

Enhancing the Extraction of Employee Data with Customer-Specific Fields

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Public

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Agenda

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](#)



Delta handling – Enhance Number of Fields

Transfer via Report RH_SFI_SYNCHRONIZE_EMPL_DATA
- Web Service Mode



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](#)

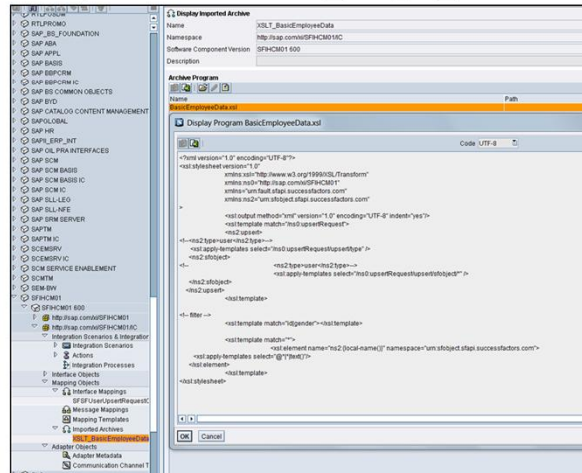
Name	Category	Type	Occurrence	Default	Deletable
upsertRequest	Element	upsertRequest	1		
success	Element	xsd:string	1		
upsert	Element	xsd:string	1		
type	Element	xsd:string	1		
sfobject	Element	SFObjekt	1..unbounded		
id	Element	xsd:string	0..1		
businessKeys	Element	xsd:string	0..1		
type	Element	xsd:string	1		
status	Element	xsd:string	1		
externalId	Element	xsd:string	1		
username	Element	xsd:string	1		
firstName	Element	xsd:string	1		
lastName	Element	xsd:string	1		
mi	Element	xsd:string	0..1		
gender	Element	xsd:string	0..1		
email	Element	xsd:string	1		
managerExternalId	Element	xsd:string	1		
hIdExternalId	Element	xsd:string	1		
department	Element	xsd:string	0..1		
jobCode	Element	xsd:string	0..1		
division	Element	xsd:string	0..1		
location	Element	xsd:string	0..1		
timeZone	Element	xsd:string	1		
hireDate	Element	xsd:string	0..1		
email	Element	xsd:string	0..1		
title	Element	xsd:string	0..1		

ESR - Mapping

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

Adapt XSLT Mapping for Interface Mapping

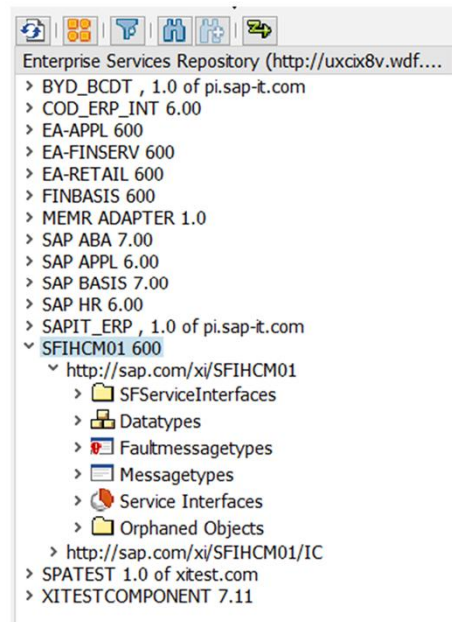
SFSFUserUpsertRequestConfirmation_Out_to_SFSFUserUpsertRequestConfirmation_In



SAP HCM System – Proxy Regeneration

Regenerate proxies in transaction SPROXY

SWC SFIHCM01



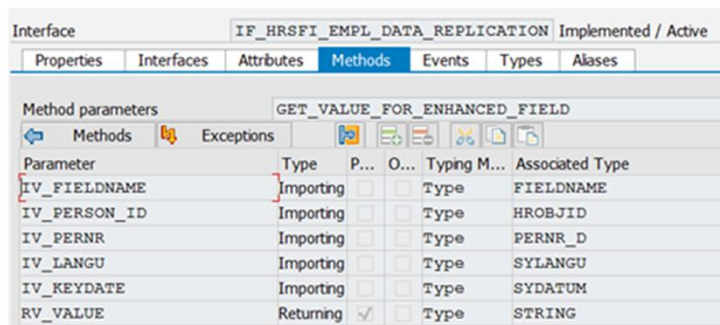
In the transaction SPROXY, regenerate the enhanced proxies.
The new field is added to the proxy SFI_SE_SFOBJECT and thereby receives a field name that is compatible with ABAP (for example, NEWFIELD).

SAP HCM System: 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 Alases						
Method parameters GET_VALUE_FOR_ENHANCED_FIELD						
Methods Exceptions						
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 / Active	
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	<input type="checkbox"/>	<input type="checkbox"/>	Type	HRSFI_FIELD_NAME	
RV_PROXY_NAME	Returning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Type	FIELDNAME	

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,

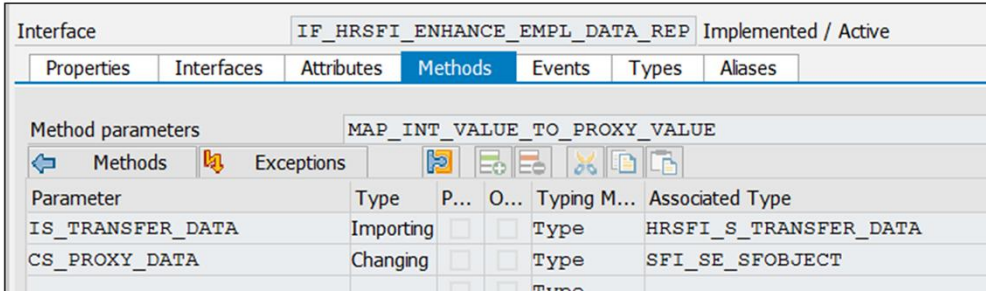
- in SFSF field NEW_FIELD
- In SAP HCM ZZ_NEW_FIELD

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	<input type="checkbox"/>	<input type="checkbox"/>	Type	HRSFI_S_TRANSFER_DATA	
CS_PROXY_DATA	Changing	<input type="checkbox"/>	<input type="checkbox"/>	Type	SFI_SE_SFOBJECT	

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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

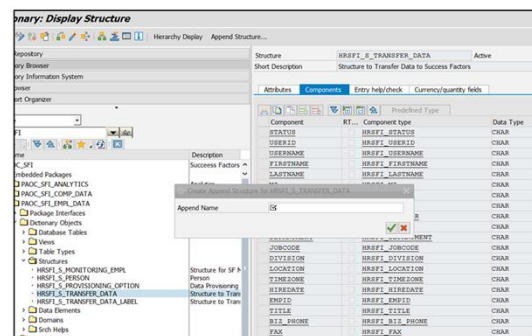
Follow the instructions to integrate these fields to integration scenario

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: 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

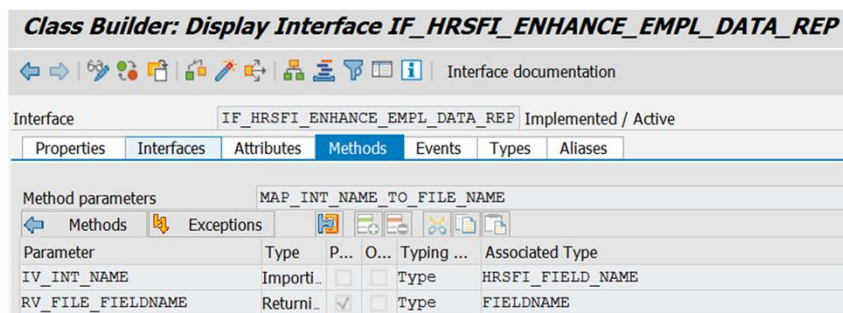
Each relevant enhanced field must be considered in this method (IV_FIELDNAME = Component Name in APPEND structure)

Interface		IF_HRSFI_EMPL_DATA_REPLICATION		Implemented / Active	
Properties	Interfaces	Attributes	Methods	Events	Types
Method parameters					
GET_VALUE_FOR_ENHANCED_FIELD					
Parameter	Type	P...	O...	Typing M...	Associated Type
IV_FIELDNAME	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	FIELDNAME
IV_PERSON_ID	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	HROBJID
IV_PERNR	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	PERNR_D
IV_LANGU	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	SYLANGU
IV_KEYDATE	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	SYDATUM
RV_VALUE	Returning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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.





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



SFSF BizX System

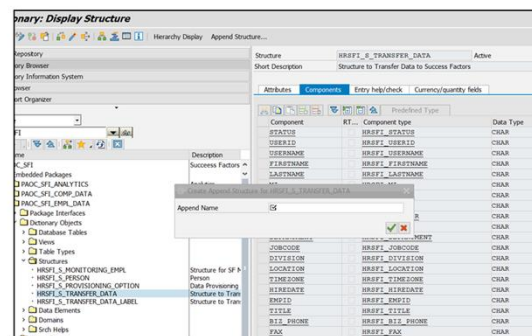
Enhance SF Object User by new fields

Follow the instructions to integrate these fields to integration scenario

SAP HCM System

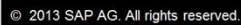
Enhance Structure HRSFI_S_TRANSFER_DATA by Customer APPEND

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).

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



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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

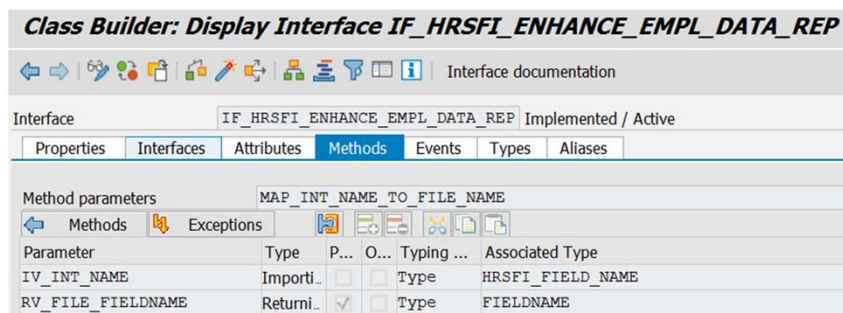
Each relevant enhanced field must be considered in this method (IV_FIELDNAME = Component Name in APPEND structure)

Interface		IF_HRSFI_EMPL_DATA_REPLICATION		Implemented / Active	
Properties	Interfaces	Attributes	Methods	Events	Types
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.





Thank you

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