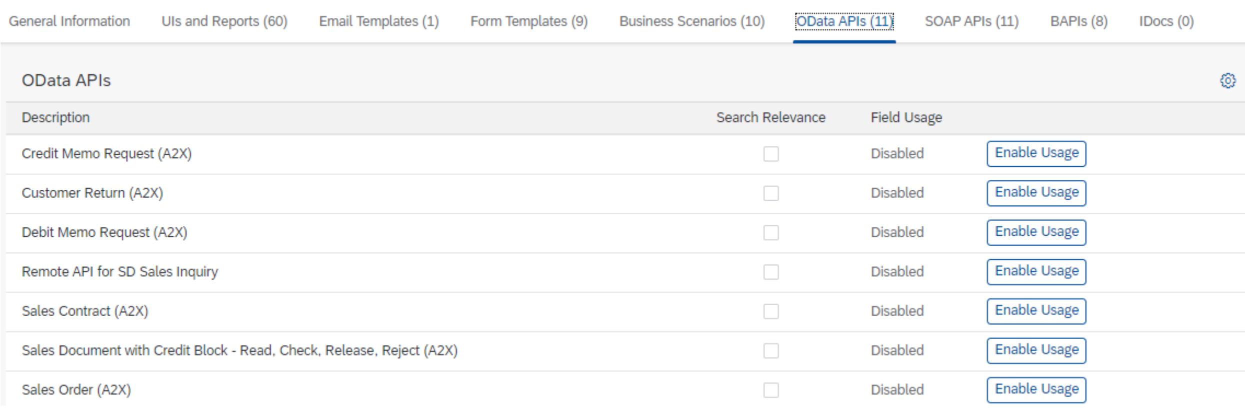
On this tab, you can enable usage of the custom field for specific business scenarios. For instance, if you want the system to automatically copy your custom field from a sales document to a delivery document, you must configure that here.

Tip: If you enable a business scenario (for example, Sales Document to Delivery on Header Level*), a new custom field is created for the* Shipping: Delivery *business context. You can find it in the list of custom fields and you can also configure the field in this business context.*



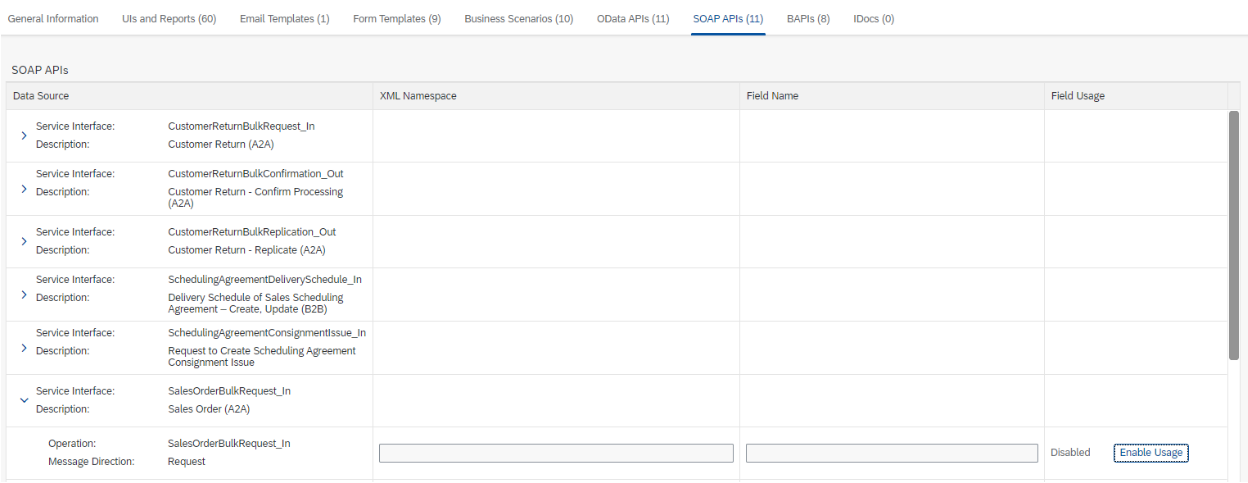
You can find an overview of all available business scenarios for sales documents here.

OData APIs:



On this tab, you can enable usage of the custom field for all the available OData APIs. If you do not enable the usage, the custom field will not be available in these OData APIs.

SOAP APIs



On this tab, you can find and enable all the available SOAP APIs for the custom field.

Save and Publish the custom field

When you are done with your configuration, you must save and publish your custom field. If you do not publish it, it will be not available for the enabled usages. Publishing a custom field can take several minutes.

You can find more information about the *Custom Fields* app here.

3.2 Adapting and Personalizing Apps

You can change an app in two ways:

- Key users can adapt the user interface (UI) for all users of an app (for example, a team lead can add a field that's then available for all team members).
- Business users can display fields that a key user has enabled in the *Custom Fields* app. These fields are included in their personalization options.

3.2.1 Adapting SAP Fiori UIs at Runtime - Key User Adaptation

You can find all the information on how to add a custom field to a Fiori UI here.

Remember: This functionality is only available for key users. When a key user makes changes to the UI, these changes are automatically applied to the app for all business users.

3.2.2 Personalizing Apps

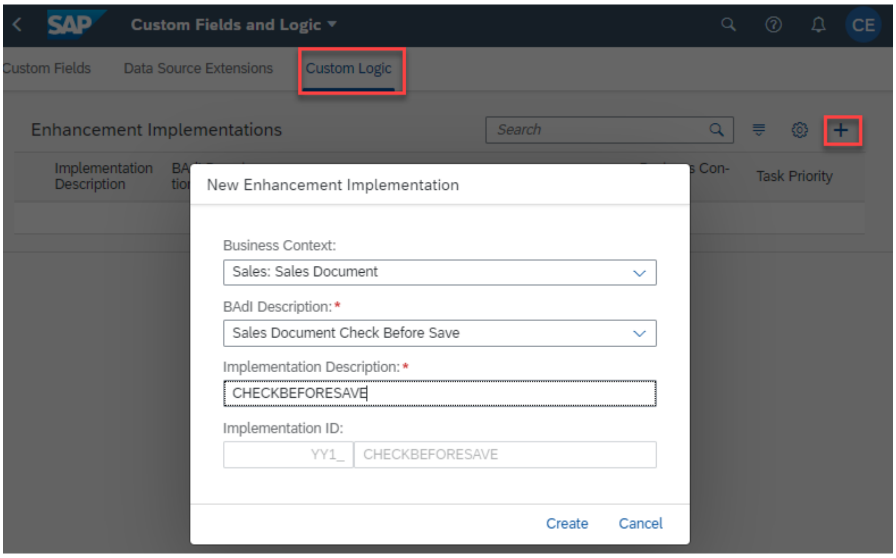
For some UI elements, like filter bars and table columns, you can personalize the settings and save them as a view. If you do so, you can later re-apply the same settings by simply selecting the view.

You can find more information here.

3.3 Business Add-Ins (BAdIs)

If you want to implement a BAdI, you can do this in the *Custom Logic* app.

Click on the + button:



You can find some basic information about how to create BAdI implementations (that is, custom logic) here.

You can find a list of BAdIs for Sales here.

Information: For BAdI implementations, you can use ABAP for Key Users. You can find more information here.

3.3.1 Debugging

You can check if a BAdI gets triggered and if your logic works with the *Custom Logic Tracing* app. You can find more information about the app here.

3.4 Custom Reusable Elements

You can find more information about the *Custom Reusable Elements* app (which you can use, for example, for custom code lists) here.

3.5 Output Forms

For a nice introduction to form management, you can watch the videos *Add Custom Fields to Form Templates for Billing Output (English Only)* provided here.

You can find all information about Sales-specific output management, for example about predelivered templates or how to add custom or standard fields, here.

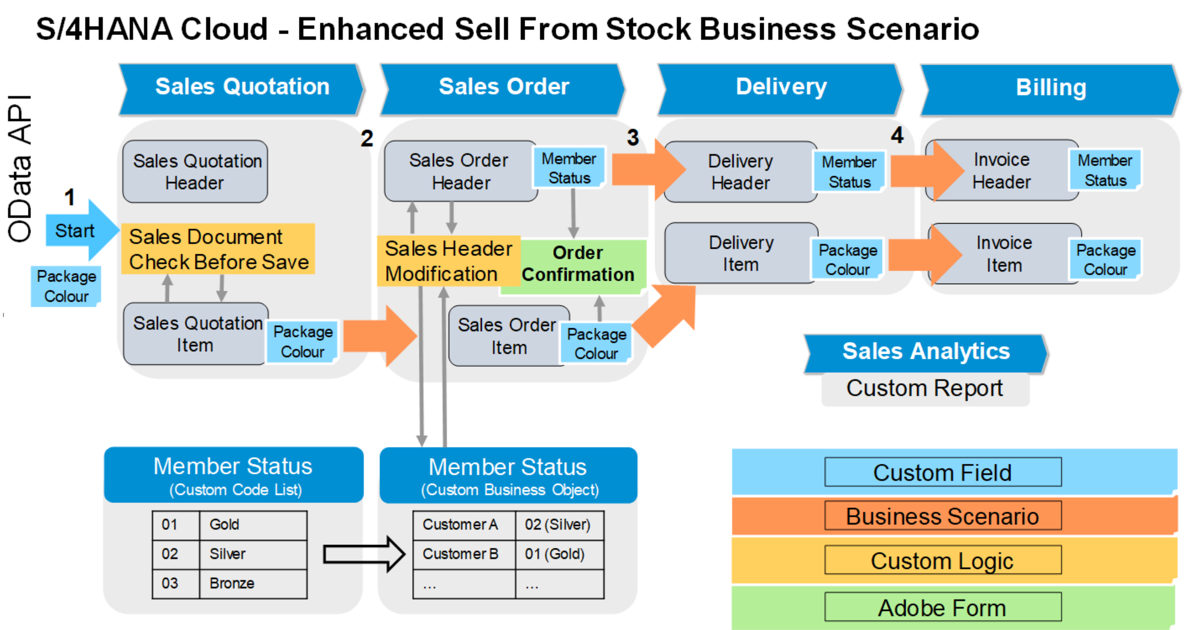
3.6 APIs

You can find all the APIs that are available for SAP S/4HANA Cloud here. For more information about a specific API, check the *Business Documentation* link on the *Details* tab.

4 Example Scenarios

In this chapter, we will provide you with some example scenarios with a step-by-step description on how to implement them in your system. This should give you an overview about the key user extensibility functionalities of SAP S/4HANA Cloud in Sales.

4.1 Enhanced Sell-From-Stock Business Scenario



This scenario should give you an overview about some in-app extensibility features which can be used in the sell-from-stock scenario.

The following in-app extensibility features are used here:

- Custom fields
- Custom logic (BAdIs)
- Business scenarios
- Custom code lists
- Custom business objects
- Custom form templates
- Custom analytical reports

4.1.1 Scenario Description

In this scenario, we start with the creation of a sales quotation using the related OData API *Sales Quotation (A2X)*. In the SAP S/4HANA Cloud system, we continue with the creation of the subsequent sales order, outbound delivery, and billing document, and at the end we will have some custom analytical report.

For this scenario we will define two custom fields.

The first custom field is the package color of the product which is defined on item level. This field needs to be provided using the OData API. To ensure that the field is set, we will also implement the BAdI (custom logic) *Sales Document Check Before Save*. The package color will be copied into all subsequent documents.

The second custom field is for the member status of the customer on header level. We will create a custom business object to maintain the member status for customers. The different values for the status will be defined in a custom code list. The member status will be inserted in the sales order using the BAdI *Sales Header Modification* and it will also be copied into the delivery document and the billing document.

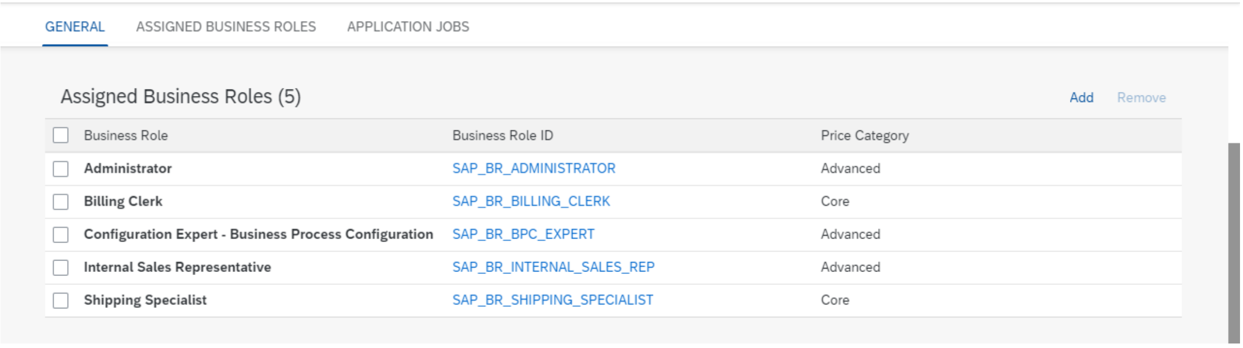
In this scenario, we will also create a custom form template for the order confirmation to print the created custom fields.

4.1.2 Prerequisites and Settings

4.1.2.1 Required Business Roles

For this scenario, business roles that are based on the following business role templates must be assigned to your user:

- SAP_BR_ADMINISTRATOR
- SAP_BR_INTERNAL_SALES_REP
- SAP_BR_BILLING_CLERK
- SAP_BR_SHIPPING_SPECIALIST


GENERAL ASSIGNED BUSINESS ROLES APPLICATION JOBS

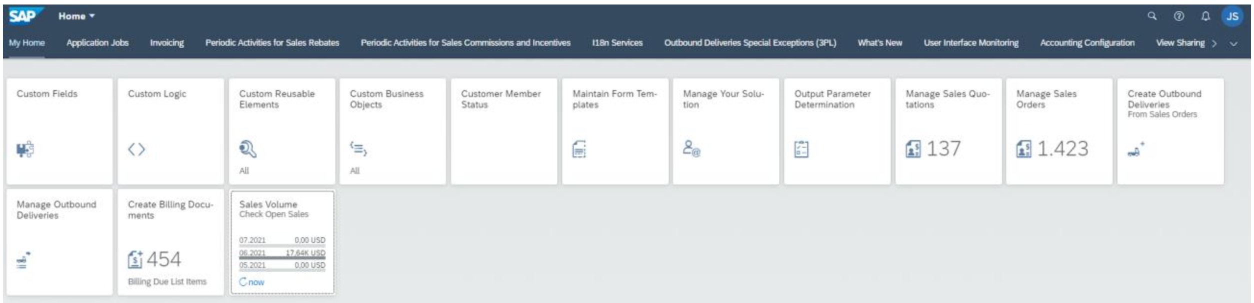
Assigned Business Roles (5) Add Remove

Business Role	Business Role ID	Price Category
Administrator	SAP_BR_ADMINISTRATOR	Advanced
Billing Clerk	SAP_BR_BILLING_CLERK	Core
Configuration Expert - Business Process Configuration	SAP_BR_BPC_EXPERT	Advanced
Internal Sales Representative	SAP_BR_INTERNAL_SALES_REP	Advanced
Shipping Specialist	SAP_BR_SHIPPING_SPECIALIST	Core

4.1.2.2 Required Apps

The following apps are needed for this scenario:

- *Custom Fields*
- *Custom Logic*
- *Custom Reusable Elements*
- *Custom Business Objects*
- *Maintain Form Templates*
- *Output Parameter Determination*
- *Manage Sales Quotations*
- *Manage Sales Orders*
- *Create Outbound Deliveries – From Sales Orders*
- *Manage Outbound Deliveries*
- *Create Billing Documents*
- *Sales Volume - Check Open Sales*



4.1.2.3 Configuration Environment

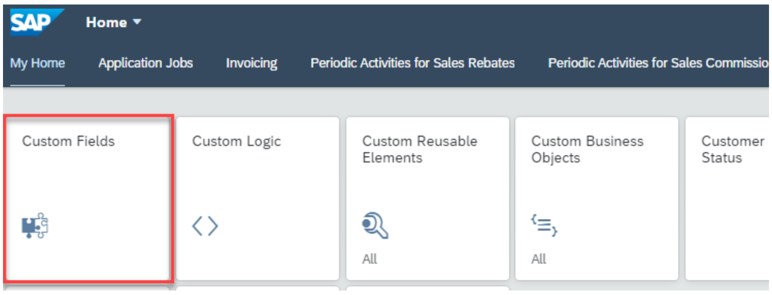
For this scenario you need to have access to your configuration environment. You can find more information about configuration enviroments here. If your system is not connected to SAP Central Business Configuration, you may need in addition business role template SAP_BR_BPC_EXPERT assigned to your user and also *Manage Your Solution* app

4.1.2.4 Custom Fields

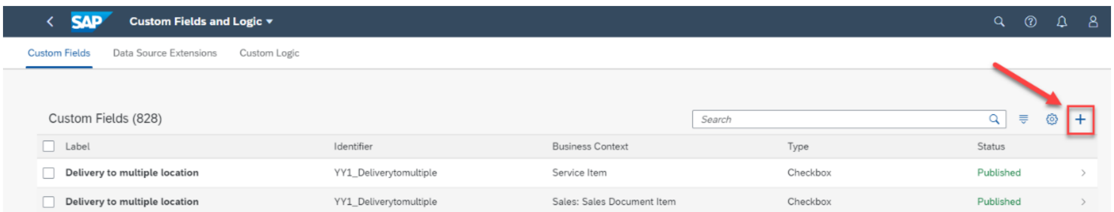
For this scenario, two custom fields are required: the custom field for member status on sales document level and the custom field for package color on sales document item level.

Create Member Status Custom Field

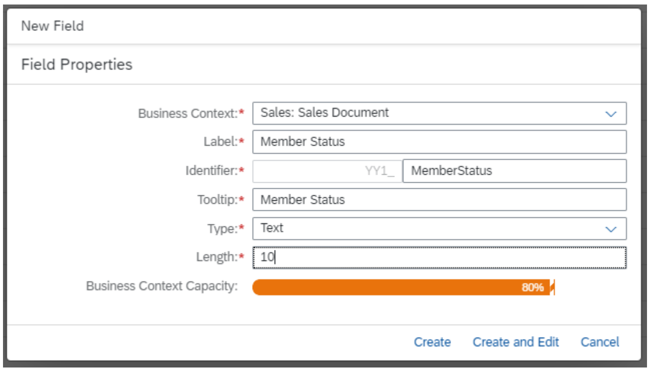
Open the *Custom Fields* app:



Click on the + button to create a new field:



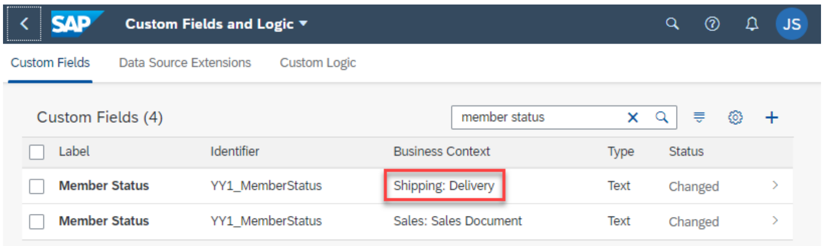
Enter the field properties as below:



To make the field available in the apps and APIs which are used in this scenario, enable the usage for this specific custom field as follows:

- UI and Reports
  - SD_SALESDOC_GUI (*Create, Change, or Display Sales Documents (Header)*)
  - SD_F1873_SO_WL_SRV (*Manage Sales Orders*)
  - C_SALESORDERMANAGE (*Process Sales Orders*)
  - SD_F1814_SO_FS_SRV (*Sales Order Object Page*)
- Form Template
  - FDP_V1_ORDER_CONFIRM_SRV (*Sales Order Confirmation PDF Output*)
- Business Scenarios
  - *Sales Document to Delivery on Header Level*

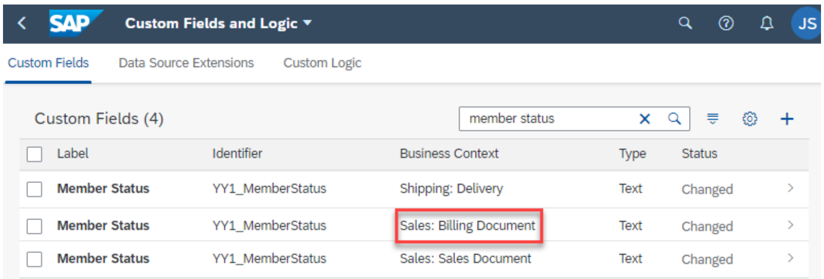
After saving these settings, the custom field will automatically be created also in the *Shipping: Delivery* business context:



Settings for *Shipping: Delivery* business context:

- UI and Reports
  - LE_SHP_OUTBOUND_DELIVERY_FS (*Outbound Delivery*)
- Business Scenarios
  - *Delivery to Billing Document on Header Level*

After saving these settings, the custom field will automatically be created also in the *Sales: Billing Document* business context:



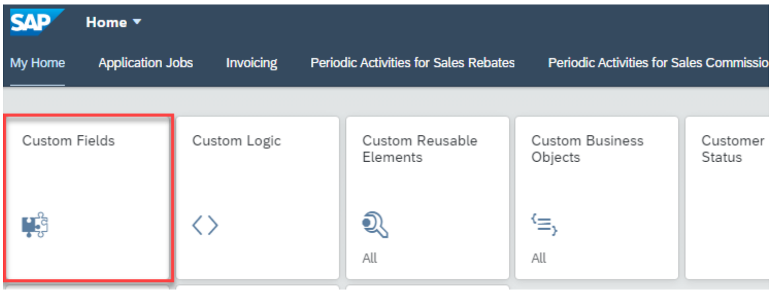
Settings for *Sales: Billing Document* business context:

- UI and Reports
    - SD_CUSTOMER_INVOICES_MANAGE (*Manage Billing Documents*)
    - C_BILLINGDOCUMENTSFS (*Billing Document Object Page*)

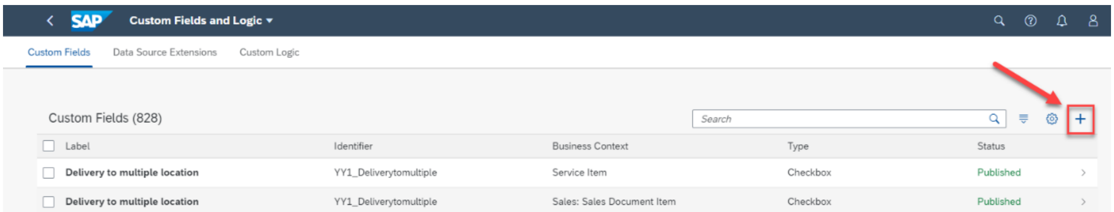
- Save and publish your custom field.

Create Package Color Custom Field

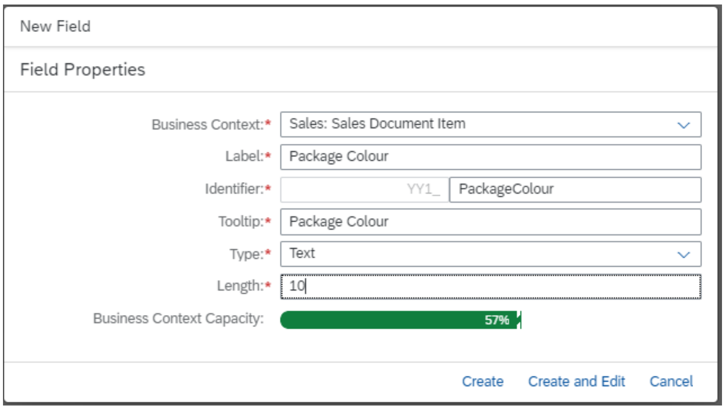
Open the *Custom Fields* app:



Click on the + button to create a new field:



Enter the field properties as below:



To make the field available in the apps and APIs which are used in this scenario, enable the usage for this specific custom field as follows:

- UI and Reports
  - SD_SALESDOCITEM_GUI (*Create, Change, or Display Sales Documents (Item)*)
  - C_SALESORDERITEMMANAGE (Process Sales Orders)
  - SD_F1871_QUOT_FS_SRV (*Sales Quotation Object Page*)
  - C_SALESANALYTICSQRY_1 (*Sales Volume and Open Sales – Query*)
- Form Template
  - FDP_V1_ORDER_CONFIRM_SRV (*Sales Order Confirmation PDF Output*)
- Business Scenarios
  - *Sales Document to Delivery on Header Level*
- OData APIs
  - API_SALES_QUOTATION_SRV (*Sales Quotation (A2X)*)

After saving these settings, the custom field will automatically be created also in the *Shipping: Delivery Item* business context.

Settings for "Shipping: Delivery Item" business context:

- UI and Reports
  - LE_SHP_OUTBOUND_DELIVERY_FS (*Outbound Delivery*)
- Business Scenarios
  - *Delivery to Billing Document on Item Level*

After saving these settings, the custom field will automatically be created also in the *Sales: Billing Document Item* business context.

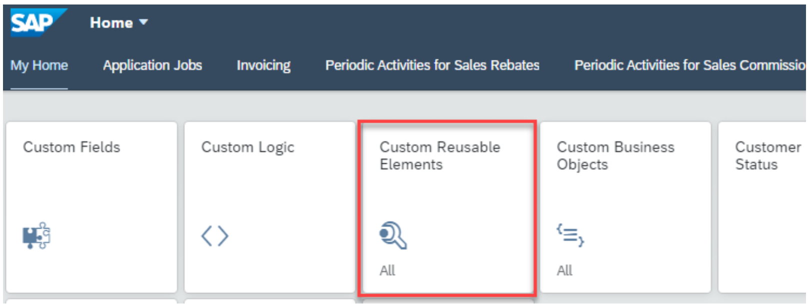
Settings for "Sales: Billing Document Item" business context:

- UI and Reports
  - SD_CUSTOMER_INVOICES_MANAGE (*Manage Billing Documents*)
  - C_BILLINGDOCUMENTITEMFS (*Billing Document Item Object Page*)

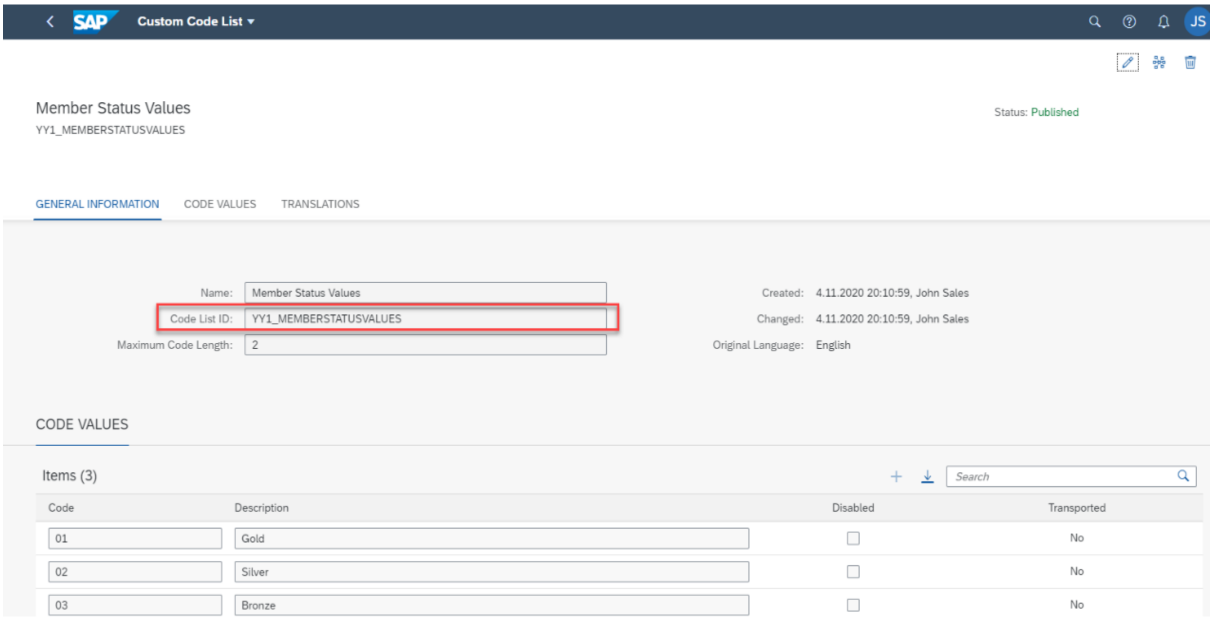
4.1.2.5 Custom Code List

A code list contains a list of values and descriptions and is used, for example, to provide dropdown lists on UIs. In this scenario, we create a custom code list with the available statuses for customers.

Open the *Custom Reusable Elements* app:



Create a new custom code list with the following values:

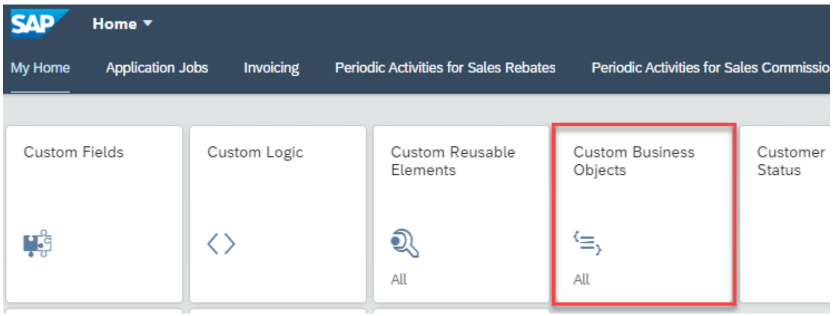


The code list ID will be used in the next section to establish a connection to the custom business objects.

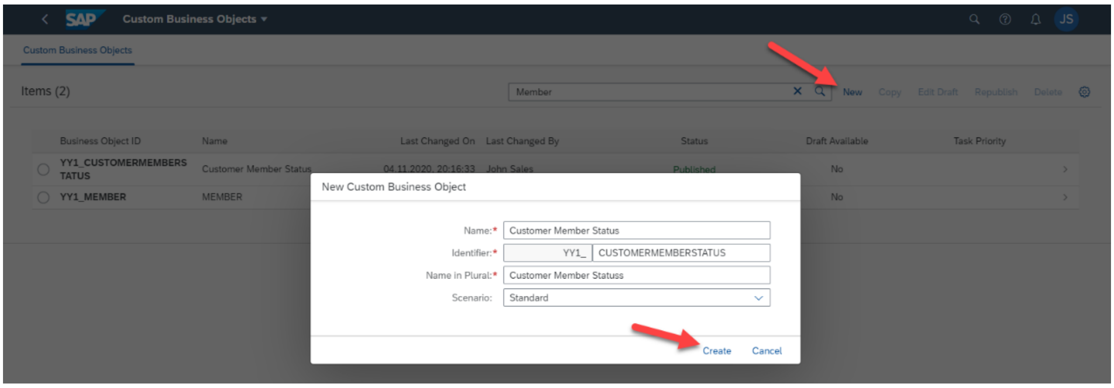
4.1.2.6 Custom Business Object

Custom business objects represent custom tables that are used to store customer-specific information. In this scenario, we create a custom business object to maintain the member status of customers.

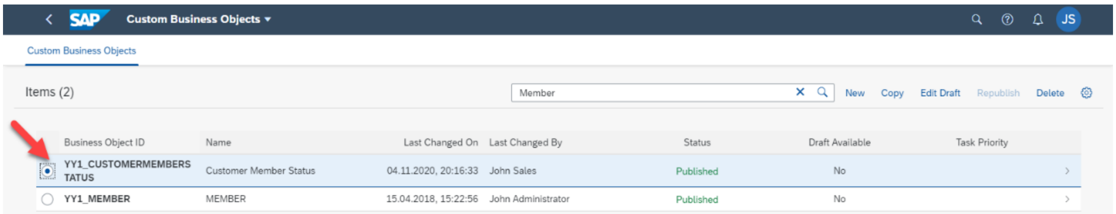
Open the *Custom Business Objects* app:



Create a new custom business object by clicking on *New*:



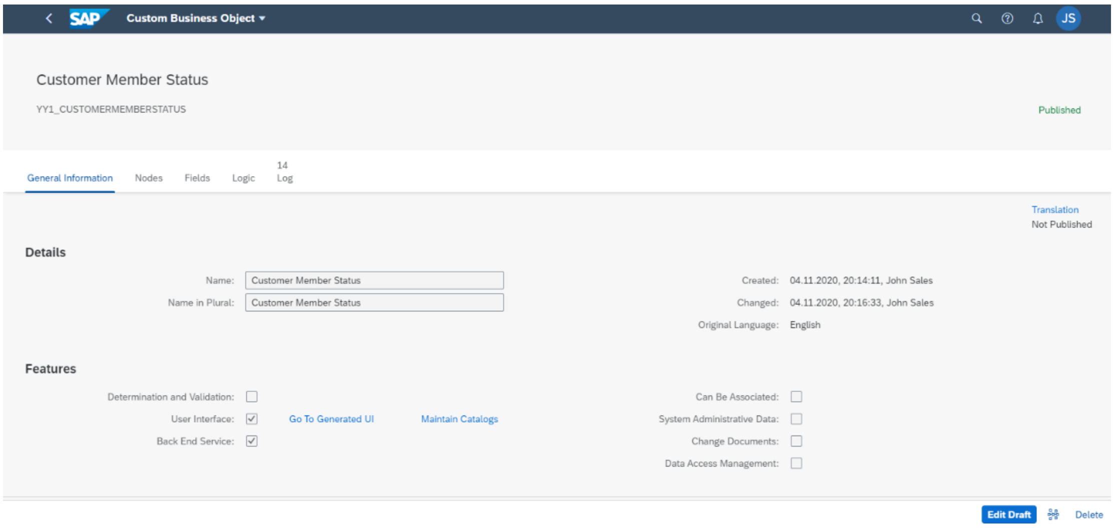
After creation, you can find the custom business object in the items list:



Click on the custom business object to edit the details.

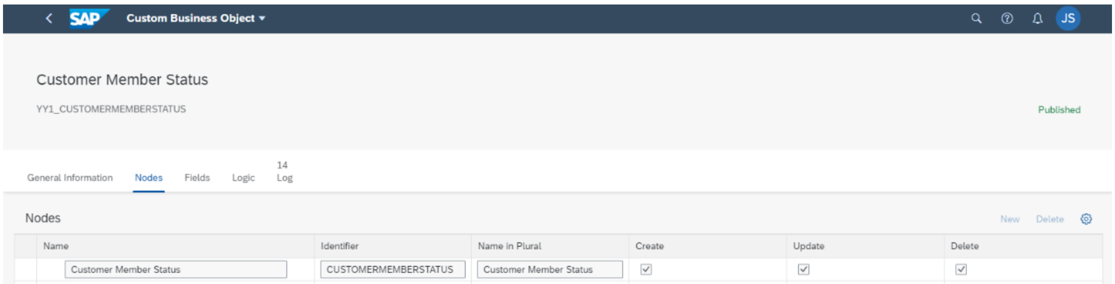
General Information

On this tab, you can see the details and features of the custom business object. For this scenario, we need to select the *User Interface* checkbox which will automatically create a UI for our custom business object.



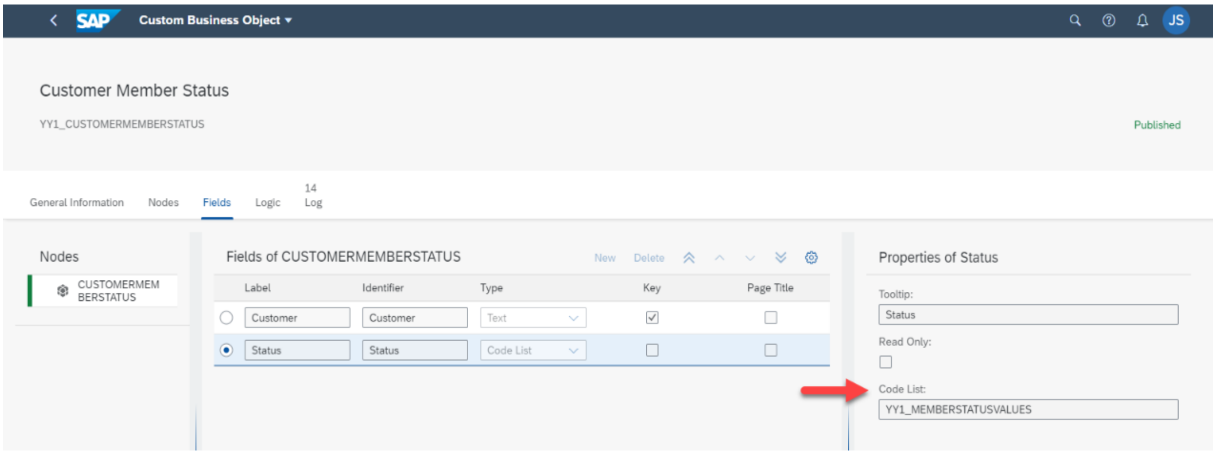
Nodes

In this scenario, we use only one node. In principle, it is possible to have multiple nodes in a business object.



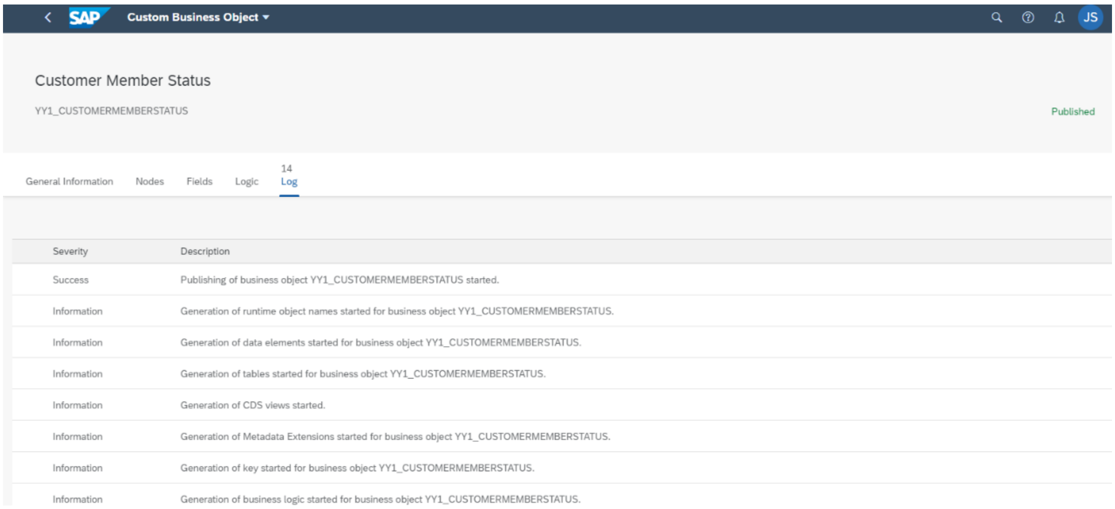
Fields

On this tab, you define the fields of the custom business object and assign the data types. For example, we use the previously created YY1_MEMBERSTATUSVALUES as code list for the field status.



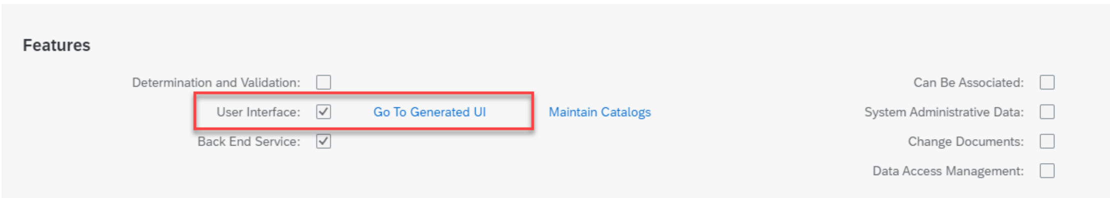
Log

On this tab, you can check the steps for generating the new customer business object.

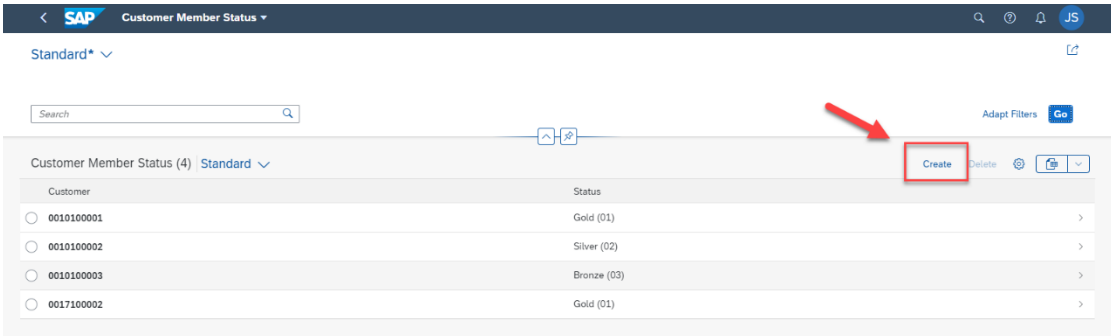


Maintain CBO entries

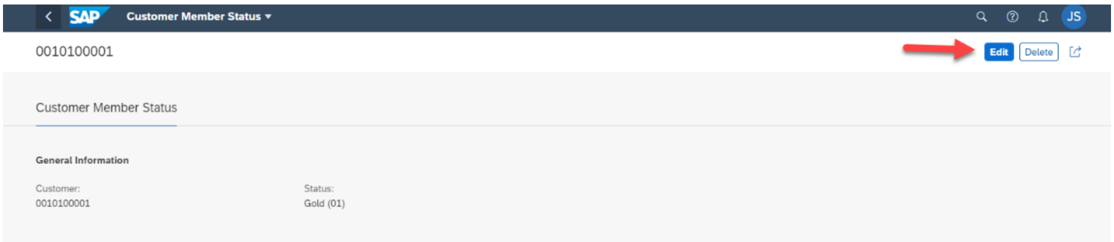
After saving, you will find a link to the generated UI on the *General* tab of the custom business object:



On the newly generated UI, you can maintain records for your custom business object:



You can also edit the existing entries:

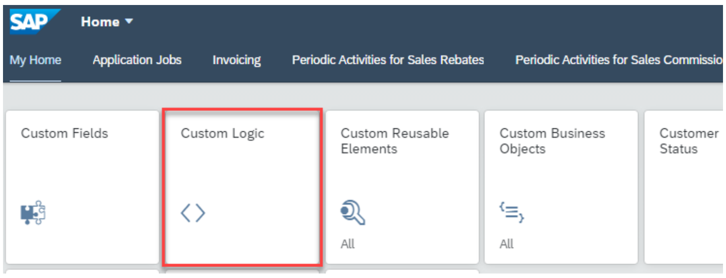


4.1.2.7 Create BAdI implementations

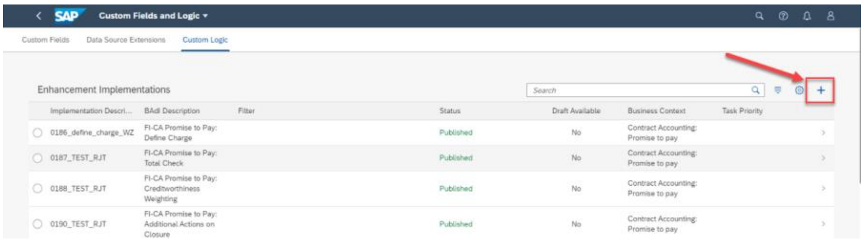
Sales Document Check Before Save

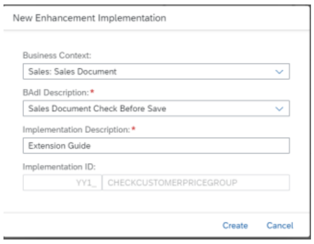
This BAdI implementation is used to make the custom field *Package Color* a mandatory field in a sales quotation. If there is no value maintained for the package color, an error message should be raised which prevents the document from being saved.

Open the *Custom Logic* app:



Create a new implementation of the BAdI.





Tip: It is not allowed to have multiple implementations of the Sales Document Check Before Save *BAdI. In case there already is an implementation, you need to add the code to the existing coding.*

Create a draft version and copy/paste the example implementation from below:

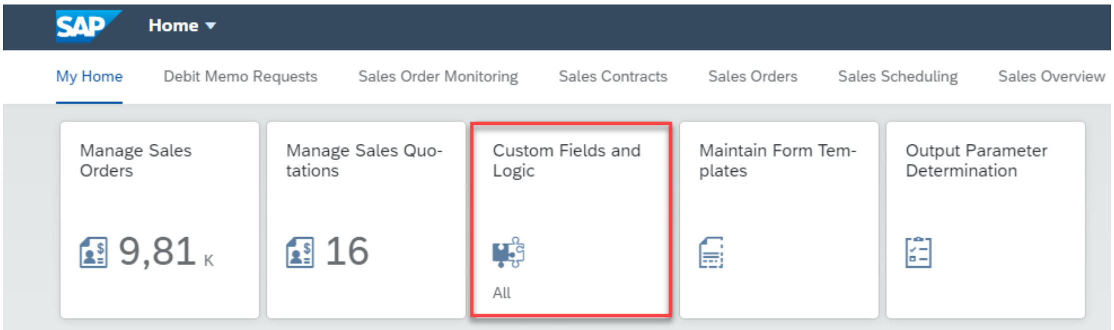
```
if salesdocument-salesdocumenttype = 'AG' and salesdocument-purchaseorderbycustomer = 'Sales Demo'.
    loop at salesdocumentitems_extension into data(ls_item).
      if ls_item-yy1_packagecolour_sdi is initial.
          append value #(  messagetype = 'E' messagetext = 'Document cannot be saved. Please maintain a package color for each item.' ) to messages.
      endif.
    endloop.
endif.
```

Save your draft and publish the custom logic.

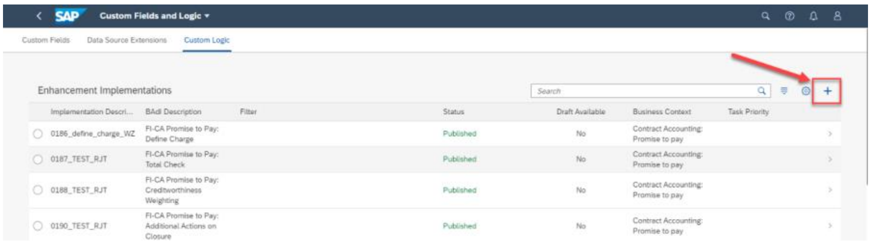
Sales Header Modification

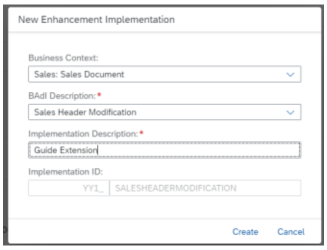
This BAdI implementation is used to read the member status of the customer and populate the custom field *Member Status* in the sales order header.

Open the *Custom Logic* app:

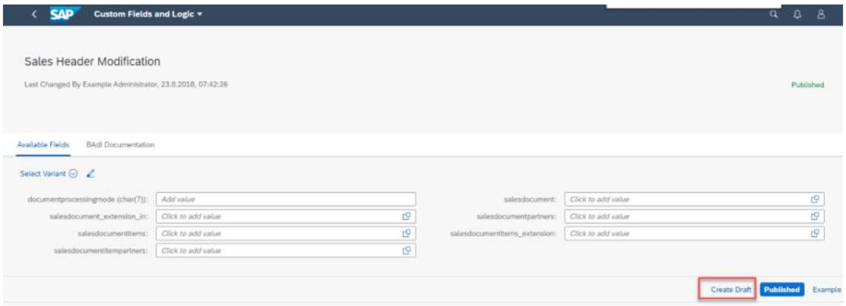


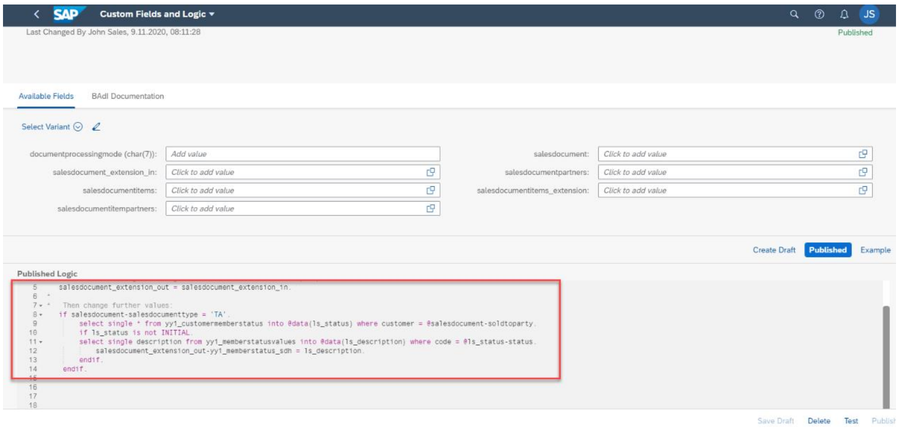
Create a new implementation or, in case there already is an implementation, adjust the existing one:





Create a draft version and copy/paste the example implementation from below:





Example Implementation:

```
salesdocument_extension_out = salesdocument_extension_in.
if salesdocument-salesdocumenttype = 'TA'.
   select single * from yy1_customermemberstatus into @data(ls_status) where customer = @salesdocument-soldtoparty.
   if ls_status is not INITIAL.
        select single description from yy1_memberstatusvalues into @data(ls_description) where code = @ls_status-status.
     salesdocument_extension_out-yy1_memberstatus_sdh = ls_description.
   endif.
 endif.
```

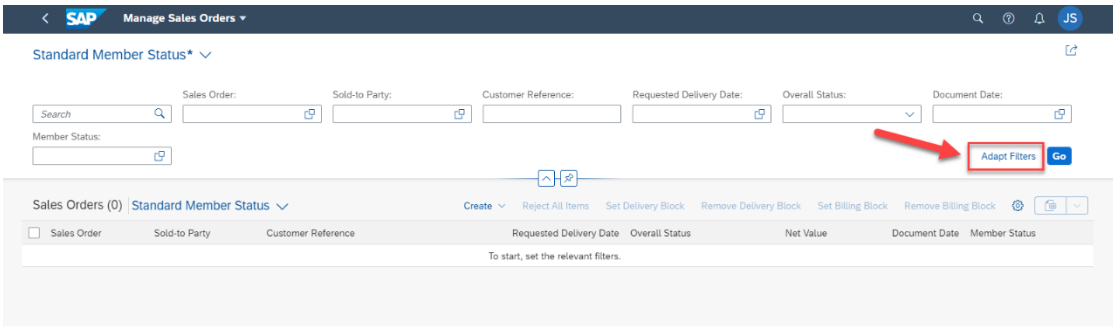
Save your draft and publish the custom logic.

4.1.2.8 Adjust UIs

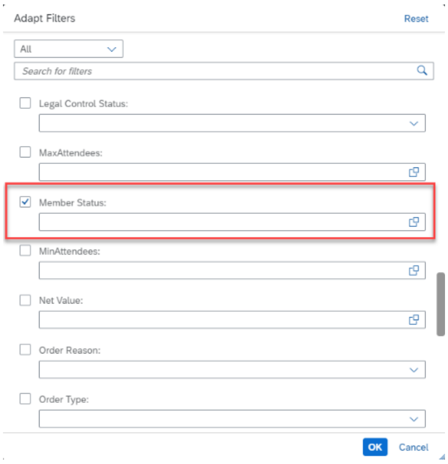
We use a lot of UIs in this example. In this section, we focus on adjusting the sales order apps. The other apps for delivery and billing need to be adjusted accordingly.

Manage Sales Orders App

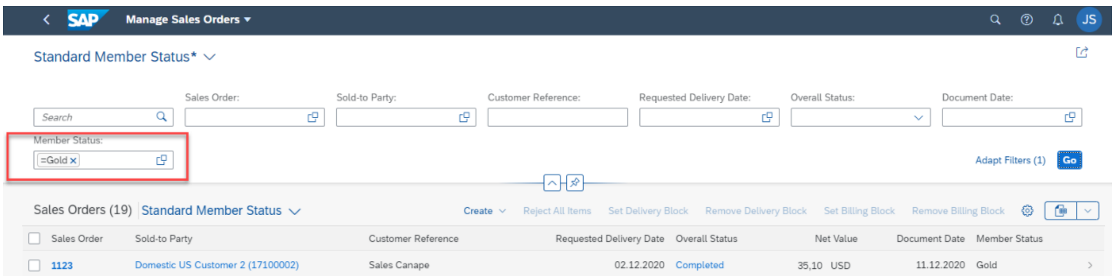
Open the *Manage Sales Orders* app and click on *Adapt Filters*:



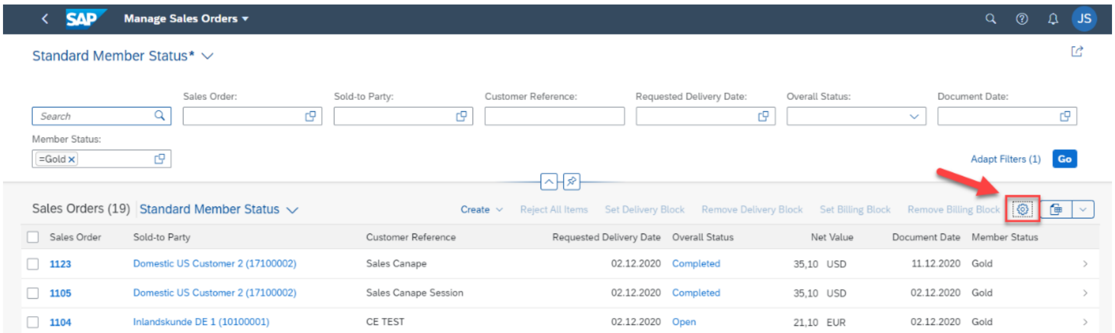
Search for the custom field *Member Status*, select it, and click *OK*:



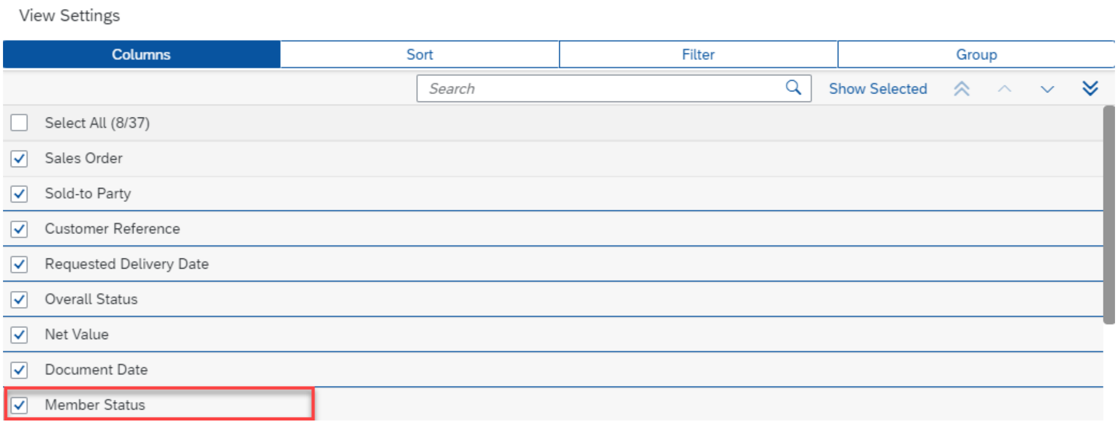
The field is now available in the filter bar:



To show the field in the sales orders list, you need to click on the cogwheel next to the sales orders list:

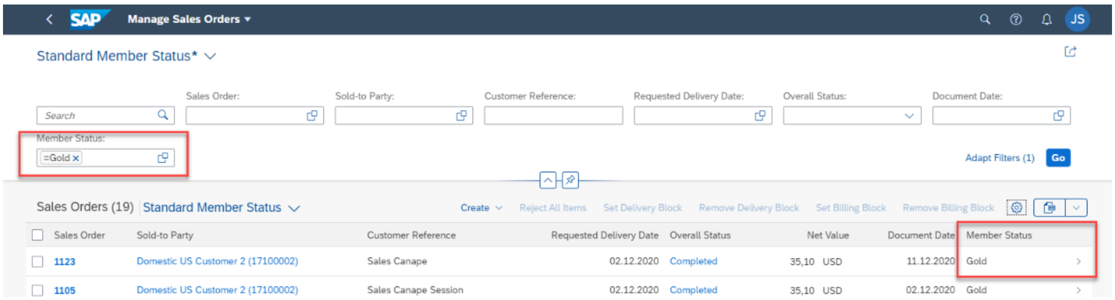


Search for the *Member Status* and select it:



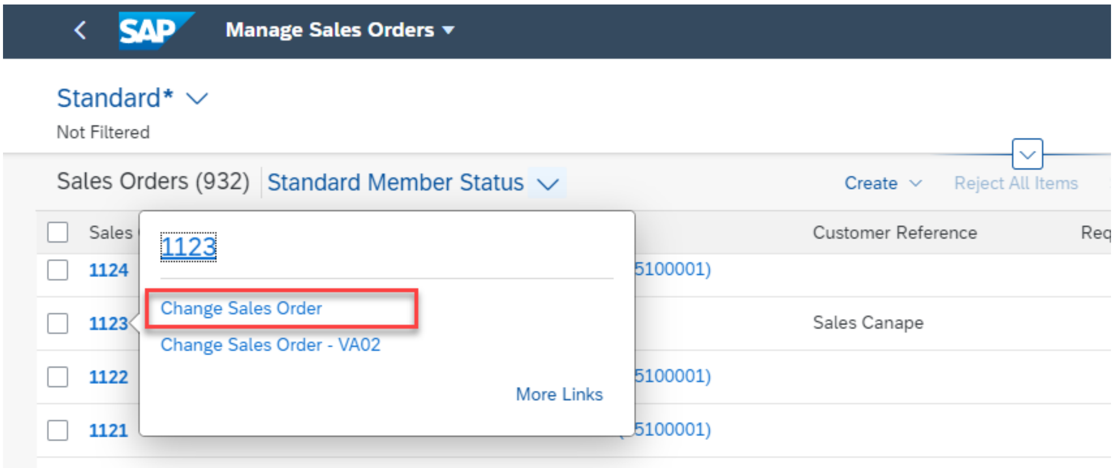
Tip: You can also sort, filter, and group using your custom field here.

The field is now available in the sales order filter bar and the sales orders list:

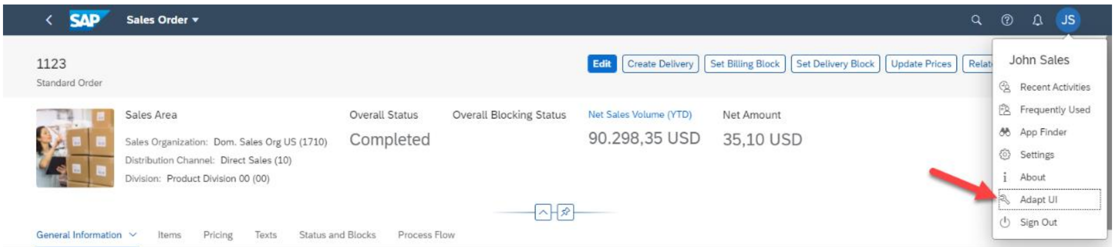


Change Sales Order

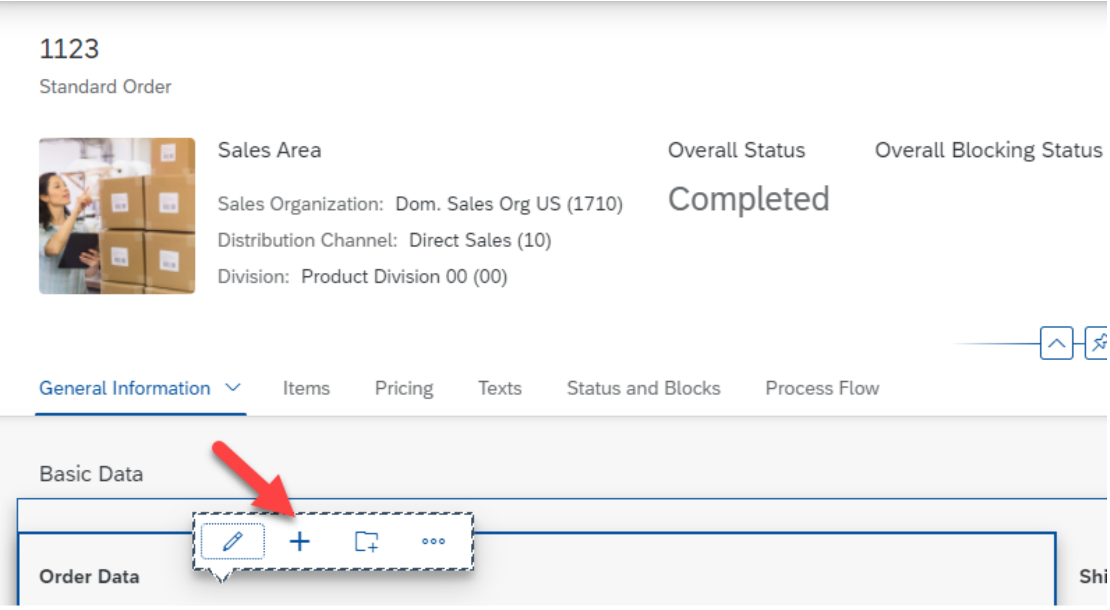
Navigate to the *Process Sales Orders* app by choosing the *Change Sales Order* link in the *Manage Sales Orders* app. This is the app we want to extend with the custom field.

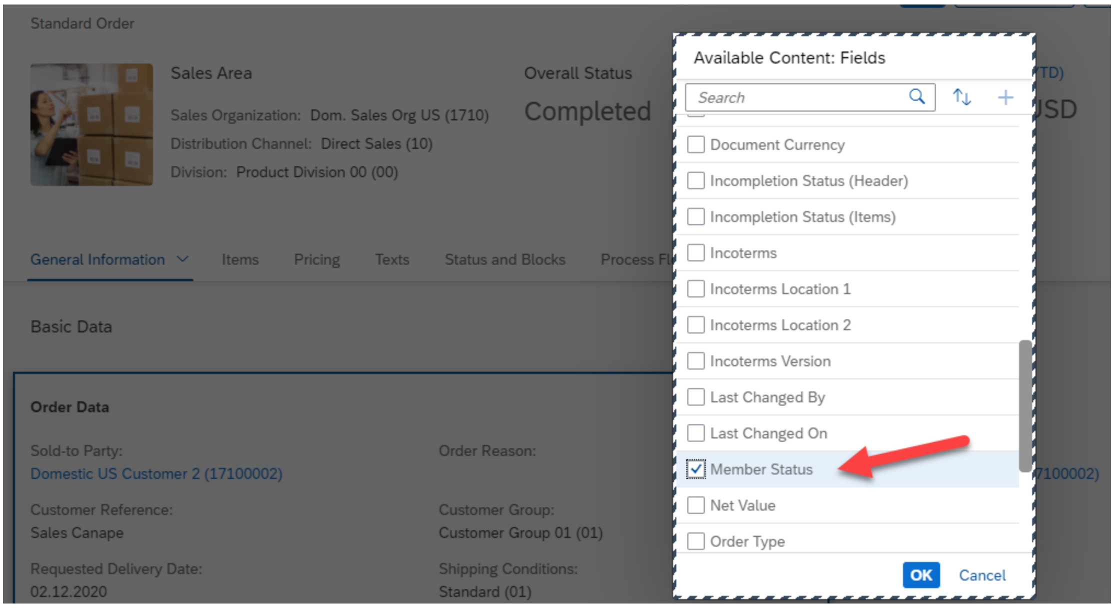


Click on the user icon and select *Adapt UI* to activate the runtime adaptation mode:



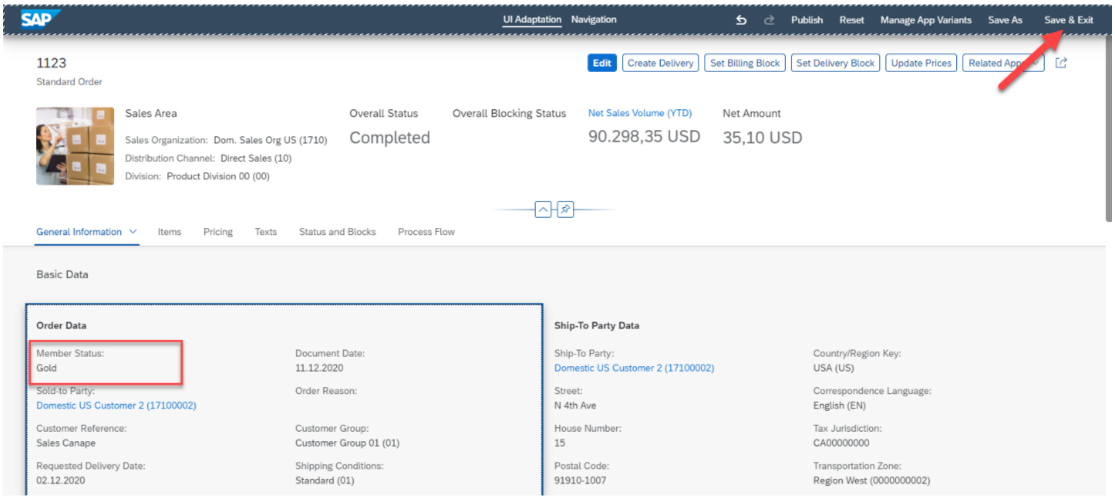
Right-click on the space where you want to add the custom field. Click on the "+" button and select the *Member Status* field:





Tip: After adding the field to the UI, you can adjust the position of the field via drag and drop.

The *Member Status* field is now available in the *Order Data* area of the sales order.

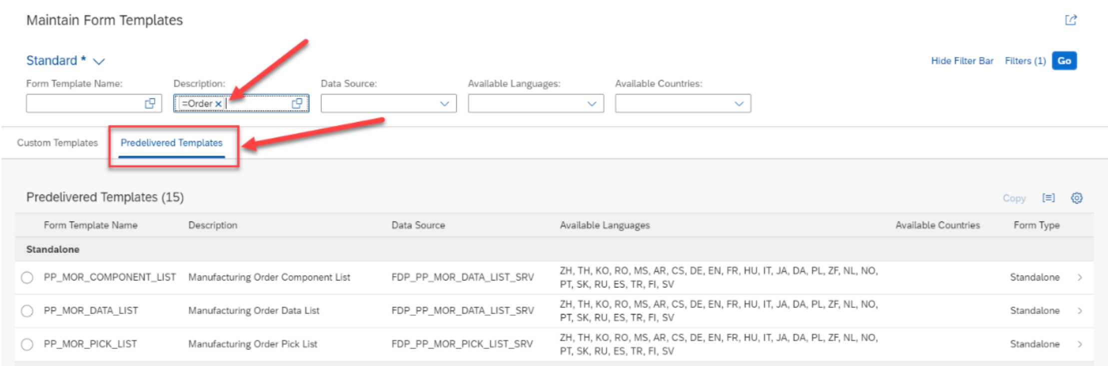


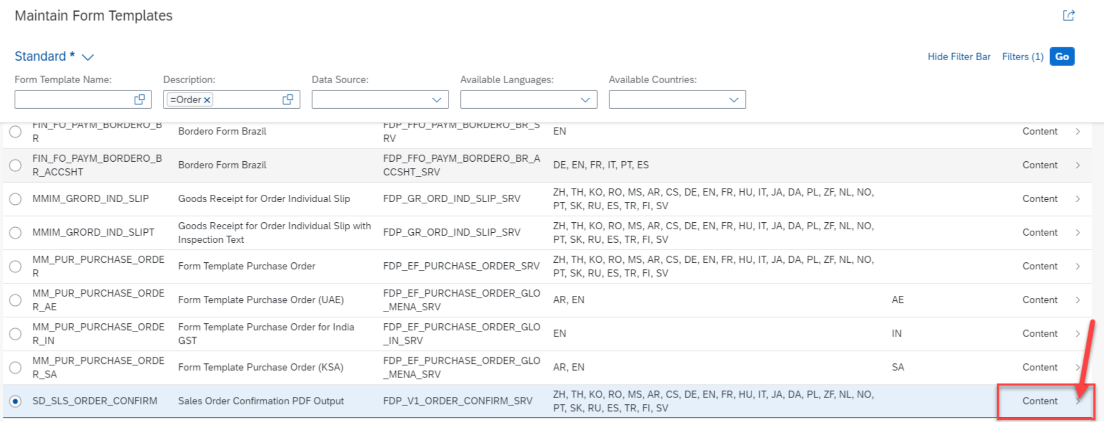
4.1.2.9 Set Up Form Management

In this scenario, we want to print the two custom fields *Customer Member Status* and *Package Color* in our order confirmation. Please watch the videos linked from the Output Forms section to get an overview how to adjust form templates.

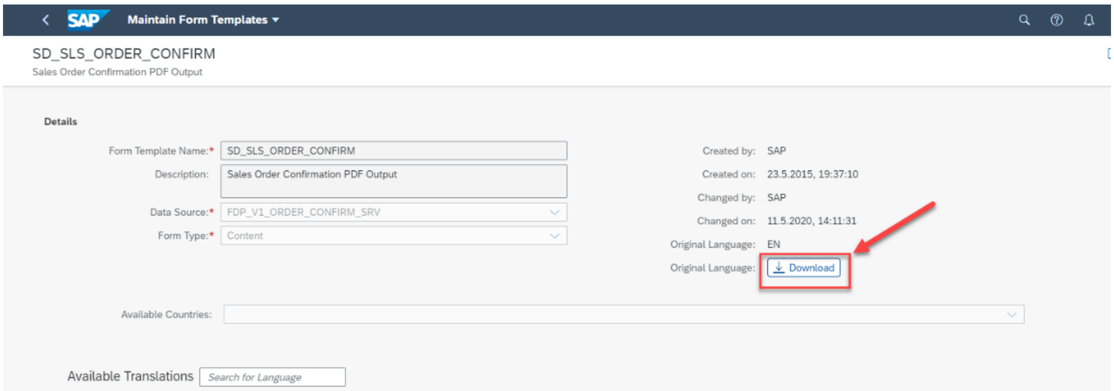
Create a Custom Form Template

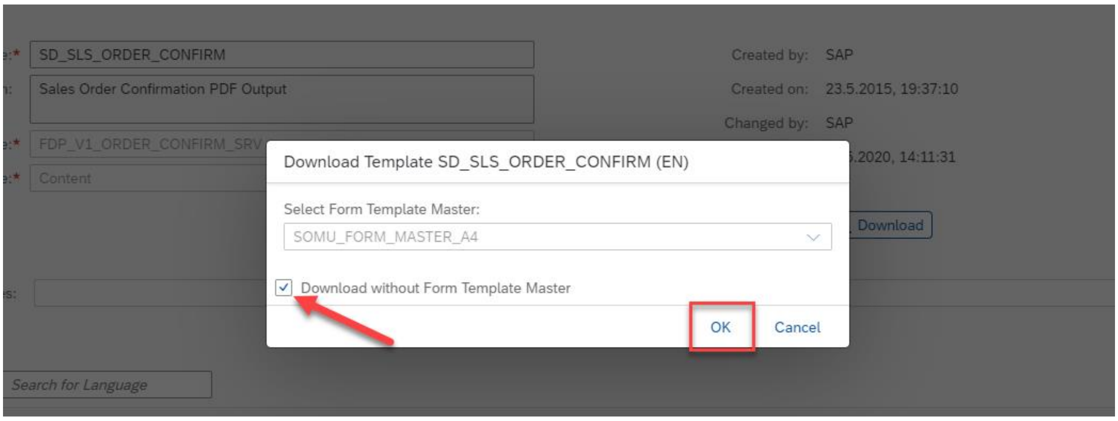
First, we need to create a custom form template. Therefore, we need to open the *Maintain Form Templates* app. We will download the already existing form template for order confirmations and do some adjustments. Go to the *Predelivered Templates* tab and search for the order confirmation template:





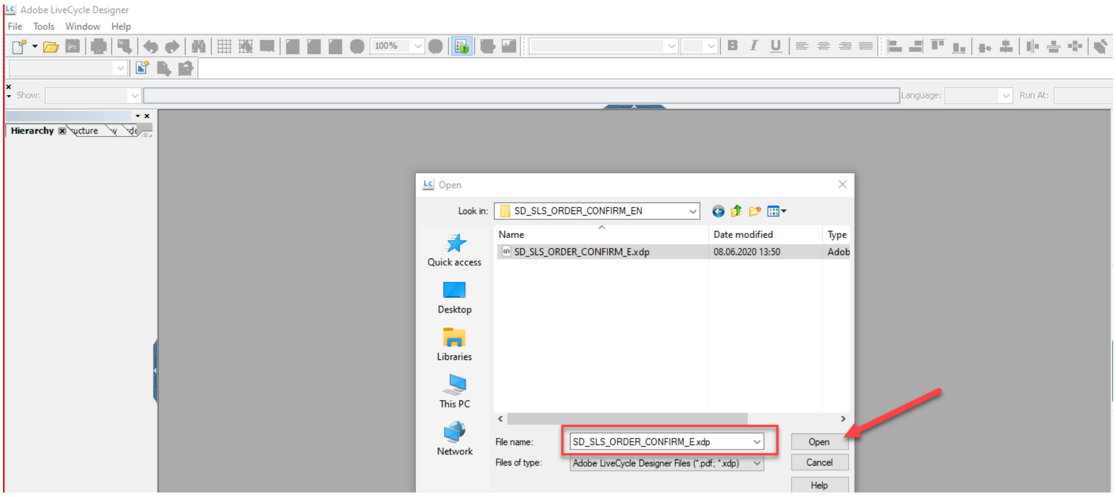
Select SD_SLS_ORDER_CONFIRM to get to the details view of that form template. Here you can download the template.

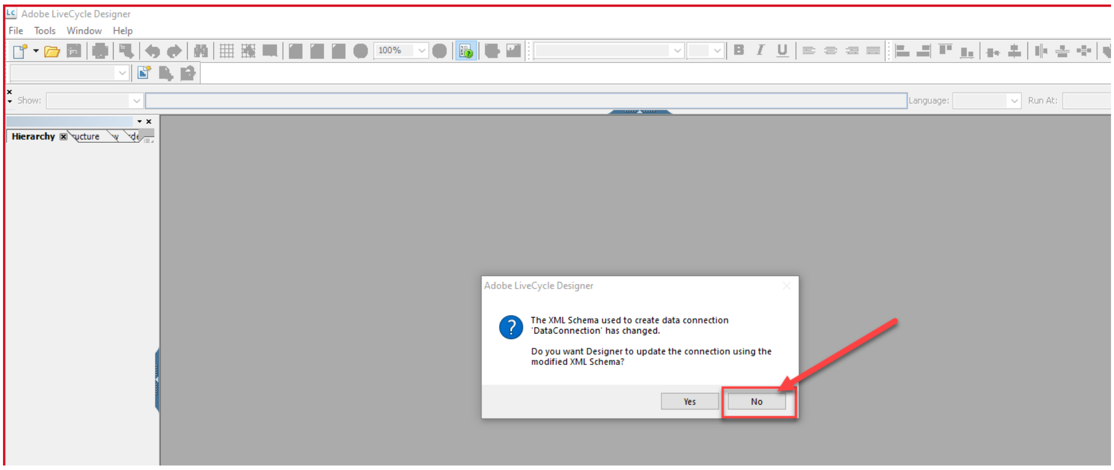




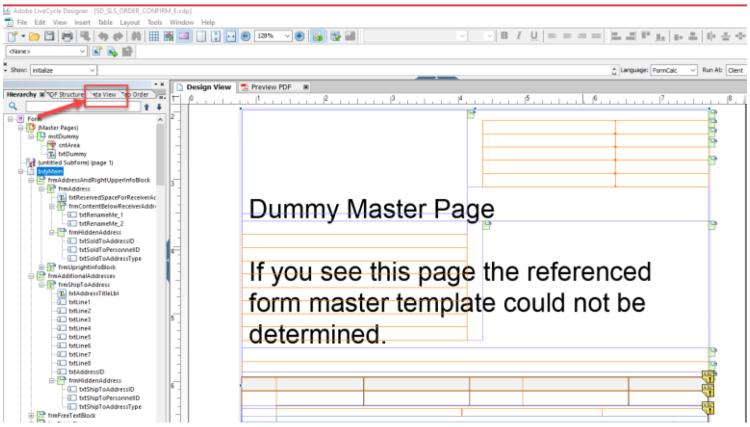
Download the file from the system and save it locally.

In Adobe LiveCycle Designer, open the downloaded file.

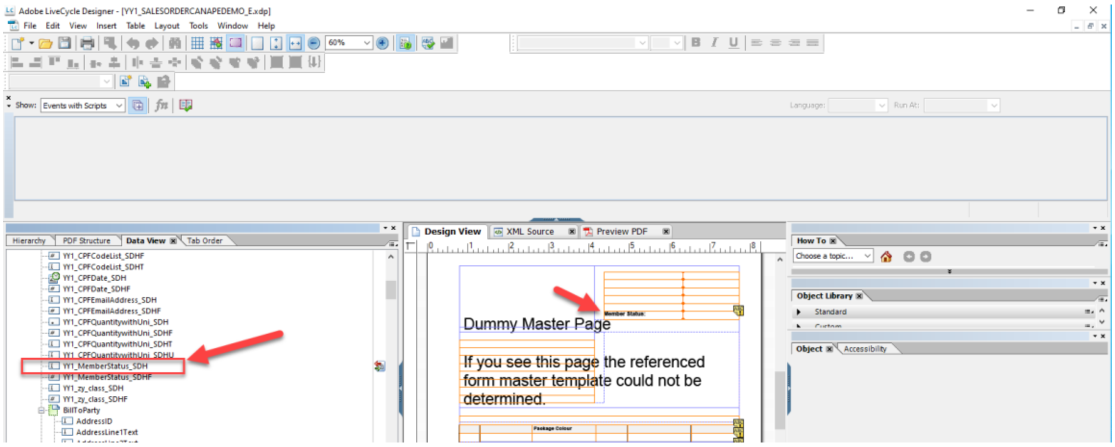




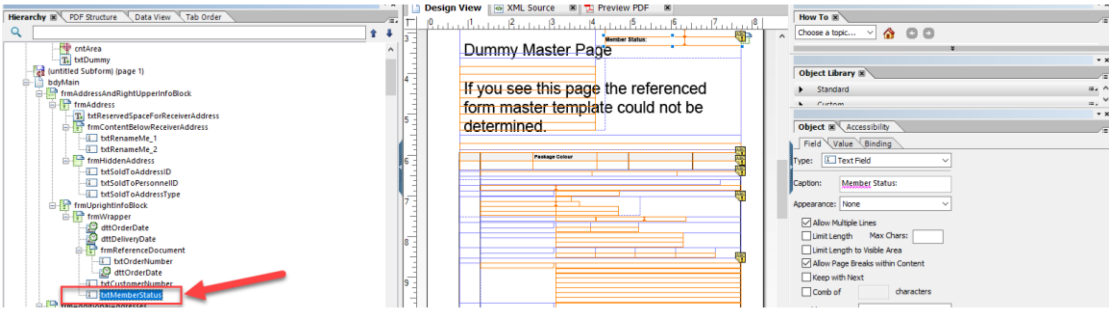
Go to *Data View*.



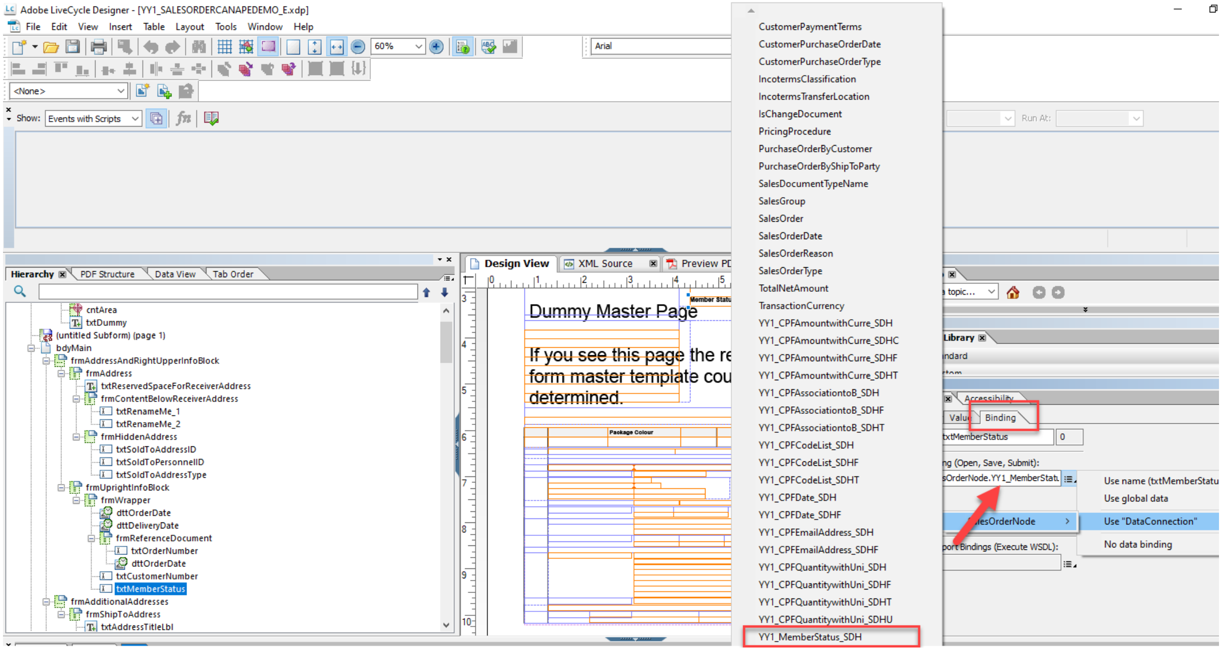
Here you can see your previously created custom field:

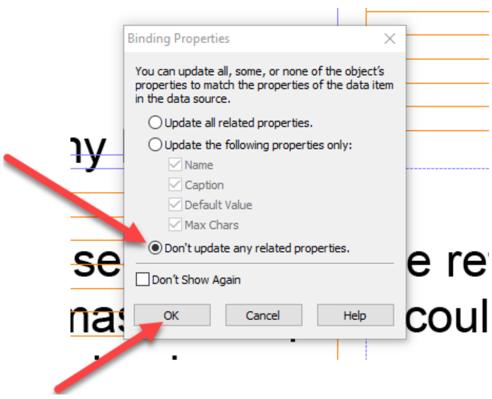


Switch to the *Hierarchy* view and copy, for example, the *txtCustomerNumber* field using CTRL C and CTRL V. Afterwards, rename rename the field *txtMemberStatus*.

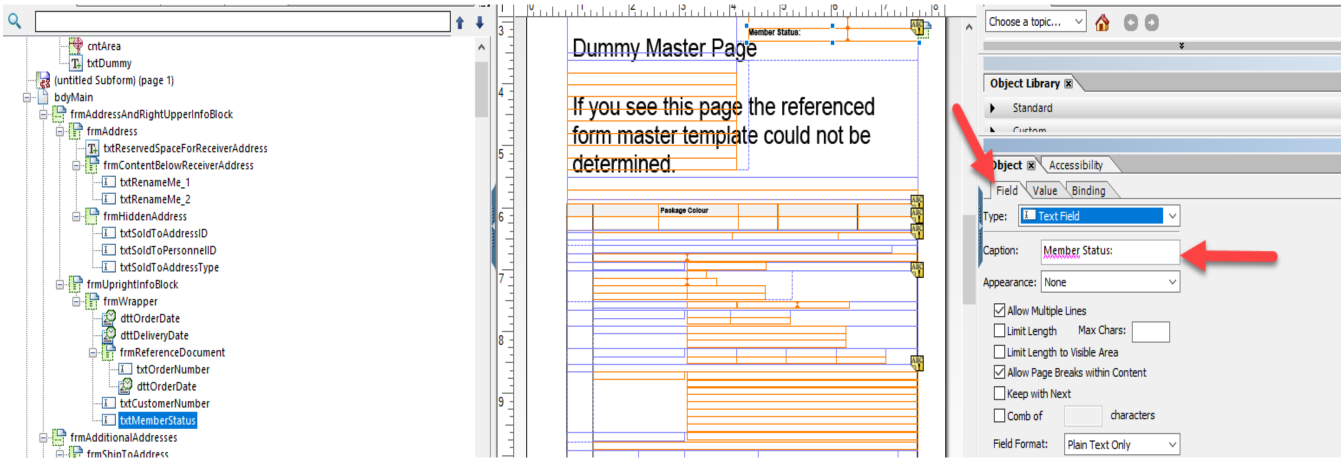


Go to *Object Details* → *Binding* → *Use Data Connection*, and select the *YY1_MemberStatus_SDH* field.

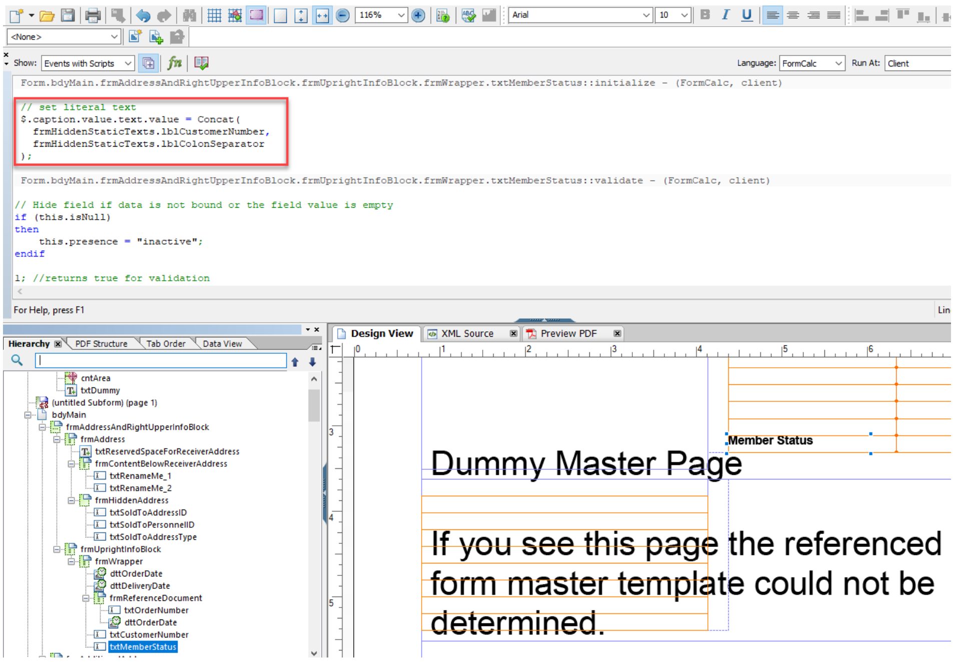




Give your field a caption, for example, *Member Status:*



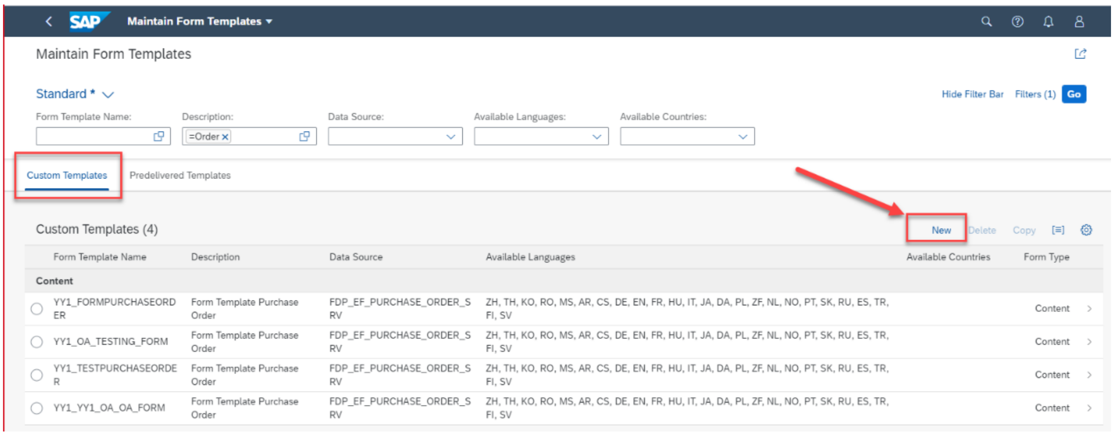
Tip: As we do not need any script for the custom field, remove the script as indicated below.

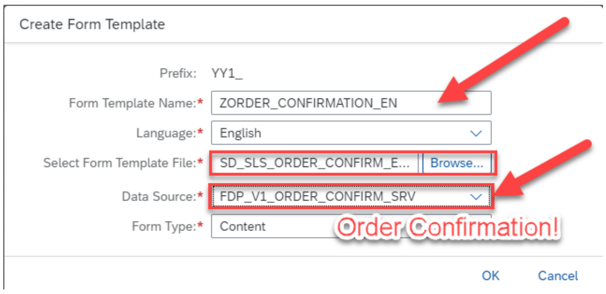


Do the same steps for the custom field *Package Colour* accordingly.

Save your file and go back to the *Maintain Form Templates* app.

Here we need to create a new custom template.

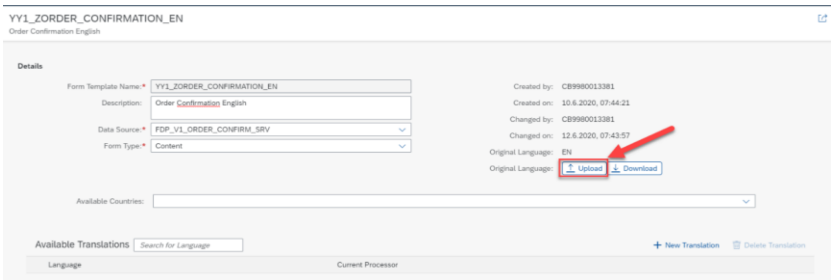


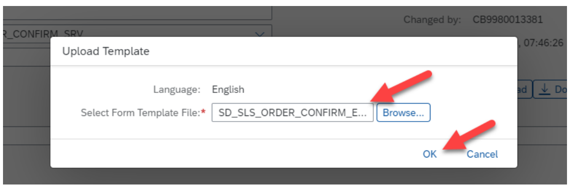


Select the file you previously processed in Adobe LiveCycle (*.xdp file).

Choose a form template name and save the custom template.

Tip: If you want to update your form template with a newer version, you can just use the Upload *button and select your local .xdp file.*





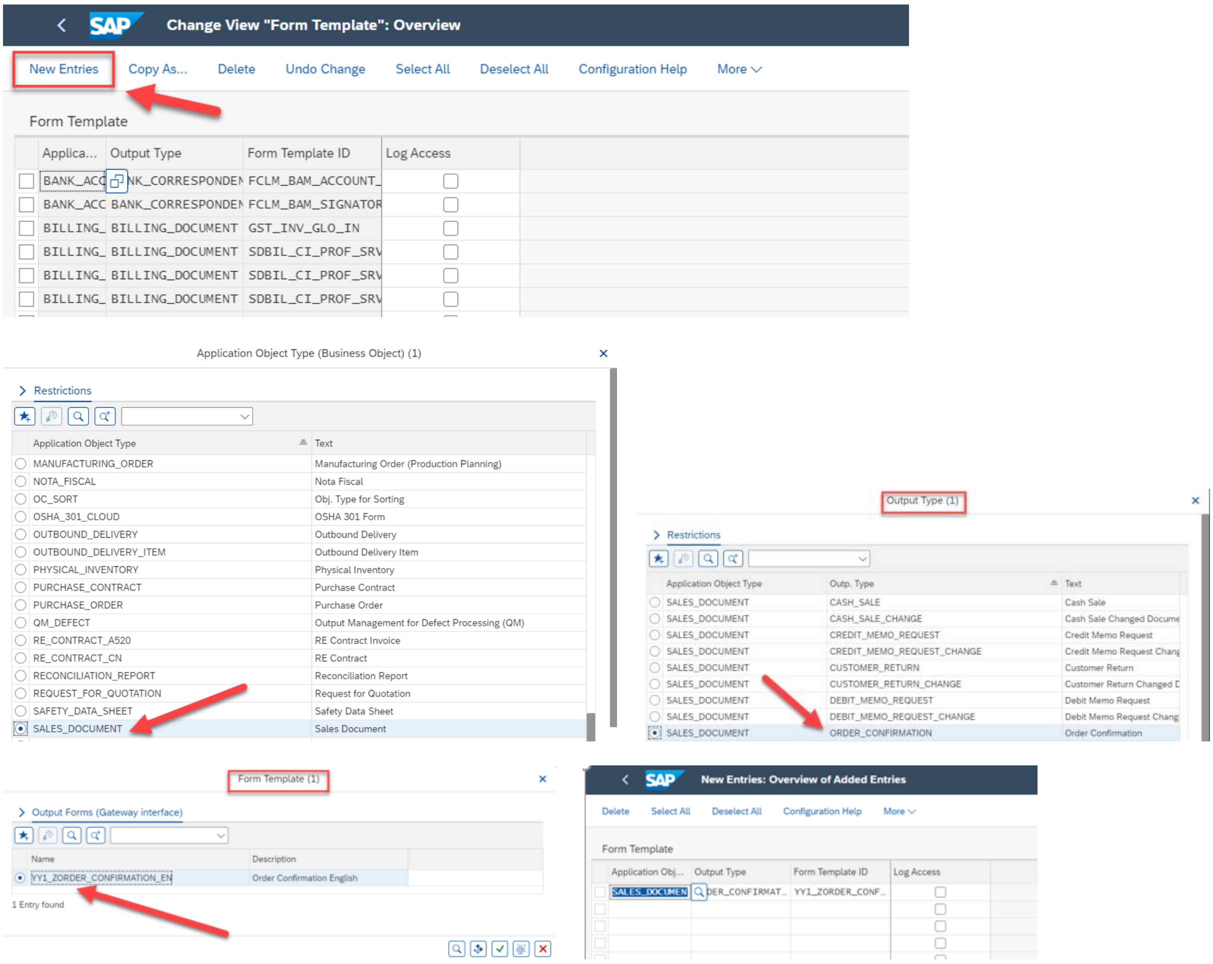
Register the Custom Form Template

Open your configuration environment.

Search for the following configuration activity: *Assign Form Templates.*

Create a new entry as follows:

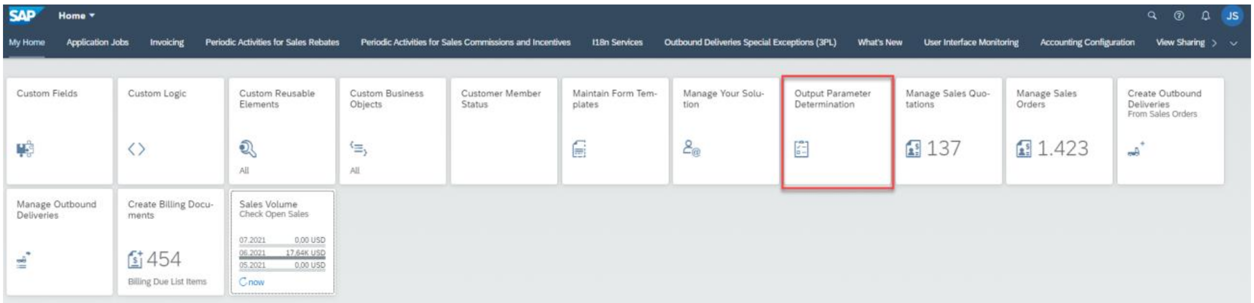
- Application object: Sales document
- Output type: Order confirmation
- Form template ID: YY1_ZORDER_CONFIRMATION_EN



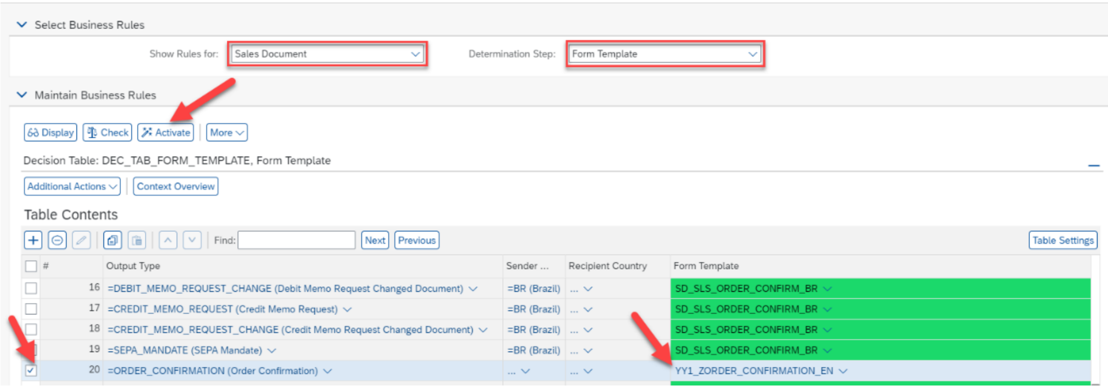
Save the settings.

Configure Output Management Settings

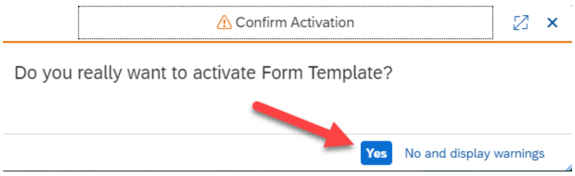
Open the *Output Parameter Determination* app:



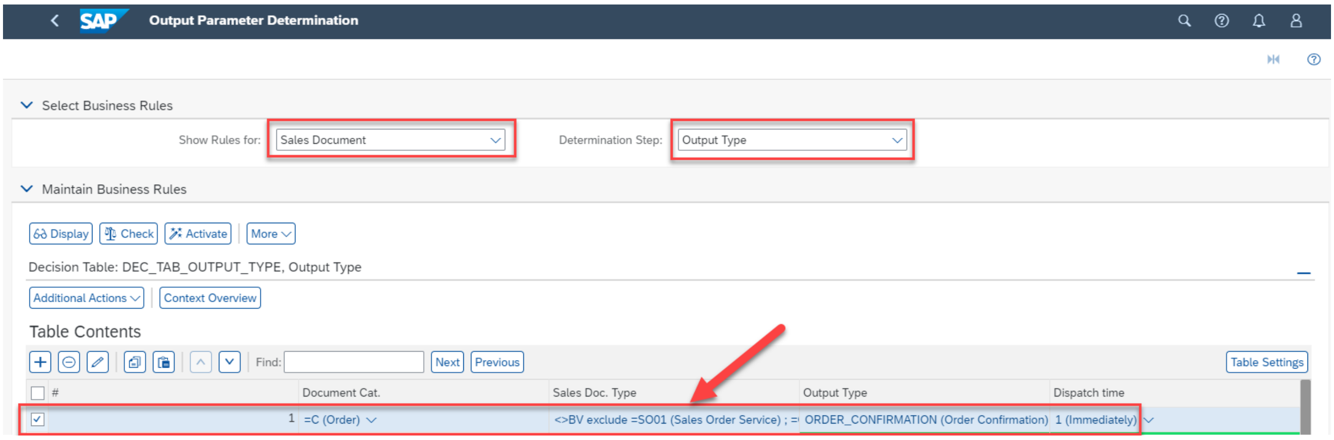
Insert the previously created custom form template:



Click the *Activate* button to activate the changes.



Tip: Check the output type settings. The entry shown below is mandatory. If this entry does not exist in your system, create it.



Output Parameter Determination
Select Business Rules
Show Rules for:
Sales Document
Determination Step:
Output Type
Maintain Business Rules
Display
Check
Activate
More
Decision Table: DEC_TAB_OUTPUT_TYPE, Output Type
Additional Actions
Context Overview
Table Contents
Find:
Next
Previous
Table Settings
#
Document Cat.
Sales Doc. Type
Output Type
Dispatch time
1
=C (Order)
<>BV exclude =SO01 (Sales Order Service) ; =
ORDER_CONFIRMATION (Order Confirmation)
1 (Immediately)

4.1.3 Executing the Enhanced Sell-from-Stock Scenario

4.1.3.1 Create Sales Quotation Using the OData API

You can send the following request to the OData API to create the sales quotation:

Body:

```
{
    "SalesQuotationType": "QT",
    "SalesOrganization": "1710",
    "DistributionChannel": "10",
    "OrganizationDivision": "00",
    "SoldToParty": "17100002",
    "PurchaseOrderByCustomer": "Sales Demo",
    "BindingPeriodValidityEndDate": "2025-12-15T00:00:00",
    "to_Item": [
        {
            "Material": "TG12",
            "RequestedQuantity": "2",
            "RequestedQuantityUnit": "PC",
            "YY1_PackageColour_SDI": "RED"
        }
    ]
}
```

If you do not send the custom field *YY1_PackageColour_SDI* with the request, you will get a *400 Bad Request* response because of the implementation of the *Sales Document Check Before Save* BAdI:

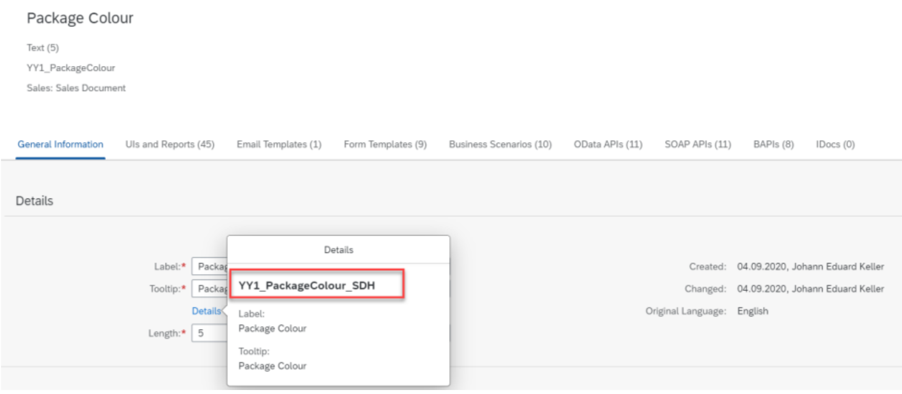
```
<errordetails>
     <errordetail>
         <ContentID/>
         <code>00/001</code>
         <message>Document cannot be saved. Please maintain a package colour for each item.</message>
         <propertyref/>
        <severity>error</severity>
        <target/>
        <transition>false</transition>
    </errordetail>
.
.
.
</errordetails>
```

If you also send the package color, you will get a *201 Created* response with the document number of the created sales quotation:

```
…
    <id>{{system}}/sap/opu/odata/sap/API_SALES_QUOTATION_SRV/A_SalesQuotation('20000064')</id>
…
```

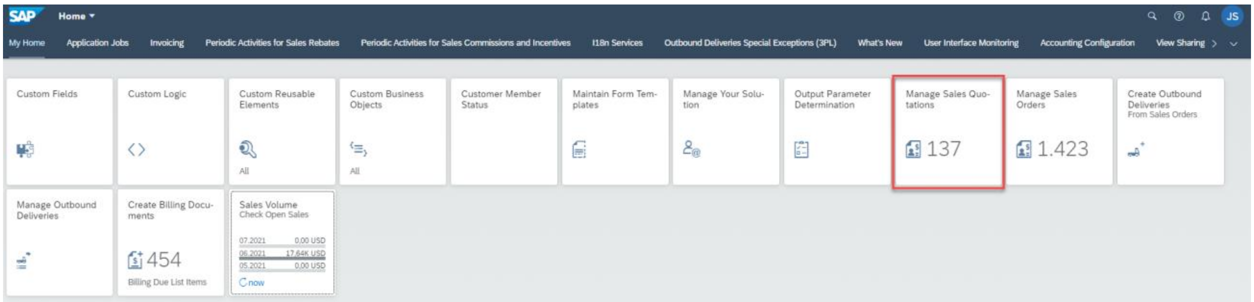
Tip:

You can find the technical name of your custom field in the Custom Fields app on the General Information *tab.*

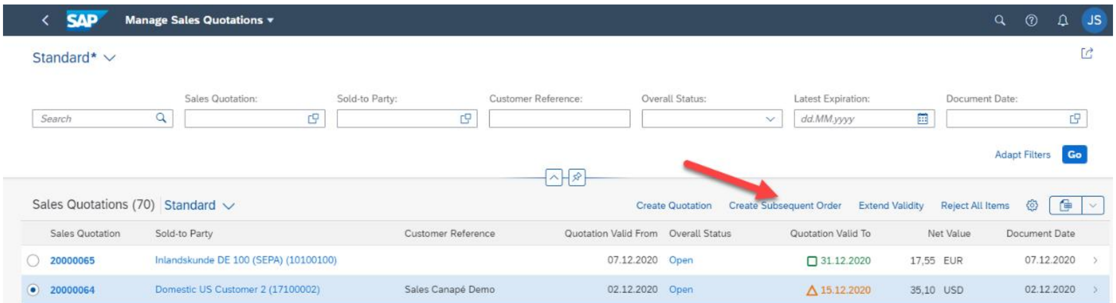


4.1.3.2 Create Sales Order

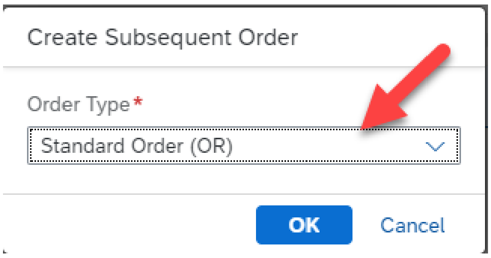
Create a new sales order using the *Manage Sales Quotations* app:



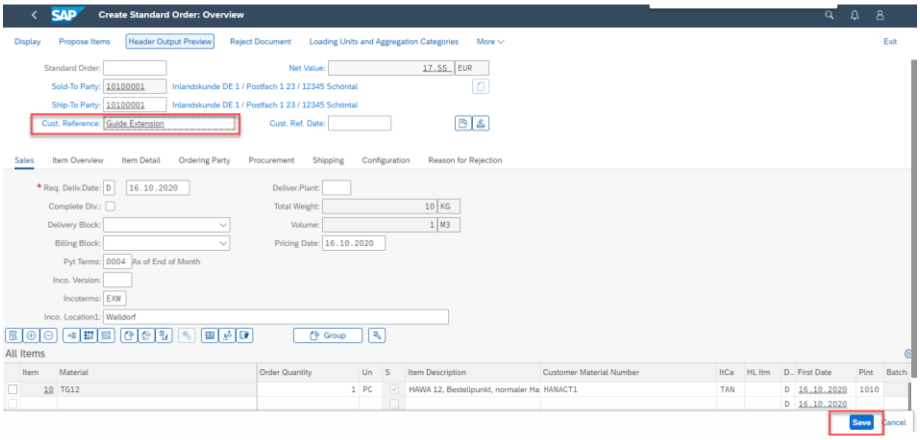
Search and select the quotation you just created and click on the *Create Subsequent Order* button.



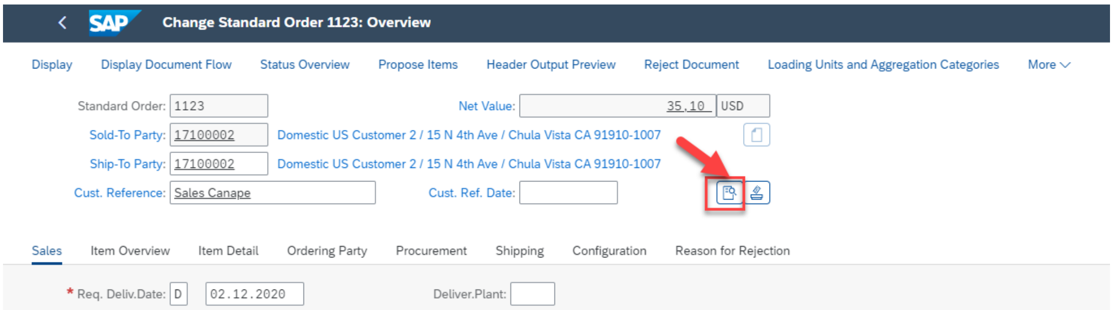
Choose *Standard Order (OR)* as order type.

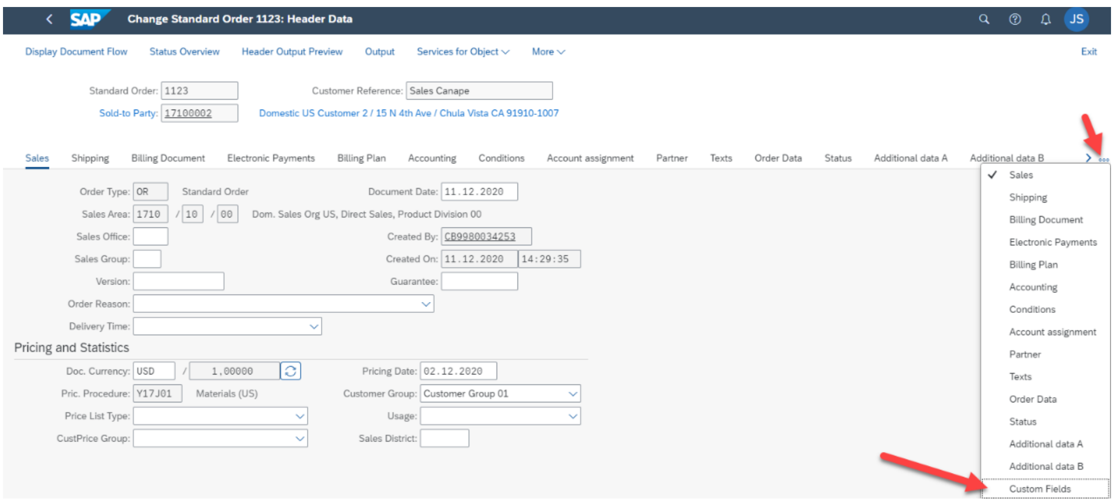


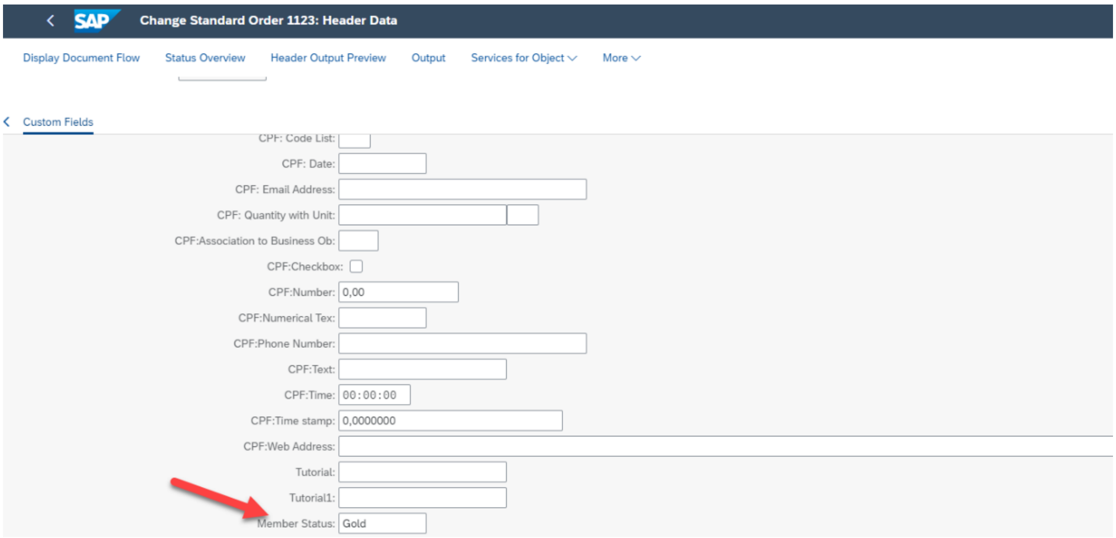
Enter a customer reference and save your order.



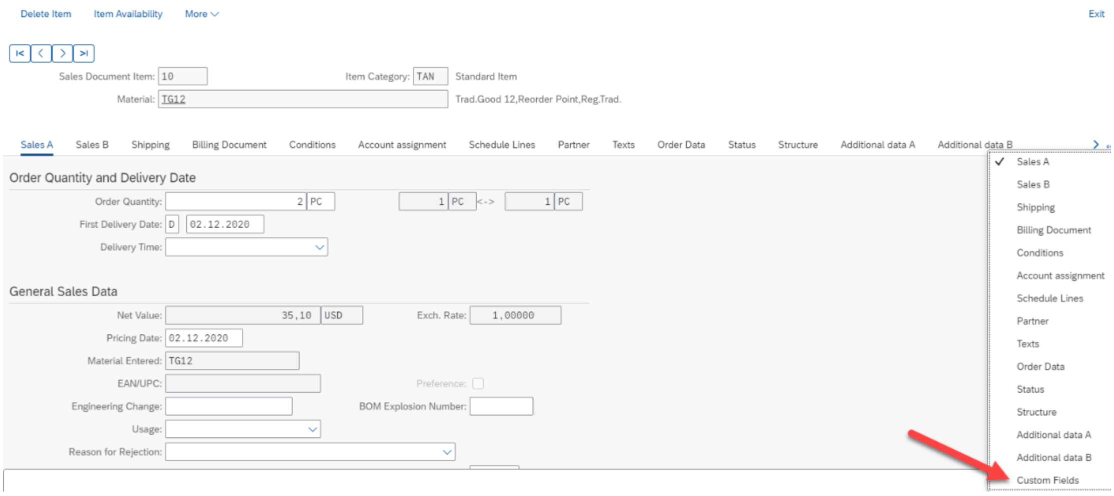
Verify that the custom field *Member Status* on header level was set correctly by the BAdI according to the custom business object:

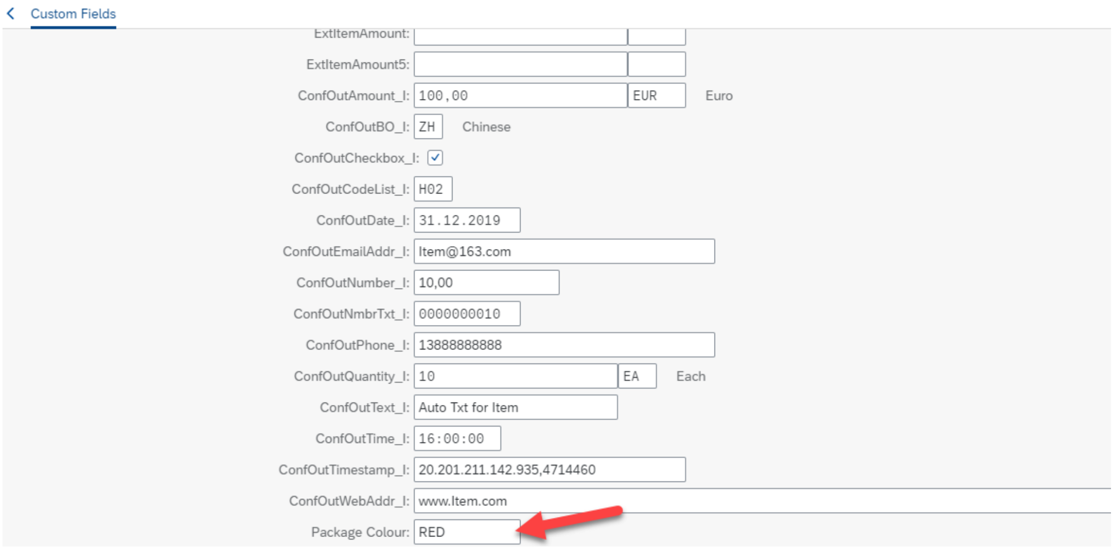




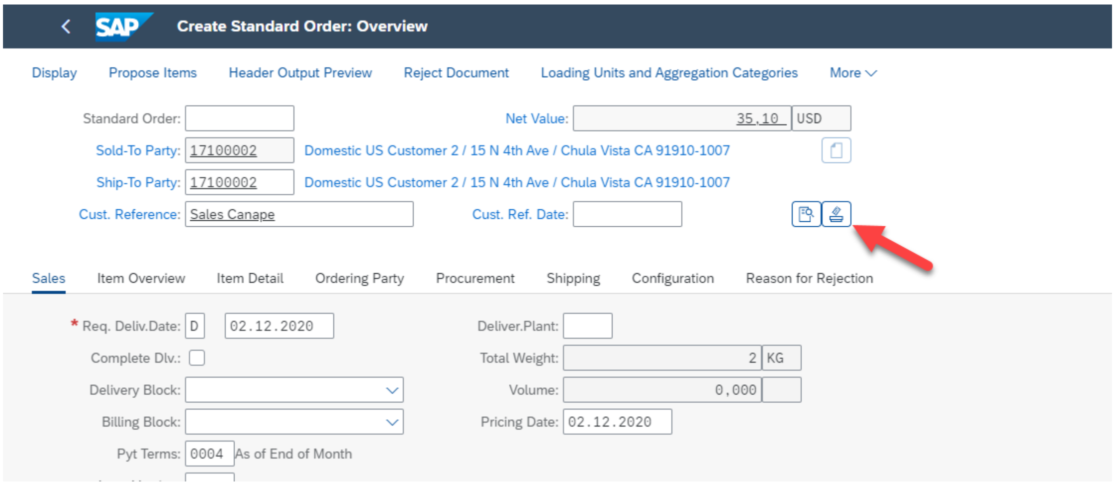


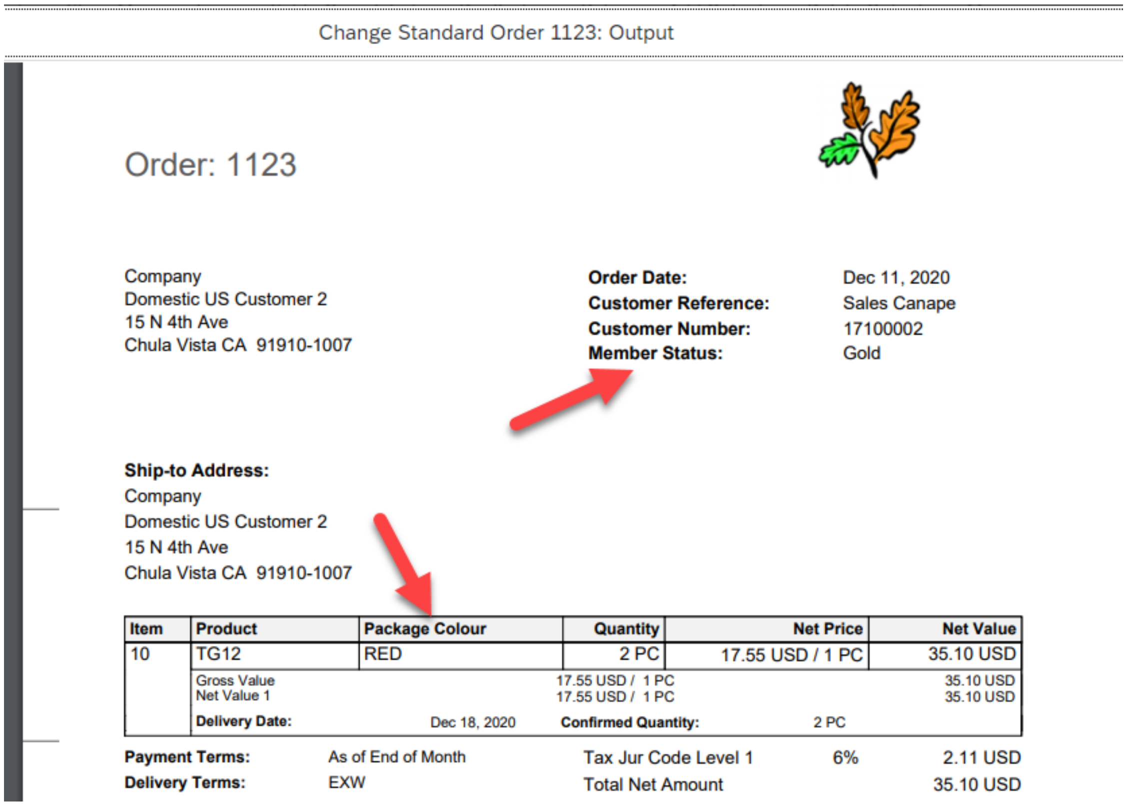
Verify that the custom field *Package Colour* on item level was set correctly by the business scenario from the sales quotation:





Verify that both fields appear on the order confirmation:





Change Standard Order 1123: Output

Order: 1123

Company
Domestic US Customer 2
15 N 4th Ave
Chula Vista CA 91910-1007

Order Date:	Dec 11, 2020
Customer Reference:	Sales Canape
Customer Number:	17100002
Member Status:	Gold

Ship-to Address:
Company
Domestic US Customer 2
15 N 4th Ave
Chula Vista CA 91910-1007

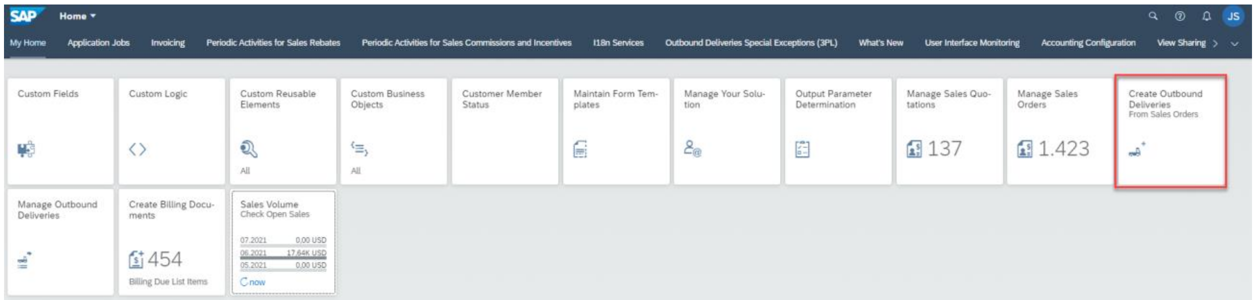
Item	Product	Package Colour	Quantity	Net Price	Net Value
10	TG12	RED	2 PC	17.55 USD / 1 PC	35.10 USD
	Gross Value		17.55 USD / 1 PC		35.10 USD
	Net Value 1		17.55 USD / 1 PC		35.10 USD
	Delivery Date:	Dec 18, 2020	**Confirmed Quantity:**	2 PC	

Payment Terms:	As of End of Month	Tax Jur Code Level 1	6%	2.11 USD
Delivery Terms:	EXW	Total Net Amount		35.10 USD

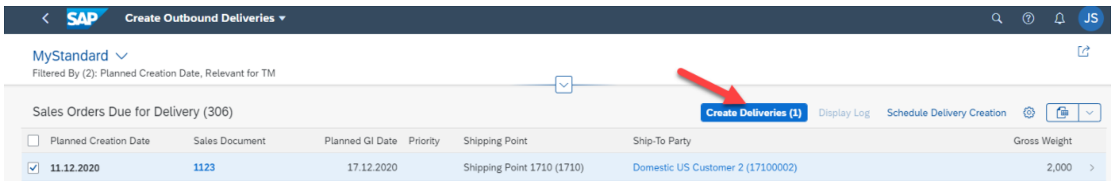
Note down the order number for the next steps.

4.1.3.3 Create Outbound Delivery

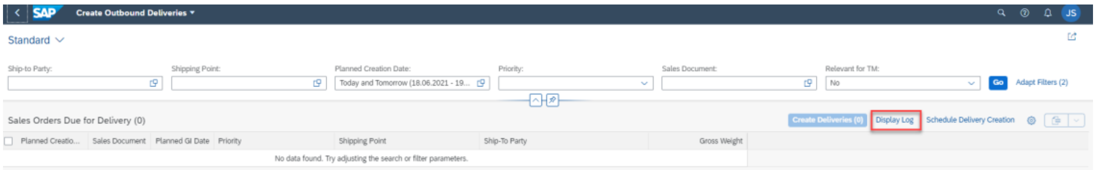
Open the *Create Outbound Deliveries - From Sales Orders* app:

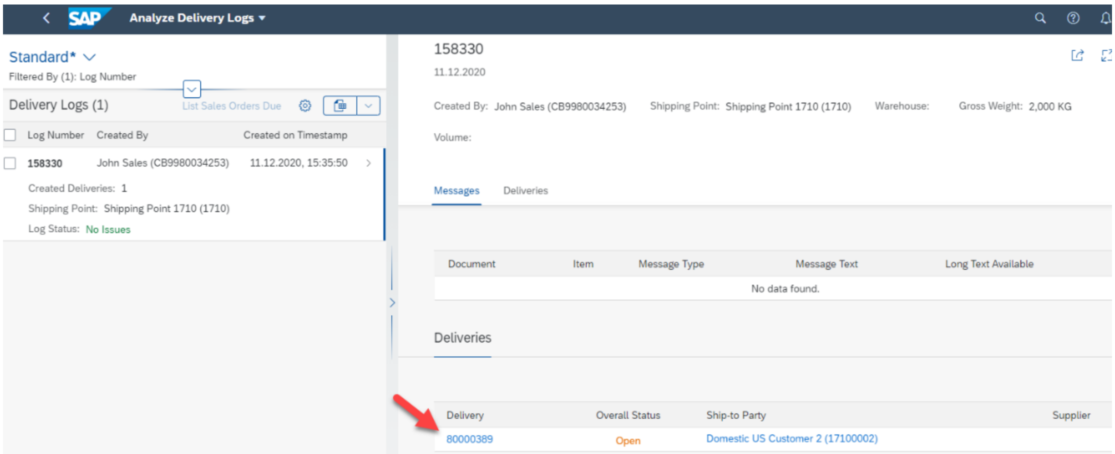


Choose your sales order and click on *Create Deliveries*:

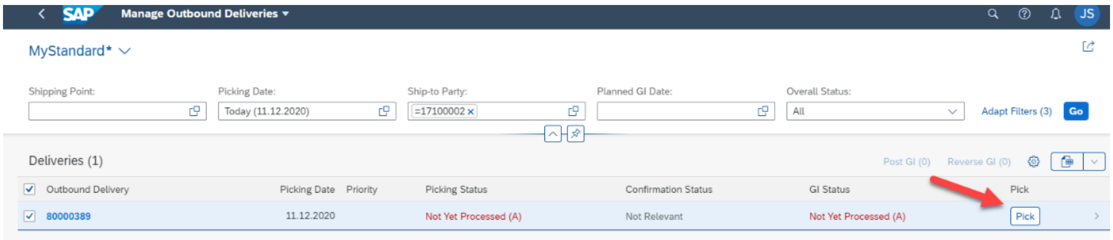


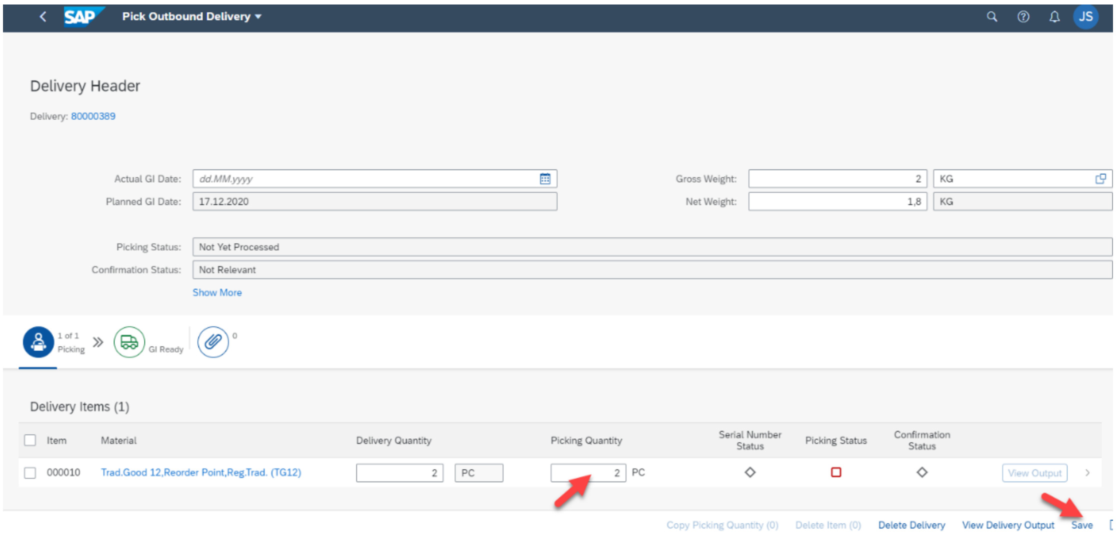
You can find the document number for the created delivery in the log:



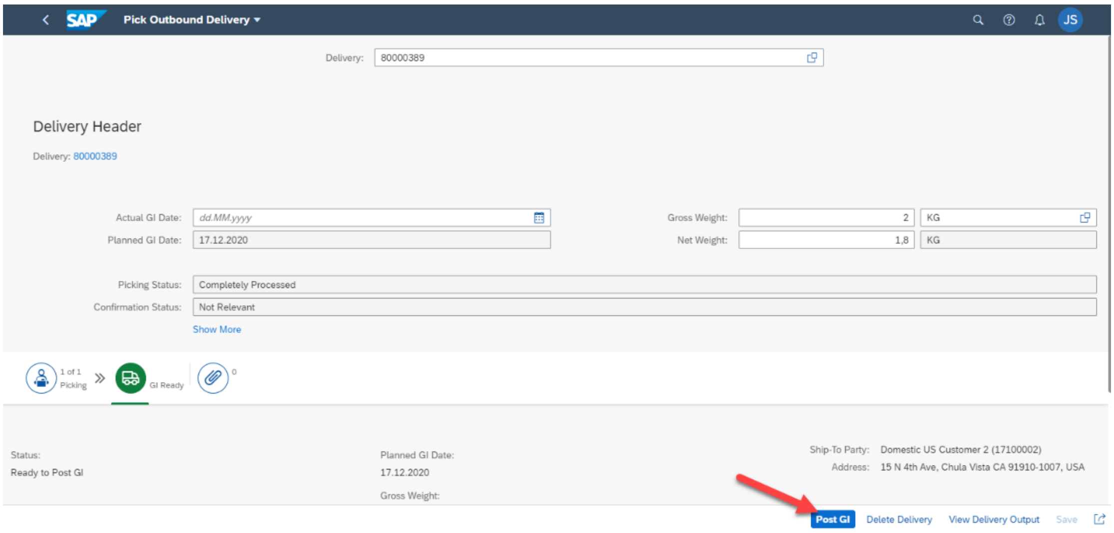


Next step is picking, which can be done in the *Manage Outbound Deliveries* app:



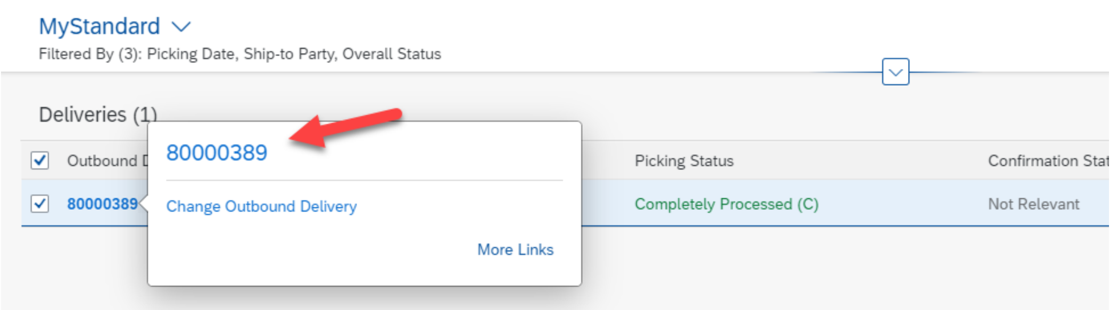


You can also do the GI posting from here:

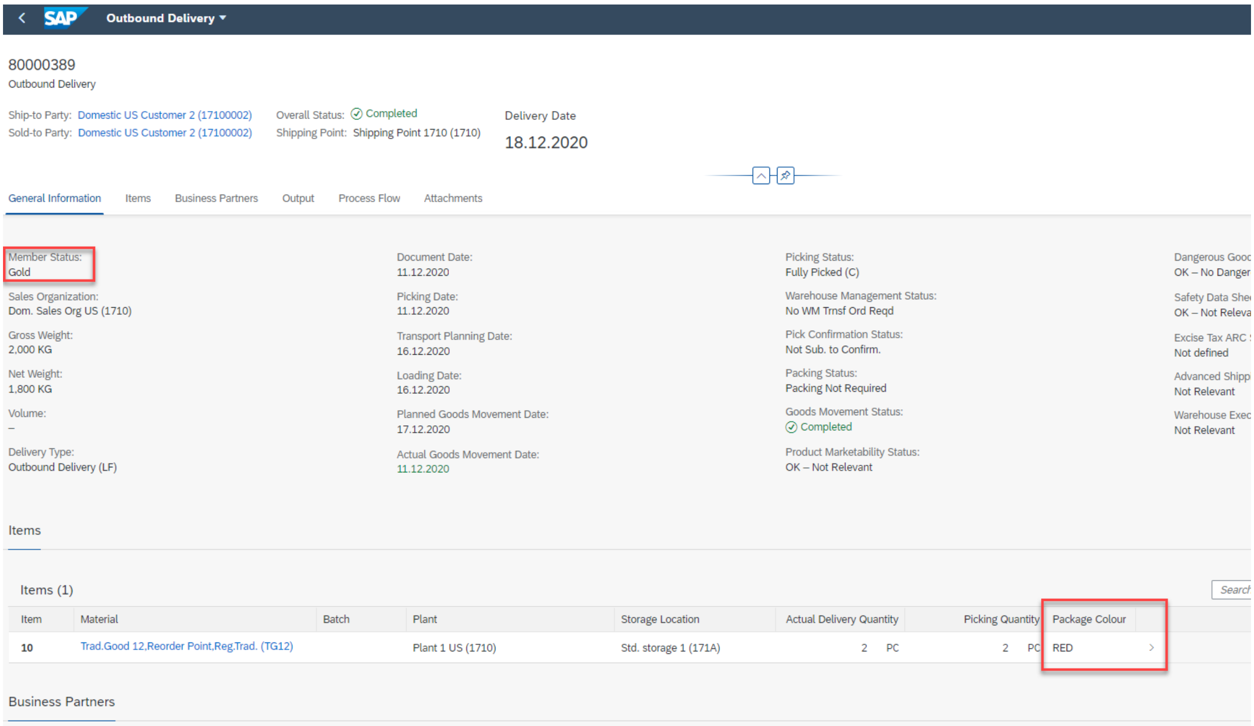


Now check if the custom fields are copied correctly from the sales order.

Navigate to the object page of the created outbound delivery:



You can see that the values are copied correctly.

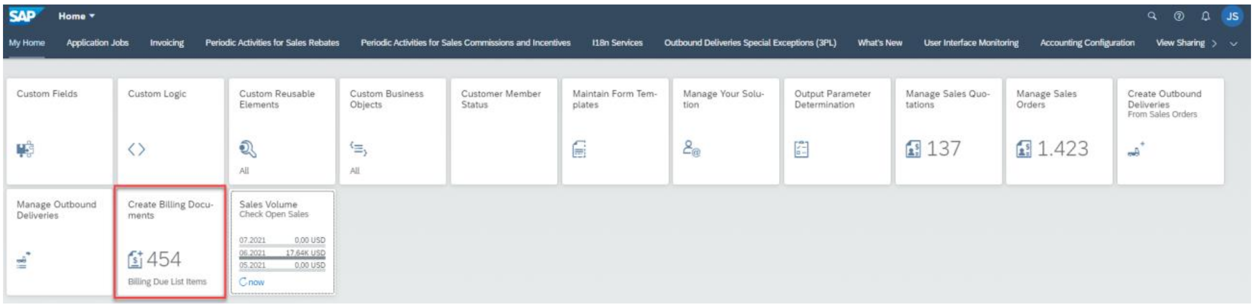


Tip:

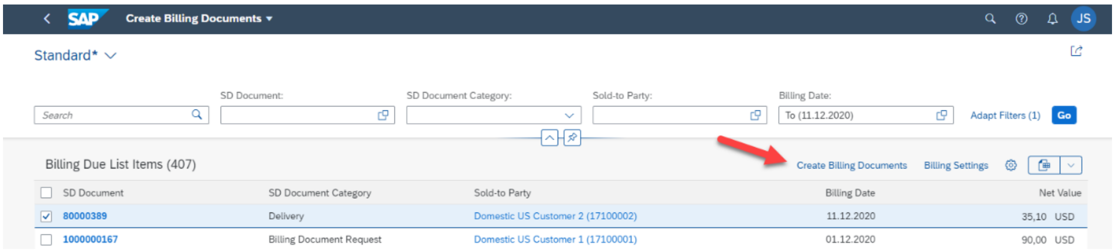
If you do not see the fields, you need to adjust the UI first like descibed in the [Adapting SAP Fiori UIs at Runtime - Key User Adaptation] section.

4.1.3.4 Create Billing Document

Open the *Create Billing Documents* app:

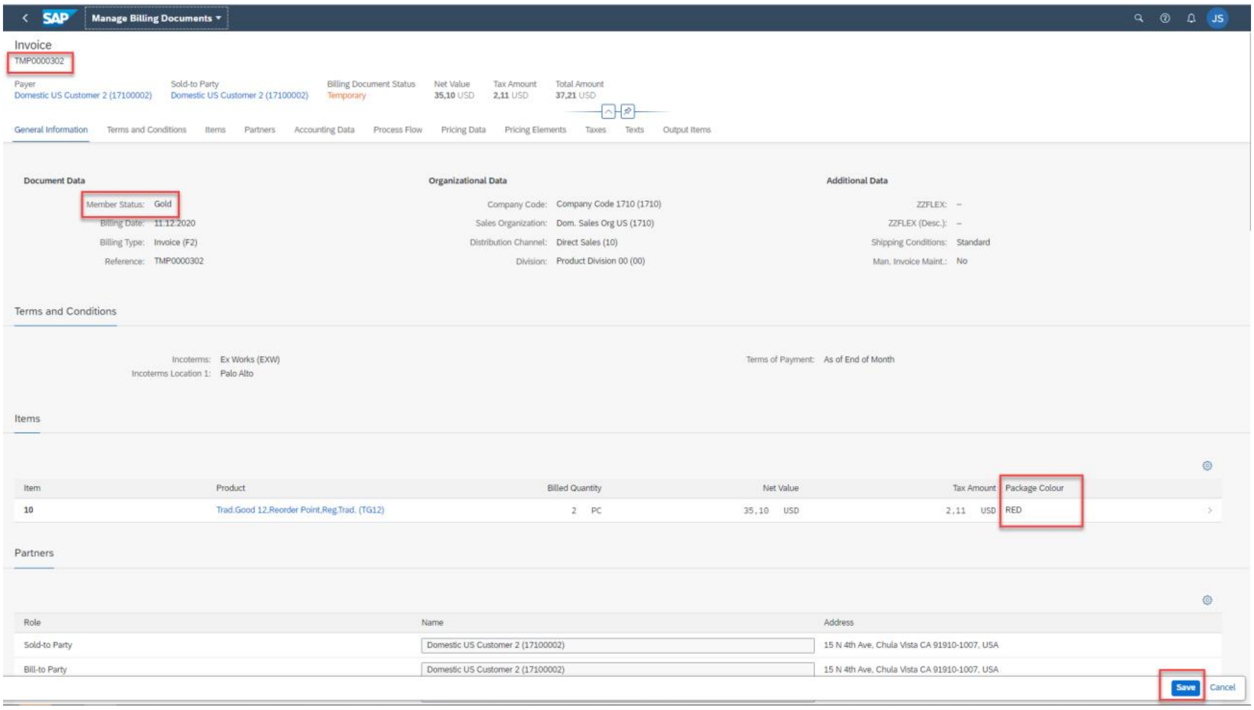


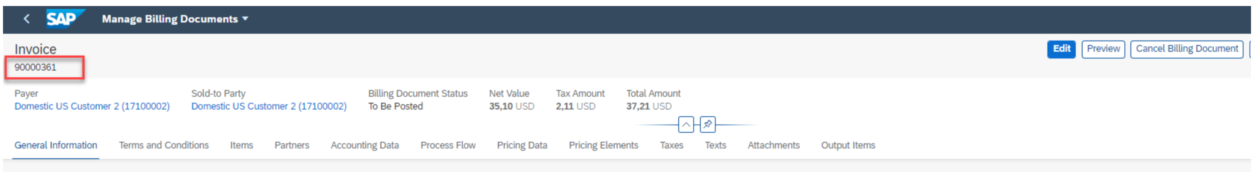
Search for your delivery document and click *Create Billing Documents*:



You will see that the custom fields are copied from the delivery document into the billing document.

Click on *Save* to create the billing document:

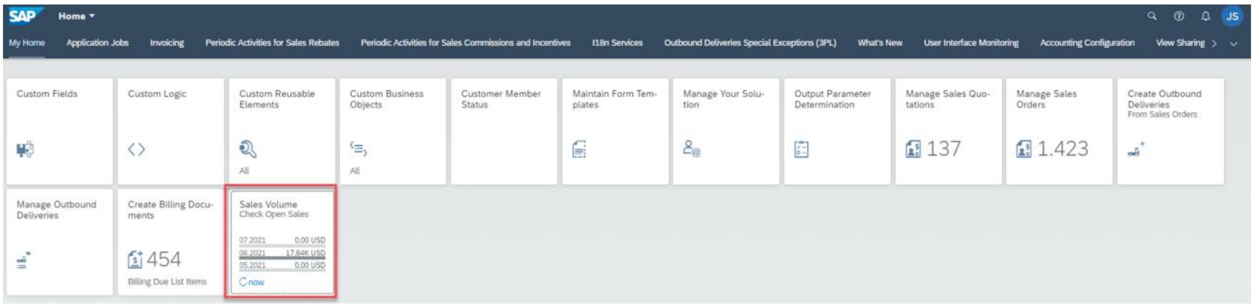




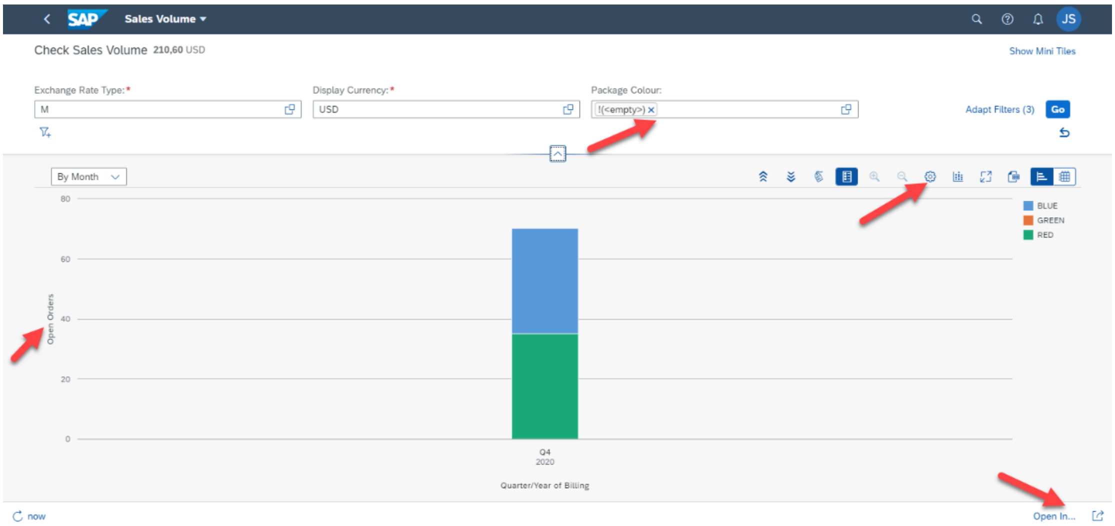
4.1.3.5 Sales Analytics

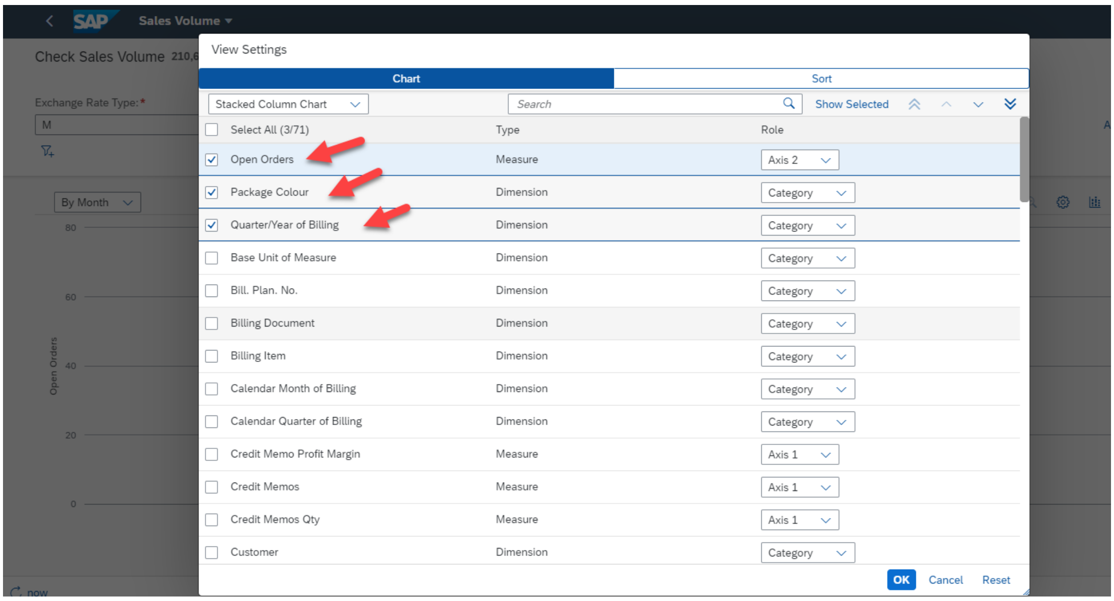
In this part, we want to create some reporting based on the custom field *Package Colour*.

First, we need to open the *Sales Volume - Check open Sales* app:

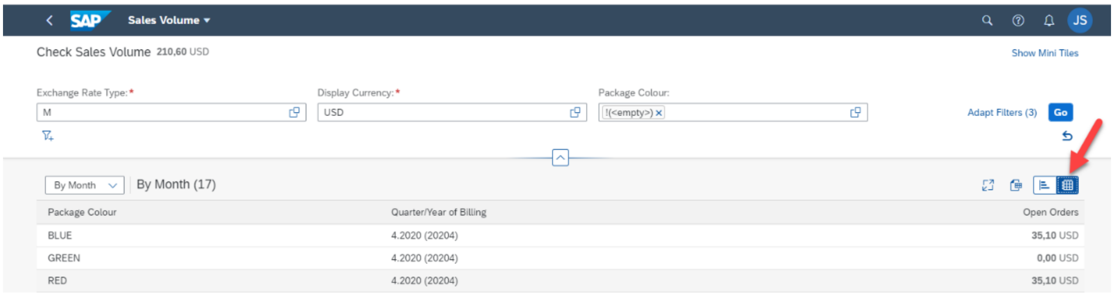


Do the following configuration in the app:

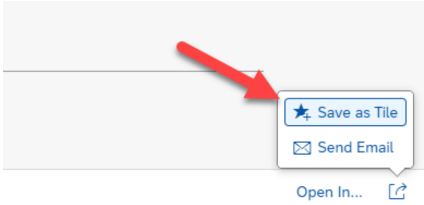


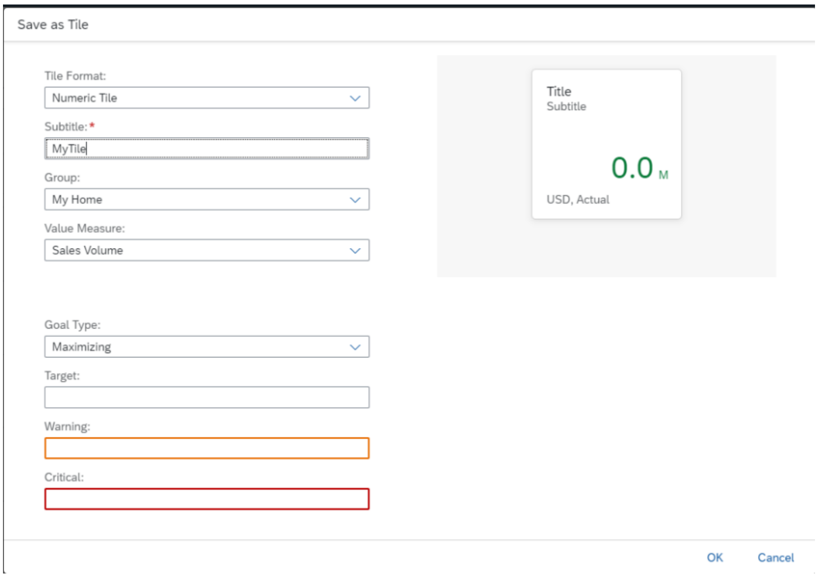


In the tabular view, you see the origin of the data:



To create your own tile use the button at the bottom right:





5 Further Information

5.1 Documentation

5.1.1 Product Documentation

Description	Link
SAP Help Portal	Link
SAP Fiori Apps Reference Library	Link
SAP Best Practices Explorer	Link
SAP API Business Hub	Link

5.1.2 Specific Documentation

Description	Link
Analytical Reports in Sales	Link
ABAP for Key Users	Link
Copy Control in Sales Documents	Link
Extensibility of Output Forms	Link
BAdIs in Sales Documents	Link

5.1.3 Further Links

Description	Link
Open SAP course “Extending SAP S/4HANA Cloud and SAP S/4HANA”	Link
Open SAP course: "Create and Delver Cloud-Native S/4 HANA Extensions"	Link
Extensibility YouTube Channel	Link
SAP S/4HANA Extensibility Tutorial	Link

SAP Developers Tutorial: Custom Analytical Queries	Link
SAP Developers Tutorial: Custom Analytical Queries Calculated Measures	Link
SAP S/4HANA Cloud Customer Community	Link

5.1.4 Useful Released CDS Views

CDS View	Description
I_SalesDocumentTypeLangDepdnt	You can find the language-specific keys for sales document in this view.

Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
`EXAMPLE`	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
`Example`	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE`	Keys on the keyboard, for example, `F2` or `ENTER`.

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