CE103 Algorithms and Programming I

C/Cpp GUI Programming

Author: Asst. Prof. Dr. Uğur CORUH

Contents

1 CE103 Algorithms and Programming I **1**

2 Week-12 (C/Cpp GUI Programming) **1**

3 C/Cpp GUI Programming **1**

List of Figures

List of Tables

1 CE103 Algorithms and Programming I

2 Week-12 (C/Cpp GUI Programming)

2.0.0.1 Fall Semester, 2021-2022 Download DOC[1], SLIDE[2], PPTX[3]

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3 C/Cpp GUI Programming

The Microsoft Foundation Class

MFC Tutorial[4]

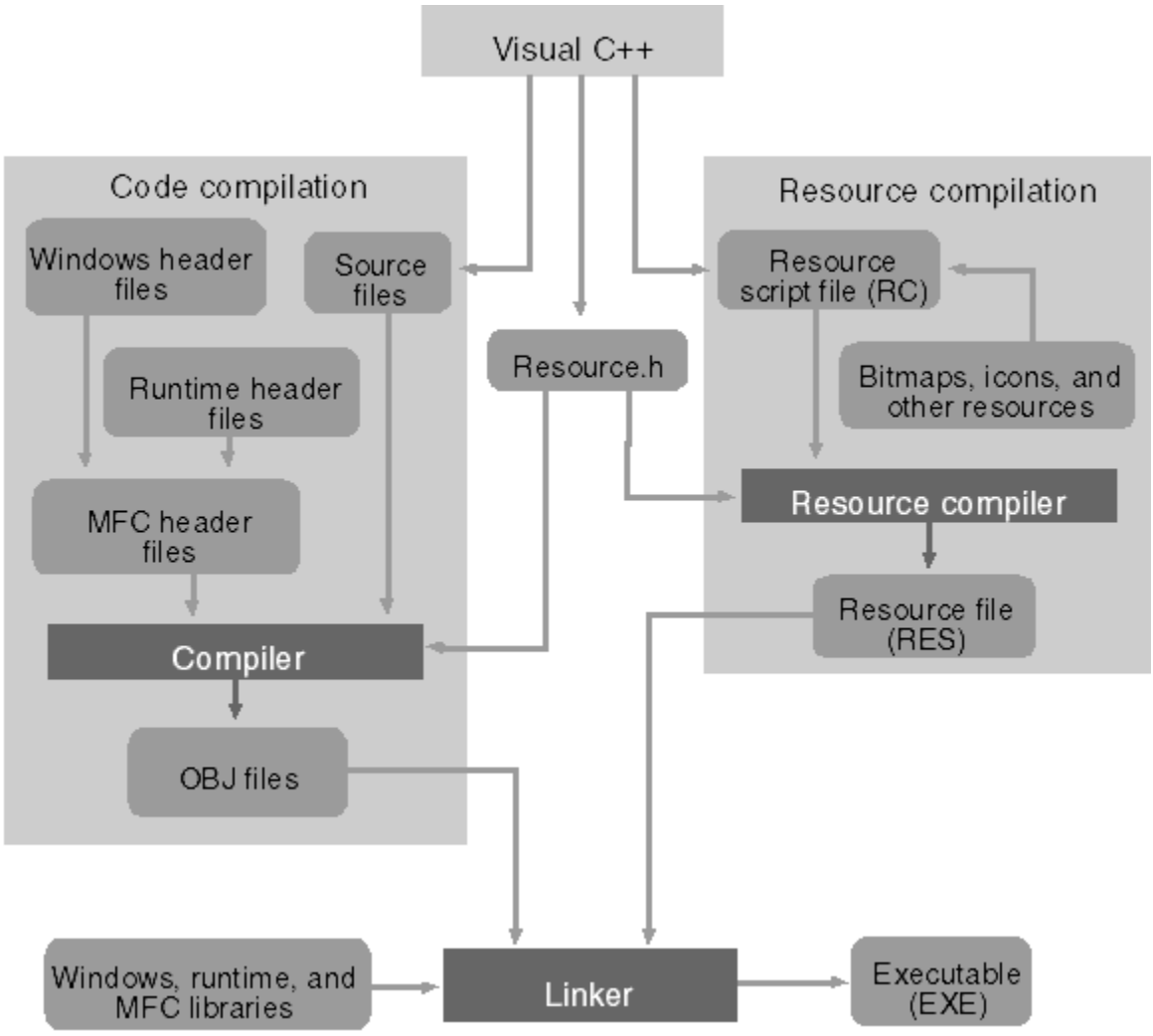
Visual C++ / MFC Calculator 3 - YouTube[5]

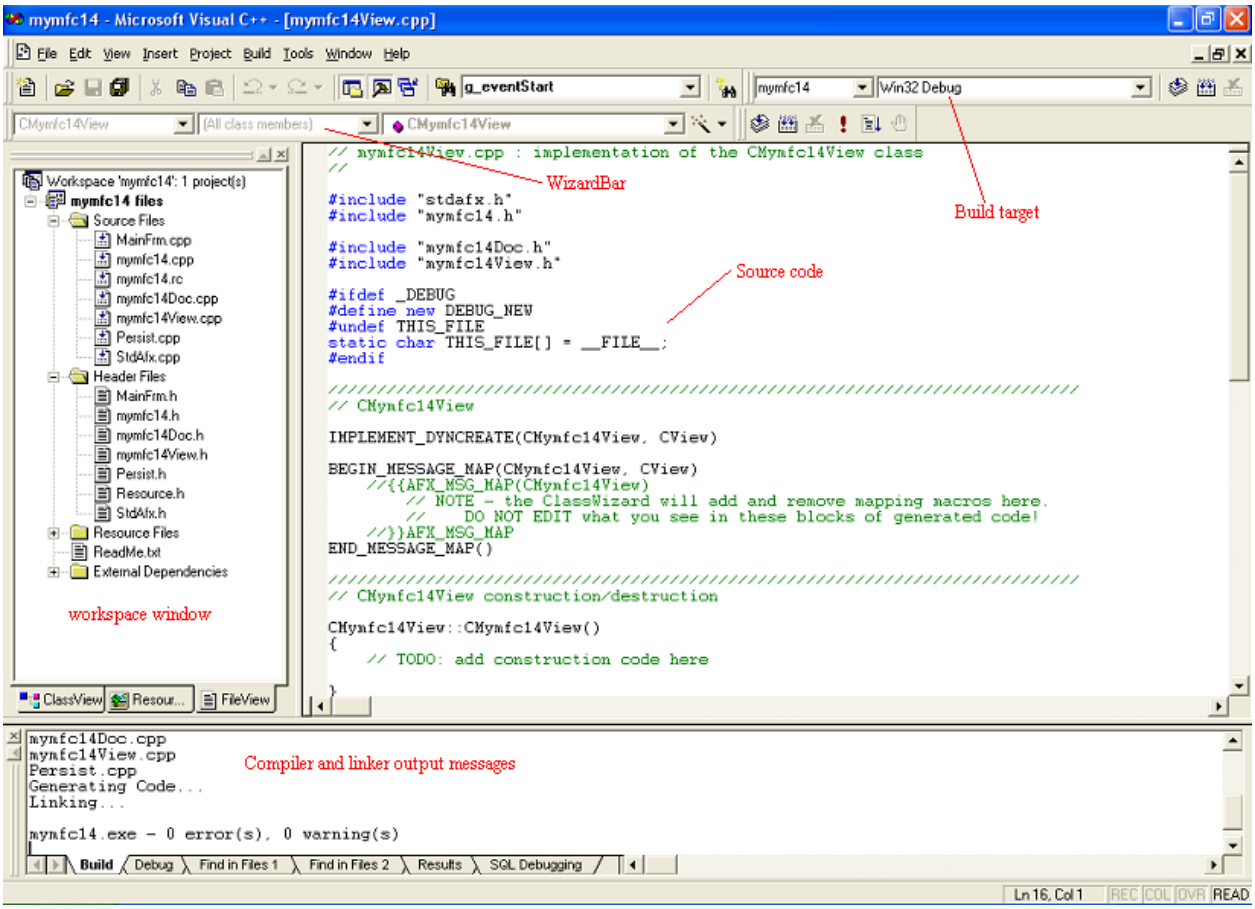
MFC C++ : My videos source code download available now to members - YouTube[6]

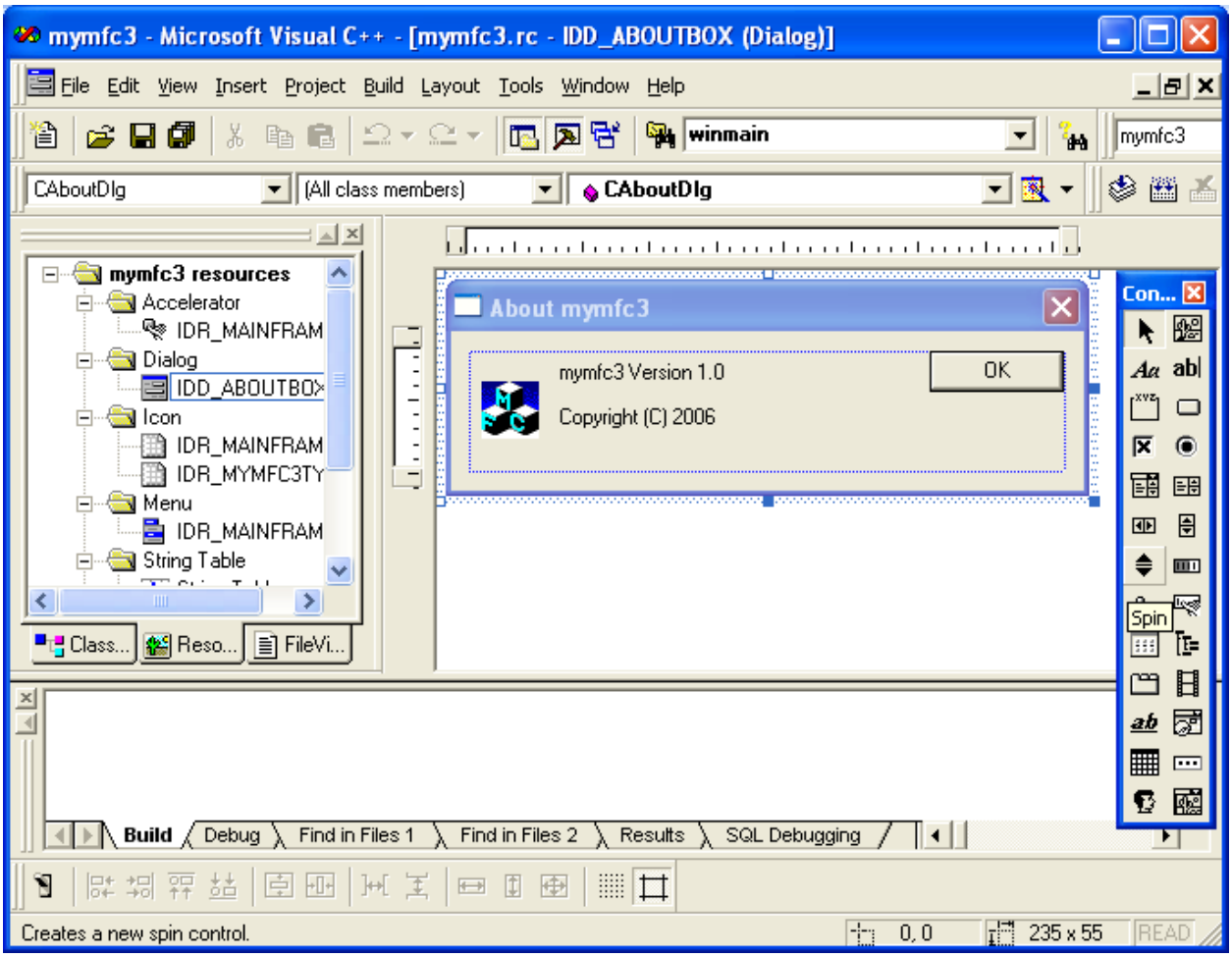
The Windows GUI interface programming using Microsoft Foundation Classes (MFC) with Visual C++ and .Net hands-on approach tutorials[7]

Module 1: Using Visual C++ 6.0, .Net and Windows MFC Graphic User Interface (GUI) programming hands-on tutorial-Module1[8]

[1] ce103-week-12-c-cpp-gui.tr.md_doc.pdf
[2] ce103-week-12-c-cpp-gui.tr.md_slide.pdf
[3] ce103-week-12-c-cpp-gui.tr.md_slide.pptx
[4] https://www.tutorialspoint.com/mfc/index.htm
[5] https://www.youtube.com/watch?v=CgLLSi9aC4I&ab_channel=PekkaK.
[6] https://www.youtube.com/watch?v=nmR1ZfYIZDA&t=0s&ab_channel=PekkaK.
[7] https://www.tenouk.com/cplusplusnmfc.html
[8] https://www.tenouk.com/visualcplusmfc/visualcplusmfc1.html


Visual C++
Code compilation
Windows header files
Source files
Runtime header files
MFC header files
Compiler
OBJ files
Resource.h
Resource compilation
Resource script file (RC)
Bitmaps, icons, and other resources
Resource compiler
Resource file (RES)
Windows, runtime, and MFC libraries
Linker
Executable (EXE)


mymfc14 - Microsoft Visual C++ - [mymfc14View.cpp]
File Edit View Insert Project Build Tools Window Help
g_eventStart
mymfc14
Win32 Debug
CMymfc14View
(All class members)
CMymfc14View
WizardBar
Build target
Source code
Workspace 'mymfc14': 1 project(s)
mymfc14 files
Source Files
MainFrm.cpp
mymfc14.cpp
mymfc14.rc
mymfc14Doc.cpp
mymfc14View.cpp
Persist.cpp
StdAfx.cpp
Header Files
MainFrm.h
mymfc14.h
mymfc14Doc.h
mymfc14View.h
Persist.h
Resource.h
StdAfx.h
Resource Files
ReadMe.txt
External Dependencies
workspace window
ClassView
Resour...
FileView
// mymfc14View.cpp : implementation of the CMymfc14View class
//
#include "stdafx.h"
#include "mymfc14.h"
#include "mymfc14Doc.h"
#include "mymfc14View.h"
#ifdef _DEBUG
#define new DEBUG_NEW
#undef THIS_FILE
static char THIS_FILE[] = __FILE__;
#endif
// CMymfc14View
IMPLEMENT_DYNCREATE(CMymfc14View, CView)
BEGIN_MESSAGE_MAP(CMymfc14View, CView)
//{{AFX_MSG_MAP(CMymfc14View)
// NOTE - the ClassWizard will add and remove mapping macros here.
// DO NOT EDIT what you see in these blocks of generated code!
//}}AFX_MSG_MAP
END_MESSAGE_MAP()
// CMymfc14View construction/destruction
CMymfc14View::CMymfc14View()
{
// TODO: add construction code here
}
mymfc14Doc.cpp
mymfc14View.cpp
Persist.cpp
Generating Code...
Linking...
mymfc14.exe - 0 error(s), 0 warning(s)
Compiler and linker output messages
Build
Debug
Find in Files 1
Find in Files 2
Results
SQL Debugging
Ln 16, Col 1
REC COL OVR READ



GTK 4

https://www.msys2.org/

https://www.msys2.org/

Programming with gtkmm 4[9]

Build and run GTK 4 applications with Visual Studio[10]

https://www.gtk.org/

The Meson Build system[11]

The GTK Project - A free and open-source cross-platform widget toolkit[12]

```
// Include gtk
#include <gtk/gtk.h>

static void on_activate (GtkApplication *app) {
  // Create a new window
  GtkWidget *window = gtk_application_window_new (app);
  // Create a new button
  GtkWidget *button = gtk_button_new_with_label ("Hello, World!");
  // When the button is clicked, close the window passed as an argument
  g_signal_connect_swapped (button, "clicked", G_CALLBACK (gtk_window_close), window);
```

[9] https://developer-old.gnome.org/gtkmm-tutorial/stable/index.html
[10] https://www.collabora.com/news-and-blog/blog/2021/03/18/build-and-run-gtk-4-applications-with-visual-studio/
[11] https://mesonbuild.com/index.html#features
[12] https://www.gtk.org/docs/architecture/

```
  gtk_window_set_child (GTK_WINDOW (window), button);
  gtk_window_present (GTK_WINDOW (window));
}

int main (int argc, char *argv[]) {
  // Create a new application
  GtkApplication *app = gtk_application_new ("com.example.GtkApplication",
                                             G_APPLICATION_FLAGS_NONE);
  g_signal_connect (app, "activate", G_CALLBACK (on_activate), NULL);
  return g_application_run (G_APPLICATION (app), argc, argv);
}
```

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eBooks by Tags | RIP Tutorial[13]

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[13] https://riptutorial.com/ebook