



PUBLIC

## **Employee Central Country Specific – Recording Work Permit information with different document formats**

## Document Details

| Name   | Objective   | Audience  |
|--|---|---|
| Employee Central<br>Country Specific -<br>Recording Work<br>Permit information<br>with different<br>document formats | Propose a solution to handle Work Permit<br>Information for countries with different<br>document formats. | SAP SuccessFactors Customers: IT<br>and HR professionals;<br><br>SAP SuccessFactors<br>Implementation Partners:<br>Consultants, solution architects and<br>project managers |

## Change Log

| Version | Date          | Description                          |
|---------|---------------|--------------------------------------|
| 1.0     | 29 March 2021 | Initial version                      |
| 1.1     | 10 June 2022  | Improvements for the user experience |

## Supported Releases

| Product                             | Release - From | Release-Valid<br>till |
|-------------------------------------|----------------|-----------------------|
| SAP SuccessFactors Employee Central | 2011           |                       |

## Contribution

| Role        | Name                   | Organization |
|-------------|------------------------|--------------|
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The recommendations in this document are based on the functionality available up to SAP SuccessFactors release mentioned above. Future functionality can impact the recommendations provided by this document. We strive to keep these recommendations up-to-date, however, in case you find that recent new functionality has not yet been considered in the latest version of this document, please reach out to your Customer Success Manager / Partner Delivery Manager or send an email to [SAPSuccessFactorsIDPDoc@sap.com](mailto:SAPSuccessFactorsIDPDoc@sap.com).

Implementation Design Principles (IDPs) for SuccessFactors solutions are delivered by SAP for helping customers and partners on how to choose the most appropriate strategy and solution architecture for SuccessFactors implementations. IDPs are compiled taking into consideration the experience of many implementation projects and addressing frequent business requirements as well as real-life implementation challenges. They are continuously reviewed and updated as product functionality evolves. In addition, the reader is advised to read and familiarize with essential and additional product-related documentation which includes Implementation Guides, SAP Notes, SAP Knowledge Base Articles, and additional assets as referenced in this document, see chapter 8.

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## 1 TERMINOLOGY

The following table explains some abbreviations used in this document.

| Abbreviation | Description  |
|--------------|--|
| EC           | Employee Central   |
| ERP          | SAP Enterprise Resource Planning often referred to in the document pertains to SAP HCM on-premise system |
| MDF          | Meta Data Framework  |
| RBP          | Role Based Permissions   |
| UI           | User Interface   |
|              |  |

## 2 ABSTRACT

Some companies spread through several countries face the need of recording several work documents (or work permits) with different formats. Although the standard Work Permit element allows the creation of custom fields, it can be cumbersome from the user's perspective to use the correct fields for every single document. This IDP provides some options to overcome these challenges, with 2 solution variants that can be used, each with their pros and cons.

## 3 INTRODUCTION

Work Permit Information is a standard element to record employee documents with predefined fields and is valid for all countries. However, some countries have different document formats, depending on the type, such as Driver's License, Voter Eligibility Document, and so on.

Although Work Permit Information allows the creation of custom fields, there are some challenges to control the visibility of those fields, causing some confusion for the end-user.

This IDP document has the purpose of providing some options to improve the user experience managing several document types with different formats and field requirements.

## 4 BUSINESS REQUIREMENT

The standard delivered Work Permit Information element is used to record documents in addition to National Id Information. The latter usually contains the main identification document for a country, while the former is used to record other documents on a country basis, such as Driver's License, Voter Eligibility Document, among others.

- However, some countries, e.g., Brazil, has several documents, with different formats, requiring additional fields to provide a good user experience. Although Work Permit Information allows the creation of additional custom fields, with the possibility to control their visibility during the Add New Hire process based on the selected Country and Document Type (onChange rule – please refer to [“Implementing Business Rules in SAP SuccessFactors”](#) guide), when it comes to viewing the recorded information on Employee Profile after the completion of the hiring, all fields will be visible to all documents, which is not the desired result. Please see [KBA 2163077 - Base Objects in Business Rules Do Not Support All Rule Types in Employee Central](#)

When it comes to HCM, certain country versions use additional secondary infotypes for National ID: Austria, China, Finland, Hong Kong, India, Malaysia, and Singapore (Infotype 0185), Brazil (Infotype 0465), Japan (Infotype 0140), and Russia (Infotype 0037). These additional infotypes are not yet supported on EC side in the sense that there are no fields based on the selected Document Type in Work Permit Information element. Please refer to "[Country/Region-Specific PA and PY Infotypes](#)" help document.

The primary focus of this document will be to provide a solution for the requirements in Brazil as an example, but the same idea can be applied for countries with similar needs.

#### 4.1 Functional Requirements

Due to Brazilian legal reasons Employee Central is required to record several documents with different formats, and below are some examples:

- Driver's License
  - Number: 11 digits
  - Category: A, B, C, D, E or ACC
- Voter Eligibility Document
  - Number: 12 digits
  - Zone: 3 digits
  - Section: 4 digits
- Social Integration Program (PIS)
  - Number: 11 digits

On the other hand, the standard delivered Work Permit Information element comes with the following standard fields:

- Country
- Document Type
- Document Title
- Document Number
- Issue Date
- Issue Place
- Issuing Authority
- Expiration Date
- Validated

The above-listed fields are valid for all documents without distinction. Although it is possible to add custom fields and control their visibility according to the selected Country and Document Type with the aid of a business rule, when this information block is displayed after the records are saved, all fields will appear for all Document Types, which can be confusing from the end-user perspective. Figure 1 below shows an example of the user experience when adding custom fields for several different document formats.

Employee Files Help & Tutorials Ask HR

Brian Paulsen (bpaulsen) QA Engineer Actions Header As of Today

ME DISMISSAL PROTECTION EMPLOYMENT COMPENSATION PAYROLL TIME BENEFITS TALENT PROFILE PROGRAMAÇÃO DE FÉRIAS PROFESSIONAL HISTORY

### Work Permit

Work Permit Info

|  |                                  |
|--|----------------------------------|
| Country                                | Brazil                           |
| Document Type                          | BRA - Voter Eligibility Document |
| Document Number                        | 12345678901                      |
| Issue Date                             | Feb 01, 2021                     |
| Issue Place                            | São Paulo                        |
| Issuing Authority                      | TRE-SP                           |
| Expiration Date                        | Apr 30, 2021                     |
| Validated                              | Yes                              |
| Voter Card - Zone                      | 1234                             |
| Voter Card - Section                   | 567                              |
| Labor Card - Serial Number             | -                                |
| Driver's License - Category            | -                                |
| Regional Occupation Council - Name     | -                                |
| Regional Occupation Council - Acronym  | -                                |
| Military Certificate - Type            | -                                |
| Military Certificate - Category        | -                                |
| Foreign Registration - Document Number | -                                |
| Visa - Type                            | -                                |
| Death Certificate - Name of Notary     | -                                |
| Death Certificate - Cause              | -                                |

Work Permit Info

|  |                  |
|--|------------------|
| Country                                | Brazil           |
| Document Type                          | BRA - Labor Card |
| Document Number                        | 123456789        |
| Issue Date                             | Jan 01, 2021     |
| Issue Place                            | São Paulo        |
| Issuing Authority                      | TRT-SP           |
| Expiration Date                        | May 31, 2021     |
| Validated                              | Yes              |
| Voter Card - Zone                      | -                |
| Voter Card - Section                   | -                |
| Labor Card - Serial Number             | 123              |
| Driver's License - Category            | -                |
| Regional Occupation Council - Name     | -                |
| Regional Occupation Council - Acronym  | -                |
| Military Certificate - Type            | -                |
| Military Certificate - Category        | -                |
| Foreign Registration - Document Number | -                |
| Visa - Type                            | -                |
| Death Certificate - Name of Notary     | -                |
| Death Certificate - Cause              | -                |
| Attachments                            | -                |

Figure 1: User experience when adding custom fields for the different document formats

Another factor of potential user bad experience is when the customer already have SAP HCM, where Infotype 0465 is used, with different fields depending on the selected Document Type (subtype).

To overcome this situation, this IDP proposes 2 possible solutions, with the help of tools such as Business Rules and Metadata Framework.

## 4.2 Technical Requirements

Many customers implementing EC already run their payroll on SAP HCM and Work Permit Information is relevant for legal reporting purposes. Specifically for Brazil, there is a legal report called eSocial, which consists on several electronic files that must be sent periodically to the government and they contain most of the documents recorded in their employee files (Infotype 0465 on SAP HCM side).

From the integration point of view, from EC to SAP HCM or even to any other payroll solution, it is important to have clear conditions to extract the data from Work Permit Information to integrate with the corresponding payroll system.

## 5 SOLUTION OVERVIEW AND CONCEPTS

This document will provide details for 2 possible solution variants:

- 1) Use the standard delivered Work Permit Information element and create fields and rules to minimize data input error.
- 2) Use the standard delivered Work Permit for countries with the same format for all documents and a custom MDF object for countries with different document formats.

The following table shows the Pros and Cons identified for each variant.

| Variant | Pros   | Cons  |
|---------|--|---|
| 1       | <ol style="list-style-type: none"><li>1. Standard Work Permit Information for all countries.</li><li>2. Native integration from Onboarding or Recruiting Management to EC.</li></ol>           | <ol style="list-style-type: none"><li>1. User experience is not the best for countries with different document formats.</li><li>2. Additional complexity for EC to HCM integration.</li></ol> |
| 2       | <ol style="list-style-type: none"><li>1. Countries with different document formats are going to have a better User experience.</li><li>2. Less complexity for EC to HCM integration.</li></ol> | <ol style="list-style-type: none"><li>1. Onboarding and Recruiting integration not supported.</li></ol>   |

Table 1: Solution Variants for Work Permit Information

## 6 DETAILED SOLUTION

### 6.1 Variant 1: Use of Standard Work Permit Information Element

This solution will require a couple of steps:

- Create an MDF object, which will be used to propose the expected document number format. This object will also contain the corresponding regular expression for data input validation, as well as an example for the selected Document Type to make it easier for the end-user to provide the expected data.
- Add two custom fields on the Work Permit Information element:
  - Document Number Input Format: this field will show the expected document number format
  - Example for Document Number: this field will show an example of the document number format.

The purpose of these fields is to guide how the end-user should provide the Document Number data.

- Create a Business Rule to update the Document Number Input Format information, according to the selected Document Type and assign it to the custom field created on the Work Permit Information element.

- Configure the replication to HCM according to the defined patterns on the Document Number field (separated by slashes). Note: this step is not included in this document (please refer to "[Replicating Employee Master Data and Organizational Assignments from Employee Central to SAP ERP HCM](#)" for details).

### ***Step1: Create an MDF Object for Document Number Input Format***

This MDF object will have the following fields:

- externalCode:
  - Data Type = Auto Number
- externalName, for the document number input format:
  - Data Type = String
- cust\_Z\_documentType, for the document type the format refers to:
  - Data Type = Picklist
  - Valid Values Source = permitdoctype
- cust\_Z\_documentTypeLabel, for the text related to the corresponding document type. It will be used for the error message in the case the user provides an incorrect data:
  - Data Type = String
- cust\_Z\_regularExpression, for the regular expression. It will be used for data validation purposes:
  - Data Type = String
- cust\_Z\_example, for an example corresponding to the document type selected by the user:
  - Data Type = String

The object should be created with Effective Dating = None.

For the Security section, at the bottom of the object definition, set Permission Category = Miscellaneous Permissions.



## Object Definition: Document Input Format (cust\_Z\_workDocumentInputFormat)

Take Action

Code • **cust\_Z\_workDocumentInputFormat** ?

Effective Dating • **None** ?

API Visibility **Editable** ?

Status • **Active** ?

MDF Version History **Complete History** ?

Default Screen ?

Label **Document Input Format** ? ?

Description ?

API Sub Version **V1.1** ?

Subject User Field ?

Workflow Routing ?

Pending Data **No** ?

Todo Category **Generic Object Change Requests** ?

Object Category **No Selection**

### Fields

| Name                            | Database Field Name    | Maximum Length | Data Type   | (21) More               |
|---------------------------------|------------------------|----------------|-------------|-------------------------|
| externalCode                    | externalCode           | 38             | Auto Number | <a href="#">Details</a> |
| externalName                    | externalName           | 128            | String      | <a href="#">Details</a> |
| mdfSystemEffectiveStartDate     | effectiveStartDate     | 10             | Date        | <a href="#">Details</a> |
| mdfSystemEffectiveEndDate       | effectiveEndDate       | 10             | Date        | <a href="#">Details</a> |
| mdfSystemTransactionSequence    | transactionSequence    | 255            | Number      | <a href="#">Details</a> |
| mdfSystemInternalCode           | internalCode           | 255            | Number      | <a href="#">Details</a> |
| mdfSystemEntityId               | entityId               | 255            | String      | <a href="#">Details</a> |
| mdfSystemStatus                 | effectiveStatusStr     | 255            | Enum        | <a href="#">Details</a> |
| mdfSystemObjectType             | objectType             | 255            | String      | <a href="#">Details</a> |
| mdfSystemId                     | id                     | 255            | Number      | <a href="#">Details</a> |
| mdfSystemCreatedBy              | createdBy              | 100            | User        | <a href="#">Details</a> |
| mdfSystemCreatedDate            | createdDate            | 35             | DateTime    | <a href="#">Details</a> |
| mdfSystemLastModifiedBy         | lastModifiedBy         | 100            | User        | <a href="#">Details</a> |
| mdfSystemLastModifiedDate       | lastModifiedDate       | 35             | DateTime    | <a href="#">Details</a> |
| mdfSystemProxyUser              | proxyUser              | 255            | String      | <a href="#">Details</a> |
| mdfSystemRecordStatus           | recordStatusStr        | 255            | Enum        | <a href="#">Details</a> |
| mdfSystemOptimisticLockId       | optimisticLockId       | 255            | Number      | <a href="#">Details</a> |
| mdfSystemOptimisticLockUUID     | optimisticLockUUID     | 255            | String      | <a href="#">Details</a> |
| mdfSystemExternalUserVisibility | externalUserVisibility | 1              | Enum        | <a href="#">Details</a> |
| mdfSystemVersionId              | versionId              | 255            | Number      | <a href="#">Details</a> |
| cust_Z_documentType             | sfFields.sfField1      | 38             | Picklist    | <a href="#">Details</a> |
| cust_Z_documentTypeLabel        | sfFields.sfField4      | 255            | String      | <a href="#">Details</a> |
| cust_Z_regularExpression        | sfFields.sfField2      | 255            | String      | <a href="#">Details</a> |
| cust_Z_example                  | sfFields.sfField3      | 255            | String      | <a href="#">Details</a> |

### Associations

No data for Associations available or you do not have the necessary permission.

### Searchable Fields

| Field                     | Status |
|---------------------------|--------|
| cust_Z_documentType.label | Active |

### Business Key Fields

No data for Business Key Fields available or you do not have the necessary permission.

### Security

Secured • **Yes** ?

Permission Category **Miscellaneous Permissions** ?

RBP Subject User Field ?

CREATE Respects Target Criteria **No** ?

Base Date Field For Blocking ?

Figure 2: MDF Object for Document Number Input Format

Permission should be granted to this object through: Manage Permission Roles → <select the relevant Permission Role> → Permission → Miscellaneous Permissions (Figure 3).

Permission settings

Specify what permissions users in this role should have. ? ★= Access period can be defined at the granting rule level.

[Payroll Integration Permission](#)

[Continuous Performance Management](#)

[MDF Recruiting Permissions](#)

**[Miscellaneous Permissions](#)**

[Data Retention Management](#)

[Apprentice Management Permissions](#)

[Time Management Object Permissions](#)

[Homepage v3 Tile Group Permission](#)

**Visibility:** ☒ View Current ☒ View History

**Actions:** ☒ Create ☒ Insert ☒ Correct ☒ Delete ☒ Import/Export

☐ Field Level Overrides

**Division.Acesso de Generalista (Acesso de Generalista)**

☐ View ☐ Correct ☐ Create ☐ Adjust Order ☐ Delete ☐ Import/Export

☐ Field Level Overrides

**Document Input Format**

**Visibility:** ☒ View

**Actions:** ☒ Edit ☒ Import/Export

☐ Field Level Overrides

**Documentação †**

**Visibility:** ☒ View

**Actions:** ☒ Edit ☒ Import/Export

☐ Field Level Overrides

**Documentação.Documentação Detalhes (Documentação Detalhes)**

☒ View ☒ Correct ☒ Create ☒ Adjust Order ☒ Delete ☒ Import/Export

[Done](#) [Cancel](#)

Figure 3: Permissions for the Document Input Format MDF object

### Step 2: Add Custom Fields on Work Permit Information Element

For you to add custom fields to the Work Permit Information element, you must go to “Manage Business Configuration” and add two custom string fields on the workPermitInfo element as shown below, with visibility set to View:

Back to: Admin Center

**Employee Central**

- HRIS Elements
  - compInfo
  - directDeposit
  - emailInfo
  - emergencyContactPrimary
  - employmentInfo
  - globalAssignmentInfo
  - globalInfo
  - homeAddress
  - imInfo
  - jobInfo
  - jobRelationshipInfo
  - nationalIdCard
  - payComponentNonRecurring
  - payComponentRecurring
  - paymentInfo
  - pensionPayoutsInfo
  - personalInfo
  - personInfo
  - personRelationshipInfo
  - phoneInfo
  - userAccountInfo
  - workPermitInfo**
- HRIS Actions
- HRIS Sync Mappings

**Employee Profile**

Filters

**Employee Central** **HRIS Elements** **workPermitInfo**

Identifier \* workPermitInfo

Label Work Permit Info

Default Label Work Permit Info

Enabled Yes

**HRIS Fields**

| Identifier      | Label                  | Enabled | Mandatory | (19) More | Actions |
|-----------------|------------------------|---------|-----------|-----------|---------|
| country         | Country                | Yes     | Yes       | Details   | Tr      |
| document-type   | Document Type          | Yes     | Yes       | Details   | Tr      |
| custom-string6  | Document Number Input  | Yes     | No        | Details   | Tr      |
| custom-string15 | Example for Document N | Yes     | No        | Details   | Tr      |
| document-title  | Document Title         | No      | No        | Details   | Tr      |
| document-number | Document Number        | Yes     | No        | Details   | Tr      |
| issue-date      | Issue Date             | Yes     | Yes       | Details   | Tr      |
| issue-place     | Issue Place            | Yes     | No        | Details   | Tr      |

**Figure 4: Custom Fields on Work Permit Info Element**

### ***Step 3: Create Business Rules to Provide Guidance for the “Document Number” Field and for Data Entry Validation***

In this step, the following business rules will be created:

- Rule to update the “Document Number Input Format” and “Example for Document Number” fields based on the document type selected by the user.
- Rule to control the visibility and required attributes during Work Permit creation, based on the document type selected by the user. As explained on topic “4.1 Functional Requirements”, it is not possible to control the field visibility when the user accesses the record after its creation.
- Rule to validate the data entered by the user.

Before the creation of the first rule, the MDF created in the first step should be populated, so that it can be used as a lookup table. Possible values for Brazil are provided below, but can be adjusted according to each customer’s needs (Table 2).

| Document Input Format  | Picklist Value.External Code | Document Type Label                   | Regular Expression  | Example                           |
|--|------------------------------|---------------------------------------|---|-----------------------------------|
| <Number - 12 Digits>/<Zone - 3 Digits>/<Section - 4 Digits>  | 0005                         | Voter Card                            | [0-9]{12}/[0-9]{3}/[0-9]{4}                                     | 123456789012/123/1234             |
| <Driver's License Number – Up To 12 Digits>/<Category - A, B, C, D, E, or ACC>                             | 0010                         | Driver's License                      | [0-9]{5,12}/([A-E]{1} ACC)                                      | 12345678901/ACC                   |
| <Number of PIS - 11 Digits>  | 0006                         | PIS / PASEP                           | [0-9]{11}   | 12345678901                       |
| <Number of CTPS – 3 To 7 Digits>/<Serial Number of CTPS – 1 To 4 Digits>                                   | 0003                         | CTPS - Labor and Social Security Card | [0-9]{3,7}/[0-9]{1,4}   | 12345/123                         |
| <Number of RG, without separators>   | 0002                         | RG Number                             | [A-Z]{0,3}\d{6,13}[A-Z]{0,2}                                    | 123456789                         |
| <Number – Up To 30 Digits>/<Name of Professional Council>/<Acronym>  | 0004                         | Regional Council                      | \d{1,30}/[A-Za-zçãäåéêíóôõú]{2,100}/[A-Z]{2,30}                 | 123456789/Conselho Regional X/CRX |
| <Number of Military Certificate – Up To 12 Digits>/<Tipo – Up To 8 Characters>/<Category – Up To 3 Digits> | 0007                         | Military Certificate                  | \d{12}/[A-Z]{1,10}/\d{1,3}                                      | 123456789012/A/1                  |
| <Number of Foreign Registration (1 Character + 6 Digits + "-" + 1 Character)>                              | 0008                         | Foreign Registration Card             | [A-Z]{1}[0-9]{6}-[A-Z]{1}                                       | A123456-B                         |
| <Visa Serial Number>/<Type>  | 0009                         | Foreign Visa                          | [A-Z]{1}[0-9]{6}-[A-Z]{1}/[0-9]{2}                              | A123456-A/12                      |
| <Passport Number – 2 Characters + 6 Digits>  | 0011                         | Passport                              | [A-Z]{2}\d{6}   | AB123456                          |
| <NIT Number – 11 Digits>   | 0012                         | NIT Number                            | \d{11}  | 12345678901                       |
| <RIC Number – 10 Digits + "-" + 1 Digit>   | 0014                         | RIC Number                            | \d{10}-\d{1}  | 1234567890-1                      |
| <National Health Card Number – 15 Digits>  | 0015                         | National Health Card                  | \d{15}  | 123456789012345                   |
| <eSocial – Up To 30 Digits>  | 0016                         | eSocial Number                        | \d{1,30}  | 123456789012345678                |
| <Name of Notary/Death Certificate/Cause - 1 for Natural, 2 for Non-Natural>                                | 0013                         | Death Certificate                     | [A-Za-zçãäåéêíóôõú]{1,50}/[A-Za-z0-9çãäåéêíóôõú]{1,50}/[1-2]{1} | Cartório ABC/1234567AA/1          |

**Table 2: Sample values for Document Input Format**

Below is how the MDF data will look like in the system:

Manage Data

Search
Document Input Format
Driver's License Number – Up ...
Include Inactives: No
Create New
No Selection

Document Input Format: <Driver's License Number – Up To 12 Digits>/<Category - A, B, C, D, E, or ACC> (519973)
Take Action

Code
519973

Document Input Format
<Driver's License Number – Up To 12 Digits>/<Category - A, B, C, D, E, or ACC>

Document Type
Driver's License (0010)

Document Type Label
Driver's License

Regular Expression
[0-9]{5,12}/([A-E]{1}|ACC)

Example
12345678901/ACC

**Figure 5: Example of data maintained in the custom MDF (Document Input Format)**

A sample of the first business rule, used to default the “Document Number Input Format” and “Example for Document Number” fields based on the selected Document Type is depicted in Figure 6:

Work Permit Input Format by Document Type (Z-DEF-WorkPermitInputFormat)

Insert New Record

Scenario: Basic [Change Scenario](#)

Basic Information

Start Date

01/02/1900

Rule Type

Description

Parameters

| Name             | Object           |
|------------------|------------------|
| Context          | System Context   |
| Work Permit Info | Work Permit Info |

Collapse All | Expand All

Variables

If

Work Permit Info.Document Type is not equal to Null

Then

Set Work Permit Info.Document Number to be equal to Null

Set Work Permit Info.Document Number Input Format to be equal to

Lookup(Document Input Format)

Select Document Input Format

where...

Document Input Format. Document Type is equal to Work Permit Info.Document Type

Set Work Permit Info.Example for Document Number to be equal to

Lookup(Document Input Format)

Select Example

where...

Document Input Format. Document Type is equal to Work Permit Info.Document Type

**Figure 6: Business Rule to Default “Document Number Input Format” and “Example for Document Number” Fields**

This rule should be assigned to the Document Type field under the Work Permit Information element with onChange Event Type.

The second rule is used to control de visibility and required attributes of some standard fields during the Work Permit record creation (see Figure 7 for a sample rule):

- Issue Place
- Issuing Authority
- Expiration Date
- Attachments

Work Permit Field Attributes Control (Z-DEF-WorkPermitFieldAttributesControl)
Insert New Record

Scenario: Basic Change Scenario

Basic Information

Start Date01/02/1900
Rule Type
Description

Parameters

| Name                   | Object                 |
|------------------------|------------------------|
| Context                | System Context         |
| Work Permit Info Model | Work Permit Info Model |

Collapse AllExpand All

Variables

If

Work Permit Info Model.Document Type.Value is equal to RG - Identity Card (663747)

Then

Set Work Permit Info Model.Issue Place.Visibility to be equal to Edit
Set Work Permit Info Model.Issue Place.Required to be equal to true
Set Work Permit Info Model.Issuing Authority.Visibility to be equal to Edit
Set Work Permit Info Model.Issuing Authority.Required to be equal to true
Set Work Permit Info Model.Expiration Date.Visibility to be equal to None
Set Work Permit Info Model.Attachments.Required to be equal to true

Figure 7: Sample Rule to Control Visibility and Required Attributes

This rule should be assigned to the Document Type field under the Work Permit Information element with onChange Event Type.

The third rule, which validates the data entered by the user, can be created using the same MDF as a lookup table, as shown in Figure 8:

Check Document Number Format Based on Document Type - Work Permit Info Model (Z-VER-DocumentNumberFormatBasedOnDocumentTypeWorkPermitInfoModel)
Insert New Record

Scenario: Basic Change Scenario

Basic Information

Start Date01/01/1900
Rule Type
Description

Parameters

| Name                   | Object                 |
|------------------------|------------------------|
| Context                | System Context         |
| Work Permit Info Model | Work Permit Info Model |

Collapse AllExpand All

Variables

If

Work Permit Info Model.Document Number.Value is not equal to Null

and

Matches()
String to be checked: Work Permit Info Model.Document Number.Value
Regular expression: Lookup(Document Input Format)
Select Regular Expression
where...
Document Input Format. Document Type is equal to Work Permit Info Model.Document Type.Value

Then

Raise Message " Z-DocumentNumberFormat " with Error severity
Please check if the informed document number, {documentNumber}, has the format required for document type {documentType}.
Document Number: Work Permit Info Model.Document Number.Value
Document Type: Lookup(Document Input Format)
Select Document Type Label
where...
Document Input Format. Document Type is equal to Work Permit Info Model.Document Type.Value

Figure 8: Sample Validation Rule

The validation rule can be assigned on the Work Permit element as onSave Event Type, as well as an onChange rule assigned to the Document Number field.

### 6.1.1 End-User Experience for Variant 1

With the previous configurations, when the end-user selects the “Document Type”, the corresponding values for “Document Number Input Format” and “Example for Document Number” fields will be displayed. Please notice that the “Expiration Date” field is hidden when “Document Type” = RG – Identity Card (Figure 9).

The screenshot shows a web application interface for managing employee files. A modal window titled "Work Permit Info" is open. Inside, there's a section for "Work Permit Info" with several fields. "Country" is set to "Brazil". "Document Type" is set to "RG - Identity Card". This selection has triggered a change in the "Document Number Input Format" field, which now displays "<Number of RG, without separators>". The "Example for Document Number" field displays "123456789". The "Document Number" field is empty. The "Issue Date" field shows "Oct 14, 2021". The "Validated" field is set to "Yes". The "Attachments" field is empty. At the bottom left of the modal, there's a button labeled "Add Work Permit Info". At the bottom right, there are "Cancel" and "Save" buttons. Below the modal, a table shows the current state: Document Number: 123456789456/587/9873, Issue Date: Oct 14, 2021.

Figure 9: Final User Experience for Variant 1

If the user enters an invalid data, an error message is displayed (Figure 10).

This screenshot shows the same "Work Permit Info" modal window as Figure 9, but with an error message displayed. The "Document Number" field now contains the value "123456ABC". An error dialog box is open in the center of the screen, with the title "Error" and the message "1. Error: Please check if the informed document number, 123456ABC, has the format required for document type RG Number." The dialog box has an "OK" button. The background form is dimmed. The "Add Work Permit Info" button is still visible at the bottom left. The table at the bottom shows the same data as in Figure 9.

Figure 10: Error Message for Incorrect Data Entry

## 6.2 Variant 2: Use a custom MDF to manage Work Permit documents for countries with different format requirements

This solution approach will require the following configuration steps:

- Create 2 custom MDF objects related to each other (parent-child MDF). The parent MDF will be associated with the employee, and the child will allow the recording of multiple documents.
- Add the required custom fields to the child MDF based on the document types.
- Create a UI using the parent MDF as the base object, add UI Rules to control the visibility of the necessary fields, according to the selected Document Type.
- Add the UI to a section in People Profile and grant permission through RBP.

### Step 1: Create 2 custom MDF objects using a parent-child structure

It is necessary to create the 2 MDF objects independently before associating them.

1. Create the parent MDF, defining the externalCode field as User data type (This will allow the assignment of this object to an employee).

Object Definition: Documents (cust\_Documents) Tak

Code \* cust\_Documents ?

Effective Dating \* Basic ?

API Visibility Editable ?

Status \* Active ?

MDF Version History Complete History ?

Default Screen ?

Label Documents ? ?

Description ?

API Sub Version V1.1 ?

Subject User Field externalCode ?

Workflow Routing ?

Pending Data Yes ?

Todo Category Generic Object Change Requests ?

Object Category No Selection

Fields

| Name               | Database Field Name | Maximum Length | Data Type | (21) More |
|--------------------|---------------------|----------------|-----------|-----------|
| externalCode       | externalCode        | 100            | User      | Details   |
| externalName       | externalName        | 128            | String    | Details   |
| effectiveStartDate | effectiveStartDate  | 10             | Date      | Details   |

Figure 11: Parent MDF Object relation to the employee

2. Create the child MDF object with Effective Dating defined as "From Parent" and, in the parent field, define the value as the MDF object created previously.



Object Definition: Documents\_Item (cust\_Documents\_Item) Take Action

Code \* cust\_Documents\_Item ?

Effective Dating \* From Parent ?

API Visibility Editable ?

Status \* Active ?

MDF Version History Complete History ?

Default Screen ?

Label Documents\_Item ? ?

Description ?

API Sub Version V1.1 ?

Subject User Field ?

Workflow Routing ?

Pending Data No ?

Todo Category Generic Object Change Requests ?

Object Category No Selection

Fields

| Name                        | Database Field Name | Maximum Length | Data Type   | (21) More |
|-----------------------------|---------------------|----------------|-------------|-----------|
| externalCode                | externalCode        | 38             | Auto Number | Details   |
| externalName                | externalName        | 128            | String      | Details   |
| mdfSystemEffectiveStartDate | effectiveStartDate  | 10             | Date        | Details   |

Details

Name parent

Database Field Name parent

Maximum Length 38

Data Type Generic Object

Valid Values Source cust\_Documents

Hide Old Value No

Decimal Precision

Include Inactive Users No

UI Field Renderer

Transient No

Help Text

Mask Value on UI No

Show Trailing Zeros No

Figure 12: Child MDF Object relation to parent

3. In the parent custom MDF object, create a One To Many Composite association to link the parent to the child object.

Associations

| Name           | Multiplicity | Destination Object | Type      | (13) More |
|----------------|--------------|--------------------|-----------|-----------|
| cust_Documents | One To Many  | Documents_Item     | Composite | Details   |

Figure 13: Association One to Many MDF Objects

4. Set both MDF as secured objects.

Security

\* Secured Yes ?

Permission Category Miscellaneous Permissions ?

RBP Subject User Field externalCode ?

CREATE Respects Target Criteria No ?

Base Date Field For Blocking mdfSystemEffectiveEndDate ?

Figure 14: Custom MDF as secured object

## Step 2: Add the required custom fields to the child MDF based on the document types

With the previous configuration, now it is time to add the required fields to the child MDF object. The main field should be “Picklist” Data Type and will represent the Document Type. This will be the basis to create a business rule to show/hide the required fields, according to the selected Document Type.

Field guidelines:

- Fields that are common to several document types can be created only once, e.g., Issue Date and Issue Place, which are used across several documents.
- Field names should identify which document type they are related to to simplify integration activities and future changes.

|                           |                    |    |                |                         |
|---------------------------|--------------------|----|----------------|-------------------------|
| parent                    | parent             | 38 | Generic Object | <a href="#">Details</a> |
| cust_Documents            | sfFields.sfField1  | 38 | Picklist       | <a href="#">Details</a> |
| cust_Identification_Doc_2 | sfFields.sfField2  | 16 | String         | <a href="#">Details</a> |
| cust_Issuing_authIDca_2   | sfFields.sfField3  | 20 | String         | <a href="#">Details</a> |
| cust_CTPSNumber_3         | sfFields.sfField4  | 10 | String         | <a href="#">Details</a> |
| cust_CTPSSerial_3         | sfFields.sfField5  | 6  | String         | <a href="#">Details</a> |
| cust_IssueDate            | sfFields.sfField6  | 10 | Date           | <a href="#">Details</a> |
| cust_UF_Expedition        | sfFields.sfField7  | 38 | Picklist       | <a href="#">Details</a> |
| cust_NrCosnRegional_4     | sfFields.sfField8  | 15 | String         | <a href="#">Details</a> |
| cust_NomeConsReg_4        | sfFields.sfField9  | 90 | String         | <a href="#">Details</a> |
| cust_SiglaConsReg_4       | sfFields.sfField10 | 10 | String         | <a href="#">Details</a> |
| cust_OrgaoExpedidorOC_4   | sfFields.sfField11 | 20 | String         | <a href="#">Details</a> |
| cust_NrTituloEleitor_5    | sfFields.sfField12 | 15 | String         | <a href="#">Details</a> |
| cust_ZonaTitEleitor_5     | sfFields.sfField13 | 5  | String         | <a href="#">Details</a> |
| cust_SecaoEleitoral_5     | sfFields.sfField14 | 5  | String         | <a href="#">Details</a> |
| cust_NrCertMilitar_7      | sfFields.sfField15 | 12 | String         | <a href="#">Details</a> |
| cust_EspecieCertMil_7     | sfFields.sfField16 | 12 | String         | <a href="#">Details</a> |
| cust_CategoriaCertMil_7   | sfFields.sfField17 | 3  | String         | <a href="#">Details</a> |

Figure 15: Document fields in MDF object

Please note that similar to Variant 1, business rules can be created to validate the data entered by the user during the creation of a document.

## Setp 3: Create a UI and UI Rules

In this step, go to Manage Configuration UI and create a new UI with the parent MDF created previously as the base object.

The screenshot shows the 'Manage Configuration UI' interface. At the top, the 'Id' field is set to 'Documents'. The 'Select Base Object' dropdown is also set to 'Documents'. Below, the 'Documents' section shows fields for 'externalCode \*', 'externalName', and 'effectiveStartDate \*'. A 'Document Type' section is expanded, showing a table with columns 'externalCode \*', 'externalName', 'Documents', and '(35) More'. The 'externalCode \*' and 'externalName' fields have 'Click or focus to edit' buttons. The 'Documents' column has a search icon and a dropdown menu showing 'No Selection'. A 'Details' link is also present.

Figure 16: UI creation

To show/hide the fields, it is required to create a business rule for each document type, as follows:

- In the IF condition, select the document value as being equal to the related document type.
- In the THEN section set “visibility” for each field related to the selected document type to YES, and set to NO otherwise.
- In the ELSE IF condition select the document value to **is not equal to** for the previously selected document type.
- In the THEN section set “visibility” for each field related to the document type as NO.

A sample business rule to show/hide fields can be seen below:

### Edit Rule

Rule Name:

[Collapse All](#) | [Expand All](#)

If

Documents (group-0).Documents (field-5).Value

is equal to

Value

Vote Eligibility Document (0005...

Then

Set

Documents (group-0).Voter Reg Card No (field-16).Visibility

to be equal to

Boolean

Yes

Set

Documents (group-0).Voter Reg Card Area (field-17).Visibility

to be equal to

Boolean

Yes

Set

Documents (group-0).Voting Section (field-18).Visibility

to be equal to

Boolean

Yes

Set

Documents (group-0).Issue Date (field-10).Visibility

to be equal to

Boolean

No

Set

Documents (group-0).UF Expedition (field-11).Visibility

to be equal to

Boolean

Yes

Set

Documents (group-0).UF Expedition (field-11).Required

to be equal to

Boolean

Yes

Set

Documents (group-0).Start Date (field-39).Visibility

to be equal to

Boolean

Yes

[Add Else If](#)

Else If

Documents (group-0).Documents (field-5).Value

is not equal to

Value

Vote Eligibility Document (0005...

Then

Set

Documents (group-0).Voter Reg Card No (field-16).Visibility

to be equal to

Boolean

No

Set

Documents (group-0).Voter Reg Card Area (field-17).Visibility

to be equal to

Boolean

No

Set

Documents (group-0).Voting Section (field-18).Visibility

to be equal to

Boolean

No

[Add Else If](#) [Add Else](#)

Figure 17: Business Rule to show/hide rules based on document type

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An additional business rule to hide all fields when the document type is equal to null, must be created to avoid showing all the fields during document creation.

All created rules must be added as onChange event type to Document Type field. Also, it should be assigned as onInitUI and onInsertUI Rules.

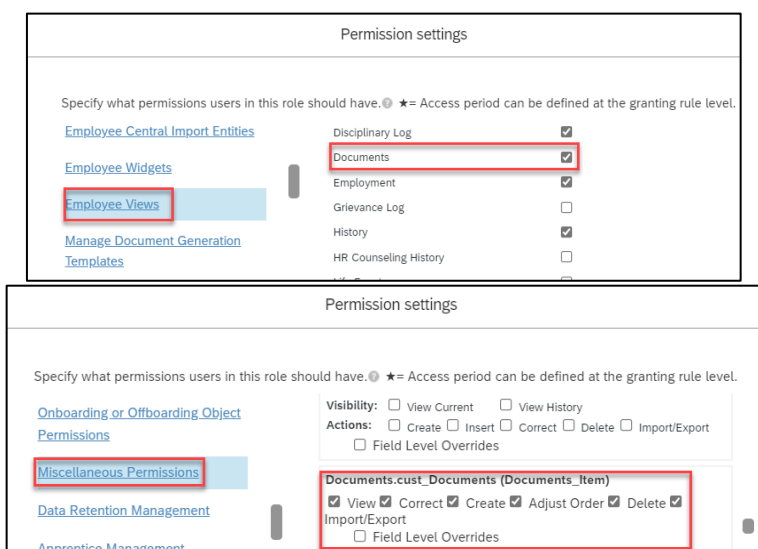
#### **Setp 4: Add the UI to a section in People Profile and grant RBP Permissions**

Like previous configurations, it might be required to add this MDF UI to the People Profile. For this, a new section can be created or you can use an existing one.



**Figure 18: Adding MDF UI to the People Profile as a new section**

Finally, grant RBP to the users based on company process definition.



**Figure 19: Employee views and MDF RBP access**

#### **6.2.1 End-User Experience for Variant 2**

When the above configurations are completed, once the end-user selects the document type, the related fields will be displayed.

| Documents                     |                                 |
|-------------------------------|---------------------------------|
| Effective as of: Jun 07, 2022 |                                 |
| <b>Document Type</b>          |                                 |
| Documents                     | Registration for eSocial (0016) |
| Start Date                    | Jun 01, 2022                    |
| Document Number               | 1234567890                      |
| <a href="#">Details</a>       |                                 |
| Documents                     | Employment Statement (0003)     |
| Start Date                    | Jun 01, 2022                    |
| CTPS Number                   | 1234569879                      |
| CTPS Serial                   | 096523                          |
| Issue Date                    | Jun 05, 2022                    |
| UF Expedition                 | Rio de Janeiro (RJ)             |
| <a href="#">Details</a>       |                                 |

**Figure 20: Final User Experience for Variant 2**

### 6.2.2 Enhancements with Release 1H2021

The 1H2021 Release added a new feature, Configurable New Hire with support to MPH (Manage Pending Hires for both Onboarding and Recruiting candidates).

Considering this, Variant 2 can be further improved, by creating an Add New Employee hire template including the custom MDF for documents proposed in this IDP document. This will improve the user(admin performing the hire) experience, who will have the opportunity to update the documents during the hiring process and not only after it is completed. Please see “Managing the Employment Lifecycle (from Hiring to Termination) in Employee Central” referenced at the end of this document.

## 7 ASSUMPTIONS AND EXCLUSIONS

For some countries, Work Permit Information is required for legal reporting purposes and a data replication to the payroll system may be needed. However, this document does not cover the integration from EC to the payroll system.

When the customer uses our SAP ERP HCM as their payroll system, the standard data replication using Business Integration Builder can be used. Please refer to [“Replicating Employee Master Data and Organizational Assignments from Employee Central to SAP ERP HCM”](#) for details.

## 8 REFERENCES

### SAP Help Portal

- Implementing Business Rules in SAP SuccessFactors:  
<https://help.sap.com/viewer/b37699fa8054409787a8321c9428aeca/latest/en-US/3edea1972e6a452bb740940d404b2845.html>
- Country/Region-Specific PA and PY Infotypes:  
<https://help.sap.com/viewer/1f65197d14bf4251bd9516dab1464988/latest/en-US/dc76ce134f3347f0826c2f3b787577e7.html>

- Implementing the Metadata Framework (MDF):  
<https://help.sap.com/viewer/e4a4ce68589841709a8202928c23803a/latest/en-US>
- Implementing and Managing Business Configuration (BCUI):  
<https://help.sap.com/viewer/ad84af95610e409c84e0ca8261aab640/latest/en-US/a59cbae1062245d4baca3feb3e667d8a.html>
- Replicating Employee Master Data from Employee Central to SAP ERP HCM Using SAP Cloud Integration as the Middleware (For Implementation Started Before Q2 2017):  
<https://help.sap.com/viewer/f69be9cbab414acdbeb3abdeaa1deed6/latest/en-US/10974fa3acd2476d936cd84203ed96dd.html>
- Implementing and Managing the Employment Lifecycle (from Hiring to Termination):  
<https://help.sap.com/viewer/4b0f4a72b0ea46fb9b9917bdd7c8f29b/latest/en-US/dce0a5cf9a444006a3dd7cdf51140e0.html>
- Replicating Employee Master Data and Organizational Assignments from Employee Central to SAP ERP HCM  
<https://help.sap.com/viewer/a7f164924edd4dfe817b7bdc2fc4927a/latest/en-US>

## **SAP Notes/KBA**

- 2208147 - People Profile Configuration Tool - SuccessFactors Employee Profile:  
<https://launchpad.support.sap.com/#/notes/2208147>
- 2489671 - Can we hide some Work Permit fields, using an onInit Business Rule:  
<https://launchpad.support.sap.com/#/notes/2489671>
- 2163077 - Base Objects in Business Rules Do Not Support All Rule Types in Employee Central:  
<https://launchpad.support.sap.com/#/notes/2163077>

[www.sap.com/contactsap](https://www.sap.com/contactsap)

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