



Extensibility for Billing Document Printout

SAP S/4HANA Cloud



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1 Provide Service Contract Dates on Billing Document Output

1.1 Aim

Make service contract dates (item start/end date and settlement start/end date) visible on the form template for billing documents.

1.2 Steps to do

1.2.1 Creation of four extension fields at Billing Document

Use the app [Custom Fields and Logic](#) and tab [Custom Field](#), in the Extensibility business catalog. Create four new custom fields in [Business Context](#) Billing Document Item with an appropriate type.

| New Field | |
|---|---|
| Field Properties | |
| Business Context:* | Sales: Billing Document Item |
| Label:* | Contract Item Start |
| Identifier:* | YY1_ ContractItemStart |
| Tooltip:* | Contract Item Start |
| Type:* | Date |
| Business Context Capacity: | <div style="width: 11%;"><div style="width: 100%;"></div></div> 11% |
| Create Create and Edit Cancel | |



New Field

Field Properties

| | | |
|---|----------------------------------|-----------------|
| Business Context: [*] | Sales: Billing Document Item | ▼ |
| Label: [*] | Contract Item End | |
| Identifier: [*] | YY1_ | ContractItemEnd |
| Tooltip: [*] | Contract Item End | |
| Type: [*] | Date | ▼ |
| Business Context Capacity: | <div style="width: 13%;"> </div> | 13% |
| Create Create and Edit Cancel | | |

New Field

Field Properties 

| | | |
|---|----------------------------------|-----------------|
| Business Context: [*] | Sales: Billing Document Item | ▼ |
| Label: [*] | Settlement Start | |
| Identifier: [*] | YY1_ | SettlementStart |
| Tooltip: [*] | Settlement Start | |
| Type: [*] | Date | ▼ |
| Business Context Capacity: | <div style="width: 13%;"> </div> | 13% |
| Create Create and Edit Cancel | | |

New Field

Field Properties

Business Context:^{*} Sales: Billing Document Item

Label:^{*} Settlement End

Identifier:^{*} YY1_ SettlementEnd

Tooltip:^{*} Settlement End

Type:^{*} Date

Business Context Capacity: 14%

Create Create and Edit Cancel

These four custom fields are intended to store the Contract Item Start/End and Settlement Start/End in the billing document.

Remark: The custom fields will only be filled when the output request is triggered.

1.2.2 Extend the Form Template with the Extension Field

Within the same App [Custom Fields and Logic](#) and tab [Custom Field](#) enable the Form Templates for the Billing Document with the extension fields.

SAP Custom Fields and Logic

Contract Item Start

Date YY1_ContractItemStart Published

Sales: Billing Document Item

General Information Uls and Reports (13) Email Templates (0) **Form Templates (65)** Business Scenarios (11) OData APIs (2) SOAP APIs (3) BAPIs (1) IDocs (0)

| Form Templates | | | |
|--------------------------------|----------------------|--------------------------------|--|
| Name | Data Source | Description | Field Usage |
| FPD_V3_BD_STANDARD_SRV | YY1_FAXNUMBER | fax number | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_SRV | SDBIL_CM_STANDARD_DE | Credit Memo Form | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_AT | Credit Memo Form (Austria) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_BE | Credit Memo Form (Belgium) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_FR | Credit Memo Form (France) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_HU | Credit Memo Form (Hungary) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_ID | Credit Memo Form (Indonesia) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_IE | Credit Memo Form (Ireland) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_SA | Credit Memo Form (KSA) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_LU | Credit Memo Form (Luxembourg) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_SRV | SDBIL_CM_STANDARD_NL | Credit Memo Form (Netherlands) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_COU | SDBIL_CM_STANDARD_NZ | Credit Memo Form (New Zealand) | Enabled <button>Disable Usage</button> |

Save **Publish** Discard Changes Delete Cancel

SAP Custom Fields and Logic

Contract Item End

Date YY1_ContractItemEnd Published

Sales: Billing Document Item

General Information Uls and Reports (13) Email Templates (0) **Form Templates (65)** Business Scenarios (11) OData APIs (2) SOAP APIs (3) BAPIs (1) IDocs (0)

| Form Templates | | | |
|--------------------------------|----------------------|--------------------------------|--|
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| FPD_V3_BD_STANDARD_SRV | SDBIL_CM_STANDARD_NL | Credit Memo Form (Netherlands) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_COU | SDBIL_CM_STANDARD_NZ | Credit Memo Form (New Zealand) | Enabled <button>Disable Usage</button> |

Save **Publish** Discard Changes Delete Cancel

The screenshot shows the SAP Custom Fields and Logic interface. The top navigation bar includes the SAP logo, a search icon, and a user icon. The page title is "Custom Fields and Logic". Below the title, the section name is "Settlement Start". On the left, there's a sidebar with "Date", "YV1_SettlementStart", and "Sales: Billing Document Item". To the right, the status is "Published". At the bottom of the main area, there are tabs: General Information, UIs and Reports (13), Email Templates (0), Form Templates (65) (which is selected), Business Scenarios (11), OData APIs (2), SOAP APIs (3), BAPIs (1), and IDocs (0).

| Form Templates | | | |
|--------------------------------|----------------------|--------------------------------|--|
| Name | Data Source | Description | Field Usage |
| FPD_V3_BD_STANDARD_SRV | YY1_FAXNUMBER | fax number | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_SRV | SDBIL_CM_STANDARD_DE | Credit Memo Form | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_AT | Credit Memo Form (Austria) | Enabled <button>Disable Usage</button> |
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| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_ID | Credit Memo Form (Indonesia) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_IE | Credit Memo Form (Ireland) | Enabled <button>Disable Usage</button> |
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| FPD_V3_BD_STANDARD_SRV | SDBIL_CM_STANDARD_NL | Credit Memo Form (Netherlands) | Enabled <button>Disable Usage</button> |
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| Form Templates | | | |
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| FPD_V3_BD_STANDARD_SRV | YY1_FAXNUMBER | fax number | Enabled <button>Disable Usage</button> |
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| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_AT | Credit Memo Form (Austria) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_BE | Credit Memo Form (Belgium) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_FR | Credit Memo Form (France) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_HU | Credit Memo Form (Hungary) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_ID | Credit Memo Form (Indonesia) | Enabled <button>Disable Usage</button> |
| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_IE | Credit Memo Form (Ireland) | Enabled <button>Disable Usage</button> |
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| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_LU | Credit Memo Form (Luxembourg) | Enabled <button>Disable Usage</button> |
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| FPD_V3_BD_STANDARD_GLO_GEN_SRV | SDBIL_CM_STANDARD_NZ | Credit Memo Form (New Zealand) | Enabled <button>Disable Usage</button> |

Save and publish the extension field.

1.2.3 Creation of an extension logic

Use app [Custom Fields and Logic](#), tab [Custom Logic](#), in the Extensibility business catalog. Create a new Enhancement Implementation in [Business Context Sales: Billing Document](#) with [Definition](#)

Description Billing Standard Output Item Adaption and an appropriate Implementation Description. In case the Enhancement Implementation already exist, this step can be skipped.

New Enhancement Implementation

Business Context:

Sales: Billing Document Item

BAdl Description:*

Billing Standard Output Item Adaption

Implementation Description:*

Enhance Item Print

Implementation ID:*

YY1_ ENHANCEITEMPRINT

Create Cancel

Add the following example code to the Draft:

```
* This method can be used to set values for output to billing document item extension fields.  
* Example:  
*  
* First of all assign existing extension field values to output parameter:  
billingdocitem_ext_out = billingdocitem_ext_in.  
billingdocitemdescr_ext_out = billingdocitemdescr_ext_in.  
  
* This sample code is used to enhance customer logic for service contract related billing document's output  
* Get service Contract Item Start/End date  
SELECT SINGLE servicecontritemstartdatetime,  
        servicecontritemenddatetime  
FROM I_ServiceDocumentItem  
WHERE ServiceObjectType = 'BUS2000112' "Service Contract  
    AND ServiceDocument = @billingdocitem-servicedocument  
    AND ServiceDocumentItem = @billingdocitem-servicedocumentitem  
INTO ( @DATA(lv_contrstart),  
      @DATA(lv_contraend) ).  
IF sy-subrc <> 0.  
    RETURN.  
ENDIF.
```

```

*      Document category
CASE billingdoc-sddocumentcategory.

*[Use Case 1]: Create released status service contract-> Generate BDR-> Create
Invoice-> output Invoice
*[Use Case 2]: Create released status service contract-> Generate BDR-> Create
Invoice->Cancel Invoice-> output cancel Invoice
      WHEN 'M' or 'N'.

*      Invoice number
DATA(lv_billingdoc)      = billingdocitem-billingdocument.
DATA(lv_billingdocitem)   = billingdocitem-billingdocumentitem.

*      BDR number
IF billingdocitem-referencesddocumentcategory = 'EBDR'.
    DATA(lv_bdr)      = billingdocitem-referencesddocument.
    DATA(lv_bdritem)   = billingdocitem-referencesddocumentitem.
ELSE.
    RETURN.
ENDIF.

WHEN 'O'.    "Credit memo

*[Use Case 3]: Create released status service contract-> Generate BDR-> Create
Invoice->Create credit memo request reference invoice->Create credit memo
Invoice->output Invoice
      IF billingdocitem-referencesddocumentcategory = 'K'.

        DATA(lv_crm_rq)      = billingdocitem-referencesddocument.
        DATA(lv_crm_rq_item) = billingdocitem-referencesddocumentitem.

        "Get original invoice
        SELECT SINGLE referencesddocument,
               referencesddocumentitem
          FROM I_CreditMemoRequestItem
         WHERE CreditMemoRequest           = @lv_crm_rq
               AND CreditMemoRequestItem     = @lv_crm_rq_item
           INTO ( @lv_billingdoc,
                  @lv_billingdocitem ).

      ELSE.
*[Use Case 4]: Create released status service contract-> Generate BDR-> Create
Invoice->Create credit memo reference invoice-> output credit memo Invoice
        "Get original invoice
        lv_billingdoc      = billingdocitem-referencesddocument.
        lv_billingdocitem   = billingdocitem-referencesddocumentitem.

ENDIF.

"get BDR
SELECT SINGLE referencesddocument,
       referencesddocumentitem
      FROM i_billingdocumentitembasic
     WHERE billingdocument           = @lv_billingdoc
           AND billingdocumentitem     = @lv_billingdocitem
           AND referencesddocumentcategory = 'EBDR'
           INTO ( @lv_bdr,
                  @lv_bdritem ).

WHEN OTHERS.

```



```
RETURN.  
ENDCASE.  
  
"get Billing request line number  
SELECT SINGLE referencesddocumentitem  
    FROM i_billingdocumentitembasic  
    WHERE billingdocument      = @lv_bdr  
        AND billingdocumentitem   = @lv_bdritem  
        AND referencesddocumentcategory = 'CSCT'  
    INTO @DATA(lv_record_no) .  
  
*     Get settlement Start/End date  
SELECT SINGLE settlementstartdatetime,  
        settlementenddatetime  
    FROM i_billingrequestitem  
    WHERE ServiceObjectType = 'BUS2000112' "Service Contract  
        AND servicedocument      = @billingdocitem-servicedocument  
        AND servicedocumentitem  = @billingdocitem-servicedocumentitem  
        AND billingrequestitem   = @lv_record_no  
    INTO ( @DATA(lv_settlementstart),  
          @DATA(lv_settlementend) ).  
  
    CONVERT TIME STAMP lv_contrstart      TIME ZONE 'UTC' INTO DATE  
    billingdocitem_ext_out-yy1_contractitemstart_bdi.  
    CONVERT TIME STAMP lv_contraend      TIME ZONE 'UTC' INTO DATE  
    billingdocitem_ext_out-yy1_contractitemend_bdi.  
    CONVERT TIME STAMP lv_settlementstart TIME ZONE 'UTC' INTO DATE  
    billingdocitem_ext_out-yy1_settlementstart_bdi.  
    CONVERT TIME STAMP lv_settlementend   TIME ZONE 'UTC' INTO DATE  
    billingdocitem_ext_out-yy1_settlementend_bdi.
```

Save and publish the extension Logic.

Select Variant

| | | | |
|------------------------|---|-----------------------------|---|
| billingdoc: | <input type="text" value="Click to add value"/> | billingdocitem: | <input type="text" value="Click to add value"/> |
| billingdocitem_ext_in: | <input type="text" value="Click to add value"/> | billingdocitemdescr_ext_in: | <input type="text" value="Click to add value"/> |

Published Logic

```
8 * This sample code is used to enhance customer logic for service contract related billing document's output  
9 * Get service Contract Item Start/End date  
10 * SELECT SINGLE servicecontritemstartdatetime,  
11     servicecontritemenddatetime  
12     FROM I_ServiceDocumentItem  
13     WHERE ServiceObjectType = 'BUS2000112' "Service Contract  
14         AND ServiceDocument      = @billingdocitem-servicedocument  
15         AND ServiceDocumentItem  = @billingdocitem-servicedocumentitem  
16     INTO ( @DATA(lv_contrstart),  
17           @DATA(lv_contraend) ).  
18 * IF sy-subrc <> 0.  
19     RETURN.  
20 ENDIF.  
21  
22 * Document category  
23  
24  
25 *[Use Case 1]: Create released status service contract-> Generate BDR-> Create Invoice-> output Invoice  
26 *[Use Case 2]: Create released status service contract-> Generate BDR-> Create Invoice->Cancel Invoice-> output cancel Invoice  
27  
28  
29 *     Invoice number  
30  
31 *     BDR number  
32  
33 *     Create credit memo request reference invoice->Create credit memo Invoice->output Invoice  
34 *[Use Case 3]: Create released status service contract-> Generate BDR-> Create Invoice->Create credit memo request reference invoice->Create credit memo Invoice->output Invoice  
35 *[Use Case 4]: Create released status service contract-> Generate BDR-> Create Invoice->Create credit memo reference invoice-> output credit memo Invoice  
36  
37 *     Get settlement Start/End date  
102  
103
```



Remark: To see the newly created custom fields on the billing document output, it is necessary to create a new form template.