

## How-To Guide

CUSTOMER

Integration Add-On for SAP ERP HCM and SAP  
SuccessFactors HCM Suite  
Document Version: 1.0 – 2015-10-13

# Enhancing the Employee Integration with Custom Fields

# Typographic Conventions

Type Style	Description
<i>Example</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
<b>Example</b>	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<b>&lt;Example&gt;</b>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
<b>EXAMPLE</b>	Keys on the keyboard, for example, <b>F2</b> or <b>ENTER</b> .

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# Document History

Version	Date	Change
1.0	2015-10-13	Initial version

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# 1 Enhancing the Employee Integration with Custom Fields

1. In transaction SPXNGENAPPL add your customer-specific namespace, as shown in Figure 1.

## Note

Transaction SPXNGENAPPL is available from SAP\_BASIS 702 SP 8 onwards.

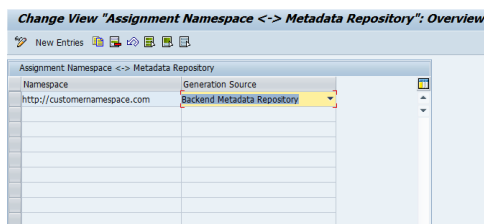


Figure 1

2. In transaction SE80 start the Repository Browser.
3. Open the package where you want to save your objects.
4. In the context menu of the package, choose *Create* → *Enterprise Service*.

A dialog box is displayed, as shown in Figure 2.

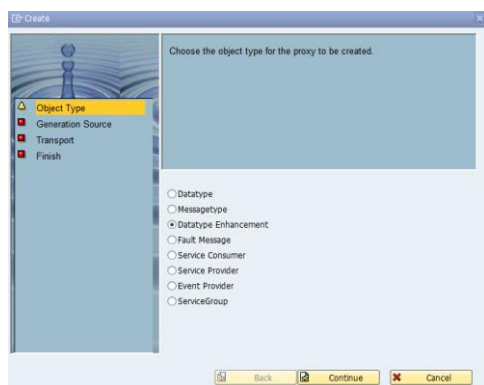


Figure 2

5. Select *Data Types Enhancement* and choose *Continue*.  
This takes you to the next step, as shown in Figure 3.

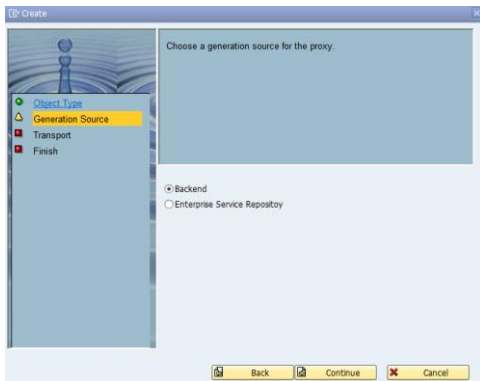


Figure 3

6. Select *Backend* (as shown in Figure 3) and choose *Continue*.  
This takes you to the next step, as shown in Figure 4.

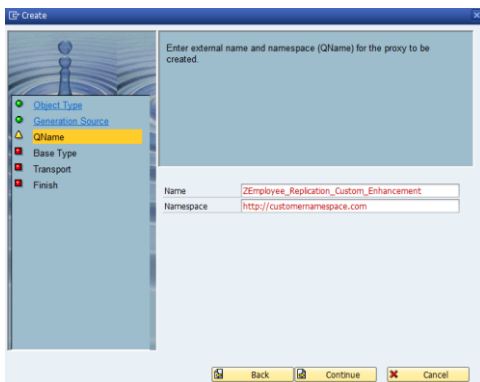


Figure 4

7. Enter the name for your enhancement. You can choose any name. Then enter your namespace (as maintained in transaction SPXNGENAPPL) and choose *Continue*.  
This takes you to the next step, as shown in Figure 5.

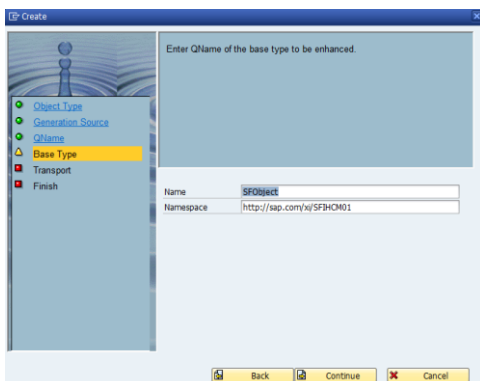


Figure 5

8. Enter the name and namespace of the object that you want to enhance. For employee data replication, enter the name **SFObject** and the namespace **http://sap.com/xi/SFIHCM01** as shown in Figure 5. Then choose *Continue*.

This takes you to the next step, as shown in Figure 6.

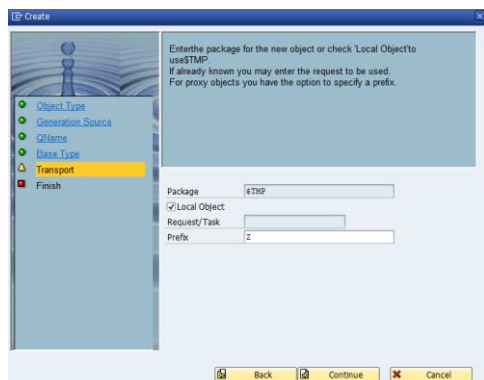


Figure 6

9. Enter the following information and then choose *Continue*:
  - Package name where you want to save the object  
In the example in Figure 6, the object is stored as a local object.
  - Workbench request to transport the object
  - Prefix of your choice

This takes you to the *Finish* step, as shown in Figure 7.

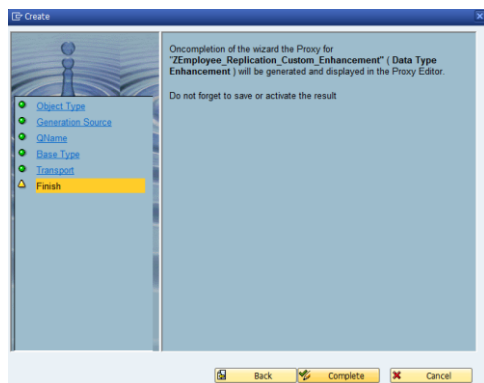


Figure 7

10. Choose *Complete*.  
This creates an append structure, as shown in Figure 8.

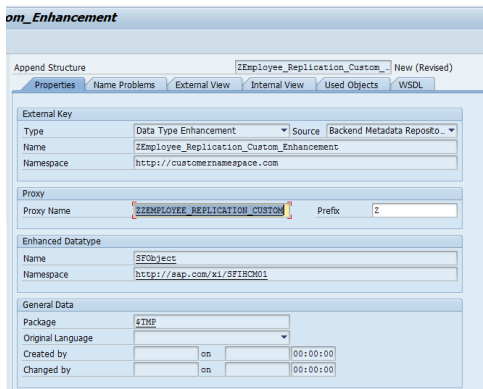


Figure 8

11. On the *External View* tab, right-click to add elements to the structure, as shown in Figure 9.

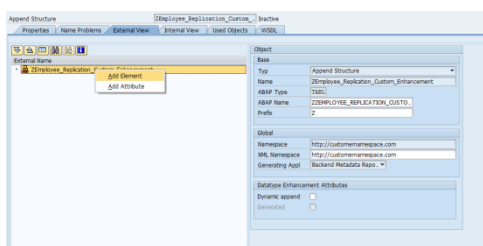


Figure 9

12. Choose *Add Element*.
  13. In the dialog box, enter the name of the structure, as shown in Figure 10. Then click the OK icon (✓).
- In Figure 10, we have added the field name *ssn*.

### Note

Be sure to add the same name as that of the field in SuccessFactors.

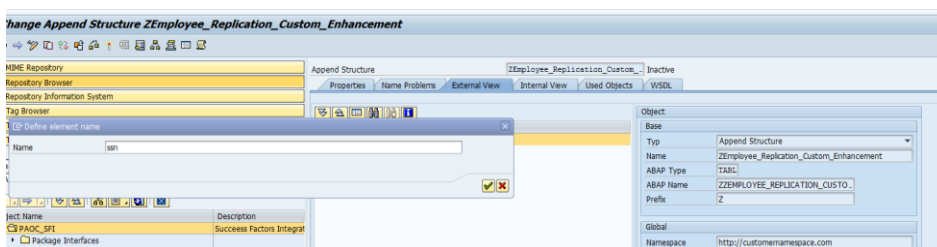


Figure 10

After the field is added, it appears in the structure, as shown in Figure 11.



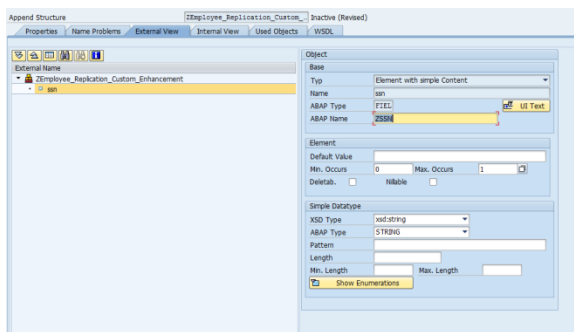


Figure 11

14. To add more fields, repeat steps 11 and 12.

In the example in Figure 12, the field *salary* has been added.

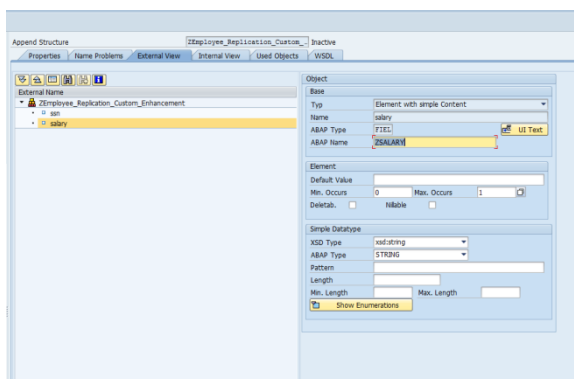


Figure 12

15. Save and activate the object.

After activation, the status of the objects should be *Active*, as shown in Figure 13.

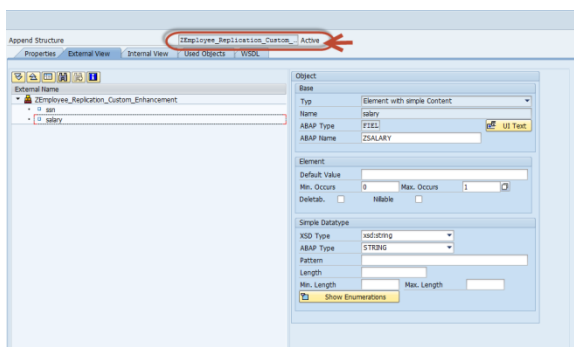


Figure 13

16. In transaction SE80 navigate to package PAOC\_SFI\_EMPL\_DATA.
17. Expand *Enterprise Services* → *Data Types* and double-click the data type SFI\_SE\_SFOBJECT.
18. On the *Properties* tab, double-click the proxy object SFI\_SE\_SFOBJECT, as shown in Figure 14, to open the structure of the object.

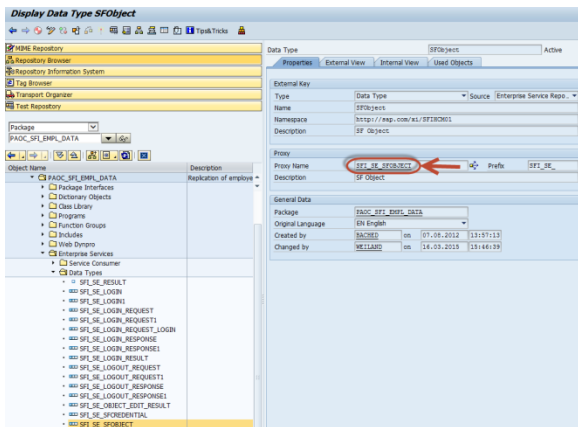


Figure 14

On the **Components** tab, all the components are displayed that you added to the structure, as shown in Figure 15.

Component	Typing Method	Component Type	Data Type	Length	Decimals	Short Description
LOGIN_METHOD	Types		STRING	0	0	
PROXY	Types		STRING	0	0	
CUSTOM01	Types		STRING	0	0	
CUSTOM02	Types		STRING	0	0	
CUSTOM03	Types		STRING	0	0	
CUSTOM04	Types		STRING	0	0	
CUSTOM05	Types		STRING	0	0	
CUSTOM06	Types		STRING	0	0	
CUSTOM07	Types		STRING	0	0	
CUSTOM08	Types		STRING	0	0	
CUSTOM09	Types		STRING	0	0	
CUSTOM10	Types		STRING	0	0	
CUSTOM11	Types		STRING	0	0	
CUSTOM12	Types		STRING	0	0	
CUSTOM13	Types		STRING	0	0	
CUSTOM14	Types		STRING	0	0	
CUSTOM15	Types		STRING	0	0	
.APPEND	Types	ZZEMPLOYEE_REPL...		0	0	
.SSN	Types		STRING	0	0	
.SALARY	Types		STRING	0	0	

Figure 15

19. In transaction SE11 open the data type HRSFI\_S\_TRANSFER\_DATA.

20. Choose **Append Structure...**, as shown in Figure 16.

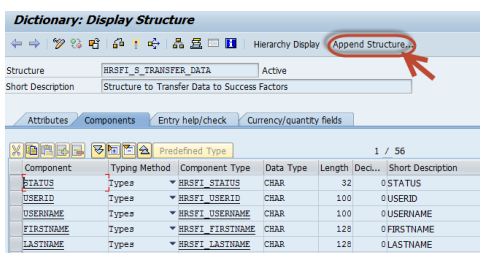


Figure 16

21. In the dialog box, enter the name of the append structure and choose **OK**.

This creates an append structure.

22. Enter the components that you added to the proxy structure (in the above example, we added the fields **ssn** and **salary**). You can also add fields with your customer-specific prefix, as shown in Figure 17.

Append Structure	ZCUSTOM_ENHANCEMENT	Active				
Short Description	Custom Enhancement					
Attributes Components Entry help/check Currency/quantity fields						
Component Type Show Appeinding Obj 1 / 2						
Component	Typing Method	Component Type	Data Type	Length	Dec...	Short Description
Z_SSN	Types		STRING		0	
Z_SALARY	Types		STRING		0	

Figure 17

23. Activate the append structure.
24. In transaction SE11 open the data type HRSFI\_S\_TRANSFER\_DATA to see whether the append appears correctly, as shown in Figure 18.



Structure	HRSFI_S_TRANSFER_DATA				Active	
Short Description	Structure to Transfer Data to Success Factors					
Attributes Components Entry help/check Currency/quantity fields						
  <b>Predefined Type</b>					22 / 56	
Component	Typing Method	Component Type	Data Type	Length	Decl.	Short Description
ADDR2	Types	HRSFI_ADDR2	CHAR	255	0	ADDR2
CITY	Types	HRSFI_CITY	CHAR	255	0	CITY
STATE	Types	HRSFI_STATE	CHAR	255	0	STATE
ZIP	Types	HRSFI_ZIP	CHAR	255	0	ZIP
COUNTRY	Types	HRSFI_COUNTRY	CHAR	255	0	COUNTRY
REVIEW_FREQ	Types	HRSFI_REVIEW_FR	CHAR	255	0	REVIEW_FREQ
LAST_REVIEW_DATE	Types	HRSFI_LAST_REVT	CHAR	10	0	LAST_REVIEW_DATE
CUSTOM01	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM02	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM03	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM04	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM05	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM06	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM07	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM08	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM09	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM10	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM11	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM12	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM13	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM14	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
CUSTOM15	Types	HRSFI_CUSTOM	CHAR	255	0	CUSTOM01 - CUSTOM15
MATRIX_MANAGER	Types	HRSFI_MATRIX_MG	CHAR	255	0	MATRIX_MANAGER
DEFAULT_LOCALE	Types	HRSFI_DEFAULT_L	CHAR	100	0	Default Locale
CUSTOM_MANAGER	Types	HRSFI_CUSTOM_MG	CHAR	255	0	Custom Manager
SECOND_MANAGER	Types	HRSFI_SECOND_MG	CHAR	255	0	Second Manager
PERSON	Types	HRSFI_PERSON	CHAR	100	0	Person
PERSONID	Types	PERSONID	NUMC	8	0	Technical Person Number
PERNR	Types	PERNR_D	NUMC	8	0	Personnel Number
LOGINMETHOD	Types	HRSFI_LOGINMETH	CHAR	100	0	LOGINMETHOD
APPEND	Types	ZCUSTOM_ENHANCE	CHAR	0	0	Custom Enhancement
Z_SSN	Types		STRING	0	0	
Z_SALARY	Types		STRING	0	0	

Figure 18

25. In Customizing for *Integration Add-On for SAP ERP HCM and SuccessFactors HCM Suite* → *Integration Scenario for Employee Data* → *Business Add-Ins (BADIs)* → *BADI: Replication of Employee Data*, create an implementation for BADI 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.

Figure 19 shows the example code for the method. In this example, we have hardcoded some values, but in an actual scenario, you get the data for a personnel number.

Ty.	Parameter	Type spec.	Description
IN	IV_FIELDNAME	TYPE FIELDNAME	Field Name
IN	IV_PERSON_ID	TYPE INCLUDE	Object ID
IN	IV_PERNR	TYPE PERNR_D	Personnel Number
IN	IV_LANGU	TYPE SYLANGU	Language Key of Current Text Environment
IN	IV_MDTATE	TYPE SYMDATUM	Current Date of Application Server
EX	VALUE( RV_VALUE )	TYPE STRING	
EX	CV_HRSFI_EMPL_DATA_EXCEPTION		Exception Class

Method	IF_HRSFI_EMPL_DATA_REPLICATION-GET_VALUE_FOR_ENHANCED_FIELD	Active
<pre> 1: METHOD if_hrsfi_empl_data_replication-get_value_for_enhanced_field. 2:   IF iv_fieldname EQ 'Z_SSN'. 3:     rv_value = '123456789'. 4:   ENDIF. 5:   IF iv_fieldname EQ 'Z_SALARY'. 6:     rv_value = '1234.56'. 7:   ENDIF. 8: ENDMETHOD. </pre>		

Figure 19

26. (Only necessary if you have used a different field name in your customer-specific append structure than the one for the business object *User* in SuccessFactors HCM Suite, for example, the field *salary* in SuccessFactors and *Z\_SALARY* in SAP ERP HCM): In Customizing for *Integration Add-On for SAP ERP HCM and SuccessFactors HCM Suite* → *Integration Scenario for Employee Data* → *Business Add-Ins (BADIs)* → *BADI:*

*Enhance the Replication of Employee Data*, create an implementation of BAdI HRSFI\_B\_ENHANCE\_EMPL\_DATA\_REP for method MAP\_INT\_NAME\_TO\_PROXY\_NAME. In this implementation, define a corresponding SuccessFactors name (RV\_PROXY\_NAME) for each enhanced field (available via IV\_INT\_NAME).

Figure 20 shows the example code for the method. The example again uses the field names *ssn* and *salary*.

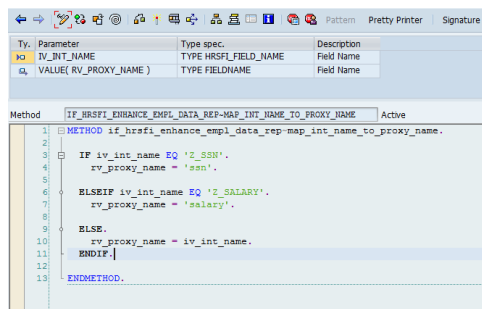


Figure 20

27. From the aforementioned BAdI, use the method MAP\_INT\_VALUE\_TO\_PROXY\_VALUE to map the content of the two fields.

### Example

The field *Z\_SALARY* of IS\_TRANSFER\_DATA must be mapped to the field *salary* of structure CS\_PROXY\_DATA: CS\_PROXY\_DATA-NEW\_FIELD = IS\_TRANSFER\_DATA-ZZ\_NEW\_FIELD.

In our example, the field name on CS\_PROXY\_DATA is *zsalary* because of the prefix maintained in Figure 6.

Figure 21 shows the example code for the method.

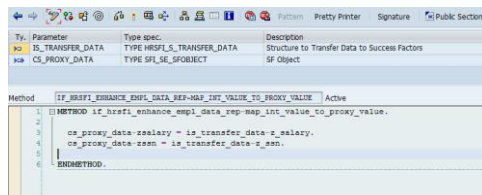


Figure 21

If you extend the user data integration with more than one customer-specific field, you have to map each field in this method.

### Note

Standard fields (including the 15 custom fields) delivered with the add-on, and fields with the same name in the append structure and proxy, do not have to be mapped in addition. These fields are transferred to the structure RV\_PROXY\_DATA automatically.

28. Deploy the SAP HANA Cloud Integration content iFlow *Upsert User Data with Custom Enhancement* and configure the endpoint (deployed iFlow) for the consumer proxy interface SFSFUserUpsertRequestConfirmation\_Out.
29. To transfer the employee data to SuccessFactors HCM Suite, run the report RH\_SFI\_SYNCHRONIZE\_EMPL\_DATA.
30. To verify the results, log on to SuccessFactors HCM Suite and view the SFAPI audit logs, as shown in Figure 22.

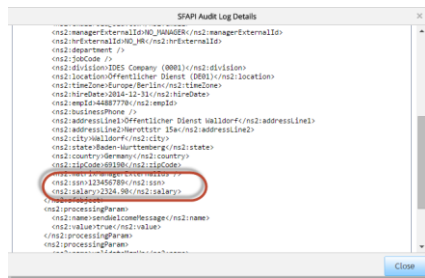


Figure 22



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



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**Material Number:**