Extension Development

Development Environment:

1. SuperMap iDesktop
2. Visual Studio 2008, Visual Studio 2010 or Visual Studio 2011

Note:

SuperMap Desktop Plugin registration is implemented during SuperMap iDesktop installation.
Please run RegisterTemplate.exe in the SuperMap iDesktop\Tools folder to implement SuperMap Desktop Plugin registration if it is not registered.

Language:

C#

Basic Steps:

Step 1: Creating a New Project

Now we take the Visual Studio 2010 as an example and the development flow of Visual Studio 2010 can refer to this document.

1. Start Visual Studio 2010 to create a new project.

   Click File, point to New, then click Project. In the New Project window that shows up, click Visual C# in the Project types list, click SuperMap Desktop Plugin in the Templates list, type "MyCtrlAction" in the Name text box, select a folder to place the project, and then click OK.

   If you cannot find the SuperMap Desktop Plugin template in the Templates list, please register the template.
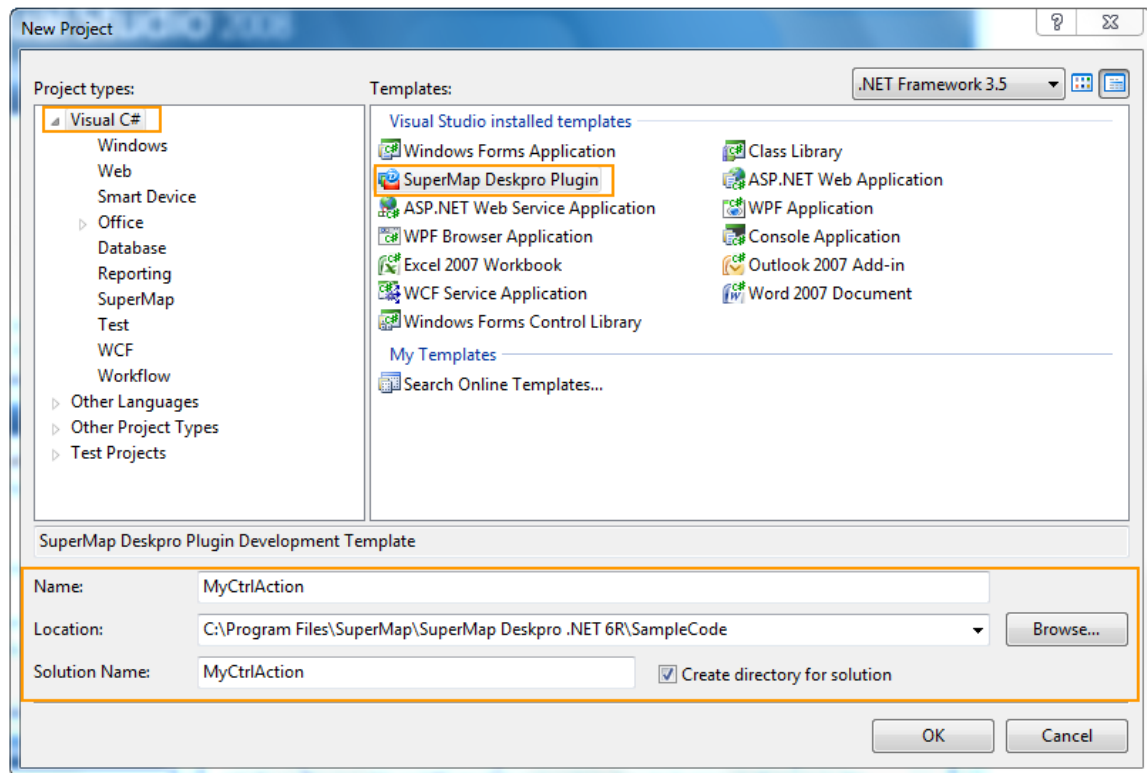
Figure: New Project dialog box

2. MyCtrlAction Project

o After creating new project through SuperMap Desktop Plugin, 9 files will be generated:
  o DesktopPlugin.cs defines the plugin and deals with the plugin initialization of the plugin.
  o MyCtrlAction.cs defines the action performed when the event is triggered.
  o MyCtrlAction.config is the plugin configuration file, which is used to manage plugin loading and interface configuration.
  o MyControl.cs defines the function of dock bar.
  o MyCtrlActionCheckBox.cs defines the function of check box.
  o MyCtrlActionColorButton.cs defines the function of color button.
  o MyCtrlActionComboBox.cs defines the function of combo box.
  o MyCtrlActionNum.cs defines the function of integer control.
  o MyCtrlActionTextBox.cs defins the function for text box, which is used to acquire the input text and the action to be implemented according to the text content.
o As shown in Rectangle 1, common references will be added if you create a new project through SuperMap Desktop Plugin.
o If you want to add other references, right click References in the Solution Explorer, click "Add SuperMap iDesktop Reference". This function is designed for users locating to SuperMap reference quickly.
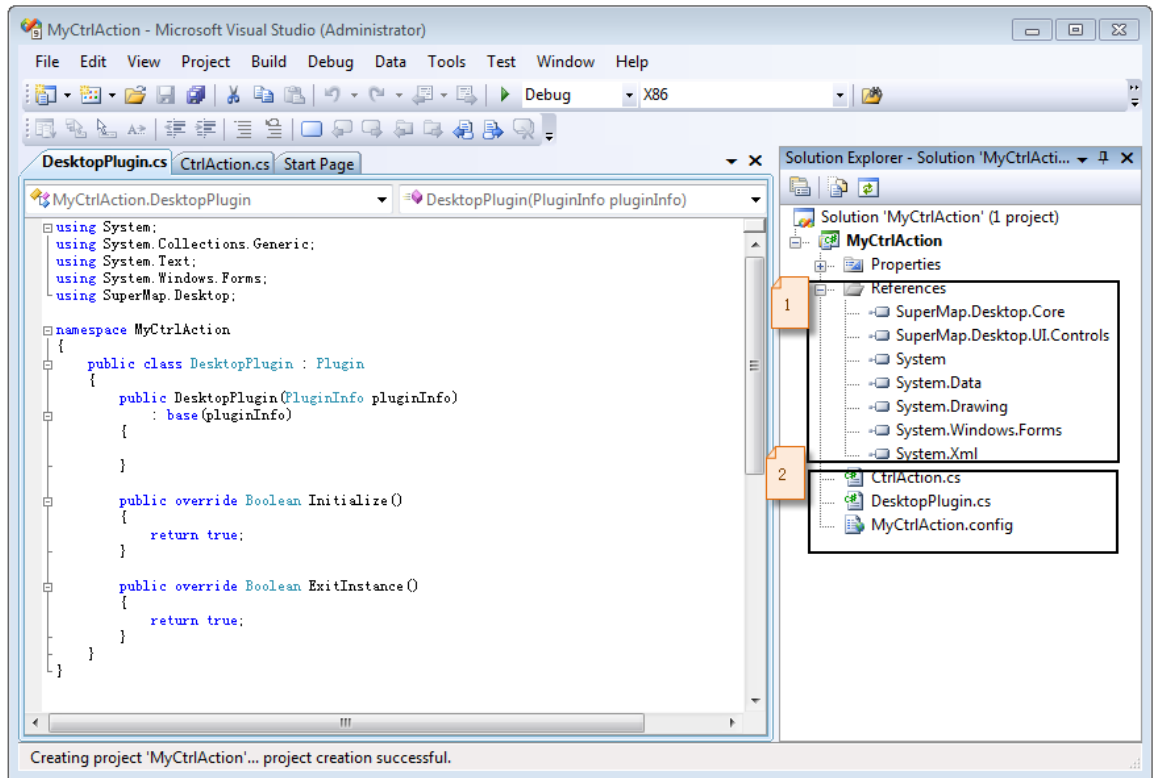
Figure: MyCtrlAction Project

o It can add reference automatically in the "Add SuperMap iDesktop
   Reference " window. It will automatically search the dynamic file of
   bin directory by default.
   o **Reference:** It is used to add the assembly to add. there are two
      sources: use the assembly under the installation directory\Bin
      directly and use the reference in other place. The assembly wil
      display teh name, version and place. The detailed description
      will be displayed when mouse over. In the "Reference" tab,
      select the assembly to reference. After clicking the Ok button,
      you can use the assembly in the project.
   o **Browse:** It is used to add the reference. Click the Open button,
      and you can browse the files to reference.
   o **Recent:** It is used to display the recent assembly. You can
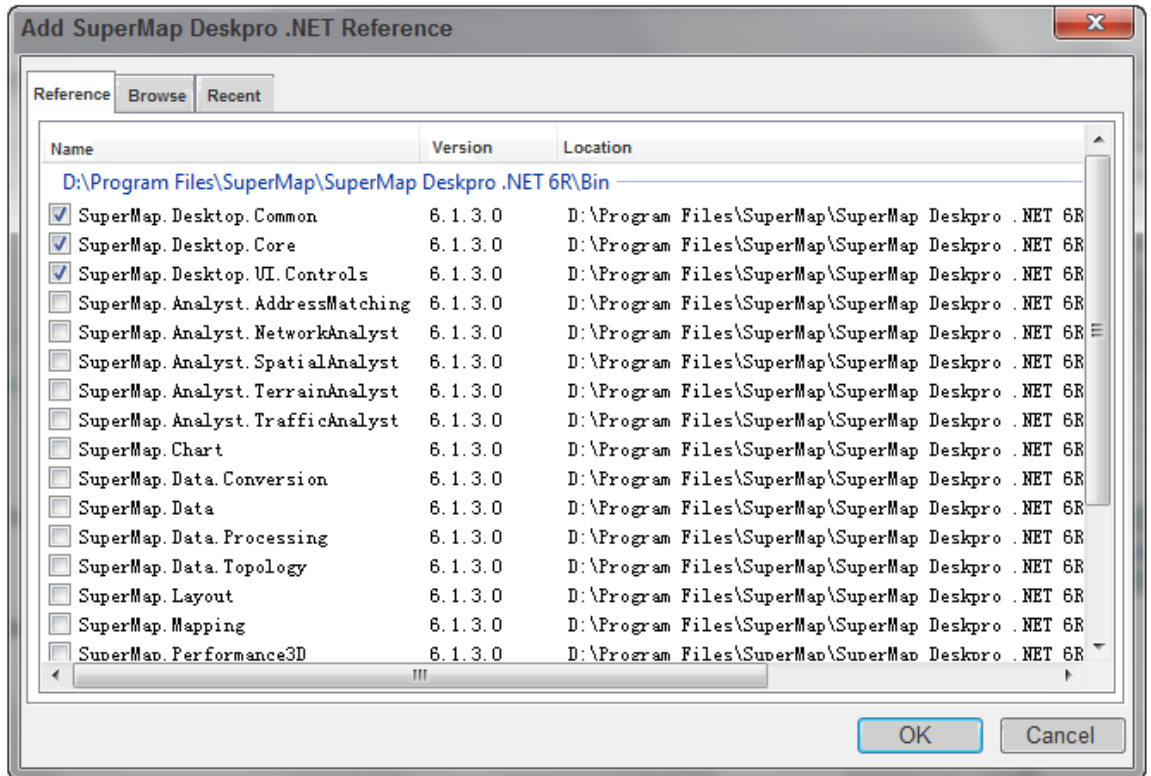   reuse the assembly when you select one or more assembly.

Figure: Add the SuperMap iDesktop reference

o   You can add the files used in the project through the reference
    function of Visual Studio.

Step 2: Realizing the Function

1. Open MyCtrlAction.cs.

   MyCtrlAction.cs defines the action that will be performed when the control
   event is triggered. The class bound to the control must be inherited from
   the CtrlAction class or implement the ICtrlAction interface. Below is the
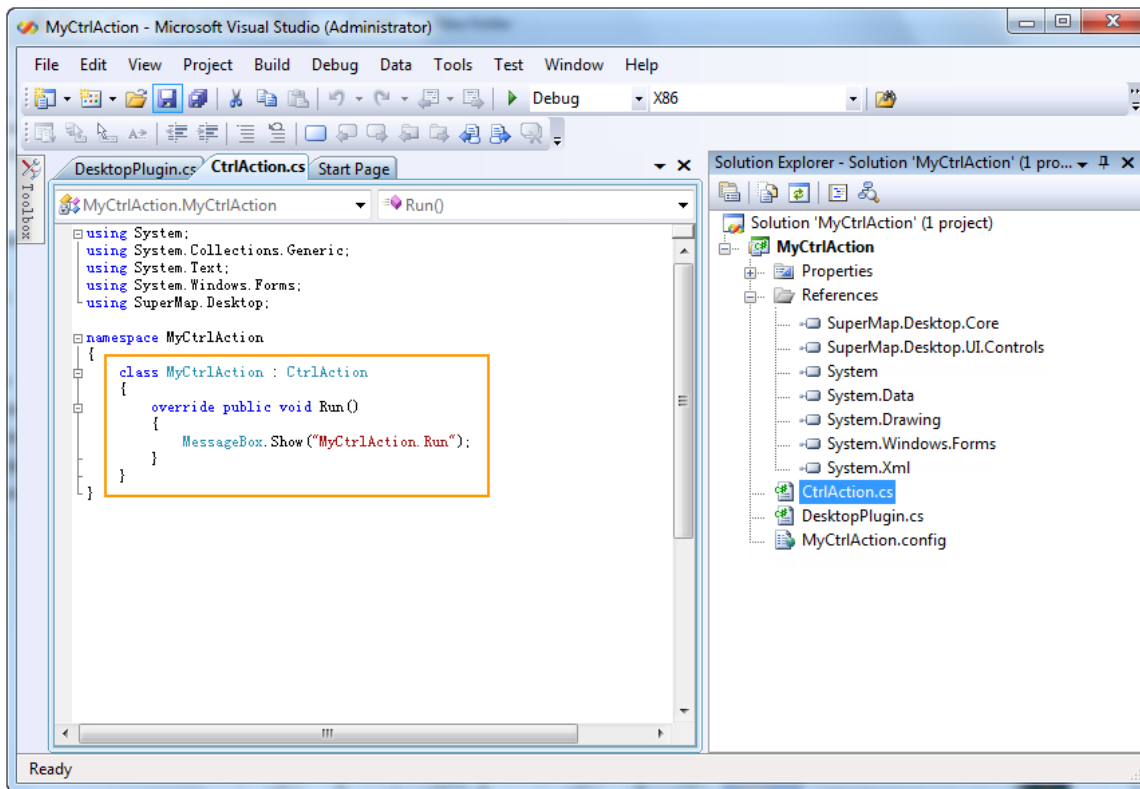   CtrlAction.cs file.

Figure: MyCtrlAction.cs

2. Rewrite the Run() method in MyCtrlAction.

The Run() method responds to the control event. In this example, when the corresponding control event is triggered, the Run() method will output the information about all plugins of SuperMap Deskpro .NET in the Output Window. To achieve this function, you need to replace the contents in the Run() method with the code below:

```
//Get the total number of plugins in the application program
Int32 pluginCount = SuperMap.Desktop.Application.ActiveApplication.PluginManager.Count;

//Traverse all plugins and output plugins information in the Output Window
for (Int32 index = 0; index < pluginCount; index++)
{
    //Get the class object that defines the plugin

    Plugin plugin = SuperMap.Desktop.Application.ActiveApplication.PluginManager[index];

    //Get the info object of the plugin
    PluginInfo pluginInfo = plugin.PluginInfo;

    //Get the name of the plugin

    String pluginName = pluginInfo.Name;
    //Get the full path of the assembly where the plugin is located

    String pluginAssemble = pluginInfo.AssemblyName;

    //Output the plugin name and the assembly to which the plugin belongs in the Output Window

    SuperMap.Desktop.Application.ActiveApplication.Output.Output("Plugin Name: " + pluginName + "\r\n" + "Assembly: " + pluginAssemble, InfoLevel.Information);
}
```
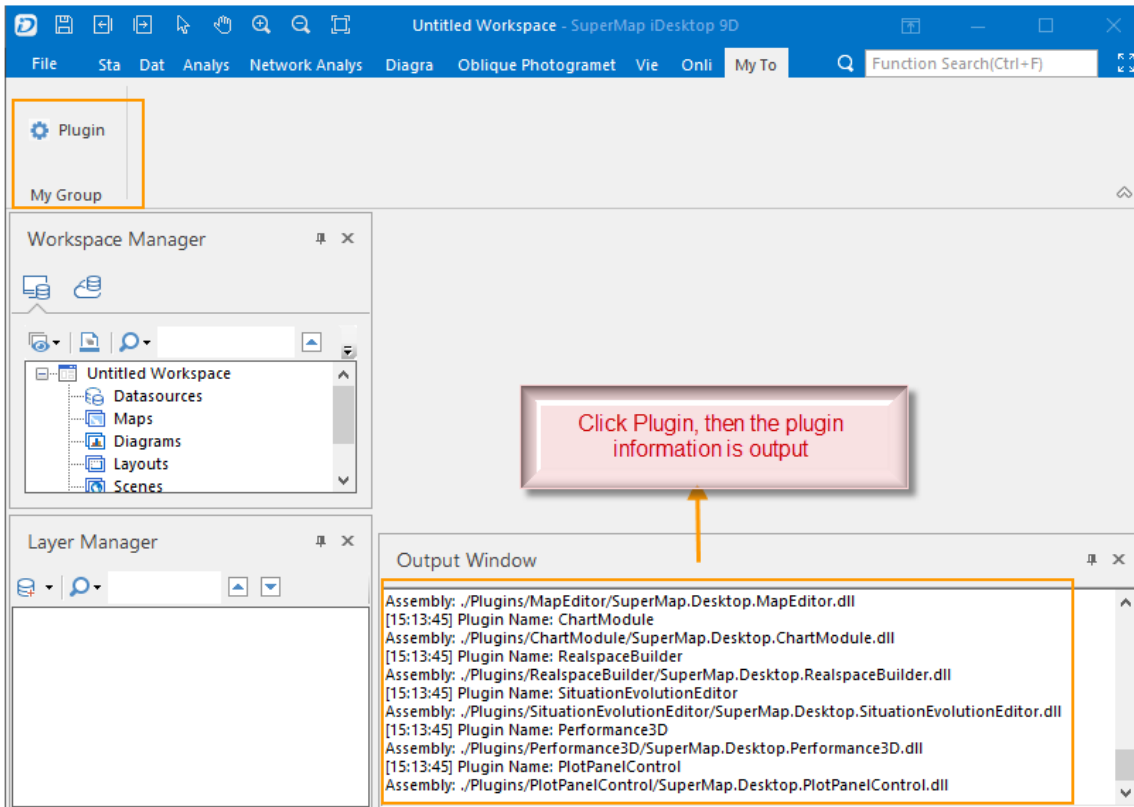
3. Compile the MyCtrlAction project to generate MyCtrlAction.dll. For this example, you can find the assembly file in SuperMap iDesktop\SampleCode\MyCtrlAction\MyCtrlAction\obj\X86 after comiling.
4. When you get MyCtrlAction.dll, you can configure it for the control event. Please refer to CtrlAction.

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Output plugin information