CHAPTER 12: DISTRIBUTING YOUR VBA PROJECT

Training Objectives

Actively participating during this chapter helps you learn:

- About distributing Visual Basic for Applications (VBA) Customizations.
- About import/export issues.

Distributing VBA Customizations

To distribute Microsoft Dynamics™ GP VBA customizations, follow the process listed below.

Distributing VBA Customizations

- ❑ 1. Enabling VBA
- ❑ 2. References to external components
- ❑ 3. Distributing project files
- ❑ 4. Package files
- ❑ 5. Package file Import/Export issues

Enabling VBA

Each client workstation receiving your VBA or Modifier customizations must have one of the following registered:

- The Modifier with VBA
- The Customization Site Enabler

This information can be found from the Microsoft Dynamics GP Options Window. To open the Microsoft Dynamics GP Options window, select About Microsoft Dynamics GP from the Help menu, and then click the **Options** button.

NOTE: *Microsoft Dynamics GP automatically registers the Customization Site Enabler when you register Modifier. If the client workstation already has Modifier registered, the Customization Site Enabler will also be registered.*

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References to External Components

When Microsoft Dynamics GP first accesses a VBA project, the references to any external components are checked. If external components cannot be found, the VBA project cannot operate properly. If this situation occurs, the following dialog is displayed, allowing you to locate the missing components.

The dialog lists the component that cannot be located, and indicates where the VBA project is currently looking for the item. Click **Browse** to display a file dialog to specify the correct location of the component. When you have specified a correct location for the component, the reference in the VBA project is repaired and saved in the project file.

HINT: *An external component may be referenced several times within a project, so this dialog may appear several times asking you to locate the same component.*

One other issue you may have to deal with in terms of References regards the reference or use of additional components that may not be loaded or properly registered on the end user's machine. Some of these components may be distributed freely with your VBA project others may not.

You may need to check with the creator of the additional controls to verify the procedure to take. If the components can be distributed freely, the Microsoft Office Developer Edition includes a packaging utility that helps you resolve this issue. It allows a developer to pick all of the components used with a VBA application and helps create a setup environment the developer can take to the end user. If you do not have access to this tool, the registration of the controls and assignment of references must be handled individually on each machine using your product.

Avoiding Reference Problems

To avoid problems referencing external components from your VBA project, do the following:

- Refer only to components needed. Do not make references to components that are not being used in your project.
- Watch for "hidden" references, such as those created when adding a control to the Visual Basic toolbox.
- Be sure you installed and registered needed components before running the VBA project.
- Keep external components in known locations, such as next to the VBA project or in the Windows "system" directory.

Distributing Project Files

One method of distributing a finished VBA customization is to copy the VBA project file to the destination machine. The primary reason to use this method is when you have created an extensive VBA project that contains proprietary code you do not want others to see. You can lock the VBA project before you distribute it, preventing others from examining your code. You do this by viewing the properties for the project and displaying the Protection tab.

There are disadvantages to locking a VBA project:

- Other VBA developer's customizations cannot be added to the VBA project.
- End-users cannot add any of their own functionality with VBA.

Also, distributing an entire VBA project does not allow you to package any modified forms or modified reports that may be part of your customization. For all these reasons, we recommend that you use package files to distribute your VBA customizations.

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Package Files

Package files are special text files used to deliver customizations made with Modifier, VBA, and the Report Writer. A developer can create a package file that contains their customizations, move the package file to the destination workstation, and then import the customizations into the installation.

A package file can contain the following items:

Modified Reports	Reports created or customized with the Report Writer.
Form with VBA **Modified Form with VBA**	Forms that have VBA code attached.
Report with VBA **Modified Report with VBA**	Reports that have VBA code attached.
User Form **Module** **Class Module**	User forms, code modules, or class modules created with the VBA development environment.
References	References to external components used by VBA. A package file cannot contain the actual components referenced by the VBA customization. Those components must be delivered separately.

Exporting Package Files

Package files are created using the Customization Maintenance window. Complete the following procedure to create a package file. Open this window by pointing to Customize in the Tools menu and selecting Customization Maintenance.

The Customization Maintenance window lists all of the components customized with Modifier, Report Writer or VBA. Select all of the components required for your customization. Multiple items can be selected by holding down the Control key as you click on the item.

Click Export. A file dialog appears, allowing you to specify the name of the package file. Be sure the file has the .Package extension. The results of the export operation are displayed in the status area at the bottom of the window.

NOTE: *Some global changes you make with Modifier and Report Writer cannot be included in a package file. For instance, changes to picture resources or global data types are not included in package files. To include these resources, follow the previous method for customization distribution as outlined in Appendix C.*

Importing Package Files

After the package file has been created, it can be distributed to each of the client workstations. Each client workstation then imports the package file. The import process updates the Dynamics.VBA project, and any third-party projects included during the export. If the projects do not exist they are created.

Open the Customization Maintenance window. Click Import in the Customization Maintenance window to display the Import Package File window.

Click **Browse** to open a file dialog that allows you to select the package file to import. The contents of the package should be displayed in the Import Package File window.

An "X" in the Overwrite column indicates that a customized version of a component already exists for the system, and it will be overwritten by the contents of the package file.

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Click OK to start the import process. If any errors occur during the import process, the Errors window displays. The results of the import operation also display in the status bar of the Customization Maintenance window. To view the list of the last errors that occurred, click the Errors button in the status bar.

Package File Import/Export Issues

There are additional issues to be aware of when importing and exporting package files, concerning how customized resources are stored by Microsoft Dynamics GP.

Microsoft Dynamics GP contains forms, which are groups of windows, menus, and other resources that work together for a common purpose. A form can have several windows, but you can make customizations to individual windows with Modifier and VBA. When exporting a form to a package file, you are exporting all of the windows in that form, not just the windows you modified or applied VBA code to.

This is important to keep in mind when importing a package file that contains customized forms. If a customized version of the form already exists in the system and you import another set of customizations for that same form, the original customizations are overwritten. This occurs even if the customizations are made for different windows in the form.

A similar issue occurs for reports. If you have made customizations to a report, then import a package that contains customizations for that same report, the existing customizations are overwritten.

HINT: *A warning message automatically displays allowing you to cancel an import operation that will overwrite existing customizations.*

Verify that the client runtime environment has the same products appearing in the Dynamics.set file, if the VBA modifications include code added to objects found in a third party dictionary. If a particular third party dictionary is not installed, the import fails when trying to bring in those modifications.

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Conclusion

Microsoft recommends using package files to distribute customizations made with Modifier, VBA and Report Writer. Package files are easy to create and multiple resources can be exported into a package file. Be aware of some of the export/import issues. It's important to only include resources that the users already have installed so references to external objects won't become an issue.

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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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