Enhancing the Extraction of Employee Data with Customer-Specific Fields

SAP AG
June, 2013

Public

Agenda

2

Introduction

Delta handling – enhance number of fields

- Transfer via Report RH_SFI_SYNCHRONIZE_EMPL_DATA - Web Service Mode
- Transfer via Report RH_SFI_SYNCHRONIZE_EMPL_DATA - File Transfer Mode
- **Transfer via Report** RH_SFI_WITHDRAW_VARIANT

Full upload via CSV-file - enhance number of fields

- Transfer via Report RH_SFI_TRIGGER_EMPL_DATA_REPL - File Transfer Mode

Introduction

The integration add-on for SAP ERP Human Capital Management (SAP ERP HCM) and SuccessFactors Business Execution (SuccessFactors BizX) enables the integration of employee data.

The standard interface includes already 34 standard and 15 custom fields. In case you want to enhance the number of fields for the user data integration you need:

- ESR-content needs to be changed.

- To enhance the report in SAP ERP HCM that extracts the user data in the SAP ERP HCM system and triggers the integration.

- New fields must be configured in the SuccessFactors BizX

More information regarding the integration add-on for SAP ERP Human Capital Management (SAP ERP HCM) and SuccessFactors Business Execution (SuccessFactors BizX) please refer to SAP online help

Public   3

Delta handling – Enhance Number of Fields

Transfer via Report RH_SFI_SYNCHRONIZE_EMPL_DATA
- Web Service Mode

SAP

SFSF BizX System

Enhance SF Object User by new fields

Follow the instructions to integrate these fields to integration scenario

SFAPI Upsert would not change structurally due to its generic character

ESR – Enhance Message

SWC SFIHCM01 600, Namespace http://sap.com/xi/SFIHCM01

Adapt Service Interface SFSFUserUpsertRequestConfirmation_Out by adding the new fields to the Node sfobject
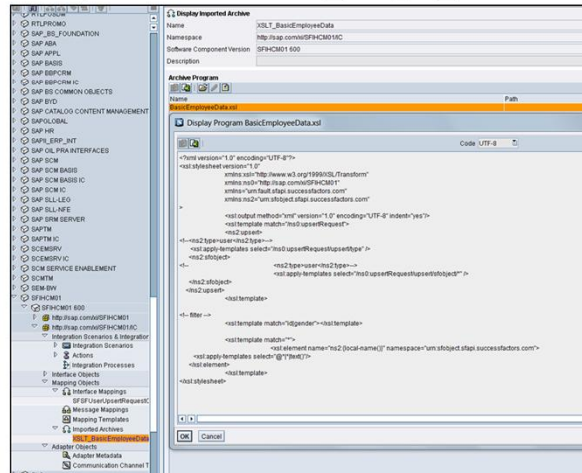
Follow the guideline Enhancement Guide

Public   6

ESR - Mapping

SWC SFIHCM01 600, Namespace http://sap.com/xi/SFIHCM01/IC
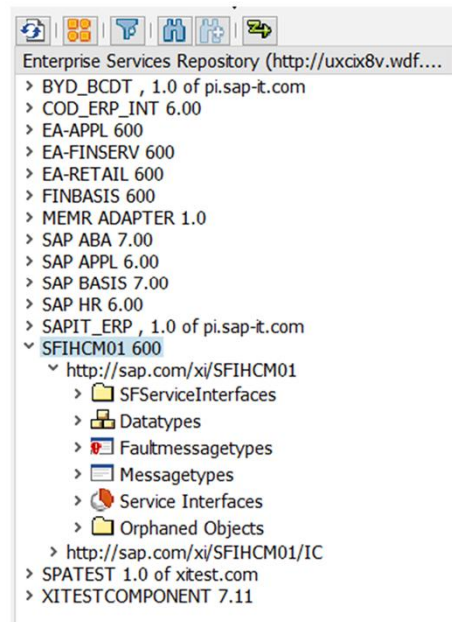
Adapt XSLT Mapping for Interface Mapping

SFSFUserUpsertRequestConfirmation_Out_to_SFSFUserUpsertRequestConfirmation_In

SAP HCM System – Proxy Regeneration

8

Regenerate proxies in transaction SPROXY

SWC SFIHCM01

Enterprise Services Repository (http://uxcix8v.wdf....
- > BYD_BCDT , 1.0 of pi.sap-it.com
- > COD_ERP_INT 6.00
- > EA-APPL 600
- > EA-FINSERV 600
- > EA-RETAIL 600
- > FINBASIS 600
- > MEMR ADAPTER 1.0
- > SAP ABA 7.00
- > SAP APPL 6.00
- > SAP BASIS 7.00
- > SAP HR 6.00
- > SAPIT_ERP , 1.0 of pi.sap-it.com
- ˅ SFIHCM01 600
  - ˅ http://sap.com/xi/SFIHCM01
    - > SFServiceInterfaces
    - > Datatypes
    - > Faultmessagetypes
    - > Messagetypes
    - > Service Interfaces
    - > Orphaned Objects
  - > http://sap.com/xi/SFIHCM01/IC
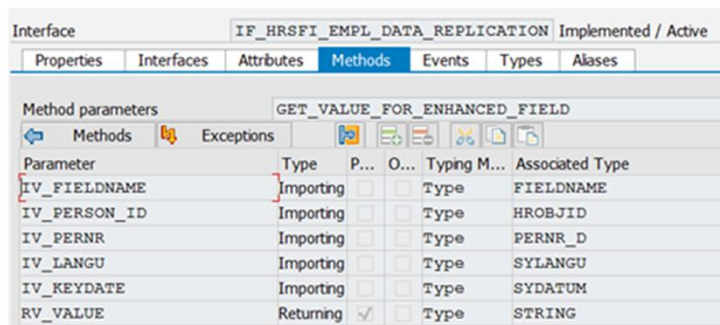- > SPATEST 1.0 of xitest.com
- > XITESTCOMPONENT 7.11

In the transaction SPROXY, regenerate the enhanced proxies.
The new field is added to the proxy SFI_SE_SFOBJECT and thereby receives a field name that is compatible with ABAP (for example, NEWFIELD).

SAP HCM System

Enhance Structure HRSFI_S_TRANSFER_DATA by Customer APPEND

Comment: In case of Web Service Transfer the used names can be mapped later to the potentially different names in generated proxy structure

Comment: For File Transfer the used component names can be mapped later to the potentially different names in SFSF

Comment: This APPEND allows the internal processing for delta handling and is automatically considered in database table HRSFI_D_EXTR_LOG (here implicitly in xml format)

Enhance the structure HRSFI_S_TRANSFER_DATA with a customer-specific append structure for the new field.
The new field is thereby automatically included in the delta handling of employee data and is considered in the table *SuccessFactors: Log Table for Delta Handling* (HRSFI_D_EXTR_LOG).
We recommend that you use the same field name as for the business object *User* in SuccessFactors BizX (thus NEWFIELD, for example).

SAP HCM System: Data Provisioning

Implement BAdI

- Enhancement Spot HRSFI_EMPL_DATA_REPLICATION
- BAdI Definition HRSFI_B_EMPL_DATA_REPLICATION
- Method GET_VALUE_FOR_ENHANCED_FIELD of interface IF_HRSFI_EMPL_DATA_REPLICATION

Each relevant enhanced field must be considered in this method (IV_FIELDNAME = Component Name in APPEND structure

Interface		IF_HRSFI_EMPL_DATA_REPLICATION	Implemented / Active		
Properties	Interfaces	Attributes	**Methods**	Events	Types	Aliases

Method parameters		GET_VALUE_FOR_ENHANCED_FIELD			

Parameter	Type	P...	O...	Typing M...	Associated Type
IV_FIELDNAME	Importing			Type	FIELDNAME
IV_PERSON_ID	Importing			Type	HROBJID
IV_PERNR	Importing			Type	PERNR_D
IV_LANGU	Importing			Type	SYLANGU
IV_KEYDATE	Importing			Type	SYDATUM
RV_VALUE	Returning	√		Type	STRING

Create an implementation for the Business Add-In (BAdI) *Replication of Employee's Data* (HRSFI_B_EMPL_DATA_REPLICATION) to define the data retrieval for the new field. For this, use the method GET_VALUE_FOR_ENHANCED_FIELD. For each enhanced field (IV_FIELDNAME) provide a method to return RV_VALUE.

SAP HCM System: Outbound Mapping I

Implement BAdI

- Enhancement Spot HRSFI_EMPL_DATA_REPLICATION
- BAdI Definition HRSFI_B_ENHANCE_EMPL_DATA_REP
- Method MAP_INT_NAME_TO_PROXY_NAME of interface IF_HRSFI_ENHANCE_EMPL_DATA_REP
- This method is only relevant if the component names in the APPEND structure HRSFI_S_TRANSFER_DATA differs from the proxy names.

Interface			IF_HRSFI_ENHANCE_EMPL_DATA_REP	Implemented / Activ		
Properties	Interfaces	Attributes	Methods	Events	Types	Aliases

Method parameters		MAP_INT_NAME_TO_PROXY_NAME				
⬅ Methods 🔁	Exceptions	🔃 🖥 🖥 ✂ 🗋 🗗				
Parameter	Type	P...	O...	Typing M...	Associated Type	
IV_INT_NAME	Importing	☐	☐	Type	HRSFI_FIELD_NAME	
RV_PROXY_NAME	Returning	✓	☐	Type	FIELDNAME	
		☐		Type		

If in your customer-specific append structure, you have used a different field name than the one for the business object *User* in SuccessFactors BizX
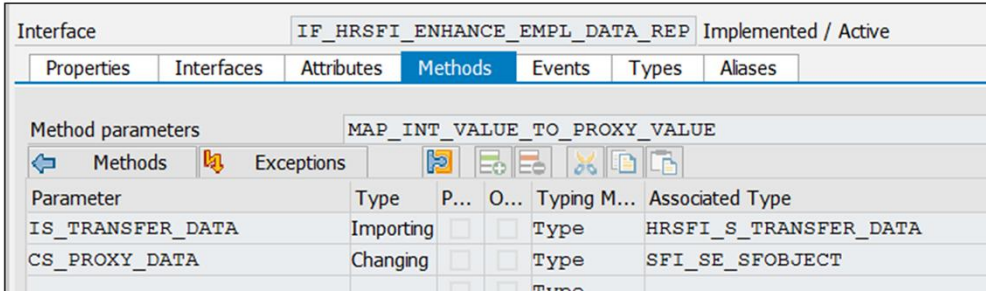for example,
- in SFSF field NEW_FIELD
- In SAP HCM ZZ_NEW_FIELD
Then create an implementation of the BAdI Enhance the Replication of Employee Data (HRSFI_B_ENHANCE_EMPL_DATA_REP) for method MAP_INT_NAME_TO_PROXY_NAME. In this implementation define for each enhanced field (available via IV_INT_NAME) a corresponding SFSF name (RV_PROXY_NAME)

SAP HCM System: Outbound Mapping II

Implement BAdI
- Enhancement Spot HRSFI_EMPL_DATA_REPLICATION
- BAdI Definition HRSFI_B_ENHANCE_EMPL_DATA_REP
- Method MAP_INT_VALUE_TO_PROXY_VALUE of interface IF_HRSFI_ENHANCE_EMPL_DATA_REP
- This method is only relevant if the component names in the APPEND structure HRSFI_S_TRANSFER_DATA differs from the proxy names.

Interface	IF_HRSFI_ENHANCE_EMPL_DATA_REP	Implemented / Active			
Properties	Interfaces	Attributes	Methods	Events	Types	Aliases

Method parameters: MAP_INT_VALUE_TO_PROXY_VALUE

⇐ Methods   Exceptions

Parameter	Type	P...	O...	Typing M...	Associated Type
IS_TRANSFER_DATA	Importing			Type	HRSFI_S_TRANSFER_DATA
CS_PROXY_DATA	Changing			Type	SFI_SE_SFOBJECT
				Type	

You use the method MAP_INT_VALUE_TO_PROXY_VALUE to map the content of the two fields (content of ZZ_NEW_FIELD must be mapped to content of field NEW_FIELD) to each other.

Example:

The field ZZ_NEW_FIELD of IS_TRANSFER_DATA must be mapped to the field NEW_FIELD of structure CS_PROXY_DATA:

CS_PROXY_DATA-NEW_FIELD = IS_TRANSFER_DATA-ZZ_NEW_FIELD

In case you extend the user data integration with more than one custom specific field you have to do the mapping for each field in this method.

Note: standard fields (including the 15 custom fields) delivered with the add-on, and fields with same name in append structure and proxy do not have to be mapped in addition. These fields are transferred into the structure RV_PROXY_DATA automatically

Delta handling – Enhance Number of Fields

Transfer via Report RH_SFI_SYNCHRONIZE_EMPL_DATA - File Transfer Mode

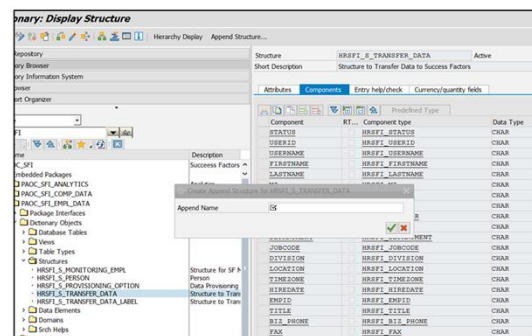# SFSF BizX System

Enhance SF Object User by new fields

Follow the instructions to integrate these fields to integration scenario

Please also consider SAP Note: 1840198

SAP HCM System

Enhance Structure HRSFI_S_TRANSFER_DATA by Customer APPEND

Comment: This APPEND allows the internal processing for delta handling and is automatically considered in database table HRSFI_D_EXTR_LOG (here implicitly in xml format)

Enhance the structure HRSFI_S_TRANSFER_DATA with a customer-specific append structure for the new field.
The new field is thereby automatically included in the delta handling of employee data and is considered in the table *SuccessFactors: Log Table for Delta Handling* (HRSFI_D_EXTR_LOG).

SAP HCM System

Enhance Structure HRSFI_S_TRANSFER_DATA_LABEL by the same Customer APPEND as used in structure HRSFI_S_TRANSFER_DATA

Comment: This APPEND allows the internal processing for delta handling and is automatically considered in database table HRSFI_D_EXTR_LOG (here implicitly in xml format)

In addition to the structure HRSFI_S_TRANSFER_DATA, you also need to enhance the structure HRSFI_S_TRANSFER_DATA_LABEL with the same customer-specific append structure.
For the file download, the field name that you use in your customer-specific append structure **must** be identical to the field used in the business object *User* in SuccessFactors BizX.

SAP HCM System: Data Provisioning

Implement BAdI

- Enhancement Spot HRSFI_EMPL_DATA_REPLICATION
- BAdI Definition HRSFI_B_EMPL_DATA_REPLICATION
- Method GET_VALUE_FOR_ENHANCED_FIELD of interface IF_HRSFI_EMPL_DATA_REPLICATION
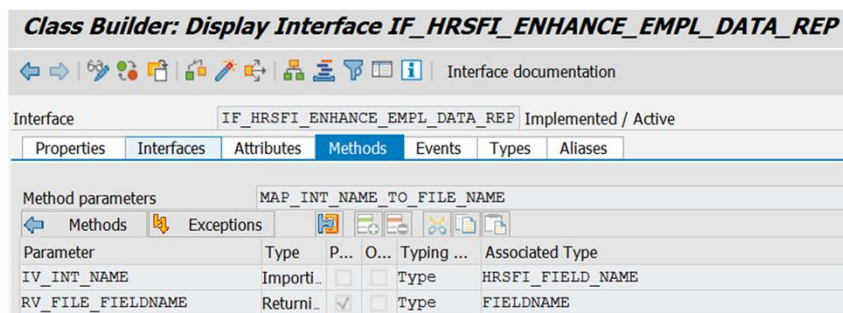
Each relevant enhanced field must be considered in this method (IV_FIELDNAME = Component Name in APPEND structure

Interface	IF_HRSFI_EMPL_DATA_REPLICATION	Implemented / Active

Properties	Interfaces	Attributes	Methods	Events	Types	Aliases

Method parameters GET_VALUE_FOR_ENHANCED_FIELD

Parameter	Type	P...	O...	Typing M...	Associated Type
IV_FIELDNAME	Importing			Type	FIELDNAME
IV_PERSON_ID	Importing			Type	HROBJID
IV_PERNR	Importing			Type	PERNR_D
IV_LANGU	Importing			Type	SYLANGU
IV_KEYDATE	Importing			Type	SYDATUM
RV_VALUE	Returning	√		Type	STRING

Public

SAP HCM System: Change Component Names in File

Implement BAdI

- Enhancement Spot HRSFI_EMPL_DATA_REPLICATION
- BAdI Definition HRSFI_B_ENHANCE_EMPL_DATA_REP
- Method MAP_INT_NAME_TO_FILE_NAME of interface IF_HRSFI_ENHANCE_EMPL_DATA_REP
- This method is only relevant if the component names in the APPEND structure HRSFI_S_TRANSFER_DATA differs from their corresponding names in SFSF.

Class Builder: Display Interface IF_HRSFI_ENHANCE_EMPL_DATA_REP

Interface documentation

| Interface | IF_HRSFI_ENHANCE_EMPL_DATA_REP Implemented / Active |

| Properties | Interfaces | Attributes | Methods | Events | Types | Aliases |

Method parameters   MAP_INT_NAME_TO_FILE_NAME

Methods   Exceptions

Parameter	Type	P...	O...	Typing ...	Associated Type
IV_INT_NAME	Importi…			Type	HRSFI_FIELD_NAME
RV_FILE_FIELDNAME	Returni…	✓		Type	FIELDNAME

Delta handling – Enhance Number of Fields

Transfer via Report RH_SFI_WITHDRAW_VARIANT

Report: RH_SFI_WITHDRAW_VARIANT

Note: You can use the report to simultaneously set all employees that are contained in the selection of an extraction variant of the report *Sync Employee Data with SuccessFactors (with Delta and Inactive Logic) (RH_SFI_SYNCHRONIZE_EMPL_DATA)* to the status *Inactive*. For example, this is useful if you want to exclude an enterprise area for which you have previously transferred data to SuccessFactors BizX from the data transfer in future.

RH_SFI_WITHDRAW_VARIANT

No additional changes compared to RH_SFI_SYNCHRONIZE_EMPL_DATA

Full upload via CSV-file - Enhance Number of Fields

Transfer via Report RH_SFI_TRIGGER_EMPL_DATA_REPL - File Transfer Mode

SAP

SFSF BizX System

23

Enhance SF Object User by new fields

Follow the instructions to integrate these fields to integration scenario

SAP HCM System

Enhance Structure HRSFI_S_TRANSFER_DATA by Customer APPEND

Comment: This APPEND allows the internal processing for delta handling and is automatically considered in database table HRSFI_D_EXTR_LOG (here implicitly in xml format)

Enhance the structure HRSFI_S_TRANSFER_DATA with a customer-specific append structure for the new field.
The new field is thereby automatically included in the delta handling of employee data and is considered in the table *SuccessFactors: Log Table for Delta Handling* (HRSFI_D_EXTR_LOG).

SAP HCM System

Enhance Structure HRSFI_S_TRANSFER_DATA_LABEL by the same Customer
APPEND as used in structure HRSFI_S_TRANSFER_DATA

In addition to the structure HRSFI_S_TRANSFER_DATA, you also need to
enhance the structure HRSFI_S_TRANSFER_DATA_LABEL with the same
customer-specific append structure.

SAP HCM System: Data Provisioning

Implement BAdI

- Enhancement Spot HRSFI_EMPL_DATA_REPLICATION
- BAdI Definition HRSFI_B_EMPL_DATA_REPLICATION
- Method GET_VALUE_FOR_ENHANCED_FIELD of interface IF_HRSFI_EMPL_DATA_REPLICATION

Each relevant enhanced field must be considered in this method (IV_FIELDNAME = Component Name in APPEND structure

Interface			IF_HRSFI_EMPL_DATA_REPLICATION	Implemented / Active	
Properties	Interfaces	Attributes	**Methods**	Events	Types	Aliases

Method parameters: GET_VALUE_FOR_ENHANCED_FIELD

Parameter	Type	P...	O...	Typing M...	Associated Type
IV_FIELDNAME	Importing			Type	FIELDNAME
IV_PERSON_ID	Importing			Type	HROBJID
IV_PERNR	Importing			Type	PERNR_D
IV_LANGU	Importing			Type	SYLANGU
IV_KEYDATE	Importing			Type	SYDATUM
RV_VALUE	Returning	√		Type	STRING

SAP HCM System: Change Component Names in File

Implement BAdI

- Enhancement Spot HRSFI_EMPL_DATA_REPLICATION
- BAdI Definition HRSFI_B_ENHANCE_EMPL_DATA_REP
- Method MAP_INT_NAME_TO_FILE_NAME of interface IF_HRSFI_ENHANCE_EMPL_DATA_REP
- This method is only relevant if the component names in the APPEND structure HRSFI_S_TRANSFER_DATA differs from their corresponding names in SFSF.

Class Builder: Display Interface IF_HRSFI_ENHANCE_EMPL_DATA_REP

Interface documentation

Interface	IF_HRSFI_ENHANCE_EMPL_DATA_REP Implemented / Active

Properties	Interfaces	Attributes	Methods	Events	Types	Aliases

Method parameters	MAP_INT_NAME_TO_FILE_NAME

Methods   Exceptions

Parameter	Type	P...	O...	Typing ...	Associated Type
IV_INT_NAME	Importi..			Type	HRSFI_FIELD_NAME
RV_FILE_FIELDNAME	Returni..	✓		Type	FIELDNAME
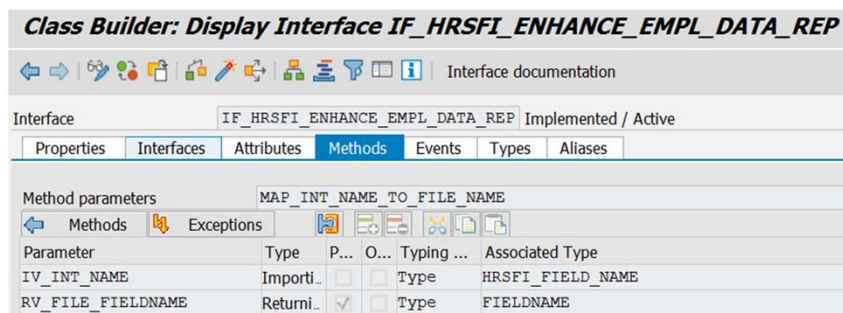
Thank you

Contact information:

F name MI. L name
Title
Address
Phone number

© 2013 SAP AG. All rights reserved.

© 2013 SAP AG. Alle Rechte vorbehalten.

30