## **Persistent Frames**

A collection of classes that make MFC SDI and MDI applications to remember the positions and sizes of their main frame and child frame windows.

This article was contributed by **Stefan Chekanov**.

Platform: VC 5.0 & VC 6.0

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### Introduction

A usual MFC SDI application has main frame window and MFC MDI application has a main frame and additional child frame windows. The classes presented here make these frame windows to remember their last positions on the screen, their sizes and their minimized/maximized states. So, next time the application starts, its frame windows will restore their positions, sizes and minimized/maximized states.

#### Features:

- Save / Restore of the position, size and minimized/maximized state of the frame window
- Save/Restore of the position of docked control bars
- Information is stored in the application's registry or .INI file CWinApp::WriteProfileString() and CWinApp::WriteProfileInt() methods are used
- Each window can have its own set of properties saved in its own registry/.INI file section
- If the user changes the screen resolution, the next time he/she starts the application the frames are resized to fit in new screen size.

### **How to use Persistent Frames classes**

You should include the files PersistFrameImpl.cpp, PersistFrameImpl.h, PersistMDIChildFrame.cpp, PersistMDIChildFrame.h, PersistMDIFrame.h, PersistSDIFrame.cpp, PersistSDIFrame.h and PersistFrames.h in your project.

I usually include this line in my StdAfx.h file.

```
#include "PersistFrames.h"
```

to make all classes available everywhere in the project.

To make your frame window persistent just follow these steps:

- 1. Inherit your frame window class from the appropriate <u>Persistent Frames base class</u>. I usually let MFC Application or Class Wizard to make the class and then using the feature Find&Replace replace all occurences of the base class in both .h and .cpp files.
- 2. In the constructor of your frame window class call SetProfileHeading( LPCTSTR szHeading ) and specify the registry section that will be used to store this frame window properties. By default this isset to Window size."
- 3. In the constructor of your frame window class call SetManageBarStates( bool bManage ) and specify whether positions of control bars should be saved/restored too. By default this is set to false.

Depending on the type of your frame window you should inherit it from different classes:

Persistent Frames base classes	
<b>CPersistSDIFrame</b>	A base class for SDI frame windows.
CPersistMDIFrame	A base class for MDI main frame windows.
<b>CPersistMDIChildFrame</b>	A base class for MDI child frame windows.

That's it. Now compile and run your application.

The accompanying demo .zip file contains a VC 6.0 workspace with two projects - the one is MFC SDI and the other is MFC MDI application.

# **How do Persistent Frames work?**

There is a class called CPersistFrameImpl which is used in all of the other classes. Its main methods are Load() which loads the properties from the registry and Save() which saves the properties into the registry. Each of CPersistSDIFrame, CPersistMDIFrame and CPersistMDIChildFrame have an object of CPersistFrameImpl and call its Load() and Save() where appropriate.

That's all.