

## LECTURE ELEVEN

### Object Linking and Embedding

**Object linking and Embedding (OLE)** is a technology that allows embedding and linking to documents and other objects, developed by Microsoft.

#### 11.1 Overview

OLE allows an editor to "farm out" part of a document to another editor and then re-import it. For example, a desktop publishing system might send some text to a word processor or a picture to a bitmap editor using OLE. The main benefit of using OLE is to display visualizations of data from other programs that the host program is not normally able to generate itself (e.g. a pie-chart in a text document), as well to create a master file. References to data in this file can be made and the master file can then have changed data which will then take effect in the referenced document. This is called "linking" (instead of "embedding").

Its primary use is for managing compound documents, but it is also used for transferring data between different applications using drag and drop and clipboard operations. The concept of "embedding" is also central to much use of multimedia in Web pages, which tend to embed video, animation (including Flash animations), and audio files within the hypertext markup language (such as HTML or XHTML) or other structural markup language used (such as XML or SGML) — possibly, but not necessarily, using a different embedding mechanism than OLE.

#### 11.2 An Embedded Object

One can embed an object say a picture in a word document. In this MS word document will act as a **container** and image object will act as **server**. In order to insert a clip art, following steps are followed.

1. In MS Word menu select insert key and then select picture and clipart.
2. Choose clip art and insert. A picture (Figure 11.1) is inserted.



**Figure 11.1**

One can type name in this clip art. You can also change the shape by dragging this picture .

### 11.3 Creating Container Application –Using APPWIZARD.

In this section we are creating an **OLE** container using **APPWizard**.

1. Click the **File** menu in VS IDE and select **new** for creating new application.
2. Click the **Project** tab for creating project files, select MFC AppWizard (exe).
3. Write project name **MyOLE** “ in the project dialog (Figure 11.2).

#### Figure 11.2 Step-1.

4. Press OK and you will get Figure 11.3 , step -2.
5. Select single document and press next. (Figure 11.4 , step-3)
6. Select next Figure 11.5, step-4.
7. Select next and in figure 11.6 (step-5), select container button.
8. Select default setting and press next. (Figure 11.7 (step-6).
9. Select Window explorer and statistically linked library buttons and press next (Figure 11.8, step 7).
10. Again press Finish , you will get project information window. Press OK and Class view AppWizard will be visible as Figure 11.9.
11. Double click at one of the program and execute, you will get window 11.10. This is created byOle application.

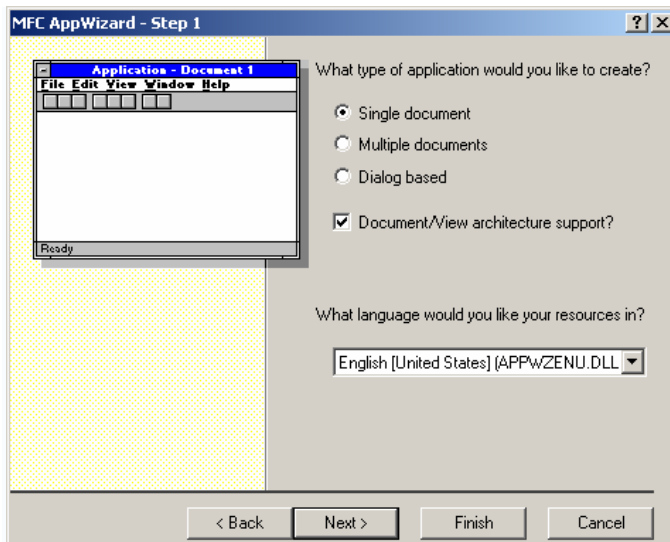


Figure 11.3 , step -2

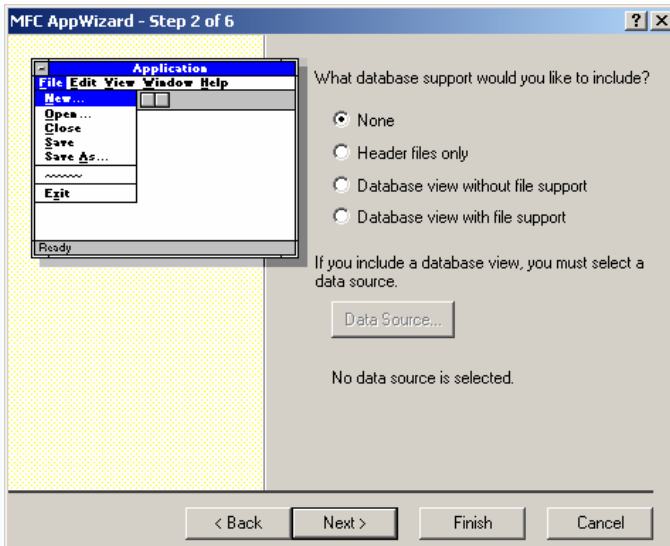


Figure 11.4 , step -3.

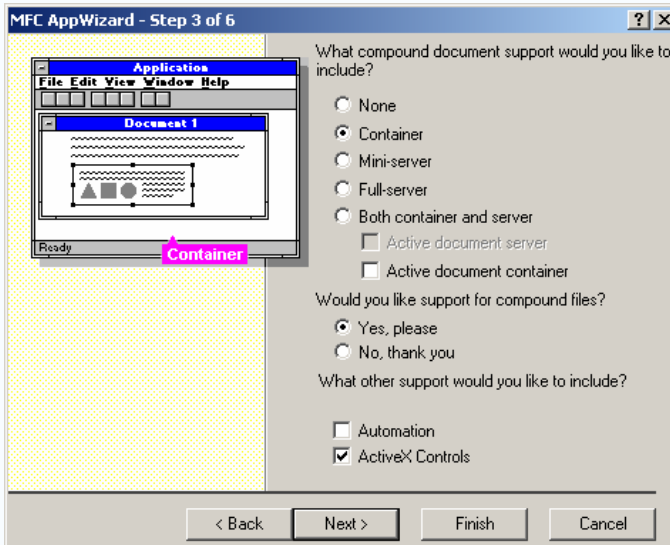


Figure 11.5 , step -4

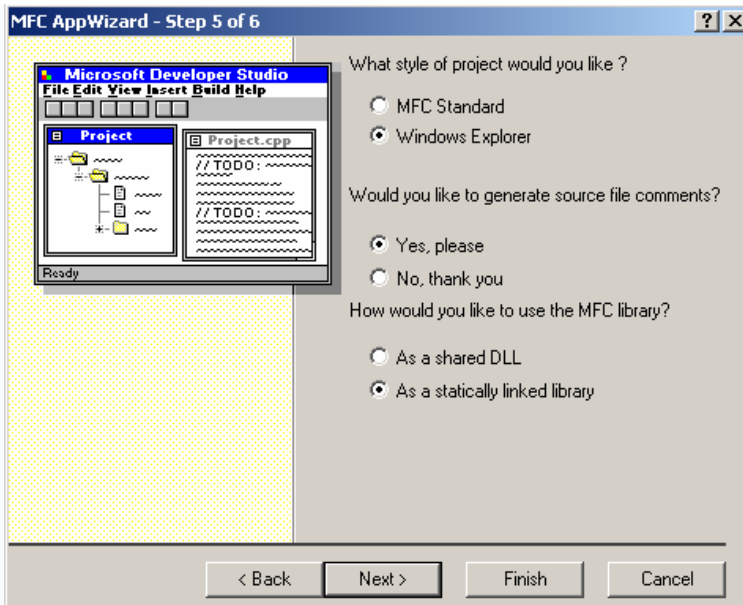


Figure 11.6 , step -5

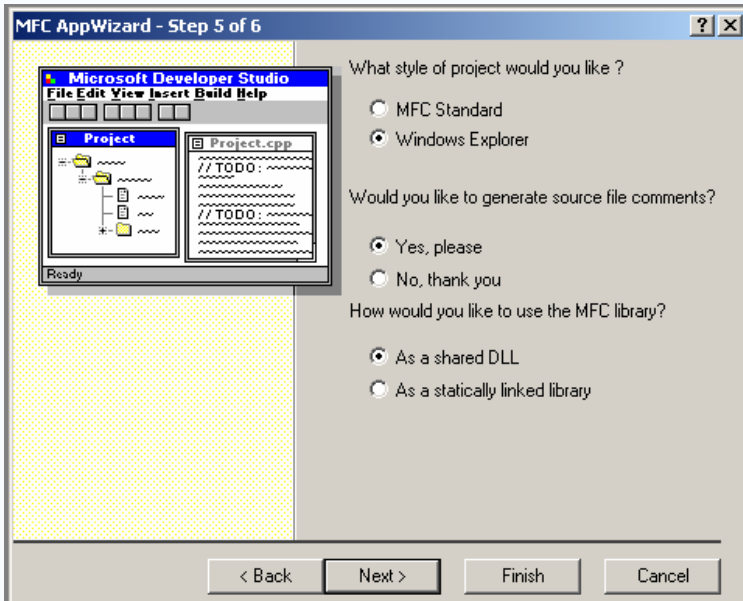


Figure 11.7 , step - 6

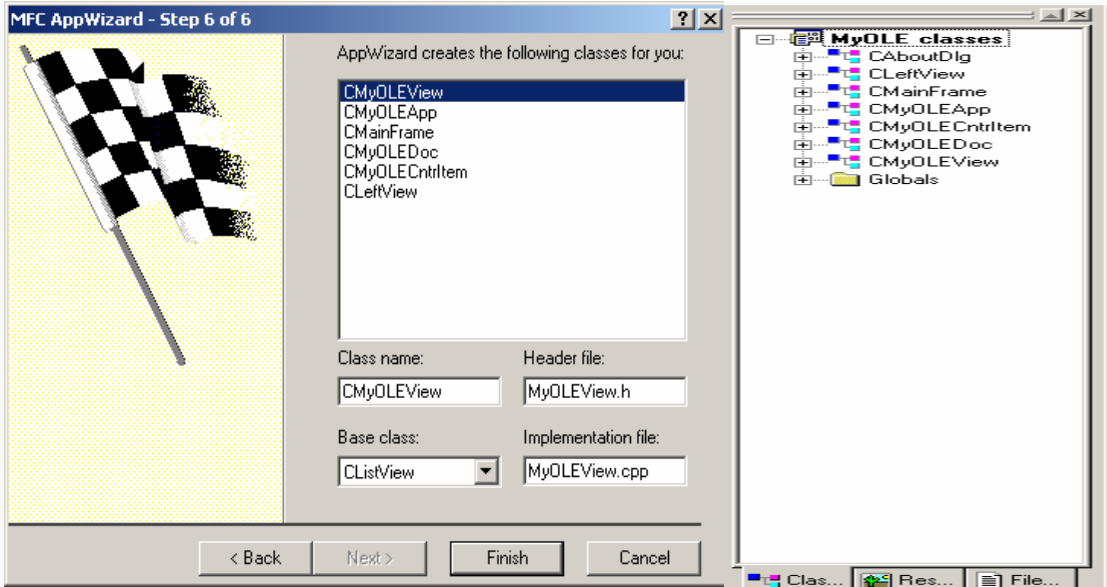


Figure 11.8 , step -7

Figure 11.9: Class View

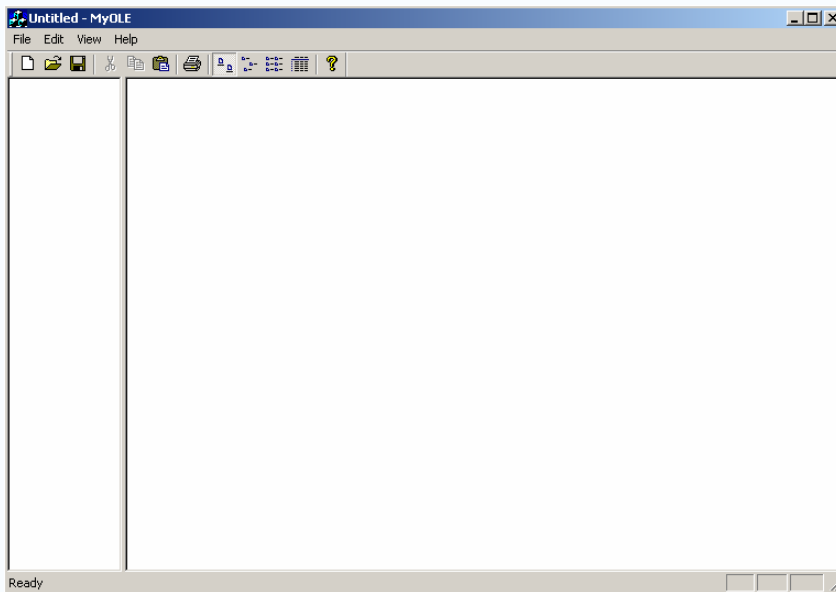


Figure 11.10. Output