CHAPTER 11: WORKING WITH MULTIPLE THIRD-PARTY VBA PROJECTS

Training Objectives

Actively participating during this chapter helps you learn:

- About creating references to third-party applications.
- About qualifying objects so they can be referenced through code.

Working with Objects in other Dictionaries

By default, Visual Basic for Applications (VBA) works with objects from the dictionary that the VBA project is associated with. For example, the Microsoft Dynamics™ GP VBA project can work with resources from the Microsoft Dynamics GP dictionary. In addition, the Smartlist VBA project can work with resources from the Smartlist dictionary. It is also possible to have your VBA project reference objects in other dictionaries. For example, the Smartlist VBA project can also be set up to reference objects in the Microsoft Dynamics GP dictionary. To do this, you must first create a reference in the VBA project to the other dictionary.

Creating a Reference

To create a reference from a VBA project to another dictionary, select the VBA project in the VBA Explorer. Select References from the Tools menu in the VBA environment. select the check box for the dictionary to make references to.

CAUTION: *When creating references to other dictionaries, you cannot have circular references. For example, if your Microsoft Dynamics GP VBA project references the Smartlist dictionary, the VBA project for the Smartlist dictionary cannot have a reference back to the Microsoft Dynamics GP dictionary.*

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Qualifying Objects in a Different Project

It is important to understand the VBA syntax needed to refer to objects that exist in another project. As with the syntax used to reference fields that exist on a different window in your project, it is important to fully qualify the object being referred to.

For example, in the Microsoft Dynamics GP VBA project, to reference the **Customer ID** field on the Customer Maintenance window from an event on the Sales Transaction Entry window, it is necessary to fully qualify which **Customer ID** field you are referring to by including the name of the window.

```
CustomerMaintenance.CustomerID
```

Similarly, to reference a field in another project, you must fully qualify not only the window the field is on but also the project that contains that window and field.

```
Microsoft_Dynamics_GP.CustomerMaintenance.CustomerID
```

Cross Project Example

Use a cross project reference to enhance the functionality of the Advanced Lookups in Microsoft Dynamics GP. For example, you can customize the Customers lookup window that exists in the Smartlist dictionary. You can restrict the lookup so that it only displays customers in the USA whenever opened from the Customer Maintenance window. Because the Customers lookup is a window in the Smartlist dictionary and the Customer Maintenance window exists in the Microsoft Dynamics GP dictionary, a cross project reference is necessary to add this functionality to the application. Like the earlier exercise, the BeforeLinePopulate grid event is used to implement this example. The following is the code needed for that event:

Conclusion

In this chapter, you learned that references to third-party dictionaries can be used to access and manipulate data in other dictionaries. To reference an object in another project or dictionary, you must fully qualify that object in code.

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Lab 11.1 – Modifying a Third Party Lookup Window to Display Specific Information

Company: Fabrikam, Inc.

Scenario: This exercise demonstrates how to customize a Lookup window in the Smartlist dictionary. Depending on which window is accessing the lookup form, the records that are displayed in the lookup window should differ. When the window is opened from the Sales Transaction Entry window, the lookup should only include items that have a Class ID equal to "RETAIL." When the window is opened from any other form such as the Item Maintenance form, it should display all items.

In this exercise because the **Class ID** field is not an original part of the Items lookup window in the Smartlist dictionary, you first need to add the existing field from the form's auto linked table using Modifier. In addition, security also needs to be given to this modified form. Set this by selecting Smartlist as the Product and Modified Alternate Microsoft Dynamics GP Window as the Type. Finally, the window and field can be added to the VBA project and the appropriate VBA code can be written to complete the project.

1. From the Microsoft Dynamics GP application, navigate to the Sales Transaction Entry window. (TRANSACTIONS→SALES→SALES TRANSACTION ENTRY)
2. Use the **Browse** buttons to display a record and select the **Items Lookup** button to open the Items Lookup window.

3. When the Items Lookup window opens, select the option to modify the current window. (TOOLS→CUSTOMIZE→MODIFY CURRENT WINDOW)

4. Double-click the scrolling window to open the layout. To view the fields listed inside the scrolling window, select **Show Field Names** from the Layout menu.

5. A new field needs to be added to the big line item area. To make room for this field, the big line item area needs to be made larger. Select TOOLS→MARK BIG LINE ITEM. Move your cursor below the last field and click.

6. Add an additional field to the big line item area. From the drop-down in the Toolbox, select the IV_Item_MSTR table. Find the **Item Class Code** field, drag it out, and place it above the dotted line representing the big line item area. Size the field so it is the same as the field above it, using the size to shortest option under the Arrange tab on the Toolbox.

7. Save the changes to the scrolling window by clicking the X in the corner. When asked to save the changes, click the Save button.

8. Close the window layout by clicking the X in the corner. From the Form Definition window, click **OK**.

9. Return to Microsoft Dynamics GP by selecting Microsoft Business Solutions-Dynamics GP from the File menu. When back in Microsoft Dynamics GP, set access to the new modified form using the Security window. (TOOLS→SETUP→SYSTEM→SECURITY)

User ID	Select the current user ID
Company	Fabrikam Inc.
Product	SmartList
Type	Modified Alternate Microsoft GP Windows
Series	Inventory

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10. Double-click the Items selection to set access to this modified window, and click **OK** to close the security window.

11. Open the customized window to view it. (TRANSACTIONS→SALES→SALES TRANSACTION ENTRY)

12. Use the **Browse** buttons to display a record, and select the **Items Lookup** button to open the Items Lookup window.

13. When the window appears, use the **Expand** button to display the big line item information. You should now see the field added to the project.

14. After the window has been modified, add the Modified Alternate Microsoft Dynamics GP window to the VBA project. With the window displayed, select TOOLS→CUSTOMIZE→ADD CURRENT WINDOW TO VISUAL BASIC.

15. Add the following field to the VBA project by selecting TOOLS→CUSTOMIZE→ADD FIELDS TO VISUAL BASIC. After this option is selected, click the **Item Class Code** field.

16. Since you only want to display items with an Item Class Code of "RETAIL" when the Items window is opened from the Sales Transaction Entry window, you need to add the Sales Transaction Entry window to the Microsoft Dynamics GP project. After closing the Items Lookup window, the Sales Transaction Entry window should be displayed. Add the window to Visual Basic by selecting TOOLS→CUSTOMIZE→ADD CURRENT WINDOW TO VISUAL BASIC.

17. Switch to VBA. (TOOLS→CUSTOMIZE→VISUAL BASIC EDITOR)

18. Since you are working with two projects and want to reference the Sales Transaction Entry window from the code window, in the SmartList product a reference must be selected. Highlight the SmartList product within the Project Explorer window, and open the References window by selecting TOOLS→REFERENCES. Select Microsoft Dynamics GP, and click **OK** to close the References window.

19. Open the appropriate code window by double-clicking the ItemsDetail Grid listed under the SmartList product in the Project Explorer window.

20. After the reference has been selected, write code to list items whose ItemClassCode is equal to "RETAIL" only when the Items Lookup window is opened from the Sales Transaction Entry window. This code is placed in the BeforeLinePopulate event of the Grid. Select BeforeLinePopulate from the drop-down list, and then add the following code to the Grid event.

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21. Compile the code to verify it runs in Microsoft Dynamics GP. (DEBUG→COMPILE GREAT_PLAINS)

22. Test the VBA code by viewing the Microsoft Dynamics GP window in run mode. Switch to Microsoft Dynamics GP by selecting the **View Microsoft Dynamics GP** button from the Toolbar. You can also select Microsoft Dynamics GP from the View menu.

23. Test this exercise by clicking the **Items Lookup** button. If you display detailed information, the line items listed should only show "RETAIL."

Quick Interaction: Lessons Learned

Take a moment and write down three Key Points you have learned from this chapter:

1.

2.

3.

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