Contents

The RIP Family

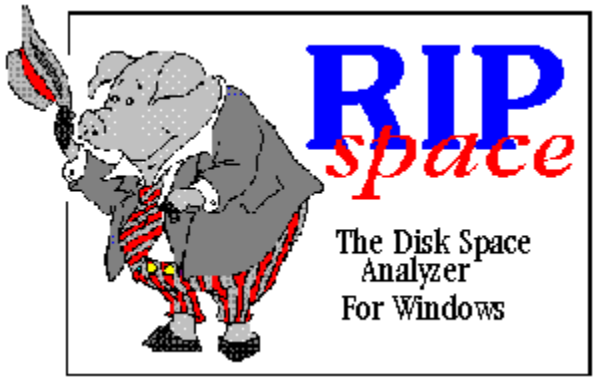
RipTABS is a library derived from code originally written for a number of other applications that sport the RIP title. Take a moment to read about them.

RIP Family

The RIP family of applications / utilities is a collection of shareware programs written for Windows and Windows NT. Each is designed to fulfill a purpose in an elegant, easy-to-use fashion.
What you have now is RipBAR. Others include RipSPACE and the soon-to-be-released, RipFIND. All RIP applications have a registration fee which you are expected to pay if you continue to use them. The amounts asked for are reasonable and I ask that you think twice about continuing to use something you haven't paid for. None of the RIP applications have disabled functions, or annoying "Register Me" reminders-- so I leave it up to you.

To learn more about RipBAR proceed on to the introductory sections of this help file. Short advertisements for RipSPACE and RipFIND are presented below:

RipSPACE



RipSPACE is an application written for Windows & Windows NT that analyzes a drive and the space that each sub directory on it, consumes. In other words, you'll now be able to find out how much space your Windows installation is taking up, or how much drive space you'll gain if you delete the WordPounder word processor you installed but never use.

RipSPACE also allows you to define file types that are to be included in a file report. You can then tell how much total space is being taken up by certain file types-- i.e. Bitmaps, Dynamic Link Libraries and executable files.

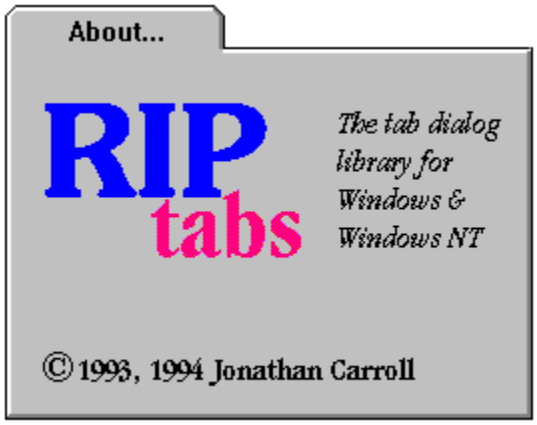
RipFIND (April 1994)

RipFIND is an application written for Windows & Windows NT that simplifies the process of locating files. RipFIND can be instructed to perform searches based on a variety of criteria or qualifiers.

RipFIND qualifiers include DOS-style file specification, string-based specification, and file content specification.

Jonathan Carroll

Introducing RipTABS



(*See the end of this section for important information regarding this unregistered version)*
RipTABS is a C++ library designed for applications that use Microsoft Foundation Class Library support. It provides developers with an easy-to-use path to the dialog folder tab interface that is becoming popular in a number of new Windows applications including Word 6 and Excel 5 from Microsoft. For more information on what tab dialogs look like and why they are important, see Interface Primer - Folder Tab Dialogs.

The RipTABS library is provided for both Windows 3.1 (Windows For Workgroups 3.1, 3.11) and Windows NT. These are available as separate downloads from CompuServe. (Both appear in the MSLANG forum libraries.)

Note that the Windows 3.1 version is currently provided for the Large memory model only.

Specifically, RipTABS provides you with an MFC-based CDialog class called CTabDialog from which you can derive dialog classes anywhere where you derive from CModalDialog or CDialog.

RipTABS is particularly easy to implement because it shouldn't be necessary to change much of your existing code to make use of the folder tab interface-- in other words, much of the new functionality you'll get will be for free!

Please read carefully through all of the topics in this help file as there are a number of issues concerning memory management and the like that you should be aware of. Resisting the temptation to save a few minutes by not reading through the documentation now, will save you hours of trouble later.

Using the Unregistered Version

If you have not registered RipTABS, then it is presumed that you are evaluating this library-- you're expected to pay the registration fee if you actually use it in your programs.

The unregistered version will always place the library title and a copyright notice in the title of any RipTABS dialog. You should not attempt to modify the dialog box caption text through a call to SetWindowText or some other call because the library code checks the title from time to time, and if it finds the text has been modified, the dialog box will stop painting (updating) itself. The dialog will also stop working properly if you set the dialog style such that there is no title bar.

Other than the pre-set dialog box caption text, this library is fully functional with respect to the registered / release version.

Registration, Feedback & Support

Registration

RipTABS is available free from various online service including CompuServe. What you get, is an evaluation copy of the library, documentation, and some sample source code. You should have enough to determine whether you like the RipTABS implementation of tab dialogs and whether it is suitable for your purposes.

You should know that the unregistered version will always place the library title and a copyright notice in the title of any RipTABS dialog. You should not attempt to modify the dialog box caption text through a call to SetWindowText or some other call because the library code checks the title from time to time, and if it finds the text has been modified, the dialog box will stop painting (updating) itself. The dialog will also stop working properly if you set the dialog style such that there is no title bar.

Should you want to continue using it, there is a $40 registration fee. For this fee, you'll have access to support (via electronic mail) for the library, notification of new releases. Printed documentation is also available for a nominal charge. Of course, you'll also get a release version of the library that doesn't set the caption text of dialogs with RipTABS copyright information.

Feedback

This is the first release of the RipTABS dialog library. The are some aspects of the implementation that could not be considered complete. (For instance, a future release will provide hotkey support for quick switching to another page in the dialog.)

Should you find a problem with the library, or have any suggestions for improvement (with either the library or this documentation) please do not hesitate to contact me at one of the addresses listed below.

Support

Support for RipTABS (i.e. implementation, design etc.) is provided to those who have registered RipTABS. You can contact me at one of the addresses listed below.

Reaching Me

CompuServe (*preferred method)*
74017,3242

Internet
74017.3242@compuserve.com

GEnie
J.H.CARROLL

Conventional Mail
Jonathan Carroll
28 Parkland
Pointe Claire, Quebec
Canada, H9R 2E8

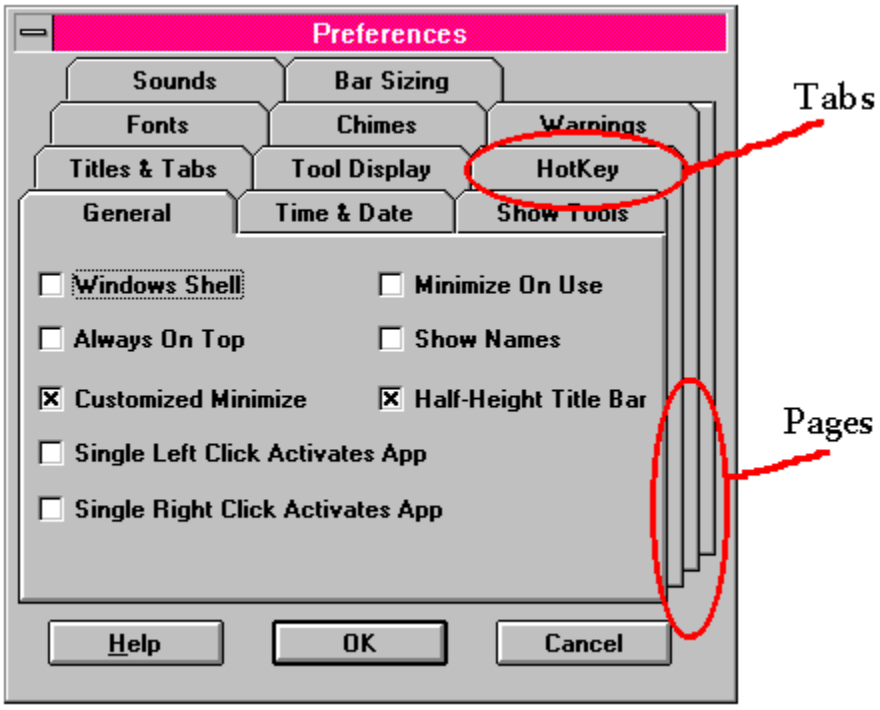
Installation

RipTABS is available in versions for both Windows and Windows NT. The header file is common between the two versions-- just the library file is different. The Windows NT lib file is RIPTAB32.LIB and the Windows one is RIPTAB16.LIB.

RipTABS is available as a .ZIP file. Use PKUNZIP or some equivalent to extract its contents into a new directory that you've created-- the ZIP file contains items in directories so be sure to use the -d option (or whatever applies to your version of UnZIP) to make sure that the extracted items get placed into their original subdirectories. There should be two new subdirectories inside the RipTABS directory : INCLUDE, LIB & SAMPLE. In INCLUDE, you should find the RipTABS header file, in LIB, you should find RIPTAB16.LIB (or RIPTAB32.LIB for Windows NT). Be sure to include the .LIB file for linking in any project you're going to use the RipTABS library with.

In the newly created directory, you'll find the RipTABS Help file, and a Release Notes file in MS WRITE format.

Interface Primer - Folder Tab Dialogs



It's no secret -- the widespread acceptance of Windows and other graphically-oriented operating environments has allowed applications to enable the user to do far more things in a wider variety of fashions that text-based systems could ever hope to offer.
One dilemma for those who write software is trying to present information and options to the user without becoming overwhelming.
In the next while, you'll notice the "Folder Tab" interface becoming increasingly popular. Folder Tabs allow for the logical grouping of options and settings within one dialog-- doing away with millions of nested dialogs or menu items. It also takes closer to the "desktop" metaphor.

The Folder Tab implementation in RipBAR is designed to closely resemble (both visually and in terms of behavior) those of Microsoft. (Take a look at Word V6 or Excel V5)

The Folder Tab dialog presents groups of options in *pages*. Each page has a number of tabs. For those with a mouse or similar input device, navigating the dialog is easy-- just click on a tab to bring that folder to the front.

In addition, keyboard navigation is possible. Pressing CTRL+TAB will cycle forward through the tabs and pressing CTRL+SHIFT+TAB will cycle backwards through the tabs.

What RipTABS Does For You

In this section, we'll discuss the functionality that RipTABS provides to your applications and cover in a general sense what RipTABS is doing "behind the scenes". If you haven't already read the material and looked at the figure in Interface Primer - Folder Tab Dialogs, it would be helpful to do that now before proceeding any further here.

Now that you know what tab dialogs look like, we'll discuss a little bit about how they behave (in case you haven't used an application that makes use of them).

Tab dialogs are actually made up of several dialogs. First, you have what we are going to call *Master* dialogs-- this is the dialog that frames all of the tab pages and usually contains a number of controls that are common to all tab pages-- i.e. OK, Cancel and possible Help. (Note, this is a deviation form the Microsoft style dialogs, as the Master dialog normally contains no controls.) Next you have what we'll call the *Child* dialogs-- there is one Child dialog for each tab page in the Master dialog.

You might for instance, have one Master dialog and five Child dialogs-- which means you'll have a tab dialog with five tab pages.

RipTABS does a number of jobs for you-- making the implementation of tab dialogs *much* easier than having to write the code from scratch. (There's almost 5000 lines of code that has already been implemented for you in the library.) Here's what RipTABS does :

- Scans the tab titles you pass it, and decides how big each tab needs to be.
- Counts the tabs and resizes your dialog dynamically to make room for the tabs. Tabs are arranged in multiple rows (stacked and offset) if necessary.
- Draws tabs and the 3D borders.
- Handles user interface responsibilities such as responding to left-button mouse clicks and CTRL-TAB keypresses to switch between dialog pages.
- Dynamically manages memory to accomodate the Master and multiple Child dialogs.

All that you have to do, is derive your own dialog class from RipTABS' CTabDialog class and pass RipTABS the list of tab titles, and Child dialog resource names.

Requirements

To use RipTABS, you must link the Microsoft Foundation Classes into your application as MFC support is required.

If you are adding RipTABS to a Windows 3.1 application, it should be a Large memory model app-- Small and Medium models are not yet supported.

About The Sample Source Code

The source code for the RipTABS sample application (RSAMP16.EXE for Windows and RTAB32.EXE for Windows NT) is provided. It was built with Visual C++ and its AppWizard. Hardly anything was changed with respect to the generated code-- most of the RipTABS dialog code was added in a source code file call RTABDIAL.CPP and RTABDIAL.H.

The Visual C++ project (.MAK) file was included (RSAMP16.MAK for Windows and RSAMP32.MAK for Windows NT) so that you can quickly compile the app yourself. If you are going to try to recompile the provide source code and project file, you'll have to insure to update the project file with the proper paths to the various libraries etc.

The following sections discuss what code you add to your application to implement tab dialogs-- the sample source shown in this guide is taken from the sample source code provided.

The sample source code also makes use of CTL3D -- the DLL from Microsoft that gives a 3D look to dialogs. It is recommended that you also use CTL3D in applications that use the RipTABS library because the two offer each other a complimetary "look". If you don't have the CTL3D .LIB and .H file, you'll need to remove references to CTL3D from the sample source code before you can compile it. To do this :

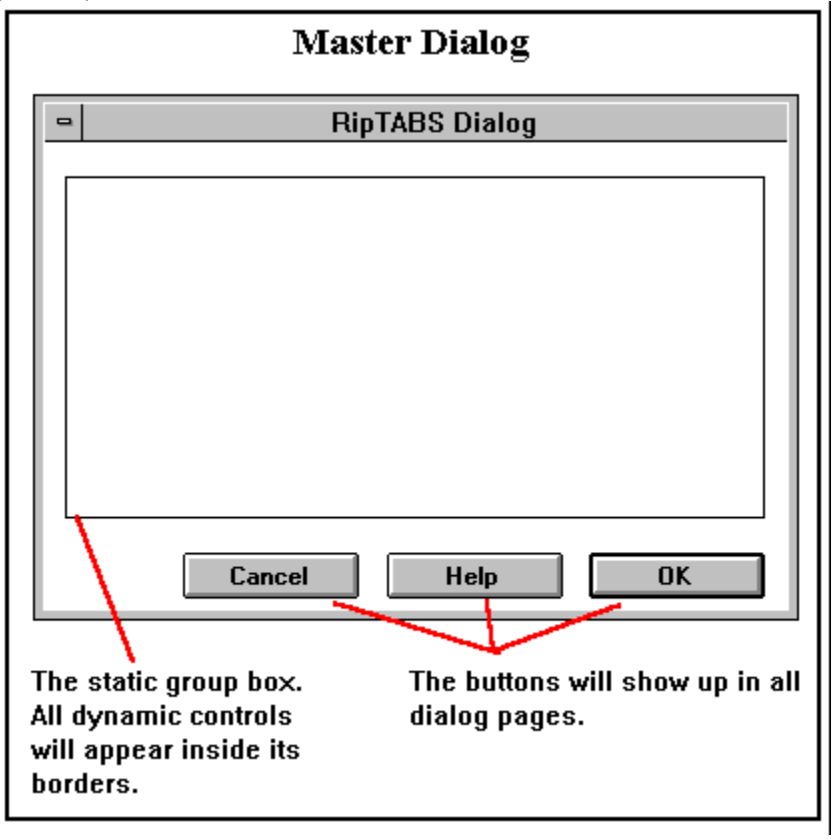
- Remove the reference to CTL3D.H from STDAFX.H
- Remove the initialization of CTL3D from InitInstance in RTAB_SAM.CPP. (There are two lines to remove)
- Remove the reference to CTL3D in ExitInstance in RTAB_SAM.CPP.

Building Your Dialogs (Resource Editor)

For your first implementation of a RipTABS dialog, go simple.

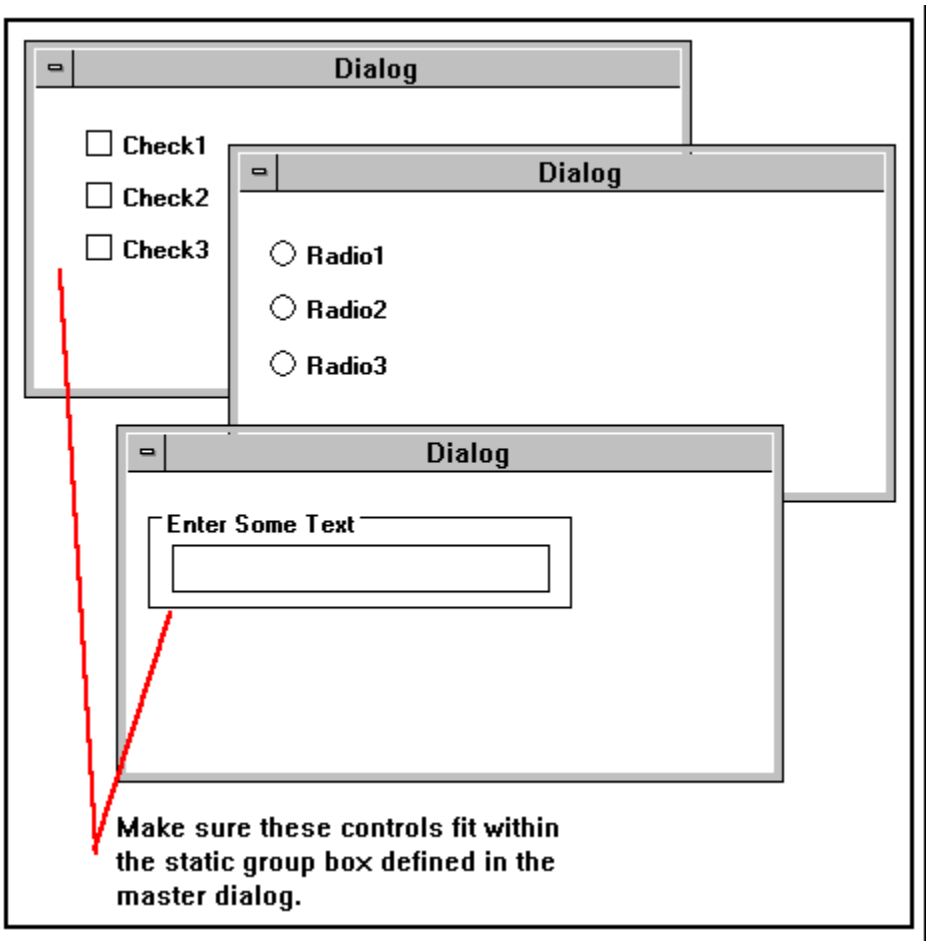
The Folder Tab interface is designed to allow for a dialog to present a lot of information and options to the end user in a relatively small amount of space. Pick an existing dialog that contains a lot of controls that can be logically grouped into two or more "families".

Create a new dialog with your resource editor and make it as large as necessary to fit the largest group of controls and three buttons-- Help, OK, and Cancel. This is known as your *Master* dialog. (see the next picture.)



In this dialog place three buttons (Help, OK, and Cancel) at the bottom right of the dialog. Make sure that your OK button has a resource ID of IDOK and the Cancel button has a resource ID of IDCANCEL. (This ensures appropriate default behavior for OnOK and OnCancel.)
Next, draw a group box that extends from the top left of the dialog to the bottom right, but *does not contain the three buttons*. Give this group box a unique resource ID-- doesn't matter what, but it must be unique. All controls will be drawn inside of this box. Save this dialog.

Now go ahead and create additional dialogs. In each one, place the controls that you've designated as being a group. (See the next picture)



It doesn't matter exactly how big each dialog is, but the controls must be placed relative to the upper left corner so that they'd fit if they were pasted into the master dialog's group control. You don't need OK / Cancel buttons in these dialogs. You also don't need to worry about the Caption text for each one-- only the controls from each dialog are used.

Again, the ID for these dialogs should be *string based* and not numeric. (i.e. IDs like "ADIALOG" are ok, IDs like IDD_DIALOG are not.)

Adding The Support Code

Deriving Your Dialog - Header File

Declaring your dialog class is easy -- simply derive your class from CTabDialog instead of CDialog. You'll also want a member variable -- a two dimensional CPtrArray* array. The example below (part of the supplied sample source code) also includes overrides for OnInitDialog, message map functions to respond to the OK, Cancel and Help buttons, and a CString variable to hold the text that corresponds to the active page of our dialog.

Code Sample - Defining our tab dialog class.

```
class CRTabDialog : public CTabDialog
{
// Construction
public:
  CRTabDialog(CWnd* pParent = NULL);   // standard constructor
// Dialog Data
  //{{AFX_DATA(CRTabDialog)
  enum { IDD = IDD_RTABDIALOG };
  // NOTE: the ClassWizard will add data members here
  //}}AFX_DATA
// Implementation
protected:
  virtual void SwitchToNotification(int TabIndex, CString* TabName);
  // Generated message map functions
  //{{AFX_MSG(CRTabDialog)
  virtual BOOL OnInitDialog();
  virtual void OnOK();
  afx_msg void OnClickedHelp();
  virtual void OnCancel();
  //}}AFX_MSG
  DECLARE_MESSAGE_MAP()
protected:
  CPtrArray*      DlgOptionsList[2];
  CRtab_samView*  MyView;
  CString         ActivePage;
};
```

Dialog Initialization - Overriding OnInitDialog

The following code is an example of what goes into our OnInitDialog function. We initialize our CPtrArray* array. We are creating two CPtrArrays. Each of these CPtrArrays holds pointers to character strings. One CPtrArray (in this case DlgOptionsList[0]) holds the titles of our dialog tabs, and the other (DlgOptionsList[1]) holds the resource names of our dialogs (excluding the master dialog).

Please note that the two CPtrArrays hold pointers to regular C character arrays (strings) and *not* CStrings. The CStringPtr function you see in the following example takes a literal string as an argument and returns a char*, which we cast to void* for storage in the CPtrArray.

After setting up the arrays, we call CTabDialog::InitData (See CTabDialog::InitData) which takes three arguments : a pointer to the array of tab titles, a pointer to the array of resource names, and the resource value of the group box in the master dialog.

Finally, before leaving our OnInitDialog, we call the CTabDialog version of OnInitDialog. (See CTabDialog::OnInitDialog)

Once you have performed these steps, you may initialize dialog box controls (from the Master dialog or *any of the Child dialogs)* such as placing default text into edit controls, placing check marks in check box controls etc. ***Don't attempt to do this before calling CTabDialog::InitData and CTabDialog::OnInitDialog.***

*Note : You do **should** need to delete the two CPtrArrays-- RipTABS will delete them after the dialog box closes. Likewise, RipTABS will delete the strings created in memory for the tab titles.*

Code Sample - Initializing dialog, building our CPtrArrays

```
BOOL CRTabDialog::OnInitDialog()
{
  DlgOptionsList[0]= new CPtrArray();
  DlgOptionsList[0]->SetSize(0, 20);
  DlgOptionsList[1]= new CPtrArray();
  DlgOptionsList[1]->SetSize(0, 20);

  // mode info was here
  DlgOptionsList[0]->Add((void*)CStringPtr("Radio Buttons"));
  DlgOptionsList[0]->Add((void*)CStringPtr("Check Boxes"));
  DlgOptionsList[0]->Add((void*)CStringPtr("Edit Control"));

  DlgOptionsList[1]->Add((void*)CStringPtr("RADIO_DIALOG"));
  DlgOptionsList[1]->Add((void*)CStringPtr("CHECK_DIALOG"));
  DlgOptionsList[1]->Add((void*)CStringPtr("EDIT_DIALOG"));

  CTabDialog::InitData(DlgOptionsList[0], DlgOptionsList[1], IDC_RSTATIC);
  CTabDialog::OnInitDialog();

  // place your own controls intialization code here ...

  return TRUE;  // return TRUE  unless you set the focus to a control
}
```

Implementing Help - Switch Notification Usage

RipTABS provides two notification functions for determining when the user has clicked on a tab in our dialog and thus, switched pages. If you need to know what page a user has switched *from* or what page he has switched *to*, you'll need to know about **SwitchFromNotification** and **SwitchToNotification**.

SwitchFromNotification (See CTabDialog::SwitchFromNotification) gets called to let us know what page the user switched from. Two parameters are passed : TabIndex and TabName. TabIndex is the zero-based index of the page that the user switched from. (This corresponds to the index in the array we passed in, in our call to InitData earlier.) TabName is a pointer to a CString-- the tab title text.

SwitchToNotification (See CTabDialog::SwitchToNotification) gets called to let us know what page the user switched to. Two parameters are passed : TabIndex and TabName. TabIndex is the zero-based index of the page that the user switched to. (This corresponds to the index in the array we passed in, in our call to InitData earlier.) TabName is a pointer to a CString-- the tab title text.

In the example below, we make use of SwitchToNotification and assign the tab title to our own CString variable. We use this to simulate tracking of help topics-- in other words, we'll be able to provide context sensitive help in our dialog-- based on the active page.

Code Sample - Use SwitchToNotification to implement a crude form of context sensitive help.

```
void CRTabDialog::SwitchToNotification(int TabIndex, CString* TabName)
{
  ActivePage= *TabName;
}

void CRTabDialog::OnClickedHelp()
{
  CString MessageText="Display Help For : ";
  MessageText+=ActivePage;
  MessageBox(MessageText, "RipTABS Sample");
}
```

In the example above (OnClickedHelp), we display a dialog with the name of the currently-active tab page. It wouldn't be a big leap from here to implement context-sensitive help. (you'd probably track the tab index rather than the title though.)

Implementing OnOK

If you are going to implement a message map function for when the user clicks on the OK button, you should remember to call CTabDialog::OnOK (See CTabDialog::OnOK) before you finish.

Note that even though your controls are spread across many child dialogs, they are all accessible from your CTabDialog.

Code Sample - Responding to user's click on OK button

```
void CRTabDialog::OnOK()
{
  char str[101];
  CString CheckBoxStatus, RadioButtonStatus, EditControlStatus;
  if(IsDlgButtonChecked(IDC_CHECK1))
    MyView->CheckBoxStatus = "1";
  if(IsDlgButtonChecked(IDC_CHECK2))
    MyView->CheckBoxStatus = "2";
  if(IsDlgButtonChecked(IDC_CHECK3))
    MyView->CheckBoxStatus = "3";
        ...
  CTabDialog::OnOK();
}
```

Implementing OnCancel

If you are going to implement a message map function for when the user clicks on the Cancel button, you should remember to call CTabDialog::OnCancel (See CTabDialog::OnCancel) before you finish.

Note that even though your controls are spread across many child dialogs, they are all accessible from your CTabDialog.

Code Sample - Responding to user's click on the Cancel Button

```
void CRTabDialog::OnCancel()
{
  // TODO: Add extra cleanup here

  CTabDialog::OnCancel();
}
```

Creating & Displaying The Dialog

The following code creates and displays the dialog.

```
void CRtab_samView::OnDoRipTABDialog()
{
        CRTabDialog diag(this);
        diag.DoModal();
}
```

Final Touch-Ups

As you modify, re-arrange your tab dialog, you may have to make slight adjustments to your master dialog size-- i.e. add a little more space on the left, or bottom etc. There is some degree of imprecision in the translation of dialog units and precise pixel mapping. On the whole though, you shouldn't have to do much to get things looking just right.

CTabDialog::CTabDialog

```
CTabDialog(int theDialog, CWnd* pParent = NULL);
```

Call this as part of the constructor of your derived dialog. Takes two parameters-- the resource ID of the master dialog, and the parent window.

CTabDialog::InitData

```
void InitData(CPtrArray* theOptionsList1, CPtrArray* theOptionsList2, int
TheStaticBox);
```

Call this after you've set up your arrays of tab titles and child dialog resource names. (The first two parameters) *TheStaticBox* is the resource ID of the static group box in the Master dialog that will surround all the controls from your child dialogs. *Do not pass in the default IDC_STATIC* ID that AppStudio defaults to--- this must be a *unique* identifier.

CTabDialog::OnOK

```
virtual void OnOK();
```

If you are going to override OnOK for your own purposes (to information from the dialog's controls), be sure to finish off by calling the CTabDialog version of OnOK because this function performs important cleanup steps.

CTabDialog::OnCancel

```
virtual void OnCancel();
```

If you are going to override OnCancel for your own purposes (to information from the dialog's controls), be sure to finish off by calling the CTabDialog version of OnCancel because this function performs important cleanup steps.

CTabDialog::OnInitDialog

```
virtual BOOL OnInitDialog();
```

Be sure to call the CTabDialog version of OnInitDialog as this performs the necessary construction of tabs and pages etc.

CTabDialog::SwitchToNotification

```
virtual void SwitchToNotification(int TabIndex, CString* TabName);
```

A notification function that gets called when a user clicks on a dialog tab and thus switches pages. TabIndex is the zero-based index of the page the use is switching to. (Corresponds to the array you passed in during InitData.) TabName is a pointer to the title (text) of the page the user switched to.

CTabDialog::SwitchFromNotification

```
virtual void SwitchFromNotification(int TabIndex, CString* TabName);
```

A notification function that gets called when a user clicks on a dialog tab and thus switches pages. TabIndex is the zero-based index of the page the use is switching from. (Corresponds to the array you passed in during InitData.) TabName is a pointer to the title (text) of the page the user switched from.

CTabDialog::OnPaint

```
afx_msg void OnPaint();
```

This member function paints the interior of the dialog-- tabs, titles etc. If you are going to override the OnPaint for some reason, be sure to call the CTabDialog version of it.

CTabDialog::OnLButtonDown

```
afx_msg void OnLButtonDown(UINT flags, CPoint point);
```

This member function handles left-button clicks to see if the user has clicked on a tab. if you need to check for this message to, be sure to call the CTabDialog version as well.