FI Custom Code block Extension in SAP S/4 HANA Finance

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Abstract

To accommodate additional custom fields or reporting requirements, it is necessary to extend the Universal Journal with custom code blocks, ensuring all business-specific data is captured and available for analysis. There are two ways to extend code blocks. The Classic method is using the OXK3 transaction and the CI_COBL structure. The other method is using the Custom FieldsFiori app. Furthermore, you can use custom fields along with predefined business scenarios so that all involved business objects are extended, and values are passed along automatically.

Keywords: SAP S/4 HANA, Custom code block extension, Extensibility, FI-GL

1 Introduction:

The Universal Journal table ACDOCA is a central table in SAP S/4HANA that consolidates all financial and controlling data, providing a unified source of truth. Customizing or extending this table allows businesses to include additional fields and data points necessary for their unique financial processes and reporting requirements. Hence it is necessary to extend the Universal Journal with custom code blocks, ensuring all business-specific data is captured and available for Analysis and Reporting.
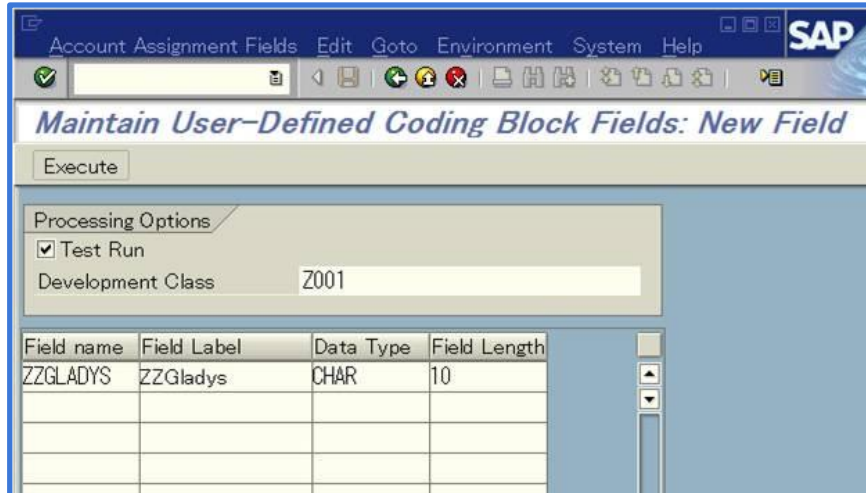
2 Classic Method using OXK3:

When you extend the ACDOCA table using the classic method, not only the ACDOCA table is extended. Many additional tables are also extended, including BSEG, MSEG, EBKN, and EKKN. Custom fields created using this method can be used for many SAP Fiori apps that post journal entries. There are two modes available namely Basic Mode and Expert Mode. Basic Mode is a simplified process to define fields with minimal technical steps. Process includes defining field name (must start with ZZ or YY), data type, and description. However, expert Mode requires ABAP Dictionary knowledge and is targeted for SAP Developers. It offers more control, including defining custom domains and adding fields to structures like CI_COBL and BSEG.
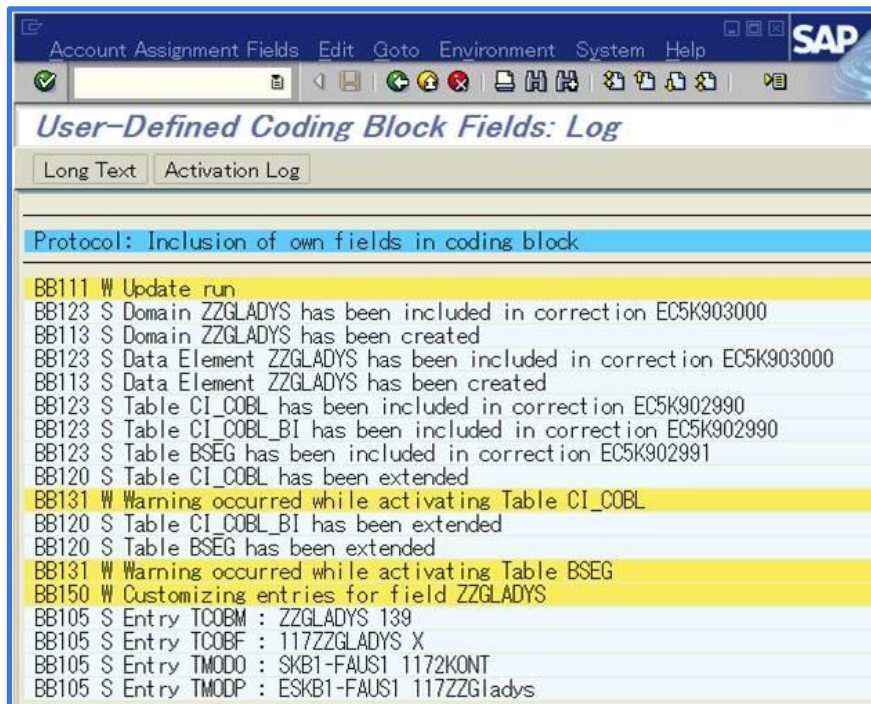
2.1 OXK3 Procedure:

In transaction code OXK3, press button 'Add field' and then follow steps below:

- Enter Development Class.
- Field name: Must begin with ZZ or YY.
- Field description: that is to appear on the sub-screen
- Data type: CHAR or NUMC are offered as data types for a coding field

- Choose the function Test run to check whether your entries are valid.
- Remove the flag from the Test run field, the PROC. Run will be automatically set.
- Choose Execute.
- Check the log for confirming the generation is done correctly or not.

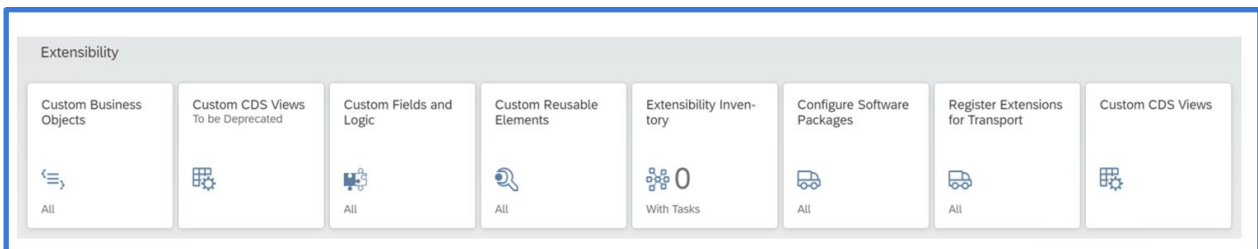**Example in Basic mode to create a Z field.**

Example in Basic mode to run in Proc. Mode and check the log.

The expert mode allows you to perform step-by-step all the functions which the basic mode carries out automatically in the background. This gives you more freedom when defining the various parameters, however ABAP Dictionary knowledge is required to create Domain, Data element etc. Steps for expert mode look like the below:

- Creation of a Domain for a new field.
- Creation of Data element for a new custom field.
- Addition of the new field in the Include structure CI_COBL.
- Addition of the field BI if this new field is used in Batch input as well.
- Addition of the field to BSEG table. The new field must be added to the end of the field and before append structure in BSEG.
- Addition of the control entry for making this new field available for customizing.
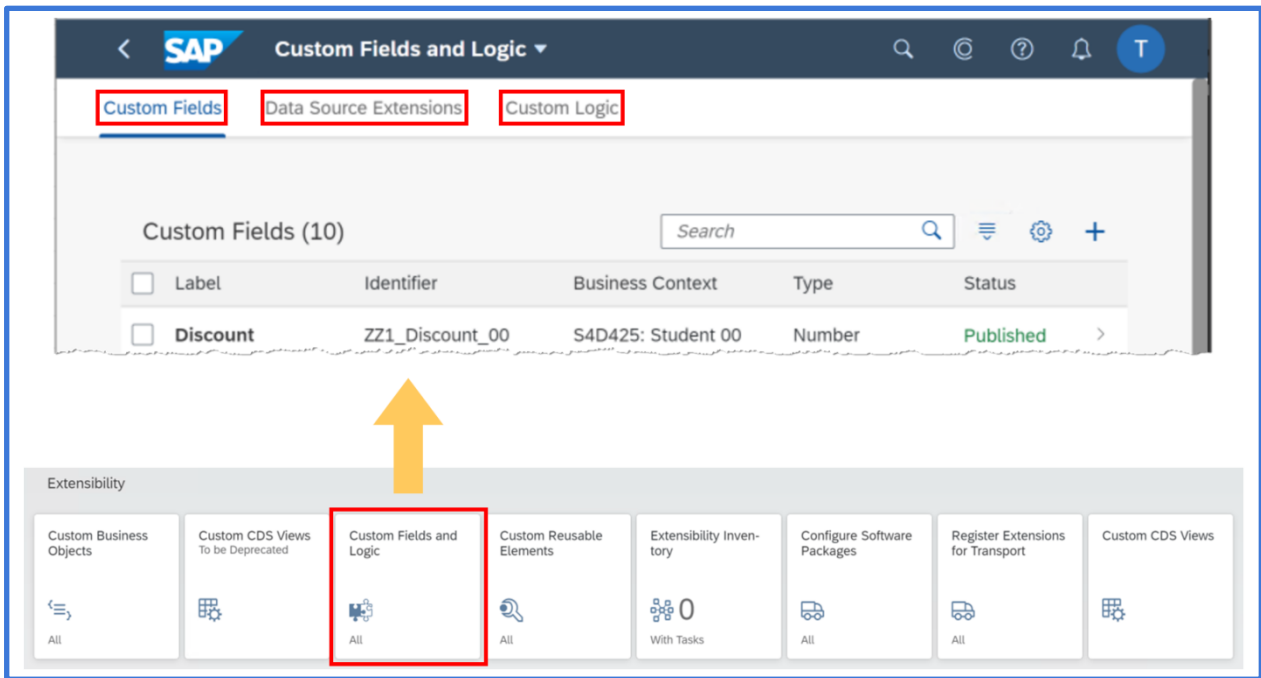
3 Custom Fields and Logic App:

The Custom Fields and Logic App is part of the extensibility apps that help you customize applications and their UIs, reports, email templates, and form templates. With the extensibility apps, you can create custom fields, data source extensions, and enhancement implementations for specific business contexts to enhance pre-delivered applications that are extensible, in order to adapt them to your business needs.

In the Custom Fields and Logic SAP Fiori application, you can add and edit custom fields to extend SAP database tables, CDS views, and OData APIs. It also helps to define how custom fields are used in user interfaces, reports, or forms. Furthermore, you can use custom fields along with predefined business scenarios so that all involved business objects are extended, and values are passed along automatically. You can use the Custom Fields and Logic app to create and maintain your own fields that can be used to enhance applications that have enabled their extensibility for key users.

To create custom fields, proceed as follows:

- Open the Custom Fields and Logic app. You can open the app either directly from the SAP Fiori launchpad, or from an extensible application by choosing Add Field in the UI adaptation mode of the application.
- Create a custom field in the business context where it is needed.
- Decide where the custom field is needed and if it has to be searchable. Translate the field, if required. You can also define the aggregation behavior of the field. Depending on the field type, you can choose among the following aggregation behaviors:
  - None: Field values are not aggregated. This aggregation behavior is the default for the field types Date and Time.
  - Sum: Field values are summed up. This aggregation behavior is the default for numeric field types.
  - Maximum: The maximum field value is calculated.
  - Minimum: The minimum field value is calculated.
- Publish your custom fields for transport. To use a field in an SAP Fiori app, you have to restart the app in the adaptation mode.

If your field is a character-like type or supports the usage of decimal places, you can adapt the field length and number of decimal places as needed. When you publish a field with a certain length, you cannot decrease the field length later on.
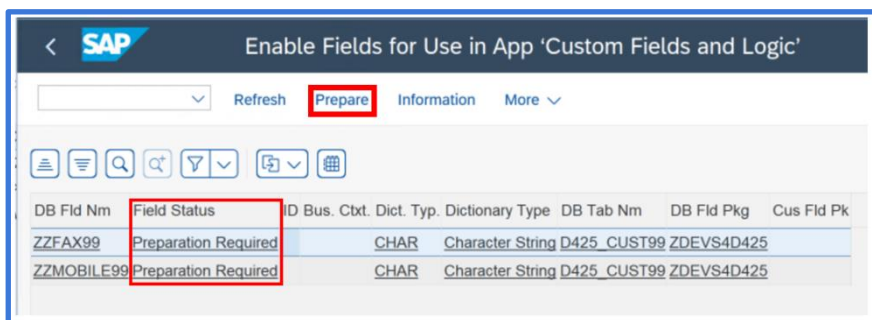
4 Enabling the database fields:

Sometimes, there could be a situation where custom fields (database fields) are available in the back-end already, but need to be used in an SAP Fiori application. To use database fields also to enhance SAP Fiori applications, you need to enable the database fields for usage with SAP Fiori. To enable database fields for usage in SAP Fiori apps, proceed as follows:

Open the transaction Enable Fields for Use in App 'Custom Fields and Logic' (SCFD_EUI) and search for the database fields that you want to enable for usage.
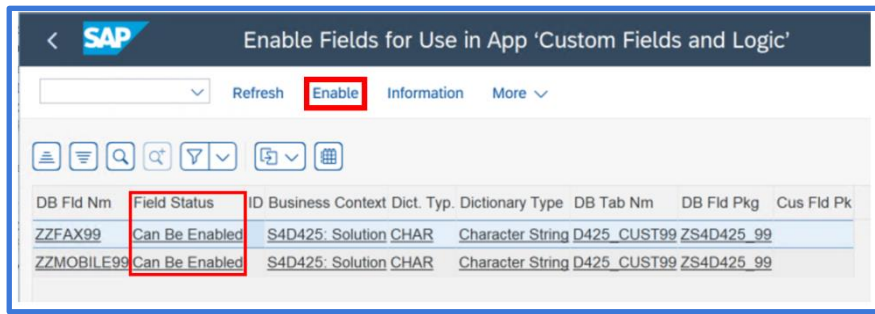
A list of database fields is displayed. These fields were added to database tables using append structures or customer includes. The field status indicates whether a field can be enabled directly, whether it needs to be prepared beforehand, or whether it has already been enabled.

Among others, there are the following statuses:

- Preparation Required - In this case, choose Prepare and follow the step-by-step instructions provided in the dialog that opens.
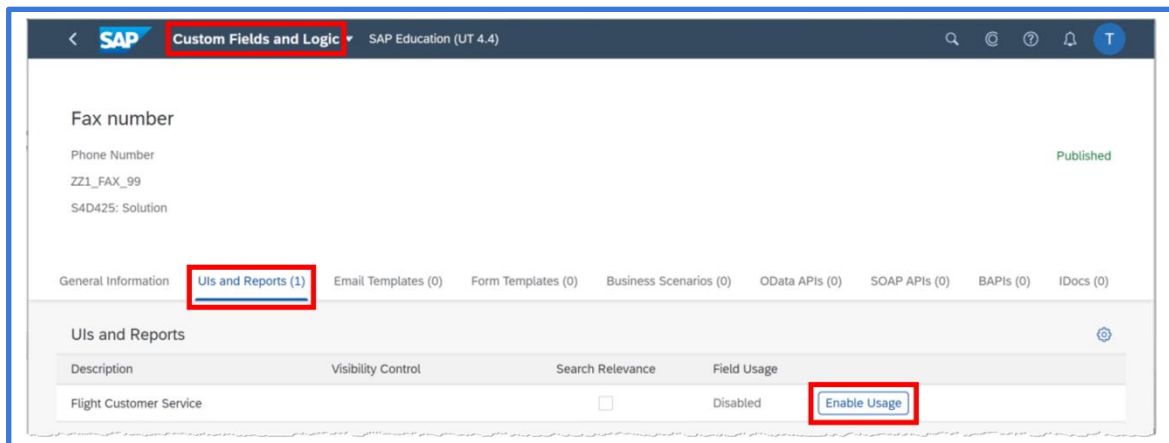

- Can Be Enabled

- Enabled
- Cannot Be Enabled - This means that the field either does not reside in a database table which was prepared by SAP for use in the app Custom Field and Logic, or its ABAP dictionary data type is not supported by the app.

After enabling, and before the SAP Fiori app Custom Fields and Logic is used to add a field to UIs, reports or email templates, please check whether your database field was added manually to any Core Data Services (CDS) data definitions delivered by SAP. Once enabled for the SAP Fiori app Custom Fields and Logic, the fields are available in the app together with any newly created custom fields, and can be added to SAP Fiori UIs and reports, form templates and email templates, as well as business scenarios in the same way as custom fields. This means that you have to enable the usage of the custom database fields in the Custom Fields and Logic app.

Conclusion:

Custom code block extension for Financial Accounting is a key functionality that is required for any SAP Implementation for General Ledger postings. There is a SAP GUI transaction code OXK3 as well as SAP Fiori Custom Fields and Logic App is available to perform the extension of the code blocks apart from the other extensibility Apps available. Users can define new fields in the coding block through customization, allowing them to capture extra details relevant to their business processes. The values entered in the custom coding block fields are stored in the relevant database tables (like ACDOCA and BSEG) alongside other standard accounting information. This helps maintain the consistency of the information stored at one place and availability of custom fields in other SAP standard applications as well avoiding custom table creations and duplication of data storage.

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