

Extension Development

This chapter lists important integration events and examples that help in developing an extension for SQUEEZE for BC. Important: Customizations may only be performed by appropriately trained consultants/developers. Furthermore, these are always outside of the standard support.

- [Adding a field in the validation \(up to Squeeze Version 1.*\)](#)
- [Deviating use of the SQUEEZE attachments](#)
- [Adding a field in the validation \(from version 2.10\)](#)
- [Alternative use of the SQUEEZE attachments](#)

Adding a field in the validation (up to Squeeze Version 1.*)

The following is an example extension that shows how developers can add fields in validation.

Required integration events incl. sample procedures:

```
codeunit 50100 EventSubs
{
    //
    //Any header field that you want to transfer to the resulting document, has to be added
    to the source JSON Object
    //
    [EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP SQZ Document Mgt.",
    'OnBeforeAddLineToDocumentJObj', '', false, false)]
    local procedure SQZDocMgtOnBeforeAddLineToDocumentJObj(var DocumentJObj: JsonObject;
    DocHeader: Record "DXP SQZ Document Header")
    begin
        AddCustomHeaderFieldsToJson(DocumentJObj, DocHeader);
    end;

    //
    // Any line field that you want to transfer to the resulting document, has to be added to
    the source JSON Object
    //
    [EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP SQZ Document Mgt.",
    'OnBeforeAddLineJObjToLineJArray', '', false, false)]
    local procedure SQZDocMgtOnBeforeAddLineJObjToLineJArray(var LineJObj: JsonObject;
    DocLine: Record "DXP SQZ Document Line")
    begin
        AddCustomLineFieldsToJson(LineJObj, DocLine);
    end;
```

```

//
// [If you want to perform plausibility checks on the newly added header field, this is
the place]
//
[EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP SQZ Document Mgt.",
'OnAfterDoHeaderPlausibilityChecks', '', false, false)]
    local procedure SQZDocMgtOnBeforeDoHeaderPlausibilityChecks(DocHeader: Record "DXP SQZ
Document Header"; var PlausibilityCheck: Codeunit "DXP Plausiblity Check Mgt.")
    begin
        CheckCustomer(PlausibilityCheck, DocHeader."Customer No.");
    end;

//
// [If you want to perform plausibility checks on the newly added line field, this is the
place]
//
[EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP SQZ Document Mgt.",
'OnAfterDoLinePlausibilityChecks', '', false, false)]
    local procedure SQZDocMgtOnAfterDoLinePlausibilityChecks(DocHeader: Record "DXP SQZ
Document Header"; DocLine: Record "DXP SQZ Document Line"; var PlausibilityCheck: Codeunit
"DXP Plausiblity Check Mgt.")
    begin
        CheckCustomer(PlausibilityCheck, DocLine."Customer No.");
    end;

//
// The value of the previously extended JSON Object now has to saved to the corresponding
field in the SQUEEZE Document Line
//
[EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP SQZ Document Mgt.",
'OnBeforeModifySQUEEZEDocumentHeader', '', false, false)]
    local procedure SqzDocMgtOnBeforeModifySQUEEZEDocumentHeader(var DocHeader: Record "DXP
SQZ Document Header"; RawJson: JsonObject)
    var
        JSONHelper: Codeunit "DXP Json Helper";
        SQZApiTokenMgt: Codeunit "DXP SQZ API Token Mgt.";
        TokenMgt: Codeunit TokenMgt;
    begin
        DocHeader."Customer No." := COPYSTR( JSONHelper.ValAsTxt(RawJson,

```

```

SQZApiTokenMgt. GetHeaderValueByNameTok( TokenMgt. GetCustomerNoTok()), false), 1,
MaxStrLen(DocHeader. "Customer No. "));

end;

//

// The value of the previously extended JSON Object now has to saved to the corresponding
field in the SQUEEZE Document Header

//

[ EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP SQZ Document Mgt.",
' OnBeforeTransferRecognizedValuesOnAfterAssignRecognizedValues', '', false, false)]

local procedure
SQZDocMgtOnBeforeTransferRecognizedValuesOnAfterAssignRecognizedValues(RowJTok: JsonToken;
var DocLine: Record "DXP SQZ Document Line")
var
    JSONHelper: Codeunit "DXP Json Helper";
    SQZApiTokenMgt: Codeunit "DXP SQZ API Token Mgt.";
    TokenMgt: Codeunit TokenMgt;
begin
    DocLine. "Customer No. " := CopyStr( JsonHelper. ValAsTxt( RowJTok. AsObject()),
SQZApiTokenMgt. GetCellValueTok( TokenMgt. GetCustomerNoTok()), false), 1,
MaxStrLen(DocLine. "Customer No. "));

end;

//

// The newly added fields now have to be added to the field mapping
// Otherwise the recognized values will be saved as meta data
// This step is necessary to make sure that the fields can be highlighted in the SQUEEZE
Viewer

//

[ EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP SQZ API Mgt.",
' OnAfterInitMapping', '', false, false)]

local procedure SQZApiMgtOnAfterInitMapping(var HeaderMapping: Dictionary of [Text,
Integer]; var LineMapping: Dictionary of [Text, Integer]; DocClass: Enum "DXP Document Class")
var
    SQZDocHeader: Record "DXP SQZ Document Header";
    SQZDocLine: Record "DXP SQZ Document Line";
    TokenMgt: Codeunit TokenMgt;
begin
    // The standard (without installed extensions) supports one Document Class
    case DocClass of

```

```

DocClass::"DXP Invoice / Credit Memo":
begin
    HeaderMapping.Add( TokenMgt. GetCustomerNoTok(),
SQZDocHeader.FieldNo("Customer No. "));
    LineMapping.Add( TokenMgt. GetCustomerNoTok(), SQZDocLine.FieldNo("Customer
No. "));
end;
end;
end;

//
// The value in the JSON Object now has to be transferred to the Purchase Header
//
[EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP Document Transfer Mgt.",
'OnAfterCreatePurchaseHeader', '', false, false)]
local procedure DocTransferMgtOnAfterCreatePurchaseHeader( var JObject: JsonObject;
PurchaseHeader: Record "Purchase Header")
begin
    TransferCustomHeaderFieldFromJsonToPurchaseHeader( JObject, PurchaseHeader);
end;

//
// The value in the JSON Object now has to be transferred to the Purchase Line
//
[EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP Document Transfer Mgt.",
'OnBeforeInsertPurchaseLine', '', false, false)]
local procedure DocTransferMgtOnAfterInsertPurchaseLineOnBeforeAddDimensions( var
JObjectLine: JsonObject; var PurchaseLine: Record "Purchase Line")
begin
    TransferCustomHeaderFieldFromJsonToPurchaseLine( JObjectLine, PurchaseLine);
end;

local procedure TransferCustomHeaderFieldFromJsonToPurchaseHeader( var JObject:
JsonObject; PurchaseHeader: Record "Purchase Header")
var
    JsonHelper: Codeunit "DXP Json Helper";
    TokenMgt: Codeunit TokenMgt;
begin
    PurchaseHeader.Validate("DXP Customer No.", JsonHelper.ValAsTxt( JObject,
TokenMgt. GetCustomerNoTok(), false));

```

```

        PurchaseHeader.Modify();
    end;

    local procedure TransferCustomHeaderFieldFromJsonToPurchaseLine( var JObjectLine:
JsonObject; var PurchaseLine: Record "Purchase Line")
    var
        JsonHelper: Codeunit "DXP Json Helper";
        TokenMgt: Codeunit TokenMgt;
    begin
        PurchaseLine.Validate("DXP Customer No.", JsonHelper.ValAsTxt( JObjectLine,
TokenMgt.GetCustomerNoTok(), false));
    end;

    local procedure AddCustomHeaderFieldsToJson( var DocumentJObj: JsonObject;
SQZDocumentHeader: Record "DXP SQZ Document Header")
    var
        TokenMgt: Codeunit TokenMgt;
    begin
        DocumentJObj.Add( TokenMgt.GetCustomerNoTok(), SQZDocumentHeader."Customer No.");
    end;

    local procedure AddCustomLineFieldsToJson( var LineJObj: JsonObject; SQZDocumentLine:
Record "DXP SQZ Document Line")
    var
        TokenMgt: Codeunit TokenMgt;
    begin
        LineJObj.Add( TokenMgt.GetCustomerNoTok(), SQZDocumentLine."Customer No.");
    end;

    [ TryFunction]
    local procedure CustomerExists( CustomerNo: Code[ 20])
    var
        Customer: Record Customer;
    begin
        Customer.Get( CustomerNo);
    end;

    local procedure CheckCustomer( var PlausibilityCheck: Codeunit "DXP Plausiblity Check
Mgt."; CustomerNo: Code[ 20]): Boolean
    begin

```

```

    if CustomerNo = '' then
        exit(false);

    if not CustomerExists(CustomerNo) then begin
        PlausibilityCheck.AddPlausibilityCheckEntry(GetLastErrorText(), Page: "Customer
List");
        exit(false);
    end;

    exit(true);
end;
}

```

Table Extensions:

SQUEEZE 4 BC

```

tableextension 50100 "SQZ Doc. Header Ext." extends "DXP SQZ Document Header"
{
    fields
    {
        field(50100; "Customer No."; Code[20])
        {
            TableRelation = Customer;
            ValidateTableRelation = false;
            Caption = 'Customer No.';
        }
    }
}

```

```

tableextension 50101 "SQZ Doc. Line Ext." extends "DXP SQZ Document Line"
{
    fields
    {
        field(50100; "Customer No."; Code[20])
        {
            TableRelation = Customer;
            ValidateTableRelation = false;
            Caption = 'Customer No.';
        }
    }
}

```

```
}  
}
```

Target document (here: purchasing document)

```
tableextension 50102 "Purchase Header Ext." extends "Purchase Header"  
{  
    fields  
    {  
        field(50100; "DXP Customer No."; Code[20])  
        {  
            DataClassification = CustomerContent;  
            TableRelation = Customer;  
            Caption = 'DEXPRO Customer No.';  
        }  
    }  
}
```

Page Extensions:

SQUEEZE 4 BC

```
pageextension 50100 "SQZ Document Ext." extends "DXP SQZ Document"  
{  
    layout  
    {  
        addafter(BuyFromVendorInternal)  
        {  
            field("Customer No. Internal"; Rec."Customer No.")  
            {  
                ApplicationArea = All;  
                ToolTip = 'Specifies the value of the Customer No. field.';  
                trigger OnAssistEdit()  
                begin  
                    MarkField(Rec.FieldNo("Customer No."), Rec."Customer No.",  
Rec);  
                end;  
                trigger OnValidate()  
            }  
        }  
    }  
}
```



```

        begin
            CheckPlausibility();
        end;
    }
}
addafter( BuyFromVendor)
{
    field("Customer No."; Rec."Customer No.")
    {
        ApplicationArea = All;
        ToolTip = 'Specifies the value of the Customer No. field.';
        trigger OnAssistEdit()
        var
            ApiMgt: Codeunit "DXP SQZ API Mgt.";
            ViewerResident: Codeunit "DXP SQUEEZE Viewer Resident";
        begin
            MarkField(Rec.FieldNo("Customer No."), Rec."Customer No.",
Rec);
        end;

        trigger OnValidate()
        begin
            CheckPlausibility();
        end;
    }
}
}

local procedure MarkField( AppFldNo: Integer; FieldVal: Variant; DocHeader: Record "DXP
SQZ Document Header")
var
    ApiMgt: Codeunit "DXP SQZ API Mgt.";
    ViewerResident: Codeunit "DXP SQUEEZE Viewer Resident";
begin
    ViewerResident := GetViewerResident();
    ApiMgt.MarkField( AppFldNo, FieldVal, ViewerResident, DocHeader);
end;
}

```

pageextension 50101 "SQZ Document Sf. Ext." extends "DXP SQZ Document Subform"

```

{
  layout
  {
    addafter("No.")
    {
      field("Customer No."; Rec."Customer No.")
      {
        ApplicationArea = All;
        ToolTip = 'Specifies the value of the Customer No. field.';
      }
    }
  }
}

```

Target document (here: purchasing document)

```

pageextension 50102 "Purchase Invoice Ext." extends "Purchase Invoice"
{
  layout
  {
    addafter("Buy-from Vendor No.")
    {
      field("DXP Customer No."; Rec."DXP Customer No.")
      {
        ToolTip = 'Specifies the value of the DEXPRO Customer No.
field.';
        ApplicationArea = all;
      }
    }
  }
}

```

```

pageextension 50103 "Purchase Inv. Sf Ext." extends "Purch. Invoice Subform"
{
  layout
  {
    addafter("No.")
    {
      field("DXP Customer No."; Rec."DXP Customer No.")
      {

```

```
ToolTip = 'Specifies the value of the DEXPRO Customer No. field.';
    ApplicationArea = all;
}
}
}
}
```

Optional auxiliary objects:

```
codeunit 50101 TokenMgt
{
    procedure GetCustomerNoTok(): Text
    begin
        exit(CustomerNoTok);
    end;

    var
        CustomerNoTok: Label 'customerNo', Locked = true;
}
```

Deviating use of the SQUEEZE attachments

The following is a brief explanation of how the attachments downloaded through SQUEEZE for BC can be used for a scenario that differs from the intended use.

After creating the purchasing document from the validated SQUEEZE document, you have the option to retrieve the attachments (if they have been downloaded in advance).

```
// Set IsHandled to true and implement your code
// Do not forget to deactivate "Transfer attachments to target document" in the Document
Class Setup
[ EventSubscriber( ObjectType::Codeunit, Codeunit::"DXP Document Mgt.",
' OnBeforeTransferCoreAttachmentsToStandardDocument', '', false, false)]
local procedure DXPDocMgtOnBeforeTransferCoreAttachmentsToStandardDocument( Document:
Record "DXP Document"; var IsHandled: Boolean)
begin
    IsHandled := true;
    HandleCoreAttachmentsAccordingToYourNeeds( Document, IsHandled);
end;

procedure HandleCoreAttachmentsAccordingToYourNeeds( Document: Record "DXP Document"; var
IsHandled: Boolean)
var
    CoreAttachments: Record "DXP Document Attachment";
    InStr: InStream;
begin
    CoreAttachments.SetRange( "Document No.", Document."No." );
    CoreAttachments.IsEmpty() then
        Exit;
    CoreAttachments.FindSet();
    repeat
        CoreAttachments.CalcFields( Attachment );
        CoreAttachments.Attachment.CreateInStream( InStr );
        // Here you can handle the file stream according to your needs
    [...]
```

```
until CoreAttachments.Next() = 0;  
end;
```

Adding a field in the validation (from version 2.10)

The following example extension shows how developers can add fields in the validation (here: document class invoice/credit note).

Optional integration events incl. sample procedures:

```
codeunit 50100 EventSubs
{
    //
    // [If you want to perform plausibility checks on the newly added header field, this is
    the place]
    //
    [EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP SQZ P. Inv/Crdt Memo Impl.",
    'OnAfterDoHeaderPlausibilityChecks', '', false, false)]
    local procedure SQZPIInvCrdtMemoImplOnBeforeDoHeaderPlausibilityChecks(DocHeader: Record
    "DXP SQZ Document Header"; var PlausibilityCheck: Codeunit "DXP Plausiblity Check Mgt.")
    begin
        CheckCustomer(PlausibilityCheck, DocHeader."Customer No.");
    end;

    //
    // [If you want to perform plausibility checks on the newly added line field, this is the
    place]
    //
    [EventSubscriber(ObjectType::Codeunit, Codeunit::"DXP SQZ P. Inv/Crdt Memo Impl.",
    'OnAfterDoLinePlausibilityChecks', '', false, false)]
    local procedure SQZPIInvCrdtMemoImplOnAfterDoLinePlausibilityChecks(DocHeader: Record "DXP
    SQZ Document Header"; DocLine: Record "DXP SQZ Document Line"; var PlausibilityCheck:
    Codeunit "DXP Plausiblity Check Mgt.")
    begin
```

```

        CheckCustomer(PlausibilityCheck, DocLine."Customer No.");
    end;

[ TryFunction]
local procedure CustomerExists(CustomerNo: Code[20])
var
    Customer: Record Customer;
begin
    Customer.Get(CustomerNo);
end;

local procedure CheckCustomer(var PlausibilityCheck: Codeunit "DXP Plausiblity Check
Mgt."; CustomerNo: Code[20]): Boolean
begin
    if CustomerNo = '' then
        exit(false);

    if not CustomerExists(CustomerNo) then begin
        PlausibilityCheck.AddPlausibilityCheckEntry(GetLastErrorText(), Page: "Customer
List");
        exit(false);
    end;

    exit(true);
end;
}

```

Table Extensions:

SQUEEZE 4 BC

```

tableextension 50100 "SQZ Doc. Header Ext." extends "DXP SQZ Document Header"
{
    fields
    {
        field(50100; "Customer No."; Code[20])
        {
            TableRelation = Customer;
            ValidateTableRelation = false;
            Caption = 'Customer No.';

```

```

    }
}

```

```

tableextension 50101 "SQZ Doc. Line Ext." extends "DXP SQZ Document Line"
{
    fields
    {
        field(50100; "Customer No."; Code[20])
        {
            TableRelation = Customer;
            ValidateTableRelation = false;
            Caption = 'Customer No.';
        }
    }
}

```

Target document (here: Purchase Document)

```

tableextension 50102 "Purchase Header Ext." extends "Purchase Header"
{
    fields
    {
        field(50100; "DXP Customer No."; Code[20])
        {
            DataClassification = CustomerContent;
            TableRelation = Customer;
            Caption = 'DEXPRO Customer No.';
        }
    }
}

```

Page Extensions:

SQUEEZE 4 BC

```

pageextension 50100 "SQZ Document Ext." extends "DXP SQZ Document v2"
{

```



```

layout
{
    addafter(BuyFromVendorInternal)
    {
        field("Customer No. Internal"; Rec."Customer No.")
        {
            ApplicationArea = All;
            ToolTip = 'Specifies the value of the Customer No. field.';
            //The following code is optional. It is used to highlight a recognized value in
the Squeeze Viewer
            trigger OnAssistEdit()
            begin
                MarkField(Rec.FieldNo("Customer No."), Rec."Customer No.",
Rec);
            end;

            trigger OnValidate()
            begin
                CheckPlausibility();
            end;
        }
    }
    addafter(BuyFromVendorExternal)
    {
        field("Customer No."; Rec."Customer No.")
        {
            ApplicationArea = All;
            ToolTip = 'Specifies the value of the Customer No. field.';
            //The following code is optional. It is used to highlight a recognized value
in the Squeeze Viewer
            trigger OnAssistEdit()
            var
                ApiMgt: Codeunit "DXP SQZ API Mgt.";
                ViewerResident: Codeunit "DXP SQUEEZE Viewer Resident";
            begin
                MarkField(Rec.FieldNo("Customer No."), Rec."Customer No.",
Rec);
            end;

            trigger OnValidate()

```

```

        begin
            CheckPlausibility();
        end;
    }
}

local procedure MarkField( AppFldNo: Integer; FieldVal: Variant; DocHeader: Record "DXP
SQZ Document Header")
var
    ApiMgt: Codeunit "DXP SQZ API Mgt.";
    ViewerResident: Codeunit "DXP SQUEEZE Viewer Resident";
begin
    ViewerResident := GetViewerResident();
    ApiMgt.MarkField( AppFldNo, FieldVal, ViewerResident, DocHeader);
end;
}

```

```

pageextension 50101 "SQZ Document Sf. Ext." extends "DXP SQZ Document Subform"
{
    layout
    {
        addafter("No.")
        {
            field("Customer No."; Rec."Customer No.")
            {
                ApplicationArea = All;
                ToolTip = 'Specifies the value of the Customer No. field.';
            }
        }
    }
}

```

Target document (here: Purchase document)

```

pageextension 50102 "Purchase Invoice Ext." extends "Purchase Invoice"
{
    layout
    {
        addafter("Buy-from Vendor No.")
    }
}

```

```

    {
        field("DXP Customer No."; Rec."DXP Customer No.")
        {
            ToolTip = 'Specifies the value of the DEXPRO Customer No.
field.';

            ApplicationArea = all;
        }
    }
}

```

```

pageextension 50103 "Purchase Inv. Sf Ext." extends "Purch. Invoice Subform"
{
    layout
    {
        addafter("No.")
        {
            field("DXP Customer No."; Rec."DXP Customer No.")
            {
                ToolTip = 'Specifies the value of the DEXPRO Customer No.
field.';

                ApplicationArea = all;
            }
        }
    }
}

```

Alternative use of the SQUEEZE attachments

The following briefly explains how the attachments downloaded by SQUEEZE for BC can be used for a scenario that differs from the intended use.

After creating the purchase document from the validated SQUEEZE document, you have the option of accessing the attachments (assuming they have been downloaded in advance).

```
// Set IsHandled to true and implement your code
// Do not forget to deactivate "Transfer attachments to target document" in the Document
Class Setup
[ EventSubscriber( ObjectType::Codeunit, Codeunit::"DXP Document Mgt.",
' OnBeforeTransferCoreAttachmentsToStandardDocument', '', false, false)]
local procedure DXPDocMgtOnBeforeTransferCoreAttachmentsToStandardDocument( Document:
Record "DXP Document"; var IsHandled: Boolean)
begin
    IsHandled := true;
    HandleCoreAttachmentsAccordingToYourNeeds( Document, IsHandled);
end;

procedure HandleCoreAttachmentsAccordingToYourNeeds( Document: Record "DXP Document"; var
IsHandled: Boolean)
var
    CoreAttachments: Record "DXP Document Attachment";
    InStr: InStream;
begin
    CoreAttachments.SetRange( "Document No.", Document."No.");
    CoreAttachments.IsEmpty() then
        Exit;
    CoreAttachments.FindSet();
    repeat
        CoreAttachments.CalcFields( Attachment);
        CoreAttachments.Attachment.CreateInStream( InStr);
        // Here you can handle the file stream according to your needs
    [...]
```

```
until CoreAttachments.Next() = 0;  
end;
```