

A member of ComboPro ActiveX Controls Suite

PatternCombo[®] ActiveX Control

Operation Manual

Version 1.0.0.1

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1. General

Filling with a special pattern in a work area is normal for a designer. Pattern Combo ActiveX Control can decide a pattern predefined or produce a customized pattern in a Pattern editor dialog. The pattern is tiled with a bits array or picture from a file, resource and picture object interface, this control can support loading and editing operation with powerful methods. This control can generate a windows brush GDI object for developer directly, and developer just specifies brush properties like pattern fore color, back color and tiled picture to catch at the brush.

As a ComboPro controls suite member, this control has all control's common properties, methods and events in appearances, effects, data managements and operations. Developer can add, insert, delete, find, move and set/get all items, also support multiple item type that includes General, Default, Browse, and Separate, these item types can satisfy all developers' difference demands in application programming.

Pattern Combo ActiveX Control's an important feature is can edit a pattern in [pattern dialog](#) at run time, this dialog can let end user edit current selected pattern bits, or select a predefined pattern, also can pick a new picture as the selected pattern, this operation just available under browse item type.

I. Installation

ActiveX Control's installation only can be copying the control to any directory simply, but it commends that you install it into system directory, that will registry self by Windows Register Server. This control has a standard installation package file, and a NON end-user (Developer) can run the setup file to extract all files to a specified location.

II. Registry controls

Any ActiveX control must have a registry in current system before using it. You must register this control with Microsoft® Register Server (REGSVR32.EXE), the register server is located at system directory, your control file PatternCombo.dll can be placed at any directory, the register command likes following:

C: \WINNT\system32\REGSVR32.EXE <path>\PatternCombo.dll

After the registration, you can found the control in any environment which can hold ActiveX control, for example, VB, VC++, HTML, Office Documents and other any application which can handle COM technologies. These applications can create multiple instances to any control, user can specify any supported properties value through modifying the control's property sheet, and enjoy the control's power features using given methods and events.

III. Add this control into your project

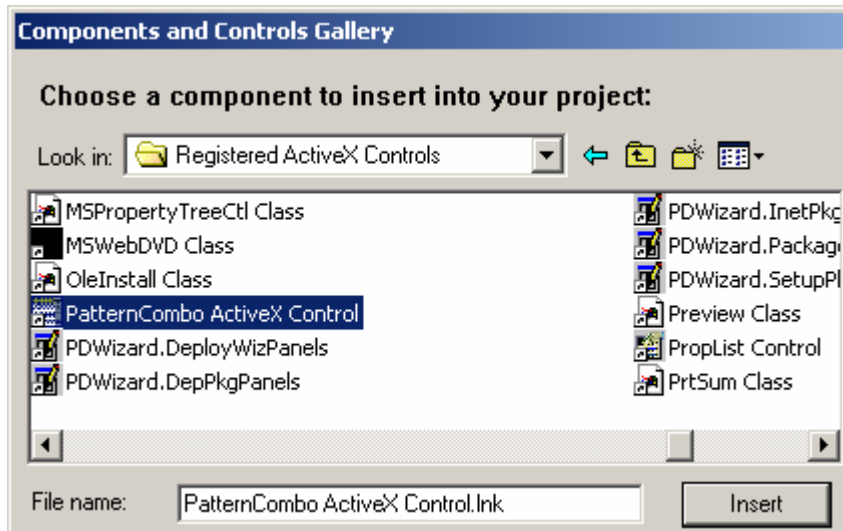
After made a registry to the control, to use this control, at first developer should add or

import it into your project, create a control instance or generate the control wrapper class(es), done these steps, developer can modify this control properties value, handle this control methods and handle events manual or programming.

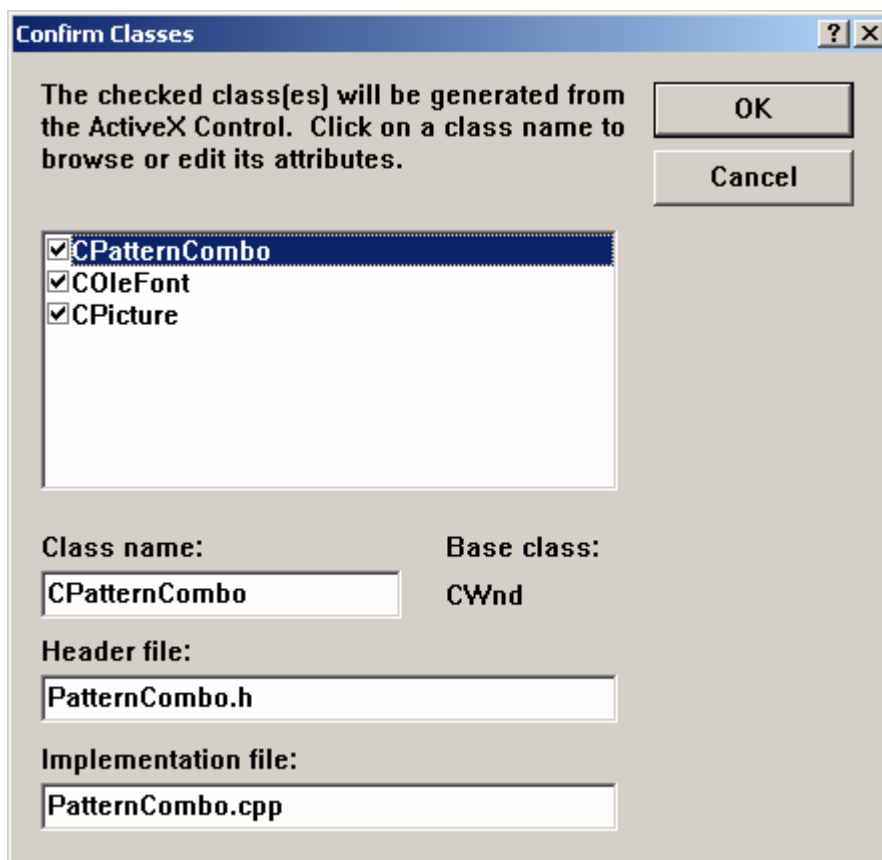
- **Browse this control from Components list**

In Visual C++:

Select "Project"->"Add to Project"->"Components and Controls..."



Select PatternCombo ActiveX Control and click "Insert" button.



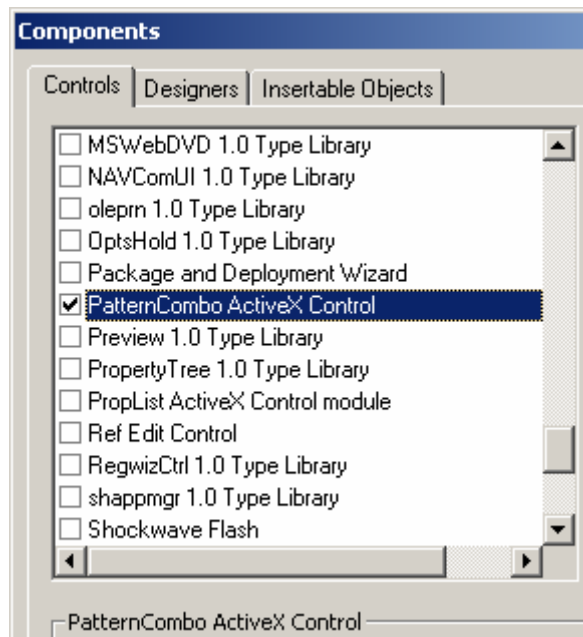
There are three classes in the ActiveX Control Confirm Classes dialog, you must select the first wrapper class(es) **CPatternCombo** generated from the ActiveX Control, It's a

requisite. **COleFont** class and **CPicture** class are two OLE dispatch driver wrapper classes, they can implement exchange between general windows Font/Picture objects and OLE Font/Picture object, if you hope these classes become intermediates, you can add them into your application. If you are familiar with **IFont** COM font object, which is an object wrapper around a Windows font object, and **IPicture** COM picture object, which is an object wrapper around a Windows picture object, then you can replace them with MFC wrapper classes **CFontHolder** and **CPictureHolder**.

Developer can modify these classes' names to any fair-sounding names.

In Visual Basic:

Select "Project"->"Components..."

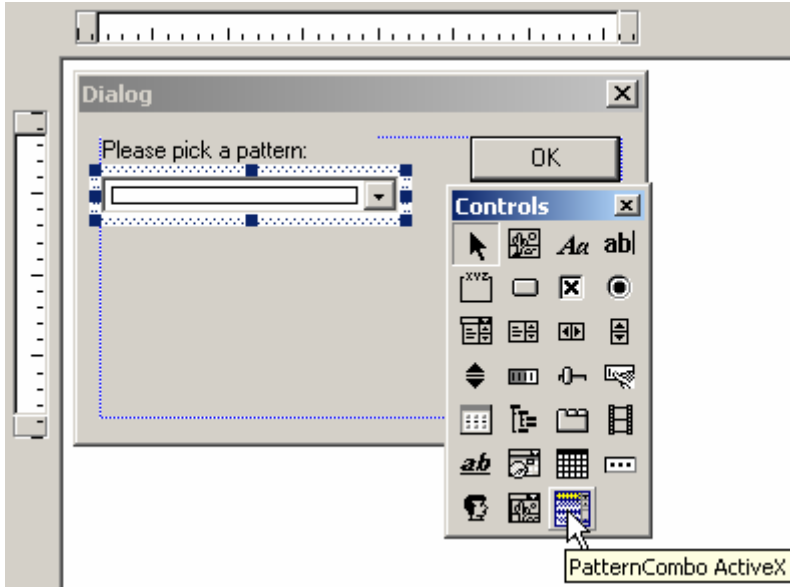


You can pick this control in the components list box, and click OK to add it into your project workspace.

● **Add the control into project**

In Visual C++

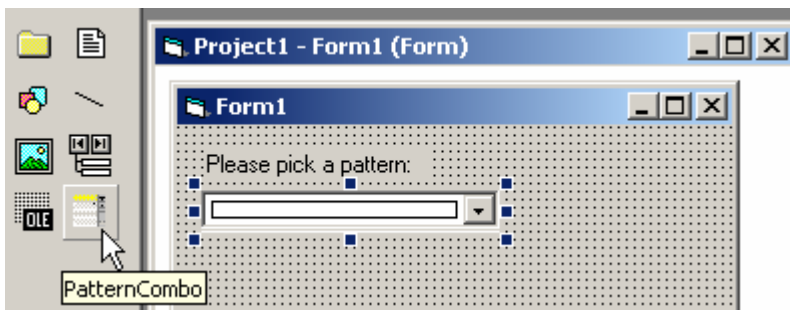
There are two methods to add a control into a project, the first is picking a control, drag&drop it and placed it on a dialog from Controls toolbar directly, as following:



The second method to add the control into a project is to create an instance through programming, not need any integration with user interface directly. You can map this control through Class Wizard's help, and it is the same that to initialize a member pointer and new a control object before processing it.

In Visual Basic

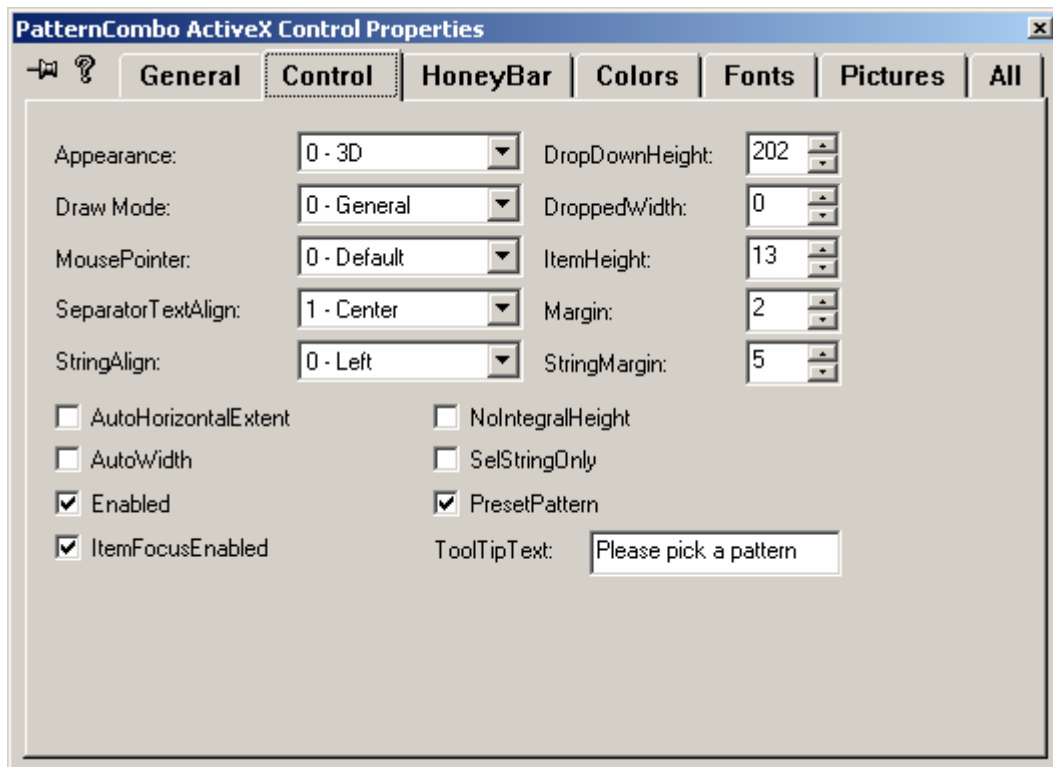
In Visual Basic all handling to the control is easy, you can pick this control from Toolbox toolbar and place it on a Form, as following:



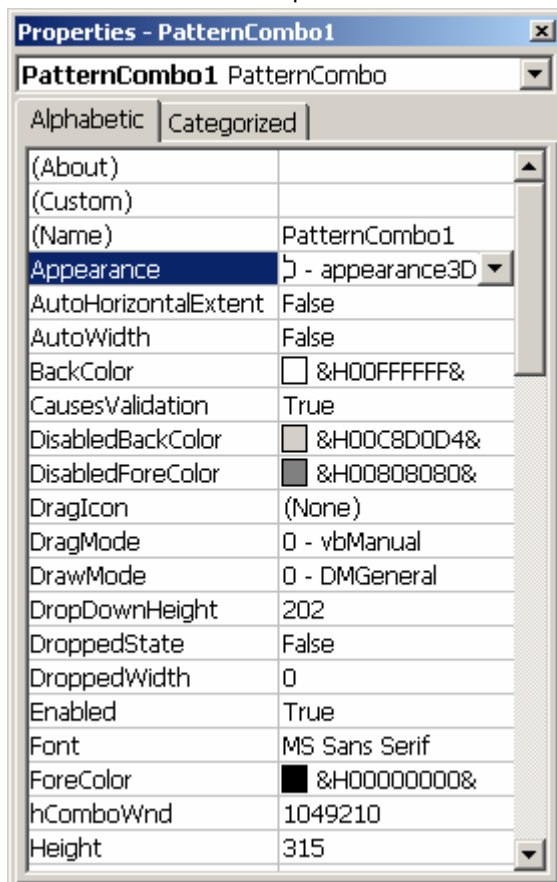
Once the control is added into the form, the component will be a global object, you can use it at anywhere within the project, generally it is named as PatternCombo1.

IV. Set Properties in Properties Browser at Design Mode

ActiveX control's one of important character is can specify and modify properties at design mode directly in Properties Browser dialog, it must be any environment which can host an ActiveX control. In Visual C++, this Properties Browser likes following:



In Visual Basic, this Properties Browser looks following:



You can specify and modify all properties according to this browser's list. All specified properties value will be stored in the current dialog resource statically.

V. Handle Properties by programming

Handling properties of the application at runtime is more important to a developer, programming with these properties can apply all features of this control to satisfy your application's requirements, the properties operations should be bounded under the control's generated interfaces, especially in data structure, data type and exception. Every development platform's data type definition is not the same with an exception, You should reference current development platform language and see the control's programmer's guide for more information.

VI. Handle Methods by programming

The Control method is an important character to a control. Like control properties, these methods can provide lots of operations to the control, and many methods also return a value, developer can follow next handling through it. Generally, these methods have some different data type parameters. Handling these methods must follow the generated interface definition. Developer can reference current development platform language and see the control's programmer's guide for more information.

VII. Handle Events by programming

Control event is an interaction interface between the control's inner message handling and user's input/output with input device. Although all events is predefined in control, but there is different executive result when firing this event, so developer can add more features to handle the issues to satisfy user's requirements. Like properties and methods, these events also have predefined function prototypes, developer must follow these data type to transfer data. The details of the control events can be found at the control's programmer's guide.

VIII. Some supports before running your application

One of important job is to sure the combined control has been registered before an application is running. If an inner control has not registered, the application will appear a warning or error asserts, even it will do nothing besides quitting this program.

IX. Deregister the control

If user hopes a control become unavailable, then deregister it. Deregistering a control just can be to clean all information in registry database and it will not appear in all registered ActiveX controls list anymore, of course this control file still stay at your system, you can reregister it.

If you hope deregister a control, you can use following command:

```
C:\WINNT\system32\REGSVR32.EXE -u <path>\PatternCombo.dll
```

After unregistered the control, you can not found and use this control anymore, if you hope reuse this control, you must register this control again follow above steps.

X. Uninstall this control

If you don't need this control anymore, you can uninstall this control, to run the product

setup file, follows the installation wizard, you can uninstall this control. All files related to this control will be removed from your system, and you will never find and use it anywhere.

XI. Distribute Application combined this product

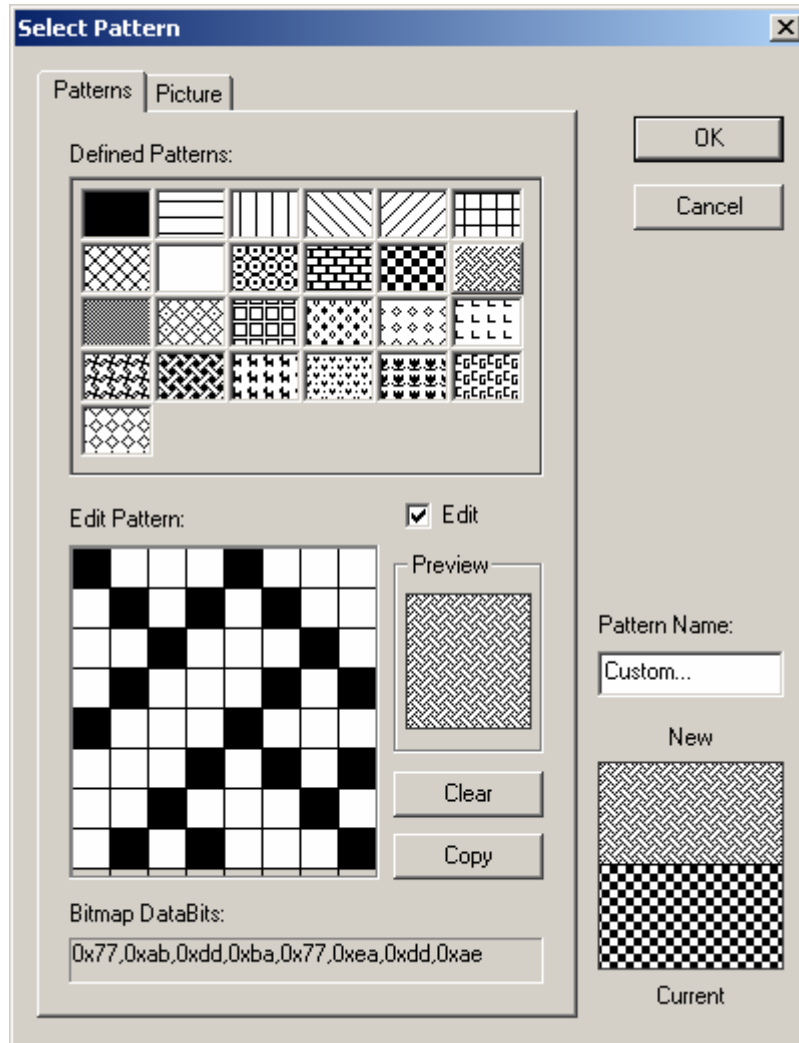
Any application combined an ActiveX control should contain this control while distributing your application, and this control must self-register when it is copied to end user system, this operation can be done through your installer application, Like InstallShield, WiseInstaller, etc. you can see these product's Operation Manual for more details while making an application installation archive. Of course this operation also can be done manually after the installation is finished.

Anyway, the control file can be released to any end user specified directory. Just need a successful register, it's a key that insures your application can run smoothly.

2. PatternCombo ActiveX Control

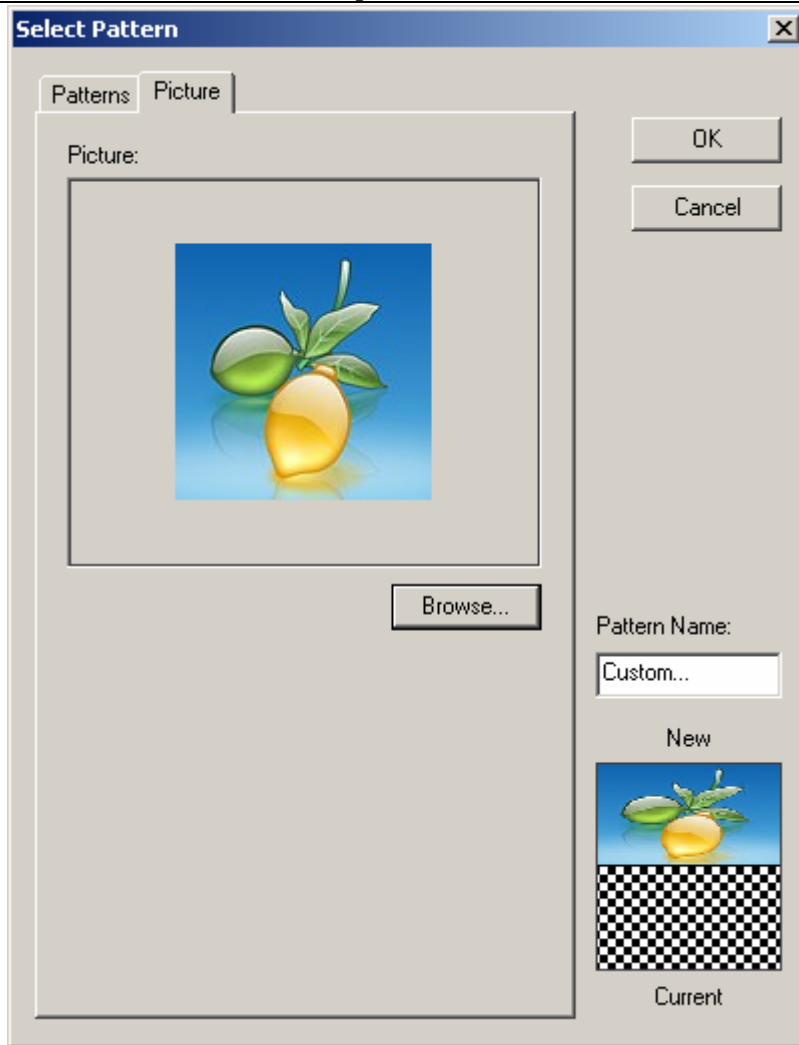
Pattern Dialog Operation

PatternCombo ActiveX Control can pick or make a pattern through a pattern dialog, this pattern dialog as following:



You can pick a predefined bits bitmap to specify this current pattern from defined patterns, also can make a new pattern at editable pattern area, Editing pattern operation is easy, click at grid area to switch a block status, it indicates 0 or 1 in bitmap data bits, you can preview the current effect in preview area, and can also clear or copy current bitmap data bits through "Clear" and "Copy" buttons.

You can switch current tab and Picture page to pick a picture as a bitmap data bits, as following:



Browse a picture and look about the pattern effect on the right preview area, of course you can switch back standard patterns page to reselect a normal pattern.

User can modify and update the current pattern display name in right editable edit control.