
Recommended Practices for
Solution Development
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Notices

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Chapter 6: Recommended Practices in Solution Development

OpenSpan lets you create solutions that integrate and automate desktop applications without writing code. When creating solutions, you go through many of the same logical steps and practices required by software programming.

This chapter describes both general advice applicable to any programming project and specific practices recommended for creating enterprise solutions with OpenSpan Studio.

Building Blocks

When you complete this chapter, you should be able to:

- Add a folder to your solution.
- Add a global container.
  - Identify the difference between local and global containers.
- Set the StartUp Project for a single or multiple projects in a solution.

This chapter includes these topics:

Project 1: Working with Folders in a Solution

When you finish this project, you should know how to:

- Add a folder to your solution.

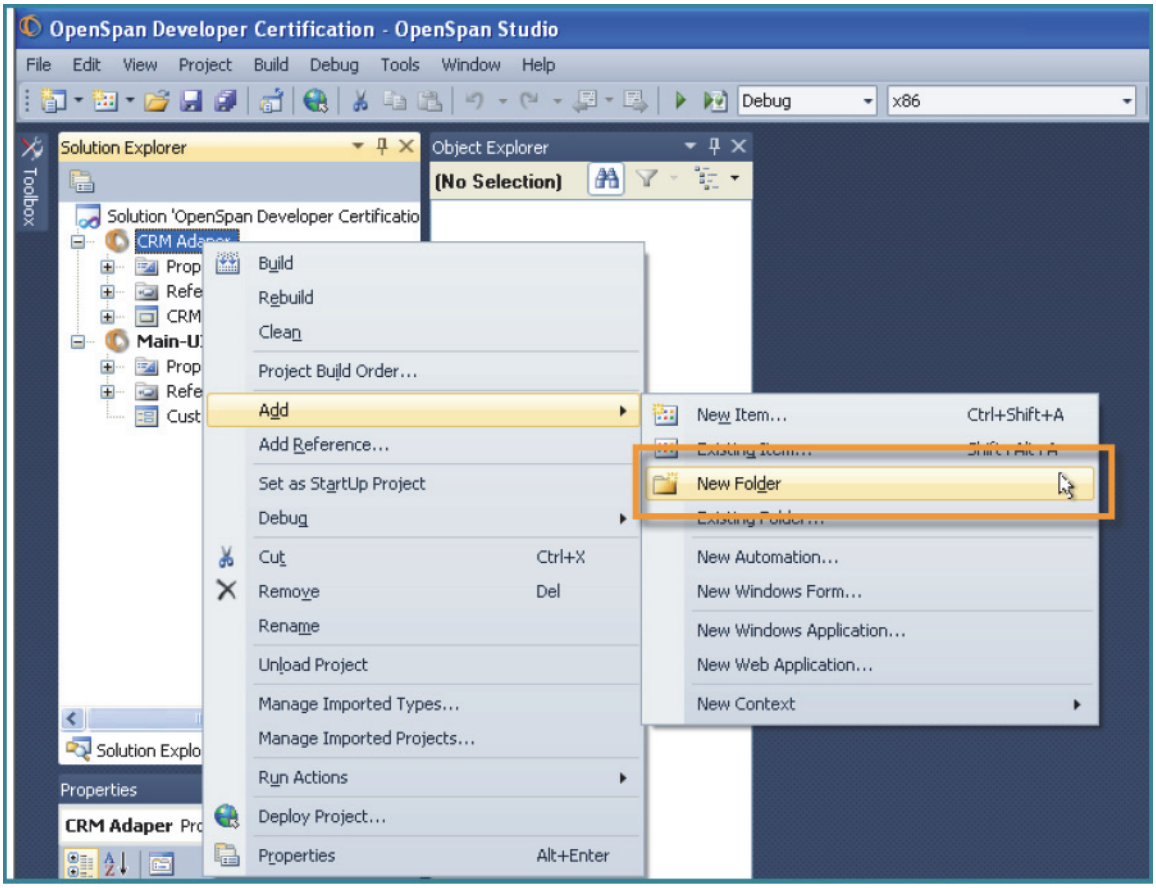
Group Exercise 1: Adding a Folder to the CRMAdapter

Key Points to Consider when Managing the Solution Hierarchy

Keeping the Solution Manager hierarchy organized is vital. Keeping with our recommended practices, use folders to group related items based on adapters and events, public and private automations. Setting up global containers to store variables or components that can be called from multiple locations within the project is also recommended.

These exercises demonstrate to how to add folders and global containers to your OpenSpan Developer Certification solution.

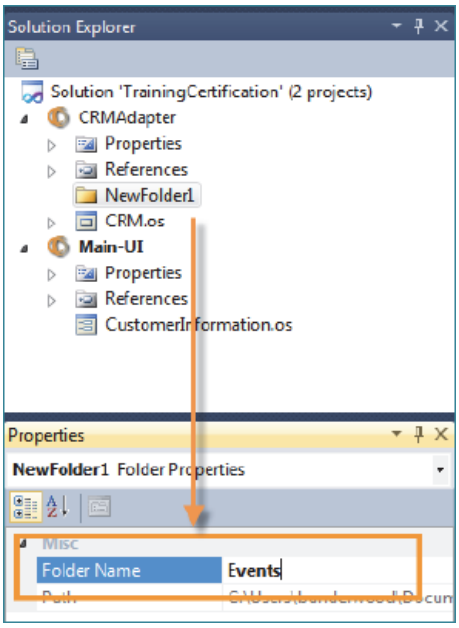
1. In Solution Explorer, right-click the **CRMAdapter** project and select **Add | New Folder.**



2. Highlight the **NewFolder1** folder in Solution Explorer. In the **Properties** window, change the Folder Name field to:

   Events

You can also rename a folder from within Solution Explorer.



3. Next, add a subfolder at the Events folder. Right-click the Events folder and select **Add | New Folder**. In the Properties window, assign this name to the subfolder in the Name field:

   Controls

Project 2: Working with Global Containers in a Solution

When you finish this project, you should know how to:

- Add a Global Container.
- Identify the difference between local and global variables.

The following types of components are used in OpenSpan Studio when working with a solution:

- Local
- Global

Global components are visible to all automations in a project via Object Explorer. Local components are exposed only to the automation to which they are added. Most components are added to the Local tab by default. However, you can change a Local component to Global by right-clicking it and selecting the Make Global option.

Global components are created when the OpenSpan project starts, and they exist for the entire time the project is running. They can be used by any automation at any time. These differ from local components which are created when the automation starts and exist only while the automation is running.

To determine whether to move a component to the Global tab or to Local tab, consider whether the component is required in any other automations.

Note If you add a component to the Global tray of an automation and use the component in other automations, do not delete the automation to which you originally added the component!

Deleting an automation deletes all of the components added to the Component tray for the automation — even if they are on the Global tab. You can avoid this by using a Global Container project item and adding any components requiring Global scope to the container.

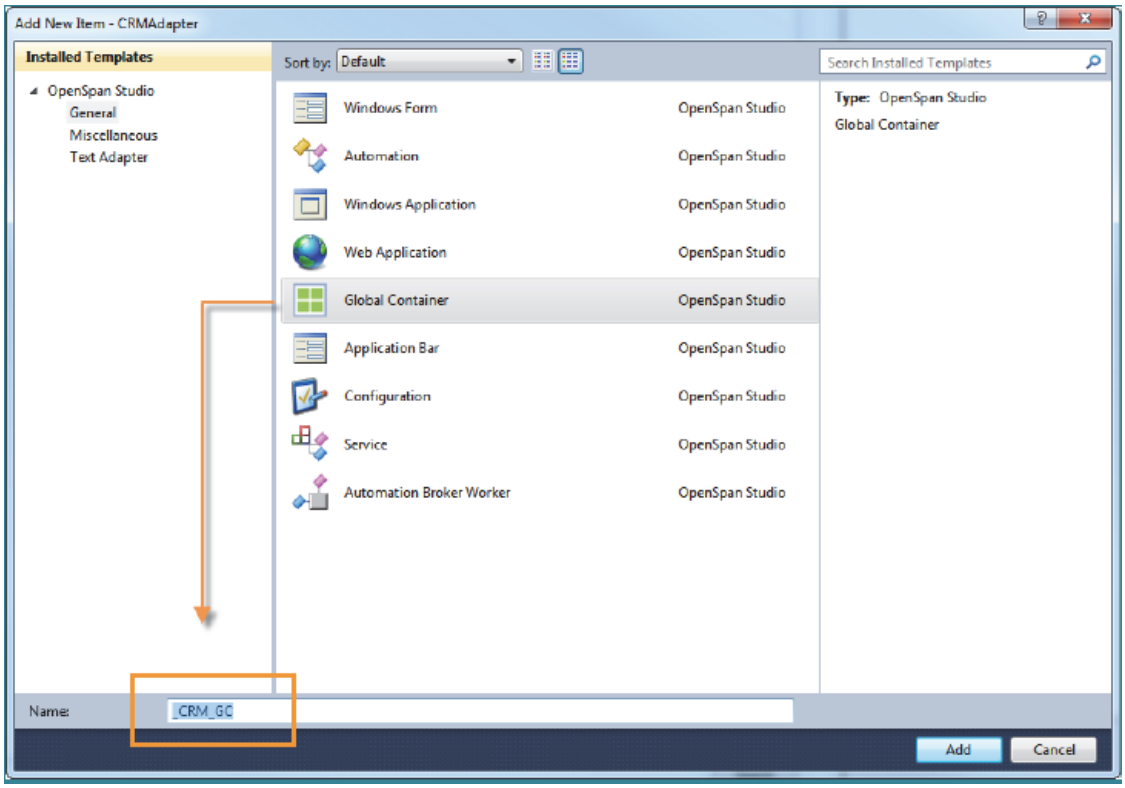
For more information on working with Global Containers, see OpenSpan Help.

Group Exercise 1: Adding the _CRM_GC Container to the CRMAdapter

Add a Global Container item to store variables or components that can be called from multiple locations within a solution.

1. In Solution Explorer, right-click the **CRMAdapter** project and select **Add | New Item**. The Add New Item – CRMAdapter dialog Window appears.
2. Click the **Global Container** item in the list. Enter the following in the Name field:

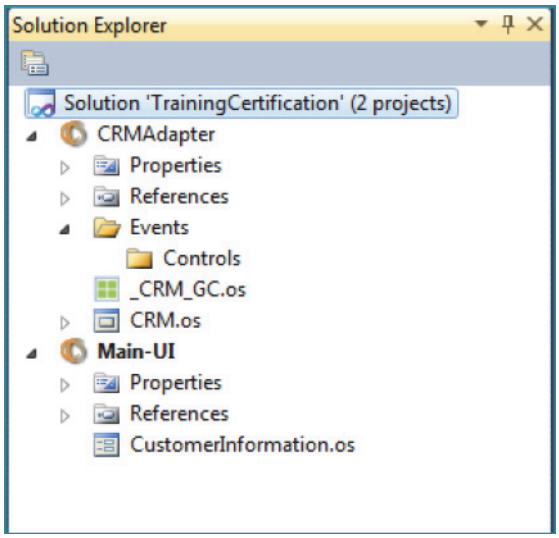
   _CRM_GC



3. Click **Add.**

4. Select **File | Save All**.

   Your Solution Explorer window should look like the following example:



Note Before we can create the logic (Automations) or debug the OpenSpan Developer Certification solution, we need to define the project reference and their actions when debugging our solution. The next project describe the process for Working with Project Reference in a solution.

Project 3: Working with OpenSpan Project Reference

When working in an environment where multiple OpenSpan developers are creating projects involving the same application, you should create and maintain a single project dedicated to the interrogation of the application and the automation of basic application functionality.

For example, this application project includes the following:

- The full interrogation of the application
- The modification of match rules as required
- Automations to log in and navigate the application to the initial application window used by the intended end users

OpenSpan developers in other groups within your organization can use this application project as a base for developing specific business automations or event data collection.

These OpenSpan developers do not need to go through the process of interrogating the application and setting up the login/navigation automations. Instead, they can build their projects to address specific business needs and reference the interrogated controls and automations in the primary application project.

The benefits of this approach include the following:

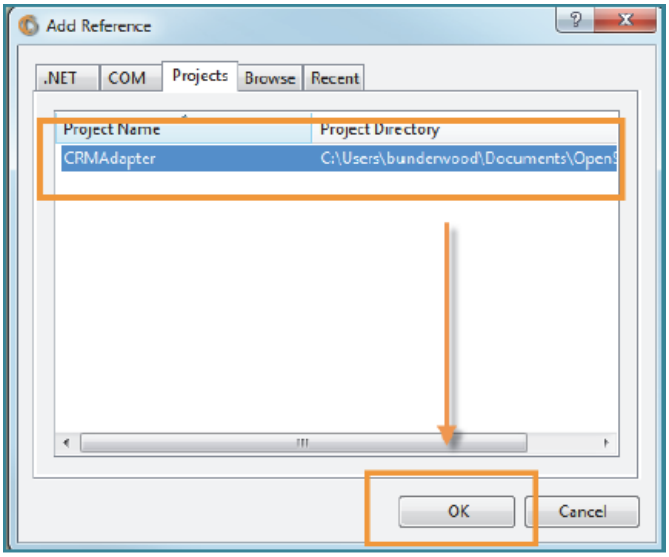
- **Maintenance** — If the primary application changes (for example, if new targets need to be interrogated or match rules modified), the changes can be made to the primary application project. When working with projects that reference the primary application project, OpenSpan automatically exposes the new controls and applies updated match rules or automations.
- **Reusability** — A single developer can interrogate the main application and develop the login/navigation logic. Other OpenSpan developers can then focus on building projects which accomplish specific business automation and event data collection.

When you finish this project, you will know how to set the Startup project for a single or multiple projects in the solution.

Group Exercise 1: Setting the Project Reference

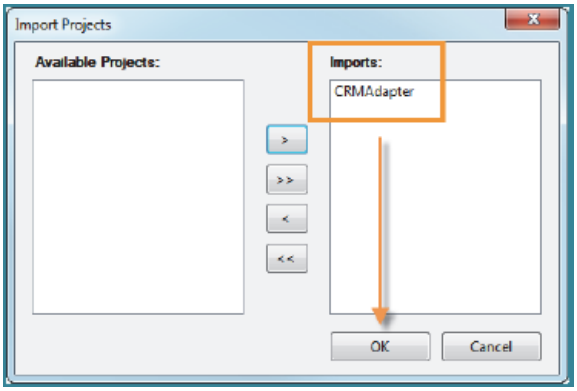
Follow these steps to set a project reference:

1. Right-click **Main-UI** and choose **Add Reference**.
2. On the **Projects** tab, select **CRMAdapter** and click **OK**.



3. Right-click the **Main-UI** project and select **Manage Imported Projects**.

   From the Available Projects list, highlight **CRMAdapter** and click the **caret-right** (**>)** button. This moves the CRMAdapter project into the Imports list.



4. Click **OK.**

In this chapter, you learned how to:

- Add two folders, Events and Controls, in the CRMAdapter to hold items related to adapters and events, public and private automations.
- Add a global container called _CRM_GC to store variables or components that can be called from multiple locations within the solution.
- Identify the differences between local and global containers.
- Set the Project Reference for the Main-UI and CRMAdapter projects in the TrainingCertification solution.