



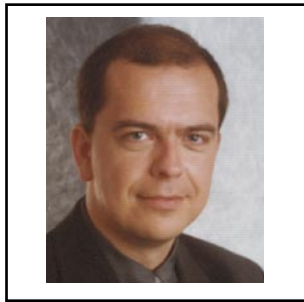
SAP Business One Welcomes you to the Weekly Partner Webinar Series

SAP Business One:
SDK/SDN: FAQs / Tips on „common challenges“

Frank Moebius
Solution Architect

Please note that we are recording this session!

Your Instructor



Frank Moebius
Solution Architect

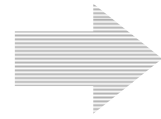
Required:

- **SAP Business One SDK Add-On development knowledge**

Recommended:

- **SAP Business One 2005 knowledge**

Agenda: FAQs & Tips



FAQ and tips around UI Features

FAQ and tips around the Grid object

UDO implementation DLL

Etc.

New events in 2005 / 2005 SP01 enable developers to abandon workarounds:

- **ChooseFromList (CFL) event:**
 - **Basic functionality:**
 - enable working with CFL on Add-On forms in general
 - getting informed about selections a user did in a CFL
 - **More specifically it allows to avoid:**
 - ...hooking on any CFL to capture multi-selection
 - ...checking for `et_LOST_FOCUS` to find out whether e.g. an item in an invoice has been selected by just typing the first characters
- **FormDataEvent**
 - **Allows to avoid capturing too many different UI events – just to know the key of the saved / found / updated / removed object**

The EventLogger sample/tool (available in the new B1DE package) will provide orientation about the events – and parameters – being passed to the event handlers...

Object Model

ChooseFromListEvent

SelectedObjects (DataTable)

It comes as an ItemEvent, but the structure passed to the event handler is different!

- **BeforeAction = False**
I.e. sent after the user made his choice (select)
or
pressed on “Cancel” in the CFL form.

Properties:

- ChooseFromListUID as String (read-only)
Please note:
For a CFL that was opened from “Find” – the UID of the CFL will be -1
- SelectedObjects as DataTable (read-only)
The result is valid/available when **BeforeAction = False only**.
Every subsequent manipulation on the data in the form should be performed in this event handler.

New 2005 SP01 event that fires on:

- Add
- Update
- Delete
- Load (browse, link button, find)

actions on a business object form.

```
Public Sub FormDataEvent(  
    ByRef BusinessObjectInfo As SAPbouiCOM.BusinessObjectInfo,  
    ByRef BubbleEvent As Boolean) Handles Application.FormDataEvent
```

Using `BusinessObjectInfo.Objectkey` you can get the object in DI.

```
BP.Browser.GetByKey (BusinessObjectInfo.ObjectKey)
```

FAQ collection on SDN

New Wiki (beta)

Further frequent questions:

- **File select dialog:**
 - Define UDF as „Link“ and bind an EditText to it
 - Then just „double-click“ into it...
- **Data not being saved – therefore not in DB + not in DBDataSource**
 - Save as draft – and open „programmatically“ in one go...
- **List of B1 FormTypes:**
 - Use `Application.ResourceData.GetFormInfo(ByVal FormType As String)!`
- **„Form Preferences“:**

The preferences are kept in the memory (application cache) until the application is closed – or another company is selected. ONLY then application the changed preferences are saved to the DB (table - CPRF).

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Etc.

- **Allows to use SQL queries – also to other DBs (but credentials of the current context have to be valid).**
- **Potential Performance improvements.**
- **Provides alternative to lacking capability to add an additional DBDataSource on a system form.**
- **By binding Grid to a DataTable you get automatic updates between the Data and View.**
- **You can:**
 - **create the meta data of the Data table by running a Query or by adding a DataColumn – thus it could replace the DB Data Source and User Data Source in principle.**
 - **Save / load XML data**
 - **Copy data from one DataTable to another**

The Grid item is a new “Matrix” with better:

- **Performance ... for retrieving and updating Data in the Grid**
- **Capabilities: Provides collapsible mechanism**

The Grid is a view of DataTable object

- **The Grid is responsible for the visual settings.**
- **The Data table is responsible for the data behind.**
- **Full synchronization between Grid & Data Table**
 - **Data changes are reflected from Grid to Data-Table & backward automatically.**

Data Table

Structural actions.

- ExecuteQuery (+data) or Add columns
- LoadFromXML (+data)
- GetAsXML

Data Actions

- Add rows
- Set cell value by data type.

Grid

Structural actions

- Control on columns display type & properties.
- Expose collapsible view mechanism of existing data.
- Rows selection methods

Data Actions

- Set cell value by display format.

Grid / DataTable in Screenpainter

Demo...

Grid – XML Update

```
<items>
  <action type="update">
    <item uid="MyGrid">
      <AutoManagedAttribute />
      <specific SelectionMode="0" DataTable="MyDataTable" CollapseLevel="2">
        <RowHeaders Width="22" />
        <GridColumn>
          <GridColumn UniqueID="CardCode" LinkedObject="2">
            </GridColumn>
          <GridColumn UniqueID="DocEntry" LinkedObject="13">
            </GridColumn>
          <GridColumn UniqueID="DocStatus" Type="113">
            <ValidValues>
              <ValidValue Value="C" Description="Closed" />
              <ValidValue Value="O" Description="Open" />
            </ValidValues>
          </GridColumn>
        </GridColumn>
      </specific>
    </item>
  </action>
</items>
```

Is it possible to

- auto increment the "#" column of a grid?

Need to do it in SQL – or code.

- click on a grid's row?

The Grid is initialized without the capability to select a row!

You need to set `SelectionMode` – like any other additional UI setting for the Grid

```
Grid.SelectionMode = SAPbouiCOM.BoMatrixSelect.ms_Auto
```

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Etc.

- a) **Prepare a CSV file (with <TAB> as the separator) for <TEM>\TEMP_LS; data will be uploaded when a new UDO definition gets added (UserObjectMD!).**

Issue:

Works only at exactly 1 point in time – when the new UDO definition gets applied to the DB!

- b) **Create UDOs from within a helper UDO – using the UDO implementation DLL feature.**

Limitation:

Need to use SAP Business One GUI application – won't work through DI API...

Sample code

```
CSboBusinessObject *pObject = CSboBusinessObject::CreateBusinessObject
(_T("FOM_REAL_UDO"));

pObject->SetValue((_bstr_t)"Code", (_bstr_t)"1");
pObject->SetValue((_bstr_t)"Name", (_bstr_t)"1");
pObject->SetValue((_bstr_t)"U_Field1", (_bstr_t)"Cx200");
pObject->SetValue((_bstr_t)"U_Field2", (_bstr_t)"Test1");
CSboDataAccessGate oDAG = pObject->GetDAG (_T("FOM_REAL_UDO"), ao_Arr1);
oDAG.SetValue((_bstr_t)"U_CHField", (_bstr_t)"Test1");

sboErr = pObject->Add();

if (sboErr != noErr)

    return sboErr;
```

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Etc.

Usage of permissions happens to be asked for quite some times:

- **How to get the permissions for a single user out of the system?**
- **How to reflect „permission groups“?**
- **How to use SAP Business One functionality for my Add-On?**

•etc.

A starting point for answers can be found in the FAQ-blog on SDN:

[FAQ collection on SDN](#)

Thank you !

Questions?

Additional information:

<http://service.sap.com/smb>

<http://sdn.sap.com>

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