

Documentation on Using Custom Data in a Business Object

Introduction

If you need to include custom data in an existing business object (either BDE or BOD), then you can use a customization library.

Using a customization library you can extend the business object to handle:

- data from table columns that are standard in ERP LN, but not used in the BDE/BOD;
- data from table columns that are created as a customization;
- data from so-called 'customer-defined fields' (CDF), which are defined through the Customer-Defined Fields (ttadv4194m000.) session.

The basic idea is that you can create customizations without having to update or merge them when a new version of the standard is installed. A new version of a BDE or BOD may be delivered, for example in a solution or a new feature pack. Installing such a new version does not overwrite the customization. In fact, the customization usually does not have to be changed at all.

Exceptional situations in which the customization has to be changed are:

- an interface change in the BDE/BOD that breaks the compatibility, such as removing a component;
- changing the implementation of a BDE/BOD in such a way that the table containing the custom data is not used anymore by the implementation.

Additionally, if the customization element is changed for a component then the customization library will still work, but the customization data will be included in the new location instead of the old location. This will impact the other application that communicates with ERP LN through BDEs or BODs.

How to

The procedure for creating a customization library is as follows:

1. In your customization VRC, create a customization new library.

The customization library code is comparable to the two generated libraries, except that it uses 'cc' instead of 'sb' or 'st'. For example, if your implementation identifier is ppmmm123 then the customization library will be ppmmmbl123cc00. A customization library can only be created in a customization VRC. It will never be a part of the standard.

2. Copy the template into the new library. For example, if your implementation identifier is ppmmm123, then open the ppmmmbl123sb00 library. Copy the lines between (but excluding) "#ifdef CUSTOMIZATION_LIBRARY" and "#endif | CUSTOMIZATION_LIBRARY" to your new ppmmmbl123cc00 library.

3. For each component that requires custom data, define the required fields using the addTableField() and addCdfField() methods.

At Runtime

The custom data is included in a predefined way in the custom data element.
For example, if a customization library contains the following:

```
case "Order":
    | Custom data element for this component is Order.Header.UserArea.
    | Fill in your table fields here.
    | You can use data from one of the following table(s):
    | ppmmm123.
    addTableField("CustomDate", "ppmmml23", "cdat", "Date")
    addCdfField("SomeNotes", "ppmmml23", "cstr", "String")
    addCdfField("CustomNumber", "ppmmml23", "cnum", "Integer")
    addTableField("MyFlag", "ppmmml23", "flag", "Checkbox")
    addTableField("MyAmount", "ppmmml23", "amnt", "Numeric")
    break
```

Then the XML as used to contain the BOD/BDE data will contain for example:

```
<UserArea>
  <Property>
    <NameValue name="ln.cust.CustomDate"
               type="DateTimeType">2009-06-24T14:00:00Z</NameValue>
  </Property>
  <Property>
    <NameValue name="ln.cust.SomeNotes"
               type="StringType">Customer-specific order notes</NameValue>
  </Property>
  <Property>
    <NameValue name="ln.cust.CustomNumber"
               type="IntegerNumericType">10</NameValue>
  </Property>
  <Property>
    <NameValue name="ln.cust.MyFlag" type="IndicatorType">true</NameValue>
  </Property>
  <Property>
    <NameValue name="ln.cust.MyAmount"
               type="NumericType">25.95</NameValue>
  </Property>
</UserArea>
```

The custom data is handled automatically for:

- BDE List/Show response;
- events or BODs that are published using one of the ShowAndPublish methods;
- standard BDE Create and Change methods, and for incoming BODs that are handled through these methods.

The custom data is not handled for other methods. It is also not handled for List, Show, Create and Change methods that have a specific batch implementation through an on execute hook.

Prerequisites

The following components/solutions are required:

- Business Studio 8.5.0092 or higher.
- Enterprise Server 8.2 or higher including solution 239575.

The BOD/BDE component must have an element marked as the location for custom data. This element can have any name (for BODs it will usually be 'UserArea'), and it must be either an anyType or an attribute group.

Only one custom data element can be used per component. The generated customization library template indicates for which components a custom data location is defined. If no component has a custom data location defined, no customization library template will be generated.

Only columns of tables that are used in the BII for the component can be used.

The custom data must not be in a text or blob column.