MRE SDK IDE User Guide

Version:	2.0
Release Date:	2011-08-25

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Contents

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1 Preface

1.1 Purpose

This guide describes the MRE SDK IDE and how programmers can develop MRE-based applications on a PC. Developers with no prior experience with MRE IDE are advised to study this guide.

1.2 Scope

This guide features MRE SDK 2.0

1.3 Terminology and Abbreviations

MRE	MAUI Runtime Environment, MAUI is a feature phone software package from MediaTek, and MRE is a runtime environment based on MAUI.
MRE SDK	MRE Software Development Kit
MRE IDE	MRE Integration Development Environment
VXP	Suffix of MRE applications
DLL	Dynamic Link Library
ADS1.2	ARM Developer Suite V1.2
RVCT2.1	RealView Developer Suite V2.1
VS2008	Microsoft Visual Studio 2008
ResEditor	Resource Editor, provides tools for editing various MRE SDK 2.0 resources

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2 Installing MRE SDK 2.0

2.1 Obtaining the MRE SDK 2.0 Installation Package

[Todo]

2.2 Installation Environment

- PC Operating Systems
  - Windows XP
  - Windows Vista
  - Windows 7
- C/C++ Development Tools
  - Microsoft Visual Studio 2008 Express Editor
  - Microsoft Visual Studio 2008 Professional Editor
- ARM Compiler
  - ARM Developer Suite V1.2 （ADS1.2）
  - RealView Developer Suite V2.1 (RVCT 2.1)

2.3 Installation Procedures

1. Double-click the installation package MRE_SDK_v2.0.exe and the installation process will begin.
2. Enter Welcome Page
   - Click on the "Cancel" button to terminate the installation process.
   - Click on the "Next" button to continue with the installation process.

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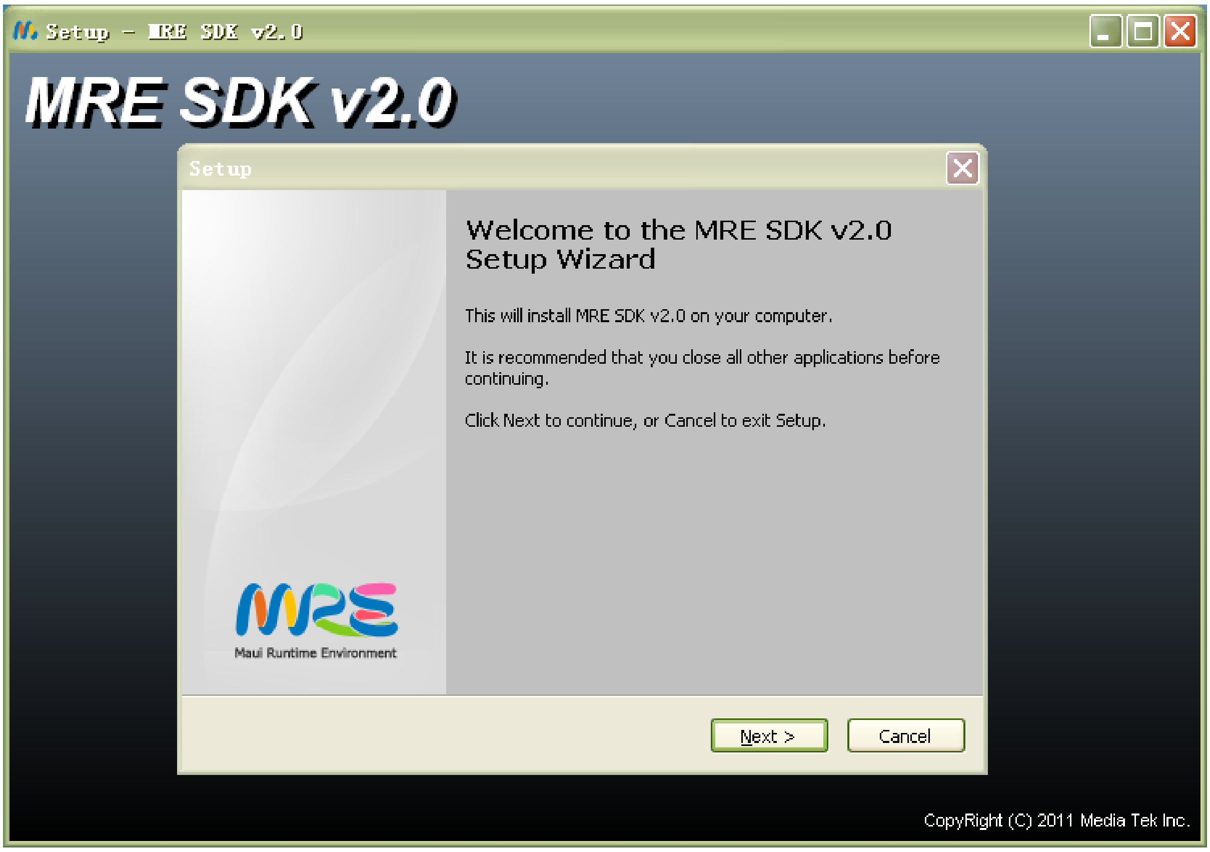

Welcome to the MRE SDK v2.0 Setup Wizard

This will install MRE SDK v2.0 on your computer.

It is recommended that you close all other applications before continuing.

Click Next to continue, or Cancel to exit Setup.

Figure 2-1. Welcome

3. After entering the license agreement page, please read the license carefully. Click "Accept these terms" if you agree to the requests and restrictions on the license, and installation will continue. Installation will not proceed if you do not agree to the terms.

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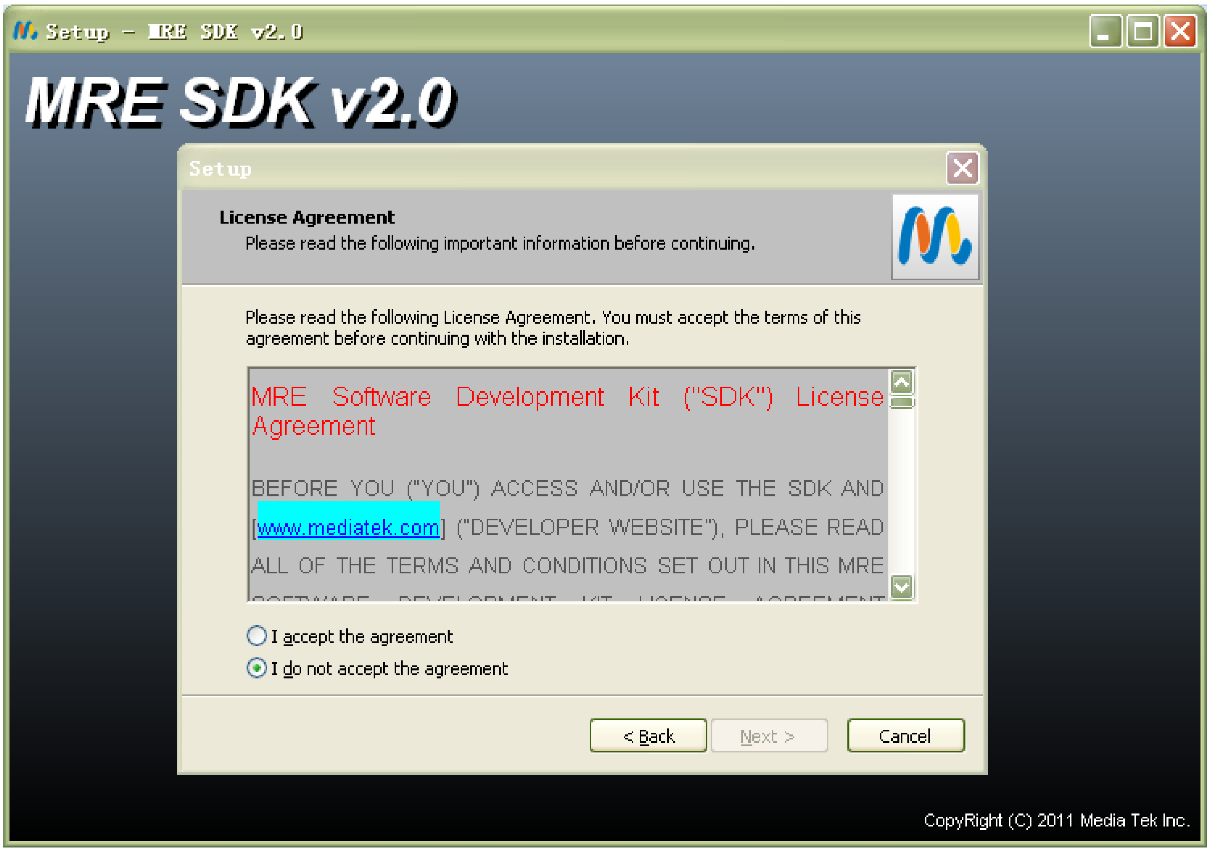

License Agreement

Please read the following important information before continuing.

Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.

MRE Software Development Kit ("SDK") License Agreement

BEFORE YOU ("YOU") ACCESS AND/OR USE THE SDK AND [www.mediatek.com] ("DEVELOPER WEBSITE"), PLEASE READ ALL OF THE TERMS AND CONDITIONS SET OUT IN THIS MRE

○ I accept the agreement

● I do not accept the agreement

Figure 2-2. License Agreement

4. After entering the installation location selection page, the default location is "C:\Program Files\ MRE SDK v2.0." You can change the installation location here. Click on the "Browse" button to select a new installation location.

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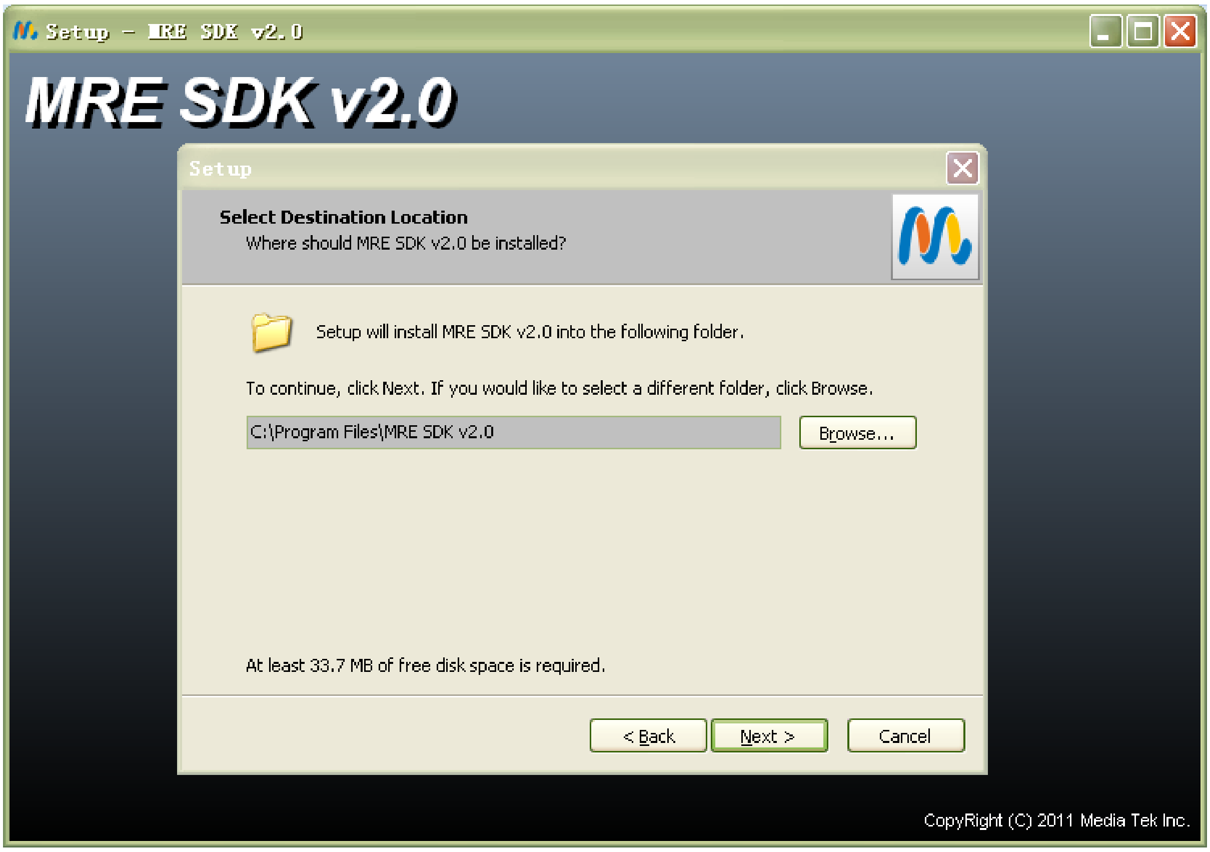

Select Destination Location
Where should MRE SDK v2.0 be installed?

Setup will install MRE SDK v2.0 into the following folder.

To continue, click Next. If you would like to select a different folder, click Browse.

C:\Program Files\MRE SDK v2.0

At least 33.7 MB of free disk space is required.

Figure 2-3. Select Location

5. The selected installation location is displayed on this page. If you need to change the location, you can press the "Go back" button to return to the previous page and repeat installation location selection. You can also press the "Cancel" button if you wish to cancel the installation. After confirming the displayed information is correct, click on "Install" to start automatic installation.

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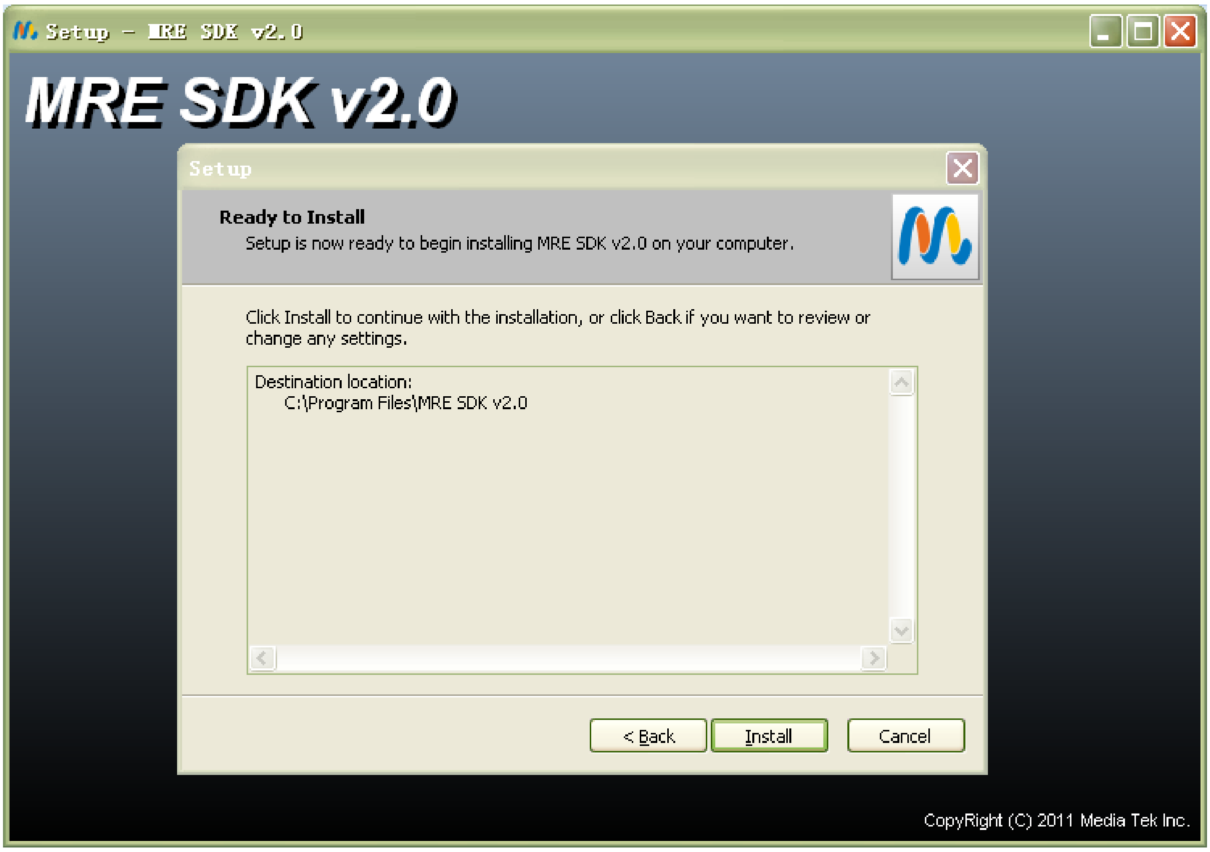

Setup - MRE SDK v2.0

MRE SDK v2.0

Setup

Ready to Install

Setup is now ready to begin installing MRE SDK v2.0 on your computer.

Click Install to continue with the installation, or click Back if you want to review or change any settings.

Destination location:
C:\Program Files\MRE SDK v2.0

Figure 2-4. License Agreement

6. Installation procedure page. Please wait for installation to end, or cancel the current installation.

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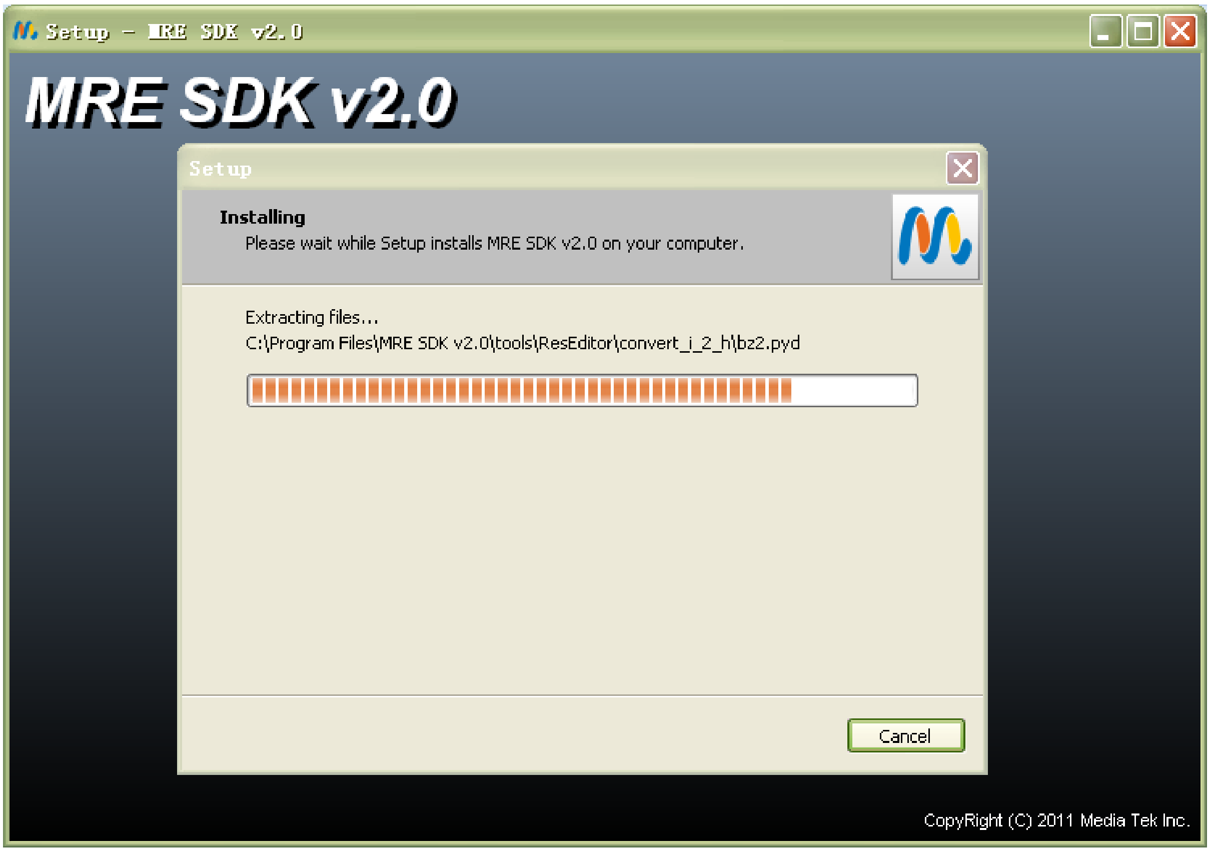

Installing
Please wait while Setup installs MRE SDK v2.0 on your computer.

Extracting files...
C:\Program Files\MRE SDK v2.0\tools\ResEditor\convert_i_2_h\bz2.pyd

Figure 2-5. Installing Process

7. After successful installation, the finished page will appear. You can use the link on this page to visit the MRE SDK web site and view related information.

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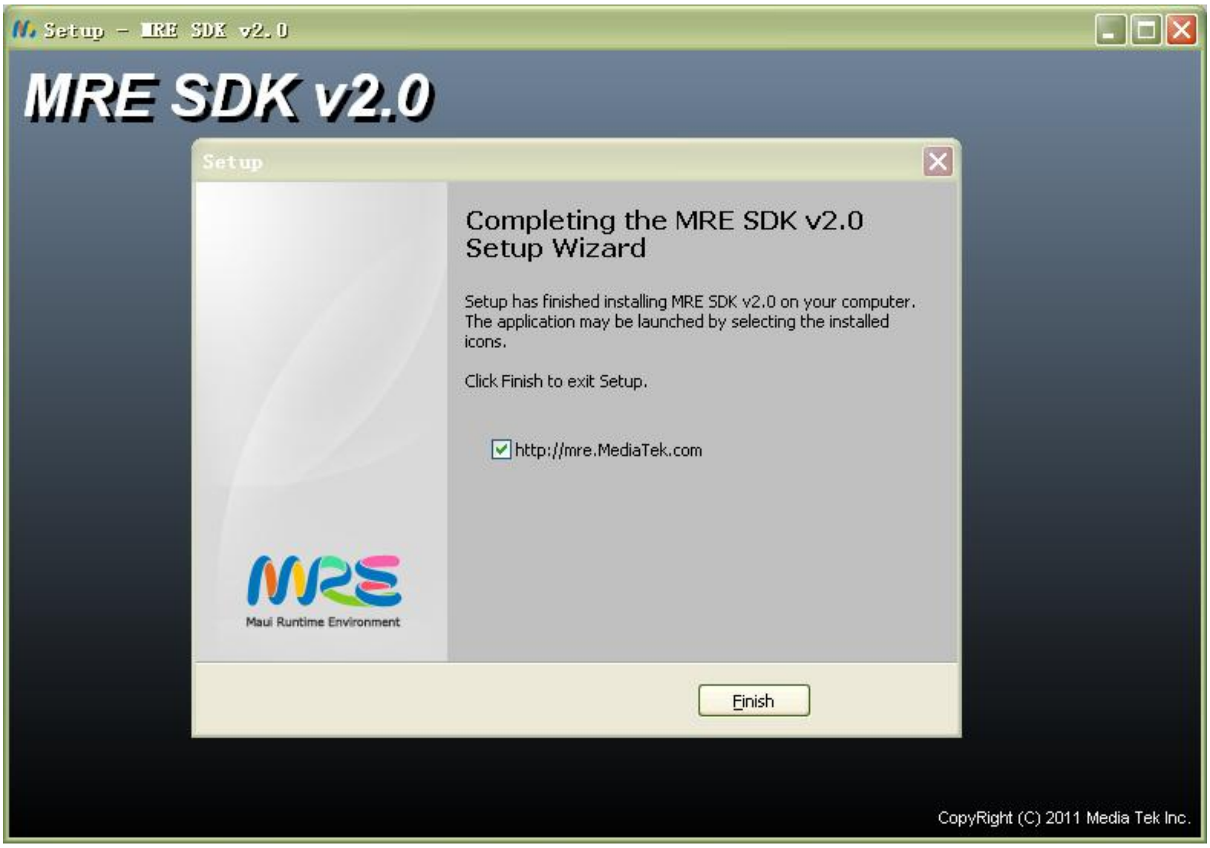


Completing the MRE SDK v2.0 Setup Wizard

Setup has finished installing MRE SDK v2.0 on your computer. The application may be launched by selecting the installed icons.

Click Finish to exit Setup.

☑ http://mre.MediaTek.com

Figure 2-6. Finished Page

3 Using the MRE IDE

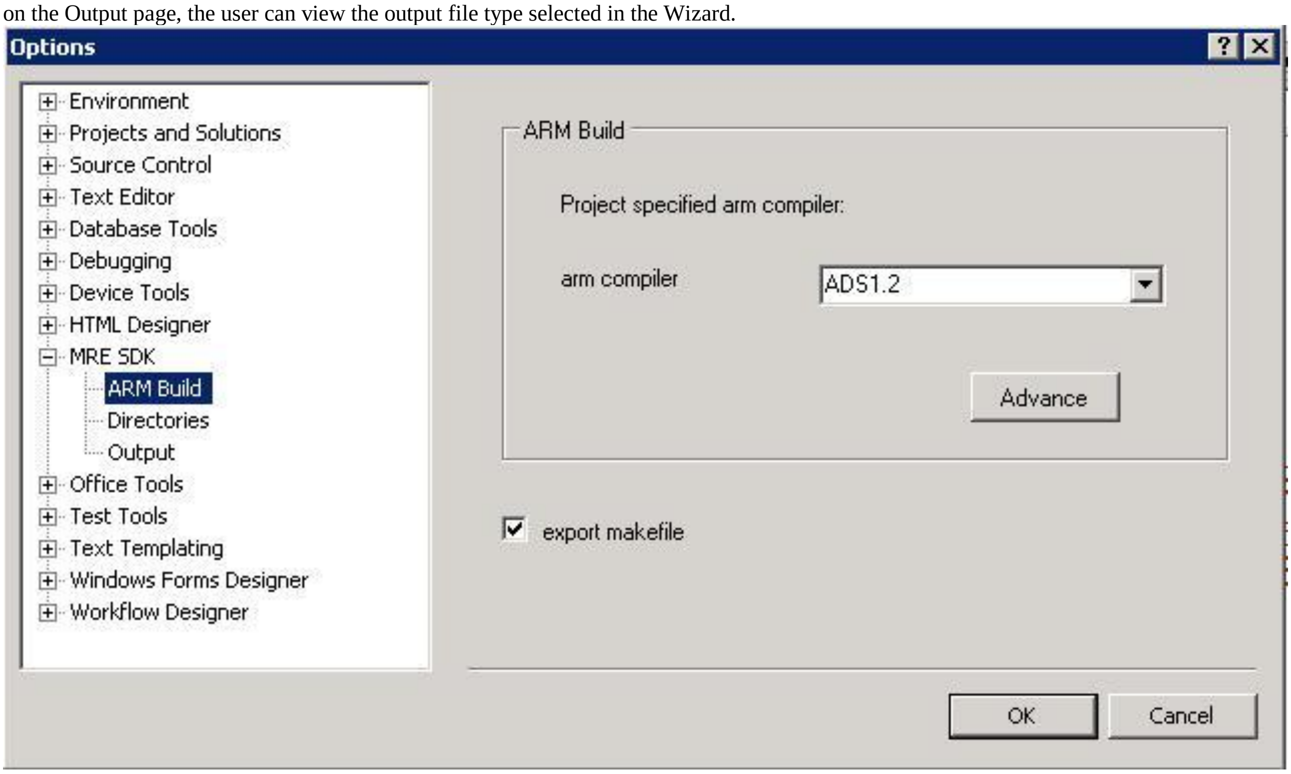
The MRE SDK 2.0 provides users with a means of developing MRE application programs. The MRE IDE can be accessed using the following two methods:

- MRE IDE Plug-in Tools
  Can only be applied to the version installed with Visual Studio 2008 Professional Editor, and is used as a plug-in of Visual Studio 2008 Professional Editor.
- MRE IDE Launcher Tool
  Opens the MRE IDE tools interface, and allows use of all MRE IDE tools. Used with Visual Studio 2008 Professional Editor and Visual Studio 2008 Express Editor.

3.1.1.1 Options

The user can click on

to open the Visual Studio 2008 Options page. On the right and left side of the tree, select MRE SDK to open the MRE options configuration page. The configuration page provides the settings for ARM compiler and for including files and libraries. In addition, on the Output page, the user can view the output file type selected in the Wizard.



Options

ARM Build

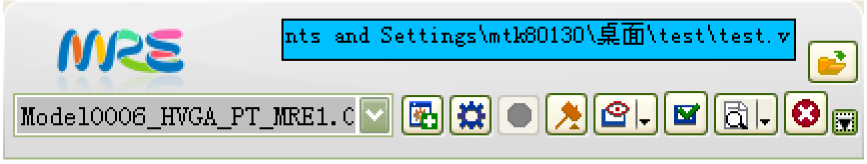
Project specified arm compiler:

arm compiler ADS1.2

☑ export makefile

3.2 MRE IDE Launcher Tool

Opens the MRE IDE tools interface, and allows use of all MRE IDE tools. Used with Visual Studio 2008 Professional Editor and Visual Studio 2008 Express Editor.
After MRE SDK 2.0 has been successfully installed, the express options for MRE SDK IDE2.0 launcher can be seen on Start Menu → All Programs → MRE SDK 2.0.



nts and Settings\mtk80130\桌面\test\test.v

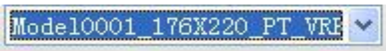
Model0006_HVGA_PT_MRE1.C

The main purpose of MRE SDK 2.0 is to provide the user with a platform to develop MRE applications; it includes the following functions:

1. Emulator type selection
2. MRE App Wizard
3. Settings
4. Generating the Application
5. Other tools
6. Options
7. Help

3.2.1 Selecting emulator type

After launching MRE SDK 2.0, the user can select the desired emulator type with the leftmost Model combo box.

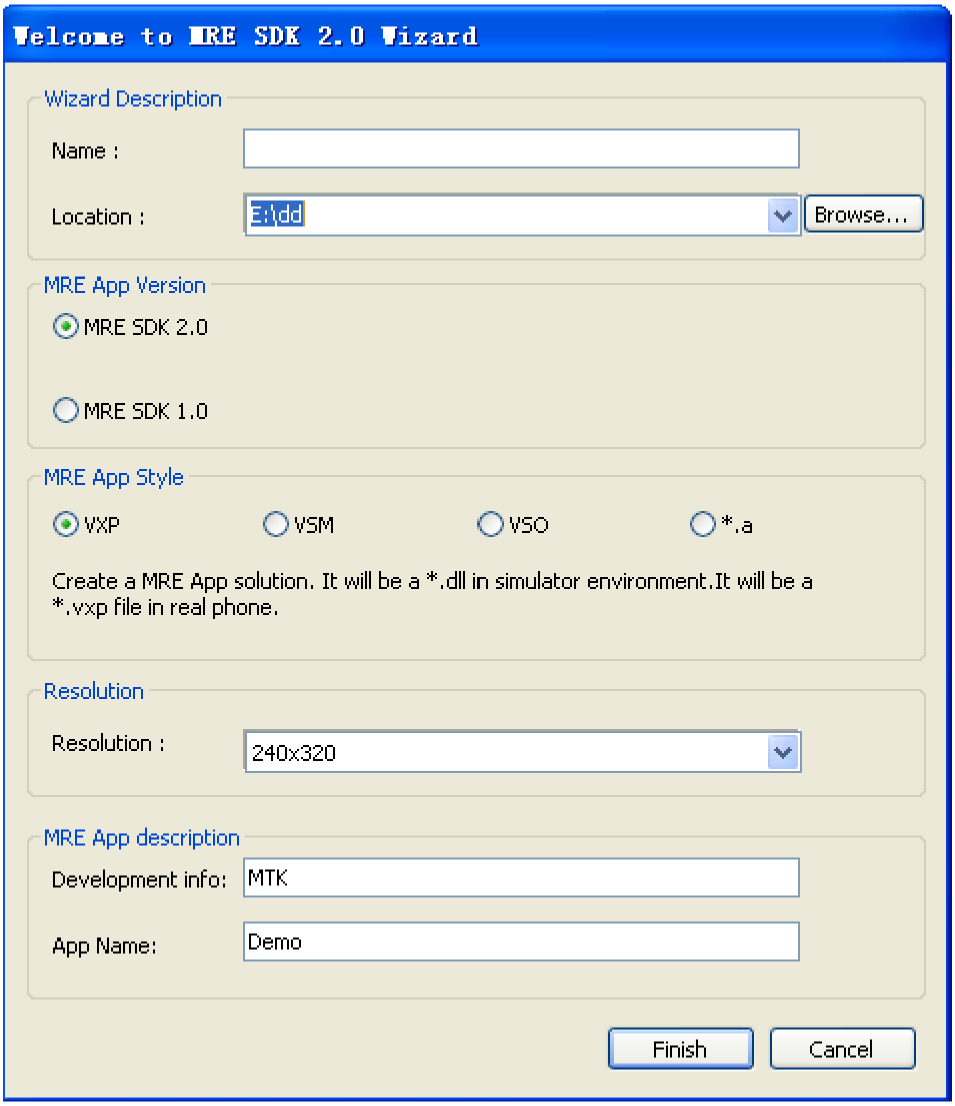


Model0001_176X220_PT_VRE

3.2.2 Startup Wizard

Launch MRE SDK 2.0 and click to start the MRE Create Application Wizard.
On the Wizard page, add MRE application information that you need to configure.

1. MRE application project name
2. MRE application project storage path
3. MRE application name and developer information
4. MRE application supported resolution (width x height)
5. VXP MRE
6. VSM MRE dynamic load runtime library. Only supports ADS1.2 ARM editor.
7. VSO MRE dynamic load runtime library. Only supports RVCT2.1 ARM editor.
8. .a MRE statically loaded runtime library



Welcome to MRE SDK 2.0 Wizard

Wizard Description

Name :

Location : E:\dd

MRE App Version

● MRE SDK 2.0

○ MRE SDK 1.0

MRE App Style

● VXP ○ VSM ○ VSO ○ *.a

Create a MRE App solution. It will be a *.dll in simulator environment.It will be a *.vxp file in real phone.

Resolution

Resolution : 240x320

MRE App description

Development info: MTK

App Name: Demo

The wizard can help you create a simple MRE application procedure project: 'Hello World.' Use Visual Studio 2008 Professional Editor or Visual Studio 2008 Express Editor to open the MRE applications project. Use Visual Studio 2008 to compile and debug. You can use MoDIS emulation to move MRE applications to an emulated cell phone.

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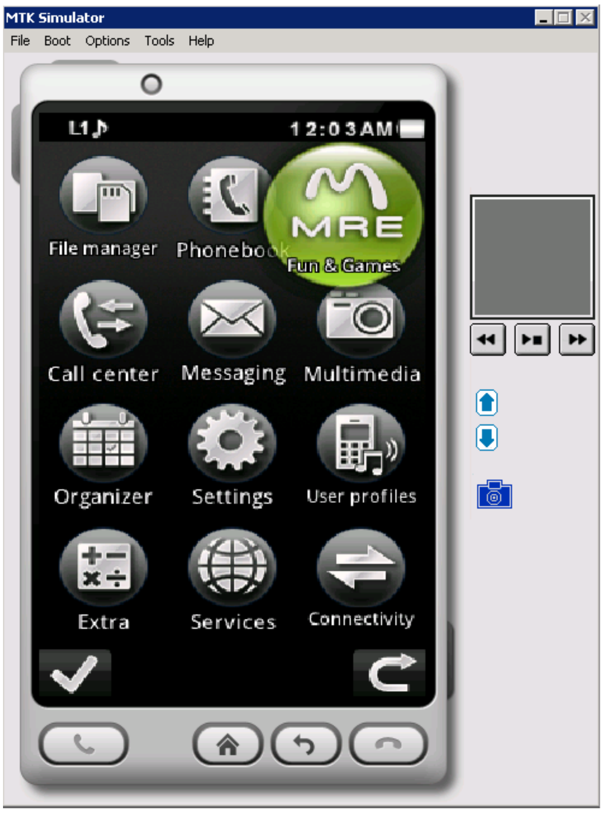
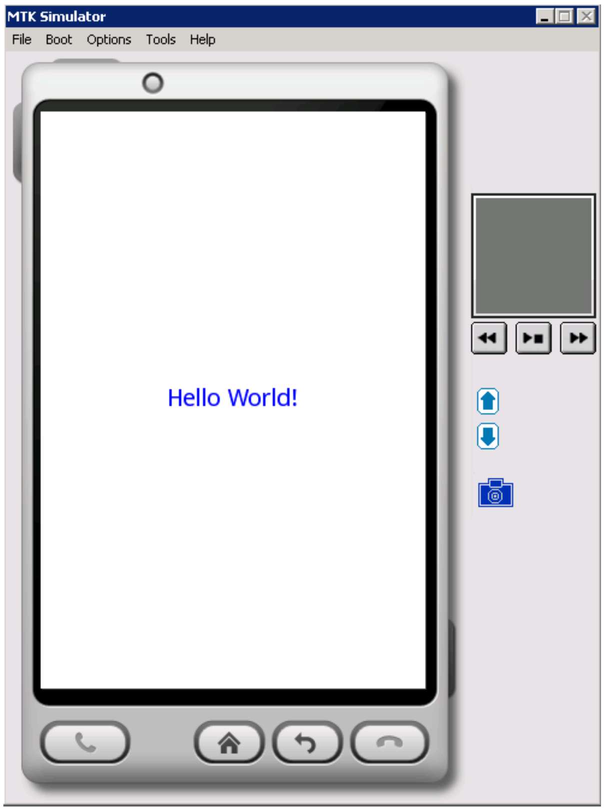
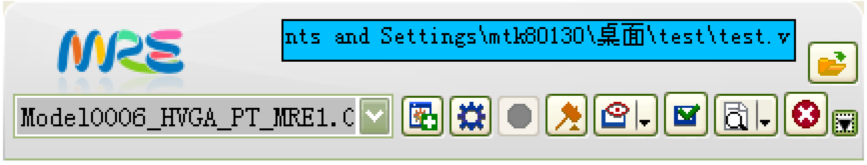




Hello World!

3.2.3 Opening the Project

Launch MRE SDK 2.0 and click to select a vcproj project.



nts and Settings\mtk80130\桌面\test\test.v

Model0006_HVGA_PT_MRE1.C

3.2.4 Settings

Start MRE SDK 2.0 and click to open the Settings dialog box. The following settings information is available In the Settings dialog:

1. User information
2. Application name
3. Resources
4. Operator information
5. Payment Library
6. API Authorization
7. Configuration

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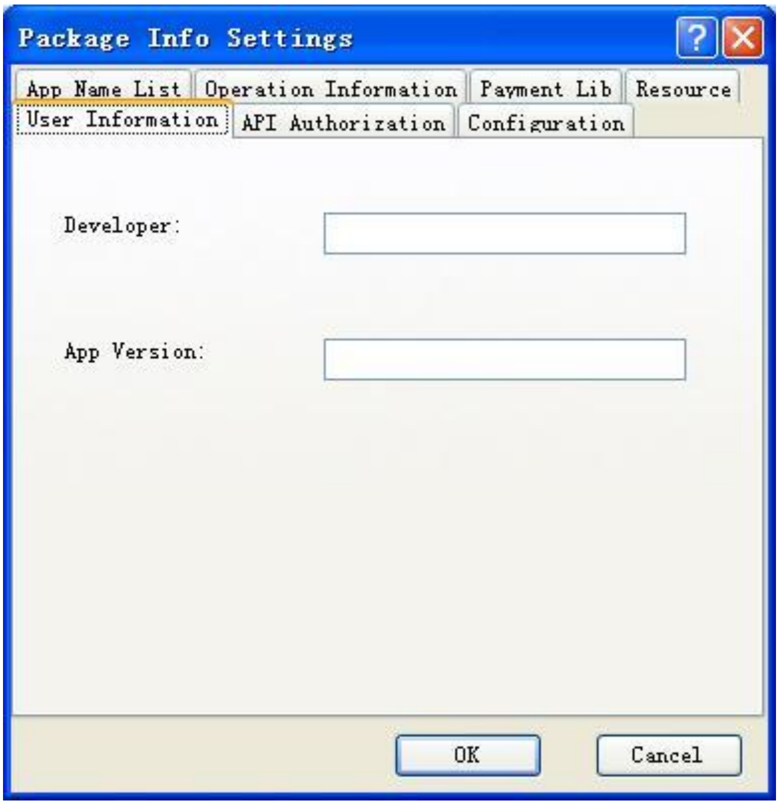
3.2.4.1 Settings

Start Visual Studio 2008, and open or create a new MRE application. Then click ⚙ to open the Settings dialog box. The Settings dialog box provides the following settings information:

1. User information
2. Application name
3. Resources
4. Operator information
5. Payment Library
6. API Authorization
7. Configuration

3.2.4.1.1 User information

This sets the name of the developer and version number of the application.

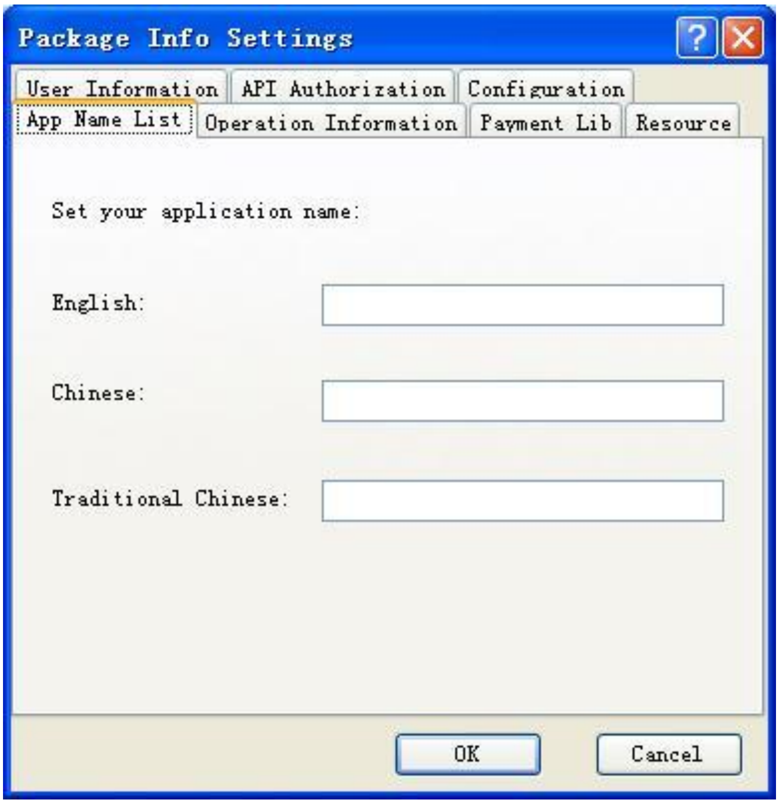


Developer:

App Version:

3.2.4.1.2 Application name

The user can set the name of the application in one of these three formats: English, Simplified Chinese or Traditional Chinese



Set your application name:

English:

Chinese:

Traditional Chinese:

3.2.4.1.3 Resources

The Resource page provides the capability for setting fonts, creating and inserting icons as well as removing resource files.

3.2.4.1.3.1 Generating Logos/Icons

On the Resource settings page, enter the corresponding information:

- Application name
- Fonts
- Logo image resource (genuine GIF, 45x45)

Click on the Make Logo to generate MREAppLogo.img

3.2.4.1.3.2 Adding Resources

In MRE 2.0 applications, use the ResEditor tool to add resources. Refer to Chapter 5--ResEditor.

You can use ⊞ to add resources to the MRE application resource table. Use ☒ to delete any selected resources.

When a resource is added, two pieces of information will be generated.

- Resource name: In an MRE application, use the call resource interface to load needed resources data.
- Resource path: Location of added resources in PC.

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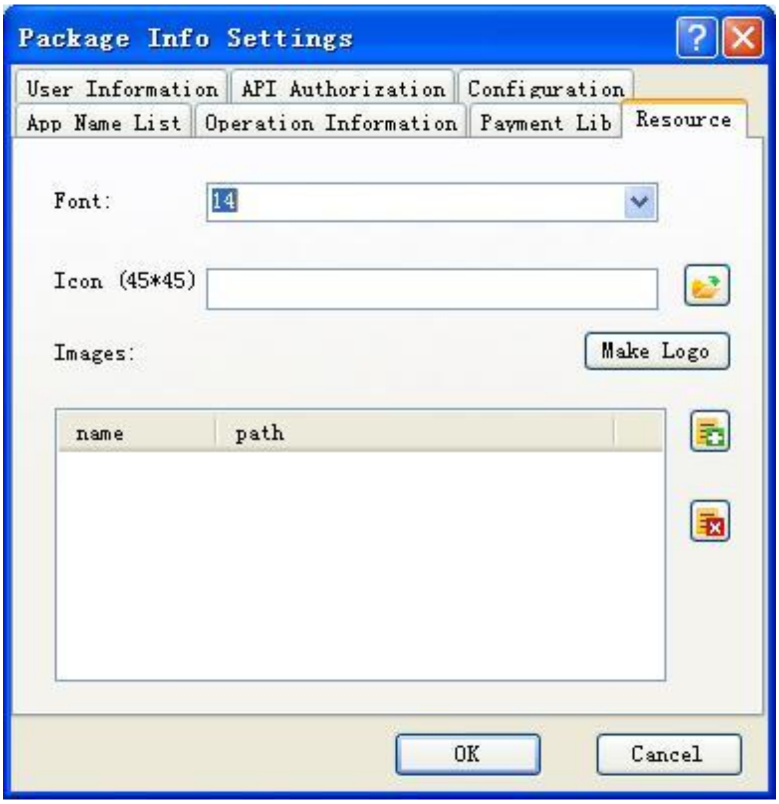

Font: 14

3.2.4.1.4 Operator information

The main purpose here is to provide a location to include information related to the application developers as well as IMSI information for the SIM card

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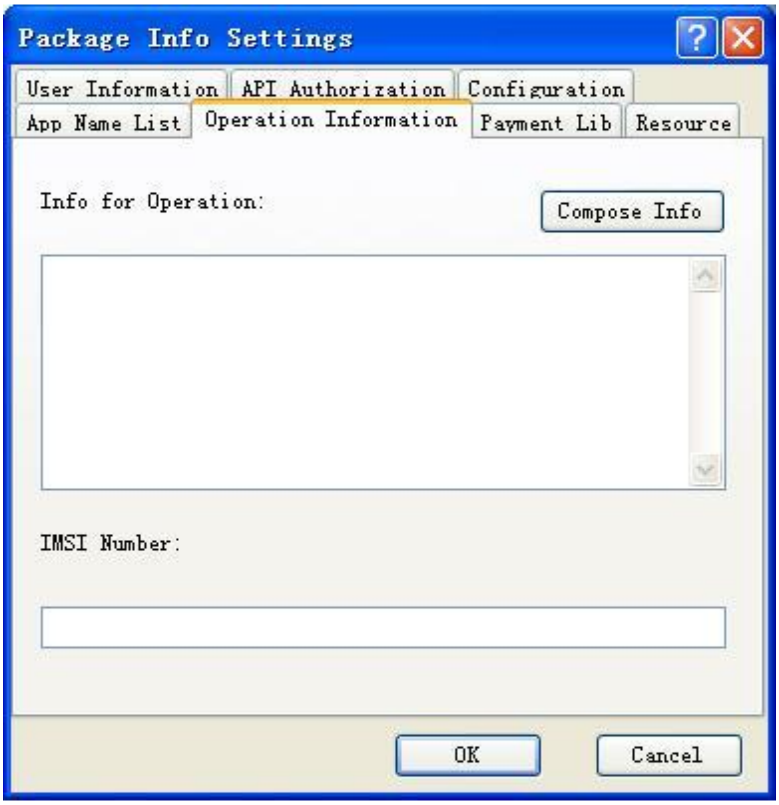
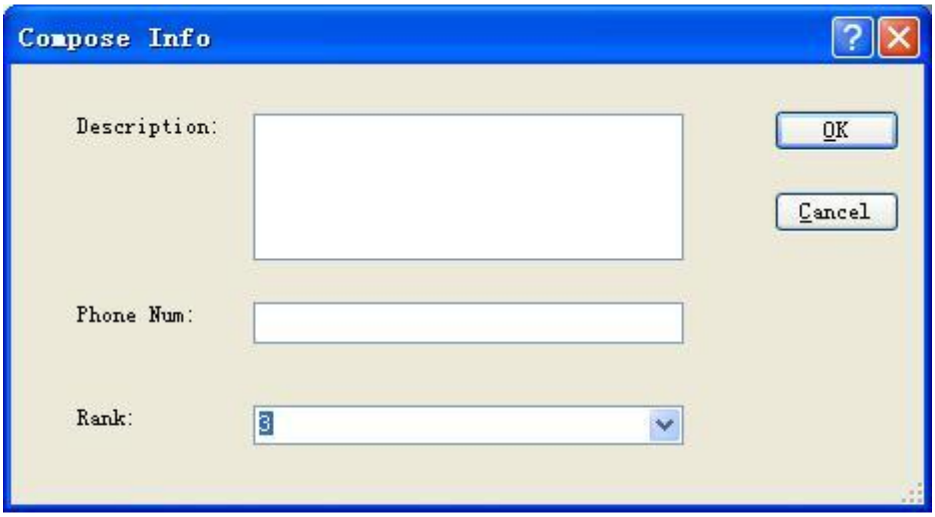


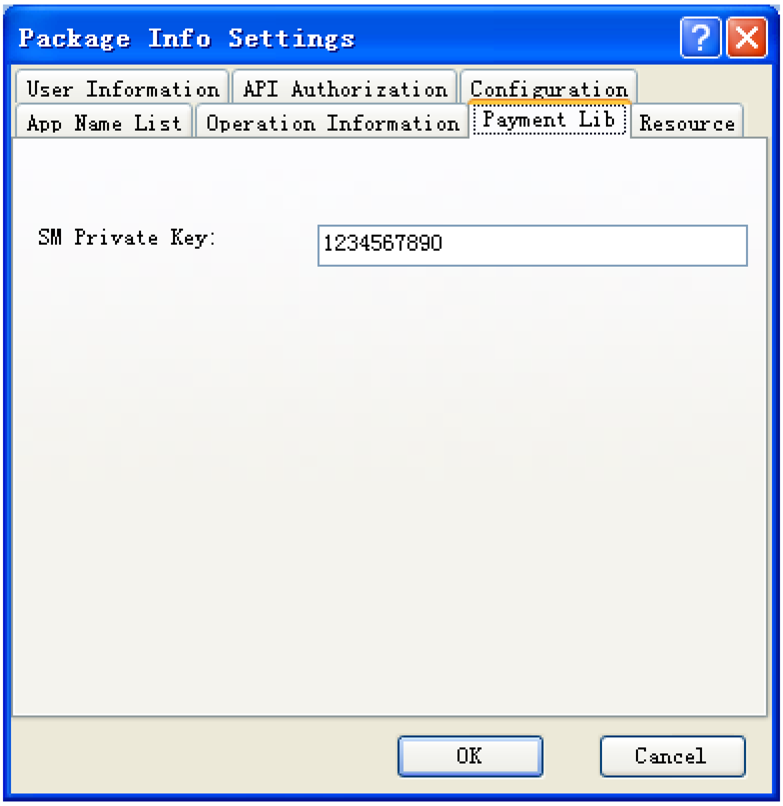
Click the "Compose Info" button to open the Info for Operator Settings dialog box, where relevant information can be entered



Rank: 3

3.2.4.1.5 Payment Library

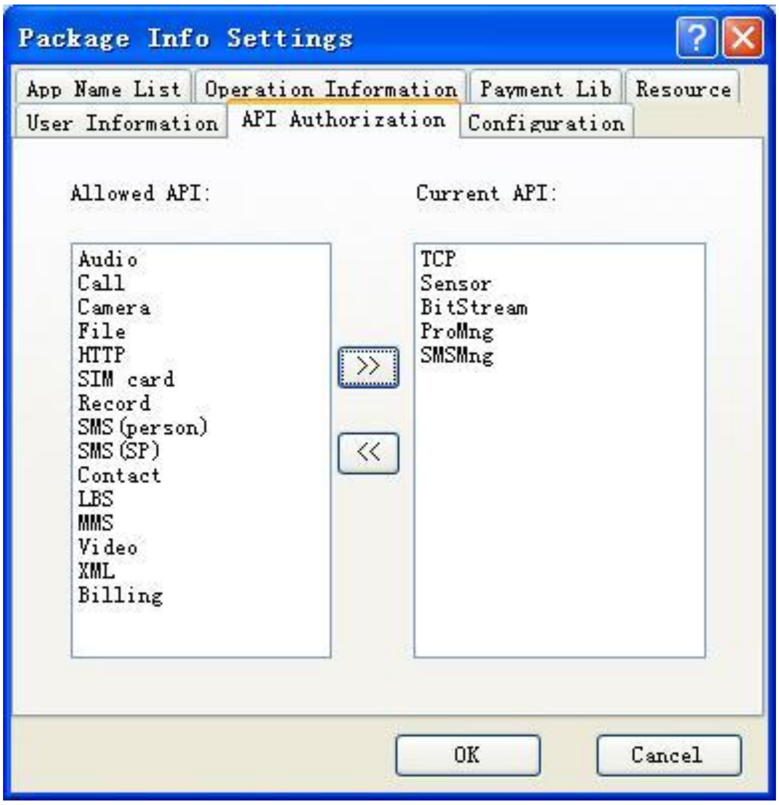
Some MRE applications make use of the Payment Library. The user can set up payment-related information on this page



SM Private Key: 1234567890

3.2.4.1.6 API Authorization

Using this configuration page, the user can specify the part of the MRE API that requires authorization



Package Info Settings

Allowed API:

Audio
Call
Camera
File
HTTP
SIM card
Record
SMS(person)
SMS(SP)
Contact
LBS
MMS
Video
XML
Billing

Current API:

TCP
Sensor
BitStream
ProMng
SMSMng

3.2.4.1.7 Configuration

This page allows you to set the screen resolution, internal memory size required by the application procedure, and whether screen rotation is supported. If Auto Adaptable is selected, the generated MRE App operating files (*.vxp) will be viewable at all resolutions.

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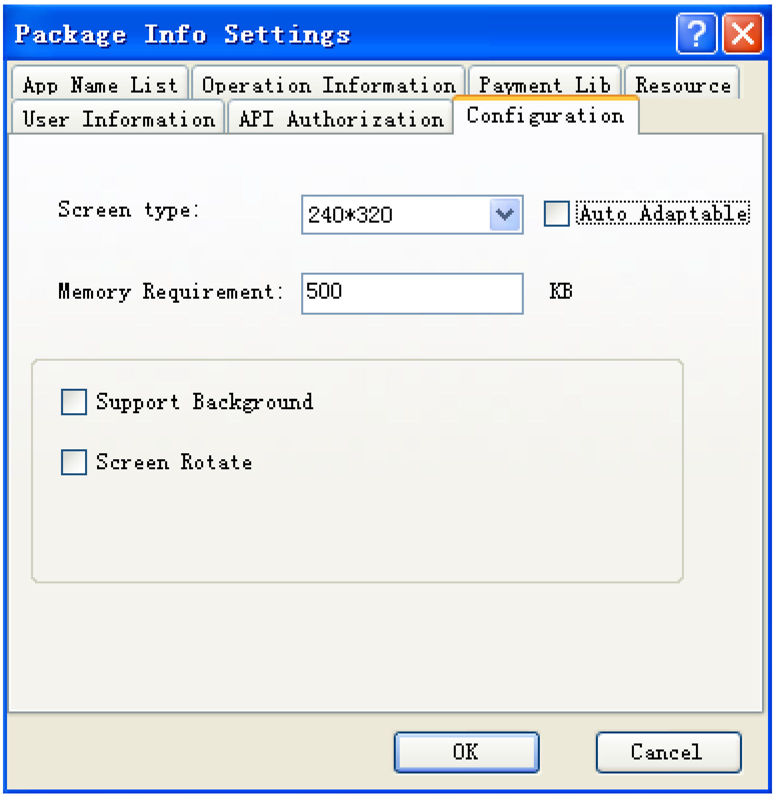

Screen type: 240*320 □ Auto Adaptable

Memory Requirement: 500 KB

□ Support Background

□ Screen Rotate

3.2.5 Compiler Options Settings

Start MRE SDK 2.0 and click the ☑ button to open the Options dialog box:

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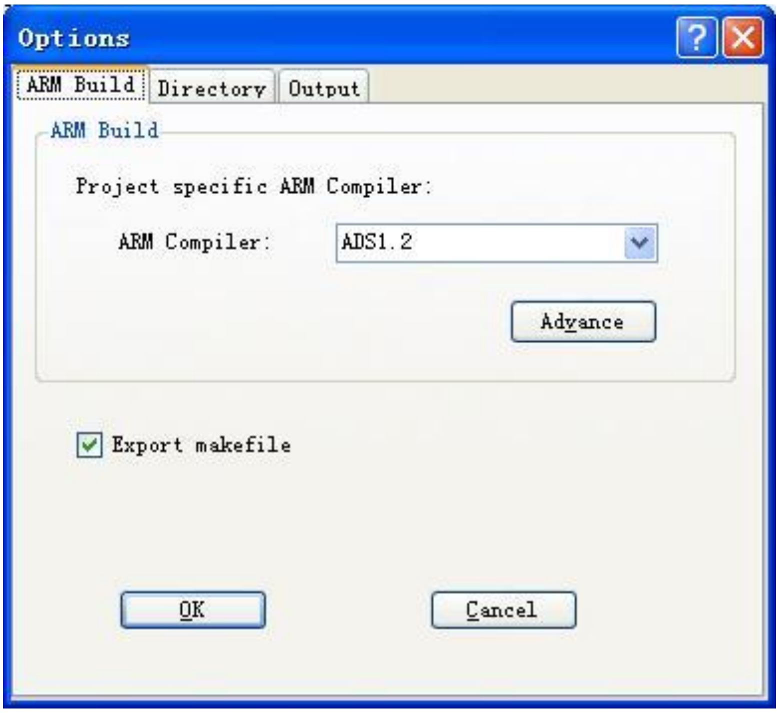

Project specific ARM Compiler:

ARM Compiler: ADS1.2

☑ Export makefile

Selecting the Options dialog box allows the user to choose the compiler type and edit Include files and libraries

3.2.5.1 ARM Build

In the ARM Build page, you can select the compiler type, and you can use the single-click "Advanced" button to edit the compilation order and link parameters.

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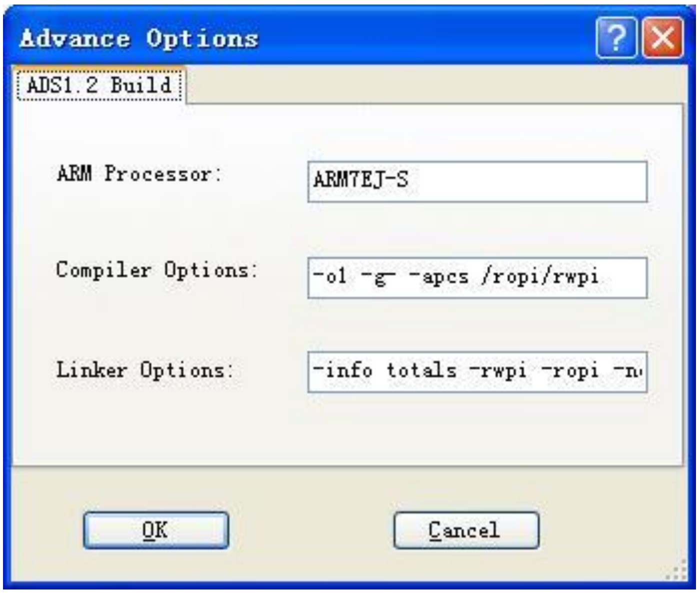


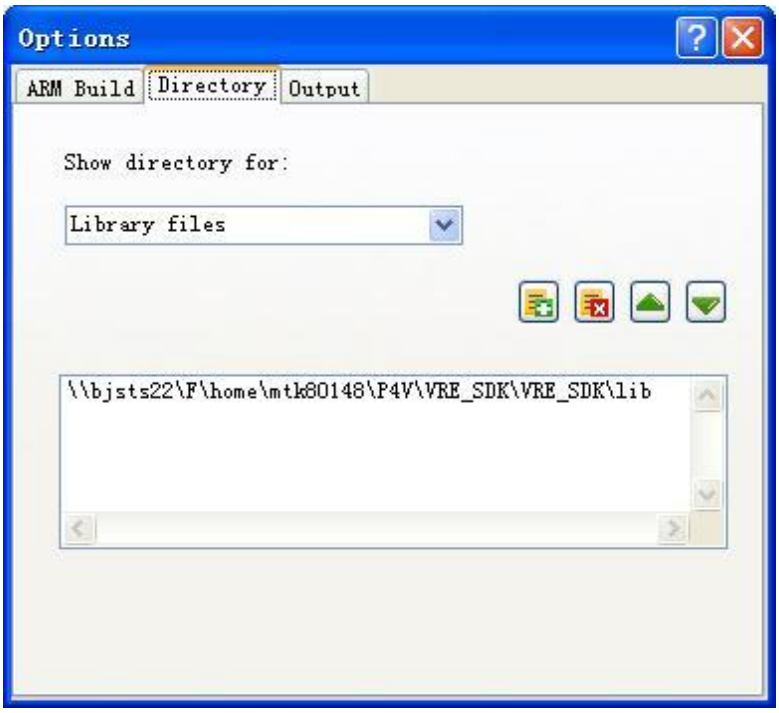
ARM Processor: ARM7EJ-S

Compiler Options: -o1 -g -apcs /ropi/rwpi

Linker Options: -info totals -rwpi -ropi -n

3.2.5.2 Directory

The Directory page provides a place where the user can modify the locations of files and libraries to be included.

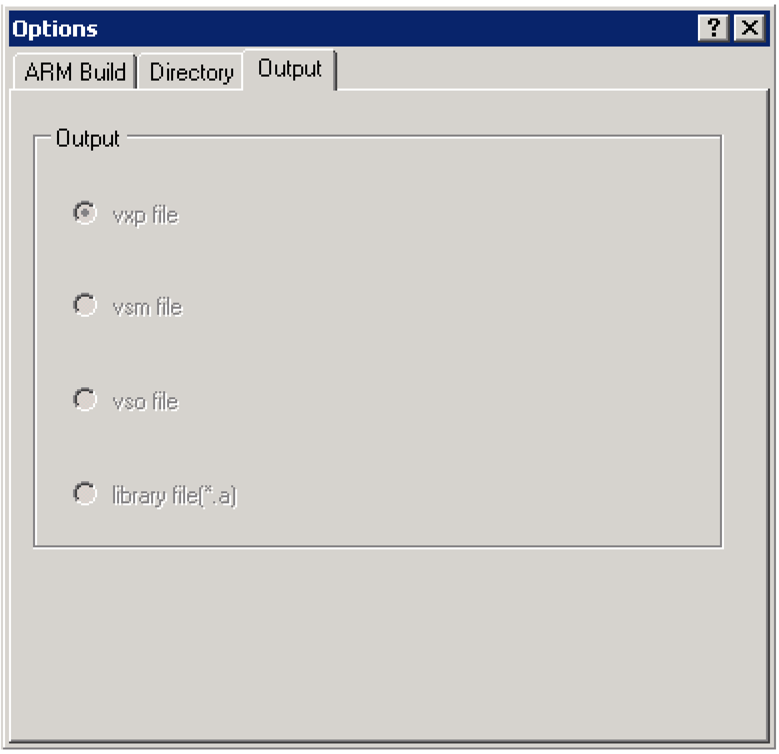


Show directory for: Library files

```
\\bjsts22\F\home\mtk80148\P4V\VRE_SDK\VRE_SDK\lib
```

3.2.5.3 Output

This main purpose of this page is to show the output type selected by the user in the Wizard dialog box; the information cannot be edited.



Output

● vxp file

○ vsm file

○ vso file

○ library file(*.a)

3.2.6 Generating the Application

Launch MRE SDK 2.0 and click on to generate the final application. It will invoke the ARM compiler to compile the MRE application and output the relevant information. The user can click ▾ at the lower right corner to open the Output window.

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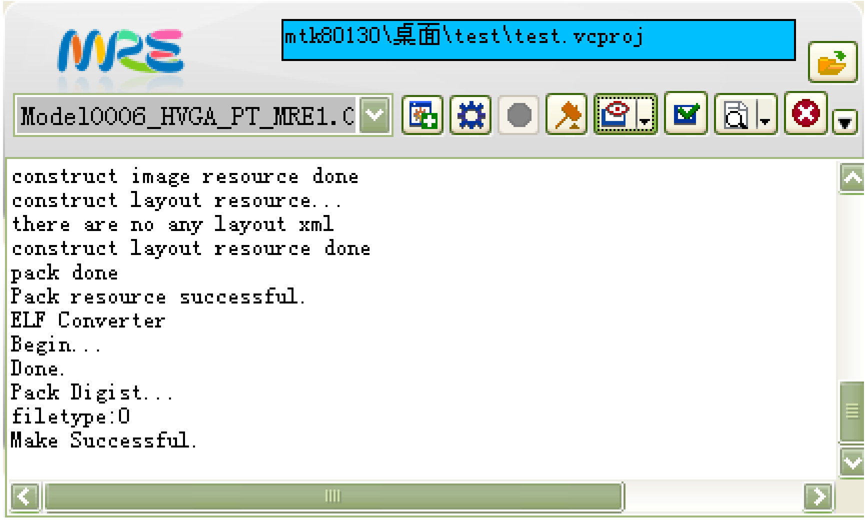


```
construct image resource done
construct layout resource...
there are no any layout xml
construct layout resource done
pack done
Pack resource successful.
ELF Converter
Begin...
Done.
Pack Digist...
filetype:0
Make Successful.
```

3.2.7 Help

Help provides assistance on MRE SDK 2.0. The user can click on the ? drop-down button to open the Help menu, which provides the "Content," "Index," "Find" and the associated dialog box, which displays MRE SDK version information.

3.2.8 Close

The user can click the ⊗ button to minimize MRE SDK to the system tray, or exit Options to close the MRE SDK application via the right-click menu.

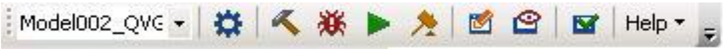
3.3 MRE IDE Plug-in

MRE IDE 2.0 plug-in integrates MRE tools with the Visual Studio 2008 Professional Editor integrated development environment and assists users in developing MRE applications in Visual Studio. Its main functions are as follows:

1. MRE Toolbar
2. Automatic Makefile generation

3.3.1 MRE Toolbar

After having successfully installed MRE SDK 2.0, the user can open Visual Studio 2008 Professional Editor Tool and be able to see the MRE plug-in toolbar on Visual Studio 2008.



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3.3.1.1 Setting Up MRE Plug-in Toolbar

3.3.1.1.1 Removing MRE Plug-in Toolbar

The user can remove the MRE plug-in with the following steps

- Launch Visual Studio 2008 and select Tools->Add-in Manager
- On Available Add-ins, uncheck the MRE Add-in option
- Click OK

3.3.1.1.2 Activating MRE Plug-in Toolbar

User can select View->Toolbars-> MRE Toolbar from Visual Studio 2008 to activate MRE Toolbar, or can also follow the steps below:

- Select Tools->Customize, and choose the Toolbar page from the Customize dialog box
- Select MRE Toolbar
- Click Close

The MRE Add-in Toolbar will then appear on the Visual Studio 2008 toolbar.

3.3.1.1.3 Disabling MRE Plug-in Toolbar

User can select View->Toolbars-> MRE Toolbar from Visual Studio 2008 to uncheck the selection disable MRE Toolbar, or can also follow the steps below:

- Select Tools->Customize, and choose the Toolbar page from the Customize dialog box
- Uncheck MRE Toolbar
- Click OK

The MRE Plug-in Toolbar will then be removed.

3.3.1.2 Compiling, Debugging, Executing and Generating Application

The user can click the 🔨 button to launch Visual Studio 2008 to compile the MRE application. The user can also click the 🐞 button to start Visual Studio 2008 to perform debugging on the MRE application. Finally, the user can click the "run.JPG" button to start Visual Studio 2008 to run the MRE application. Click on the !make.JPG! button to generate the final MRE application.

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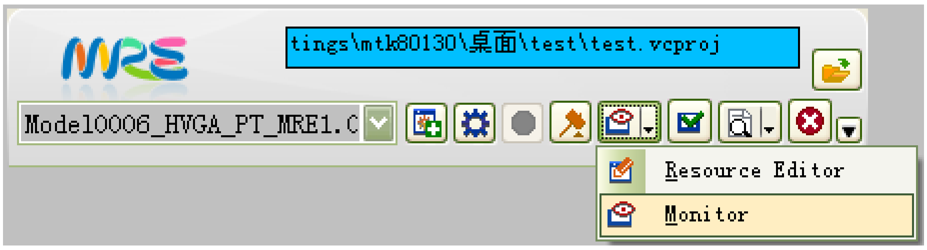
4 Application Monitor

Use the MRE IDE plug-in toolbar or MRE IDE launcher to open the Application Monitor.
The MRE SDK Monitor is a PC-end application procedure used to record cell phone MRE application procedure debugging messages, monitor MRE application procedure resource use, simulate text messages, and make phone calls. Use of these functions can help developers quickly and conveniently develop and debug MRE application procedures.



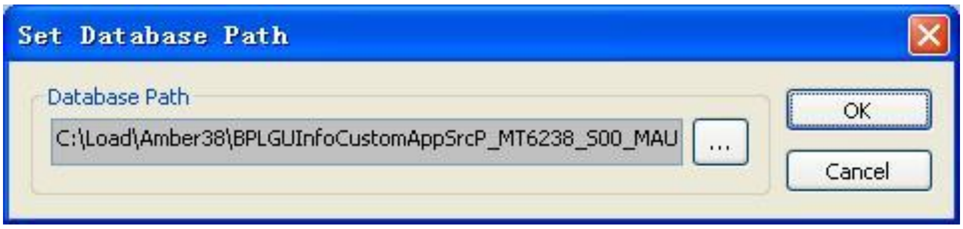
4.1.1 How to Connect

MRE SDK Monitor provides two ways for an application to connect to it
1: Modis - Click on the toolbar to enter the Modis connection mode.
2: Target - Click on the toolbar to enter the phone connection mode.

4.1.2 Configuration

Before connecting, the user must first set up the basic linking configuration, which includes the following two parts.

1. Database settings: click on the menu Config->Set Database Path to bring up the following window.



Database Path: C:\Load\Amber38\BPLGUInfoCustomAppSrcP_MT6238_S00_MAU

Click the "..." button and select the correct database; then click OK to complete the database settings.

2. Port settings: click on menu Config->Configure RS232 to bring up the following window.

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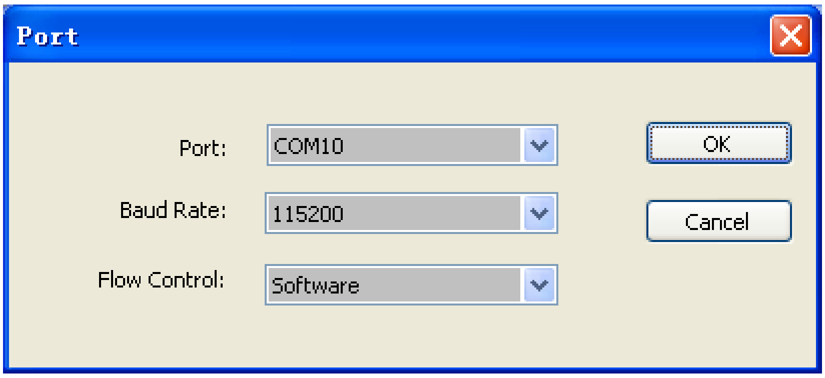


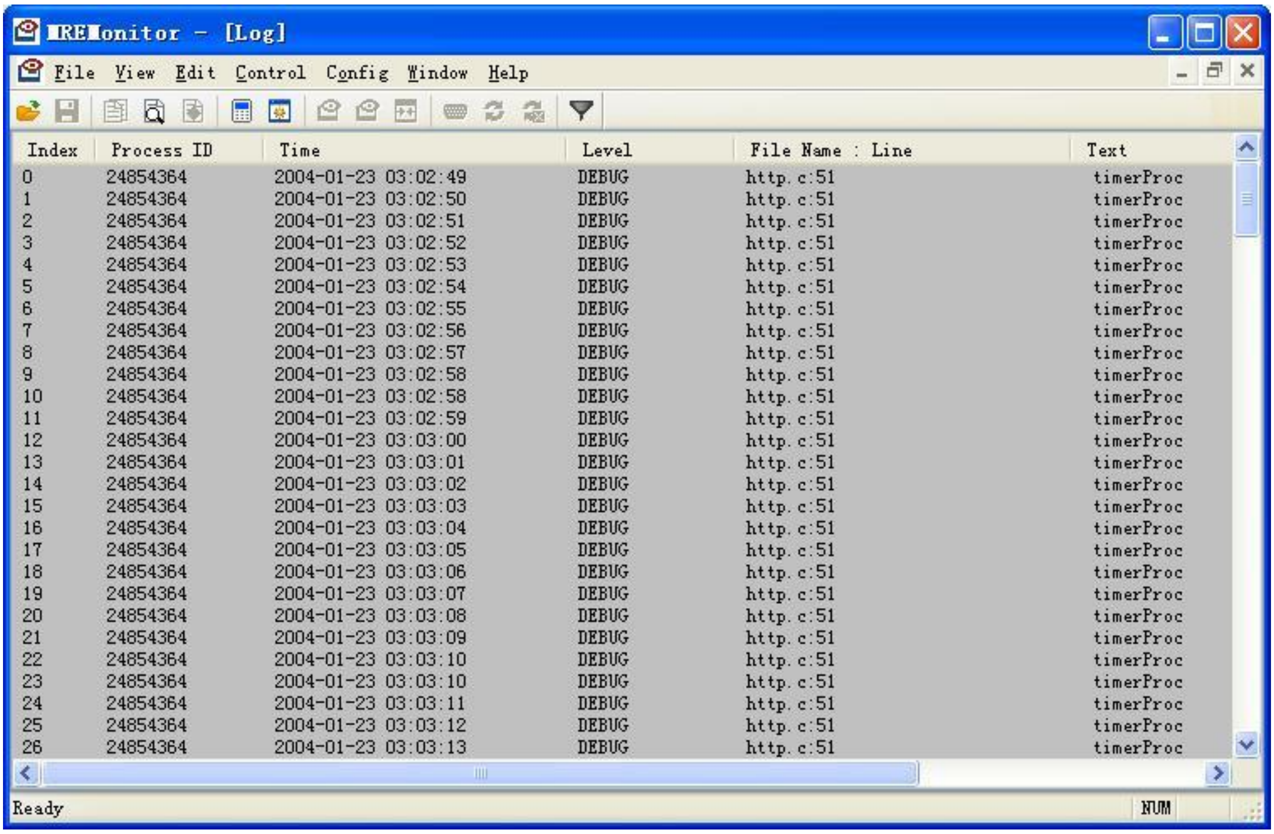
Port: COM10
Baud Rate: 115200
Flow Control: Software

Select the Com Port, Baud Rate and Flow Control corresponding to the handset and then click OK to complete the serial port settings.

Note: It is only necessary to configure serial port settings when connecting to a handset. For connection to Modis, this is not required.

4.1.3 Debug Information Monitor Window

When the MRE Monitor is linked to a handset or Modis, the debugging message monitoring window will be the default display window. You can also click on the toolbar to activate this window. The window will display the developer's application procedure debugging messages.



```
Index  Process ID  Time                 Level  File Name : Line  Text
0      24854364    2004-01-23 03:02:49  DEBUG  http.c:51         timerProc
1      24854364    2004-01-23 03:02:50  DEBUG  http.c:51         timerProc
2      24854364    2004-01-23 03:02:51  DEBUG  http.c:51         timerProc
3      24854364    2004-01-23 03:02:52  DEBUG  http.c:51         timerProc
4      24854364    2004-01-23 03:02:53  DEBUG  http.c:51         timerProc
5      24854364    2004-01-23 03:02:54  DEBUG  http.c:51         timerProc
6      24854364    2004-01-23 03:02:55  DEBUG  http.c:51         timerProc
7      24854364    2004-01-23 03:02:56  DEBUG  http.c:51         timerProc
8      24854364    2004-01-23 03:02:57  DEBUG  http.c:51         timerProc
9      24854364    2004-01-23 03:02:58  DEBUG  http.c:51         timerProc
10     24854364    2004-01-23 03:02:58  DEBUG  http.c:51         timerProc
11     24854364    2004-01-23 03:02:59  DEBUG  http.c:51         timerProc
12     24854364    2004-01-23 03:03:00  DEBUG  http.c:51         timerProc
13     24854364    2004-01-23 03:03:01  DEBUG  http.c:51         timerProc
14     24854364    2004-01-23 03:03:02  DEBUG  http.c:51         timerProc
15     24854364    2004-01-23 03:03:03  DEBUG  http.c:51         timerProc
16     24854364    2004-01-23 03:03:04  DEBUG  http.c:51         timerProc
17     24854364    2004-01-23 03:03:05  DEBUG  http.c:51         timerProc
18     24854364    2004-01-23 03:03:06  DEBUG  http.c:51         timerProc
19     24854364    2004-01-23 03:03:07  DEBUG  http.c:51         timerProc
20     24854364    2004-01-23 03:03:08  DEBUG  http.c:51         timerProc
21     24854364    2004-01-23 03:03:09  DEBUG  http.c:51         timerProc
22     24854364    2004-01-23 03:03:10  DEBUG  http.c:51         timerProc
23     24854364    2004-01-23 03:03:10  DEBUG  http.c:51         timerProc
24     24854364    2004-01-23 03:03:11  DEBUG  http.c:51         timerProc
25     24854364    2004-01-23 03:03:12  DEBUG  http.c:51         timerProc
26     24854364    2004-01-23 03:03:13  DEBUG  http.c:51         timerProc
```

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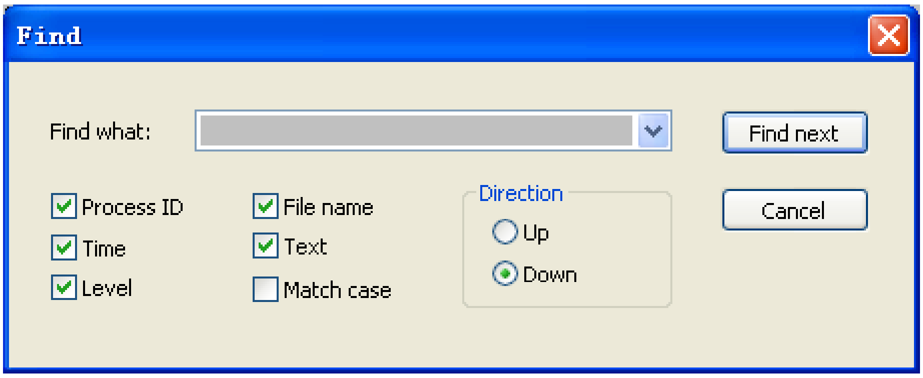
4.1.3.1 Debug Information

1. Index: debugging message number
2. Process ID: MRE application procedure ID value
3. Time: This shows the handset's time when the application outputs the debug information
4. Level: debugging message level
5. File Name: Line: the file and line number where the debugging message is located
6. Text: the text of the debugging message

4.1.3.2 Window Operations

1. Copy debugging messages. When debugging messages have been generated, you can select one line or multiple lines and then click on on the toolbar
2. Find debugging message. Click on on the toolbar to bring up the find window



Find

Find what:

☑ Process ID
☑ Time
☑ Level
☑ File name
☑ Text
☐ Match case

Direction
○ Up
● Down

3. Enter the desired search pattern in the edit box and click the "Find next" button to start the search.
4. Clear debugging messages. Click on on the toolbar to clear the debugging message in the current window
5. Filter settings. Click on on the toolbar to bring up the filter settings window

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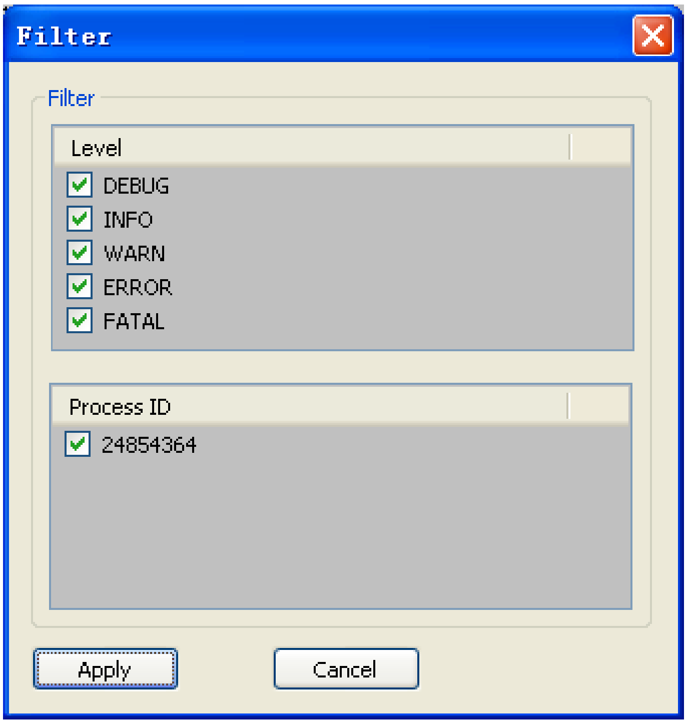

Filter

Filter

Level

☑ DEBUG
☑ INFO
☑ WARN
☑ ERROR
☑ FATAL

Process ID

☑ 24854364

The user can set filters on Level and Process ID. After the filters have been set, click the Apply button to complete the setup.

4.1.3.3 Saving and Opening Debug Info

Debug information can be saved to a file. After the recording of debug information has ceased, the user can click 💾 on the toolbar to save the debug information in the current window to a vlg file.

When you click 📂 on the toolbar to open a vlg file, the corresponding debug information will be displayed in this window.

4.1.4 Resource Usage Status Monitor Window

After the handset has been successfully connected, click 🖥 on the toolbar to open or activate the window.

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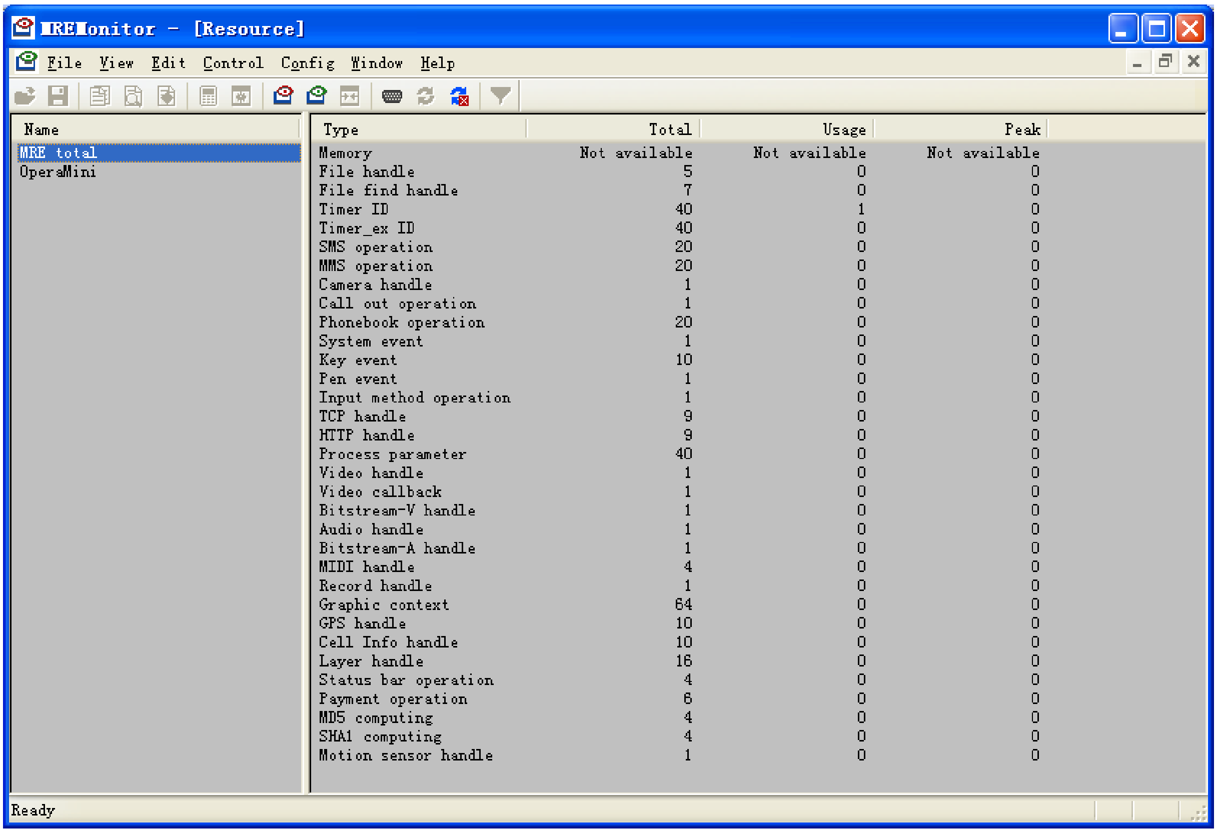


Name
MRE total
OperaMini

Type	Total	Usage	Peak
Memory	Not available	Not available	Not available
File handle	5	0	0
File find handle	7	0	0
Timer ID	40	1	0
Timer_ex ID	40	0	0
SMS operation	20	0	0
MMS operation	20	0	0
Camera handle	1	0	0
Call out operation	1	0	0
Phonebook operation	20	0	0
System event	1	0	0
Key event	10	0	0
Pen event	1	0	0
Input method operation	1	0	0
TCP handle	9	0	0
HTTP handle	9	0	0
Process parameter	40	0	0
Video handle	1	0	0
Video callback	1	0	0
Bitstream-V handle	1	0	0
Audio handle	1	0	0
Bitstream-A handle	1	0	0
MIDI handle	4	0	0
Record handle	1	0	0
Graphic context	64	0	0
GPS handle	10	0	0
Cell Info handle	10	0	0
Layer handle	16	0	0
Status bar operation	4	0	0
Payment operation	6	0	0
MD5 computing	4	0	0
SHA1 computing	4	0	0
Motion sensor handle	1	0	0

The window on the left displays the name of the MRE application procedure. MRE total is a special application procedure name and expresses the overall MRE usage. You can click on the different names to view resource use by each MRE application procedure. When an MRE application procedure is exited, the name of that procedure will automatically disappear.

The right panel shows the current resource usage of each application, including the following:

- Type: resource type
- Total: total resources
- Usage: current usage
- Peak: peak usage value

If the message "Not available" appears under an item, it indicates that the item does not apply to the MRE application.

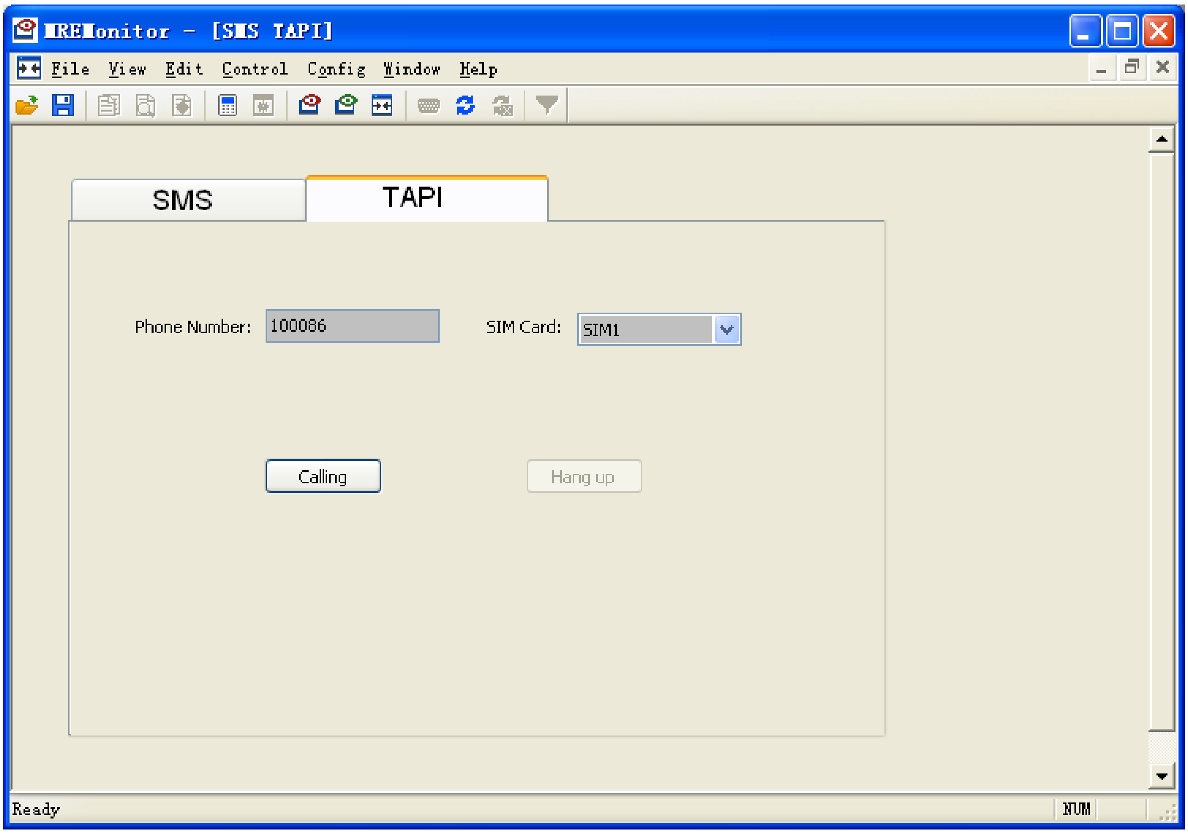
Note: When the MRE Monitor is in connected mode and the data cable is disconnected from the handset or Modis is exited, the next time when a connection is established again, make sure to click on the toolbar to disconnect the current connection and then reconnect again.

4.1.5 SMS and Telephony Emulation Window

When the monitoring tool and Modis (handset emulator) are connected, click on the icon to open the SMS/TAPI window.

The main purpose of this function is to provide a way to test the application's handling capabilities when a text message or incoming call suddenly arrives during the process of application development.

The view consists of two parts. You can click on the label "SMS" or "TAPI" on the tabbed pages to switch between the two tabs.



Phone Number: 100086

SIM Card: SIM1

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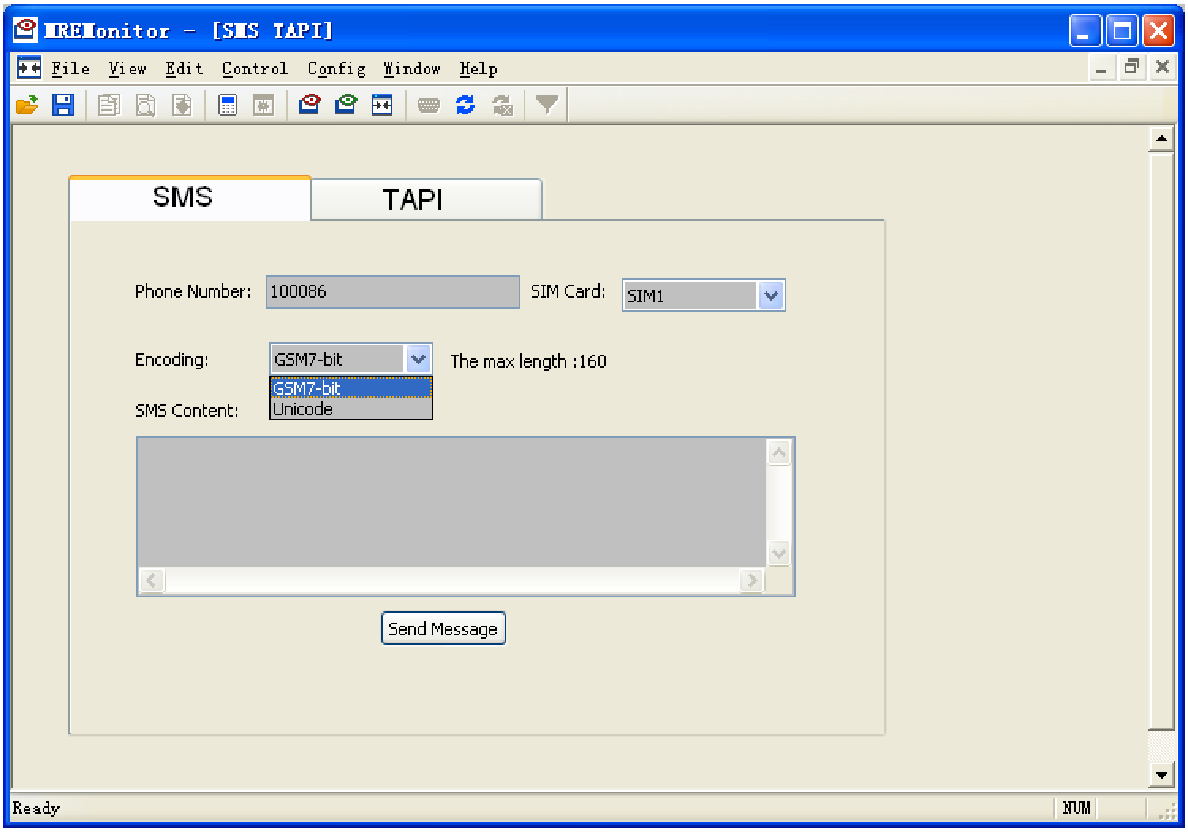
4.1.5.1 Click on the "SMS" page:



Phone Number: 100086
SIM Card: SIM1
Encoding: GSM7-bit
GSM7-bit
Unicode
The max length :160
SMS Content:

- Phone number: The default is 100086; this can be edited, but the number of digits entered may not exceed 11.
- SIM card selection: If Modis can support multiple SIM cards, this can be used to select a different SIM card.
- Encoding: enables selection of either GSM-7 or Unicode encoding.
  - GSM-7: Allows input of a maximum of 160 characters. This method only enables input of letters and numerals; other characters will not be displayed normally by the emulator.
  - Unicode: Allows input of a maximum of 70 characters; apart from enabling the input of letters and numerals, this method also allows input of characters used in many languages, which can be displayed normally on the emulator.
- SMS content: this can edit the content of text messages.
- Send Message button: click on the button to send the content of edited text messages to the emulator. The message's content can be viewed when it is opened in the emulator.

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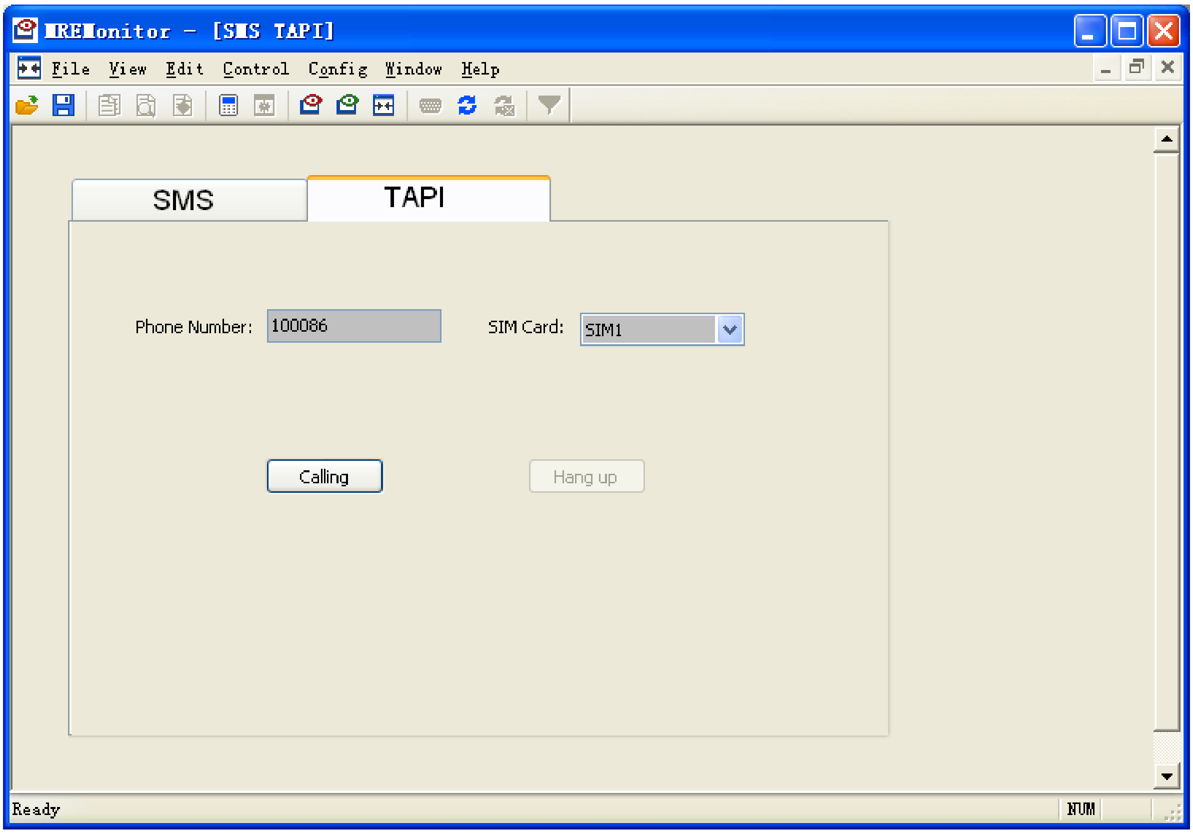
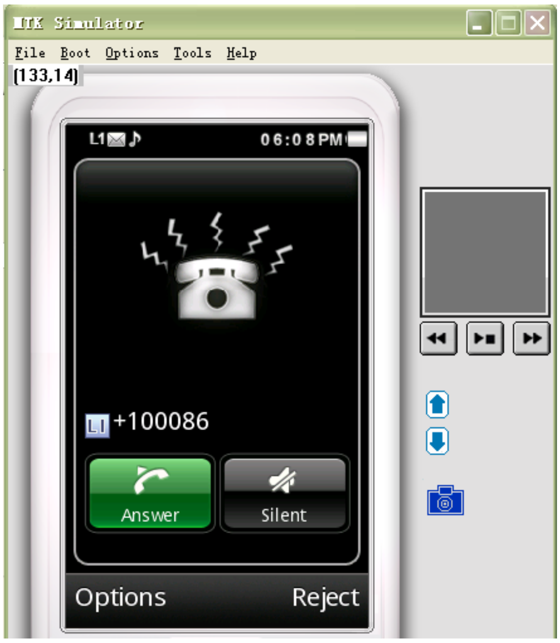
4.1.5.2 Click on the "TAPI" page:



Phone Number: 100086

SIM Card: SIM1

Phone number and SIM card selection are the same as on the "SMS" page. After editing the handset number and selecting a SIM card, click on the "Calling" button; the emulator will receive a call and display the incoming call screen.



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In this case, it is not possible to answer or reject the call through manipulation on the emulator interface. To end the call, click on the "Hang up" button on the "TAPI" tab.

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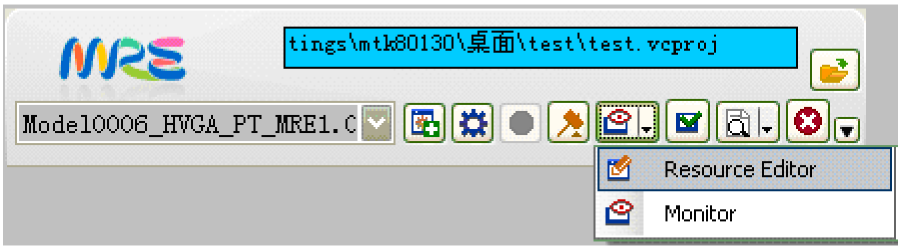
5 ResEditor

The ResEditor interface includes a main interface, toolbar, and menus.



5.1 Main Interface

ResEditor's main interface includes three parts:

1 · Resource tree diagram

2 · Resource editing diagram

3 · Build output diagram

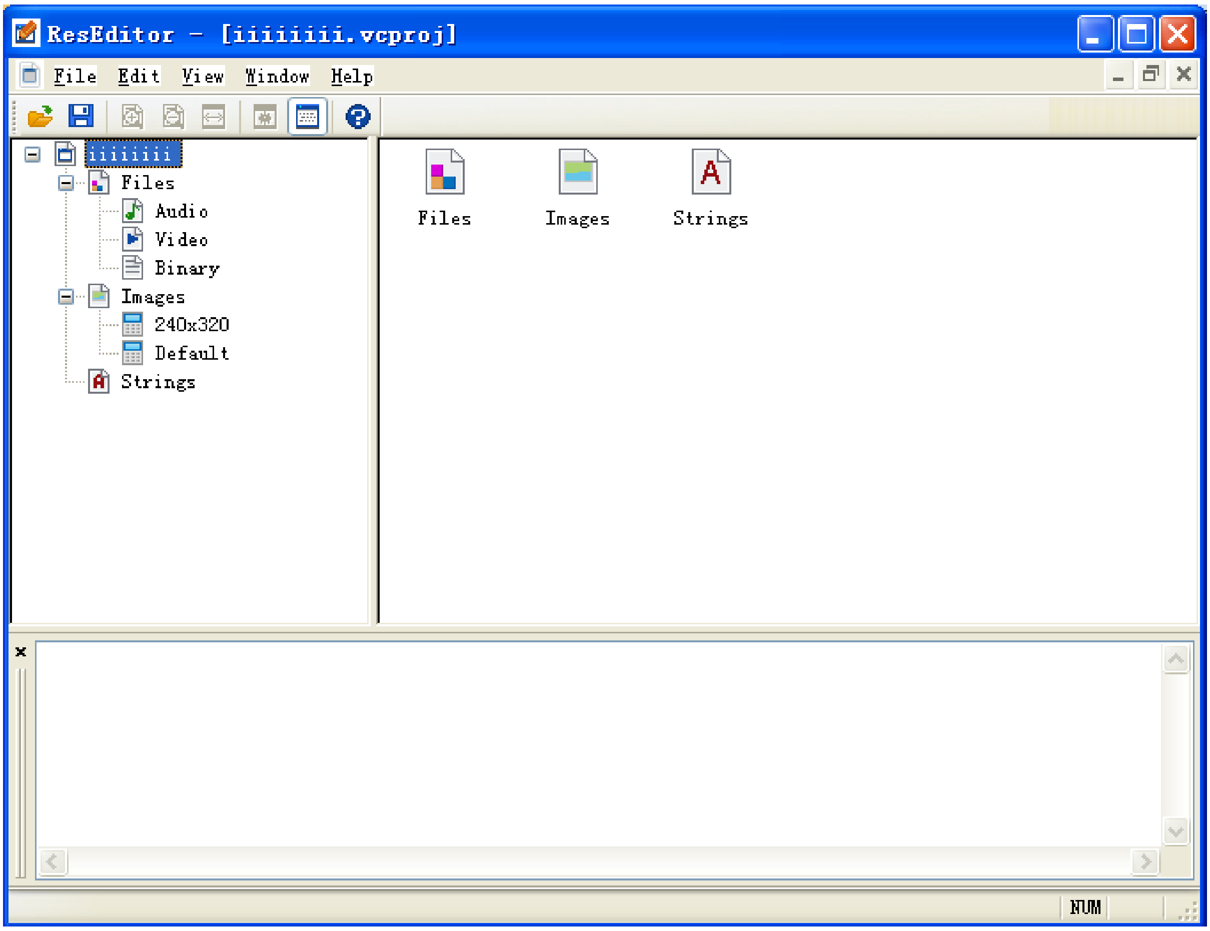


Fig 3-1 Main interface

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5.2 Toolbar

ResEditor's toolbar provides some commonly used functions, such as Open, Save, Enlarge, Shrink, Display/Hide Toolbox, and Display/Hide Build Output Window.

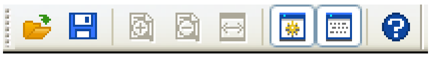


Fig 3-2 Toolbar

5.3 Menus

The menu also provides some commonly used functions, such as the File menu options Open, Close, Save, Import from Excel, Export to Excel, and Exit.

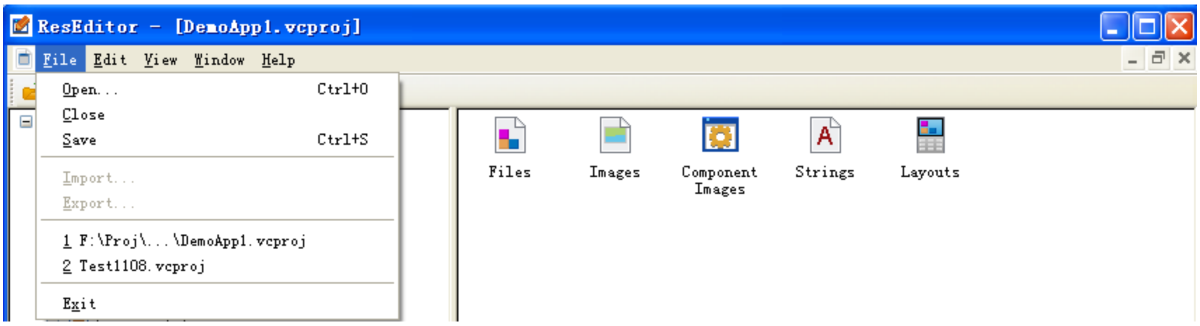
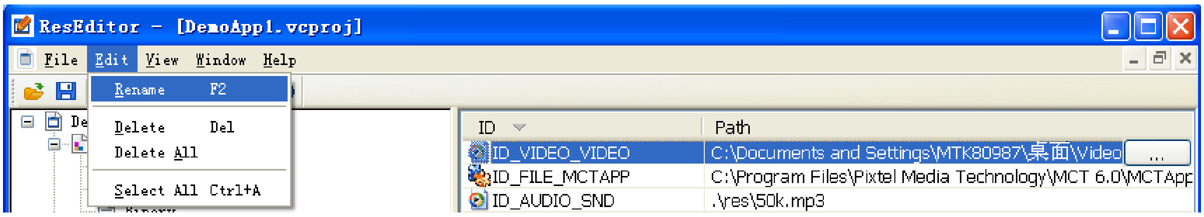


Fig 3-3 File Menu

Edit menu items consist of Rename, Delete, Delete All, and Select All.



ID	Path
ID_VIDEO_VIDEO	C:\Documents and Settings\MTK80987\桌面\Video
ID_FILE_MCTAPP	C:\Program Files\Pixtel Media Technology\MCT 6.0\MCTApp
ID_AUDIO_SND	.\res\50k.mp3

Fig 3-4 Edit Menu

View menu items consist of Display/Hide Toolbar, Status Bar, Toolbox, Build Output Window, Zoom In, Zoom Out, Fit View, and Adjust Split Field Position.

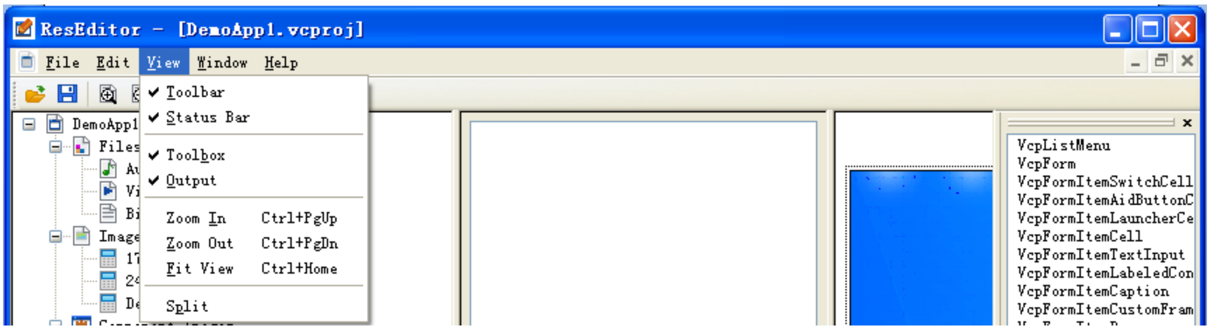


Fig 3-5 View Menu

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5.4 Using ResEditor

ResEditor is chiefly used to edit various types of resources that are applicable to MRE SDK 2.0, including video, audio, binary, images, component images, character strings, and layouts. ResEditor is also responsible for converting these resources from their specific data format to binary data, which is packaged as AXF or DLL files.

5.5 Opening ResEditor

ResEditor can be opened using the MRE Launcher tool. A project path should be specified before opening ResEditor; please refer to the user manual for MRE Launcher usage.

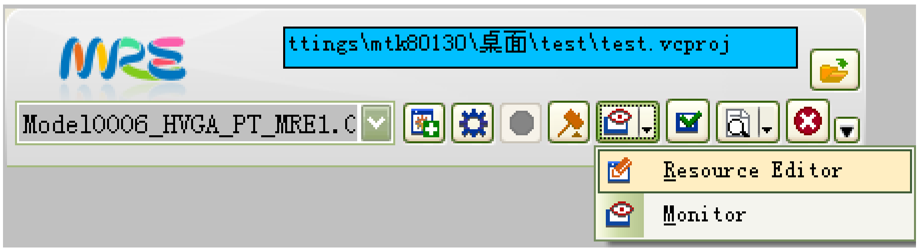

Fig 4-1 Opening from MRE Launcher

When MRE SDK 2.0 has been installed, ResEditor can also be opened from the VS2008 MRE plug-in toolbar after a project has been established.

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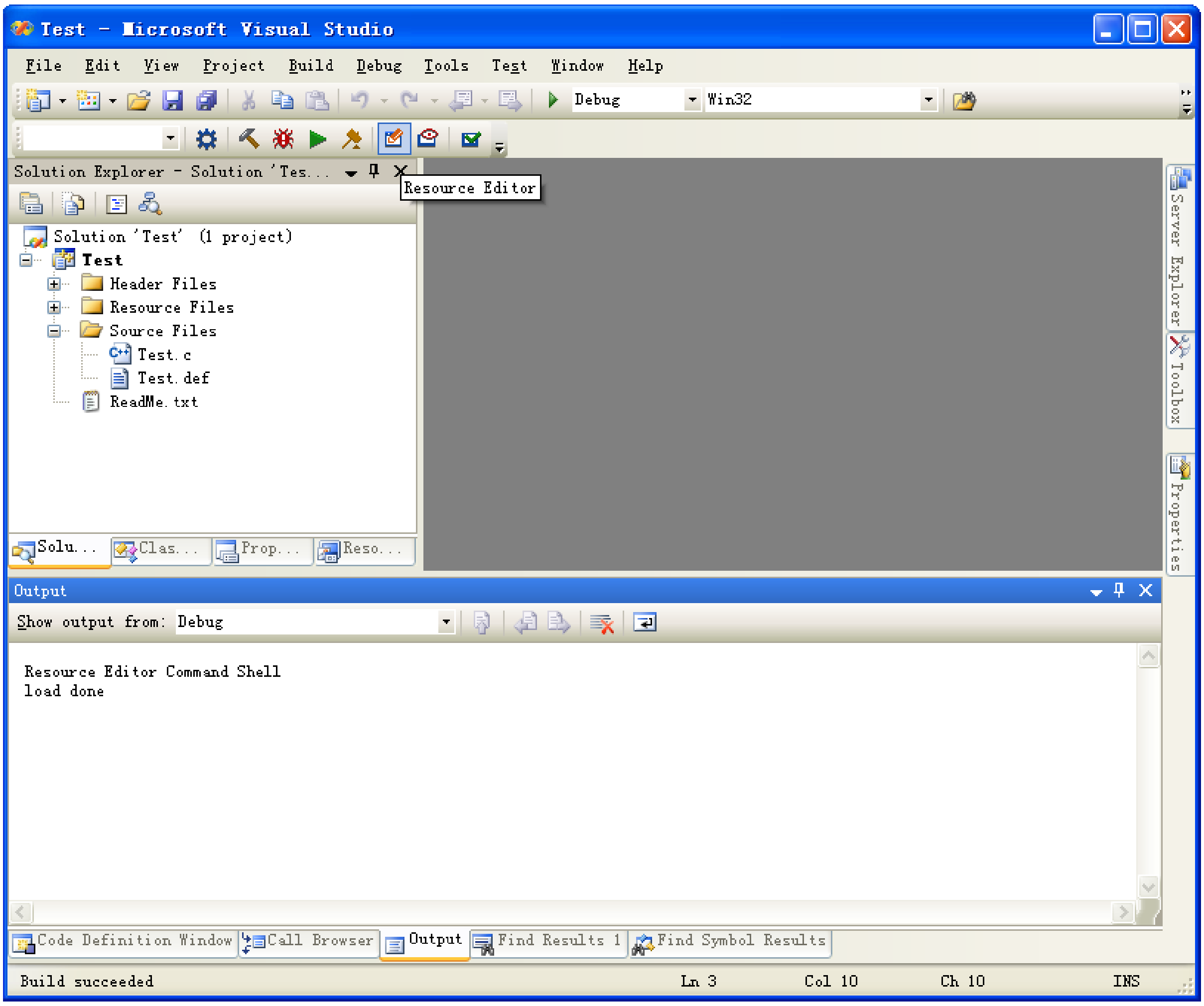

```
Resource Editor Command Shell
load done
```

Fig 4-2 Opening from plug-in toolbar

You can also directly open a procedure; executable file will be in the "%installpath%tools\ResEditor\" folder

5.6 Editing Resources

Five types of resources are supported by ResEditor: files, images, component images, character strings, and layouts

5.6.1 File Resources

File resources include video, audio, and binary types; ResEditor uses the same editing method for each type.

5.6.1.1 ID Naming Rules

The following naming rules are used for IDs used as resource labels:

1、 The ID length cannot be greater than 64

2、 The initial character cannot be 0-9

3、 All characters must be A - Z, a - z, 0 - 9, or ‘_’

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5.6.1.2 Adding Resources

You can double click to edit the ID in the view as <NEW> to add a new resource, as shown in the following illustration:

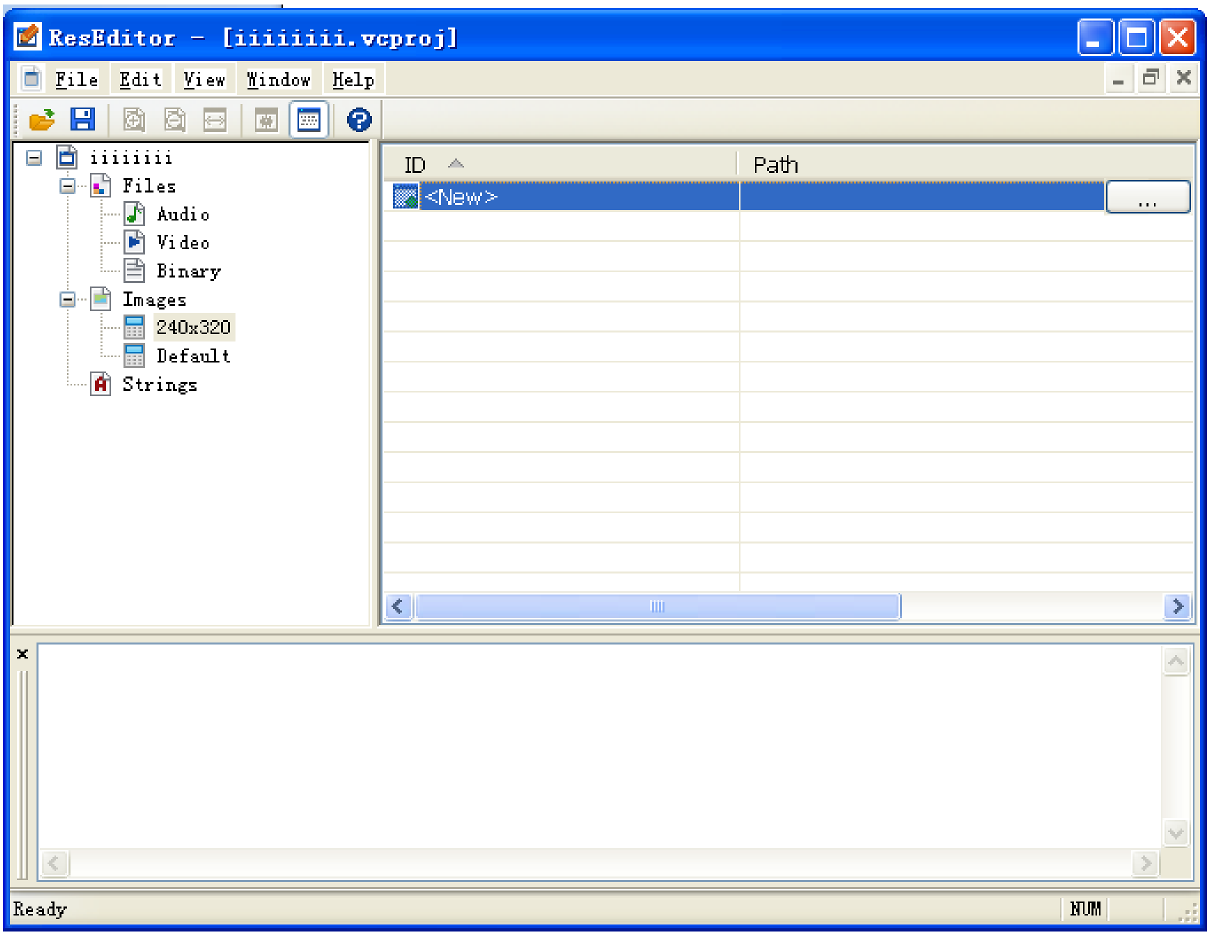

Fig 4-3 Designating ID as <NEW>

After double clicking, the ID will be editable. You can now input your own ID. An ID must comply with the naming rules in 4.2.1.1, otherwise the system will provide a reminder.

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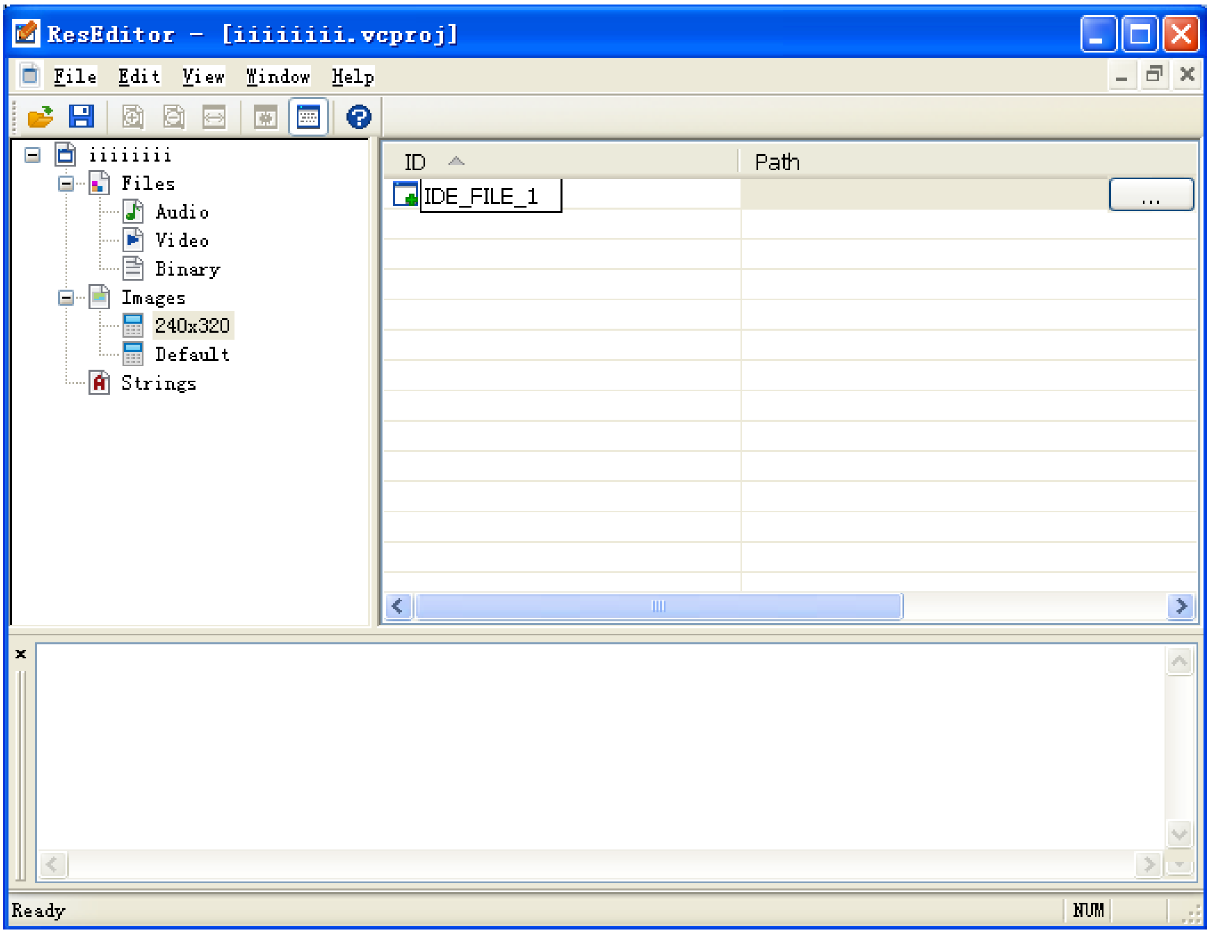

Fig 4-4 Inputting an ID

After entering an ID, click on the ... button to select the resource file corresponding to the ID:

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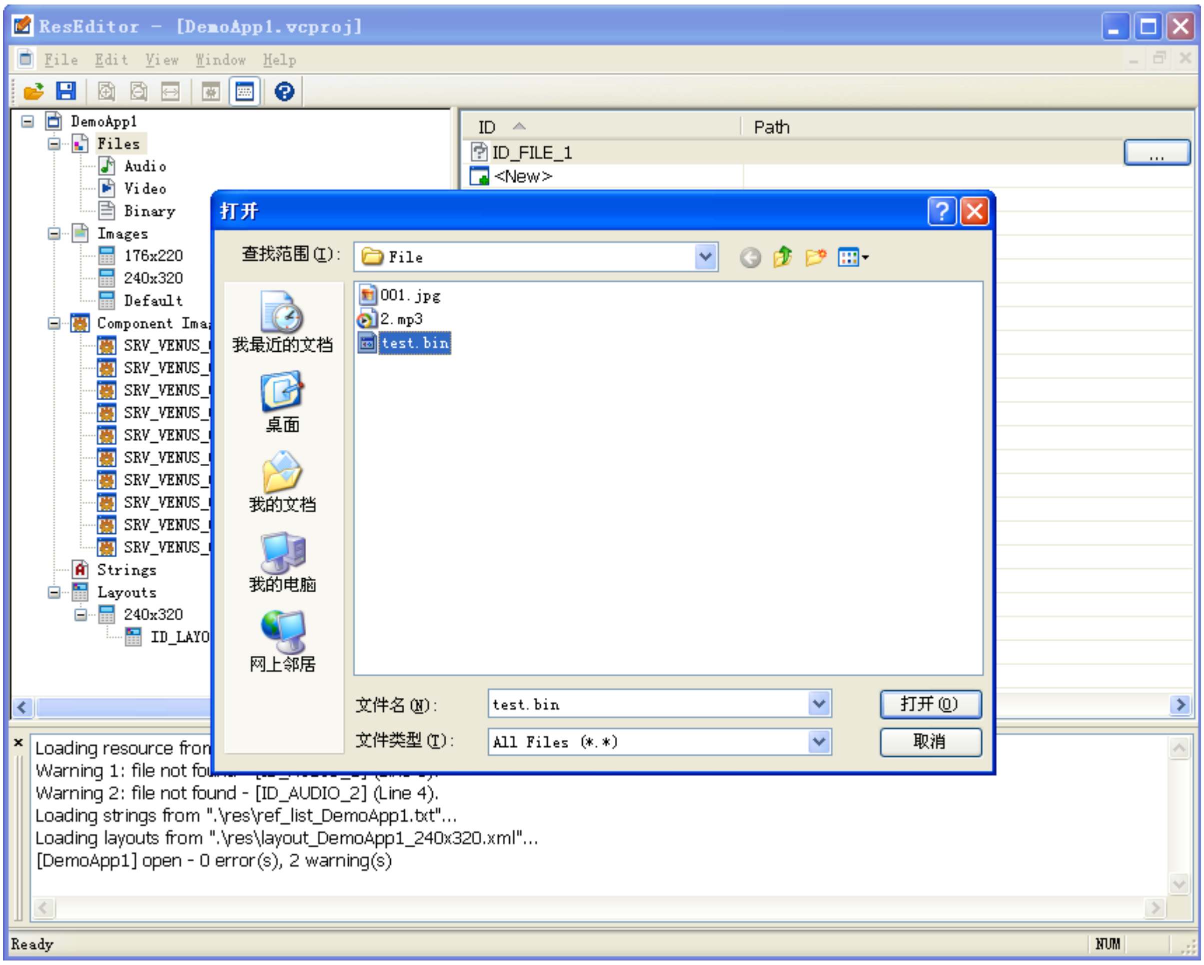

查找范围(I): File

文件名(N): test.bin

文件类型(T): All Files (*.*)

```
Loading resource fro
Warning 1: file not fo
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-5 Selecting a resource file

After selecting a resource file, click on the "open" button, and the resource file path will be displayed in the Path pane

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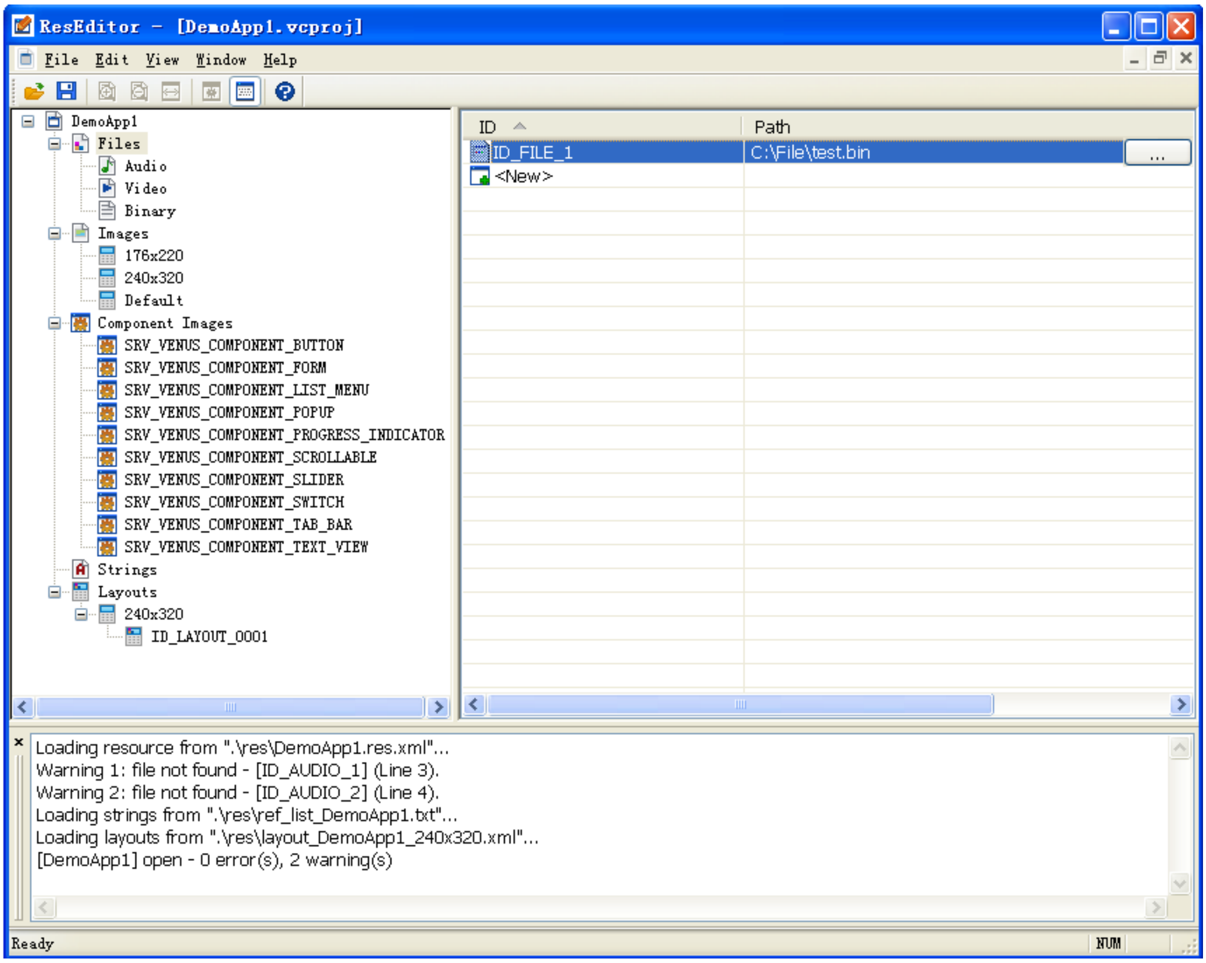
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
...
Ready
NUM

ID	Path
ID_FILE_1	C:\File\test.bin
<New>	

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-6 Path display

If you do not plan to input a resource ID, you can simply click on the ... button to select a file. After selecting a resource file, ResEditor will automatically generate an ID for the resource.

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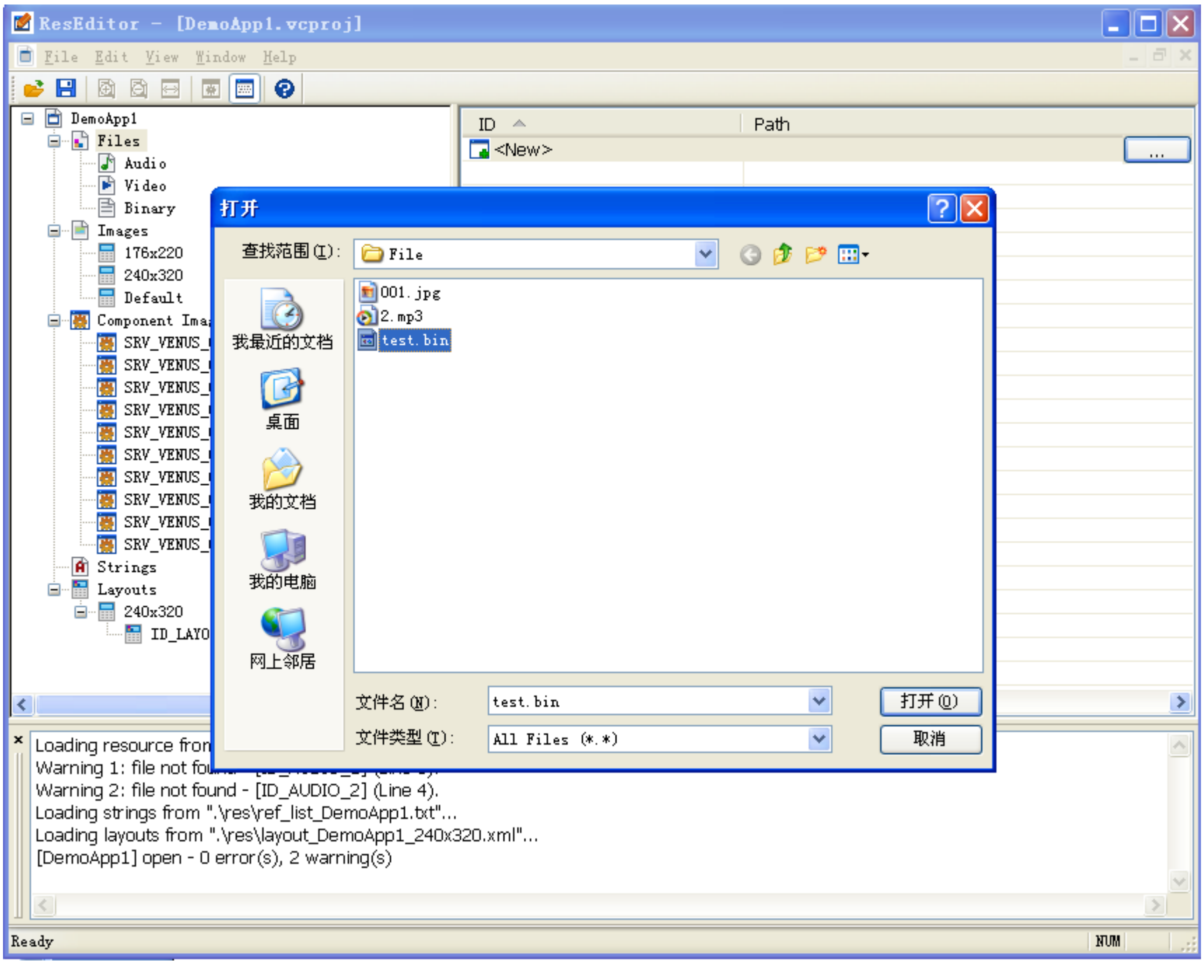

```
Loading resource fron
Warning 1: file not fo
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-7 Directly selecting a resource file

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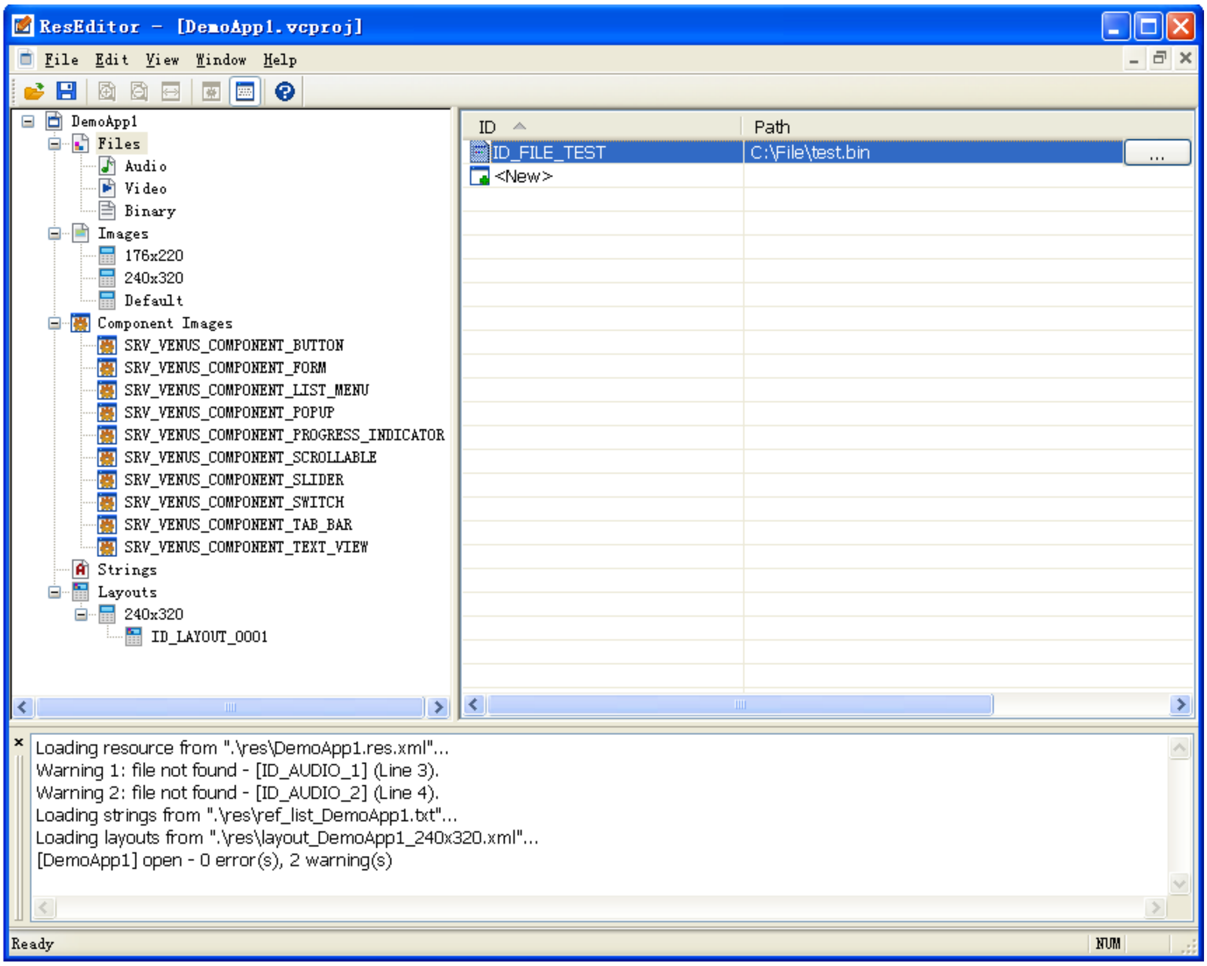
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
Ready
NUM

ID	Path
ID_FILE_TEST	C:\File\test.bin
<New>	

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-8 Using an automatic ID

5.6.1.3 Inserting Resources

ResEditor supports the one-time addition of multiple file resources. Right-click on the resource editing pane; after calling up the menu, select Import or click on the menu File->Import to access this function.

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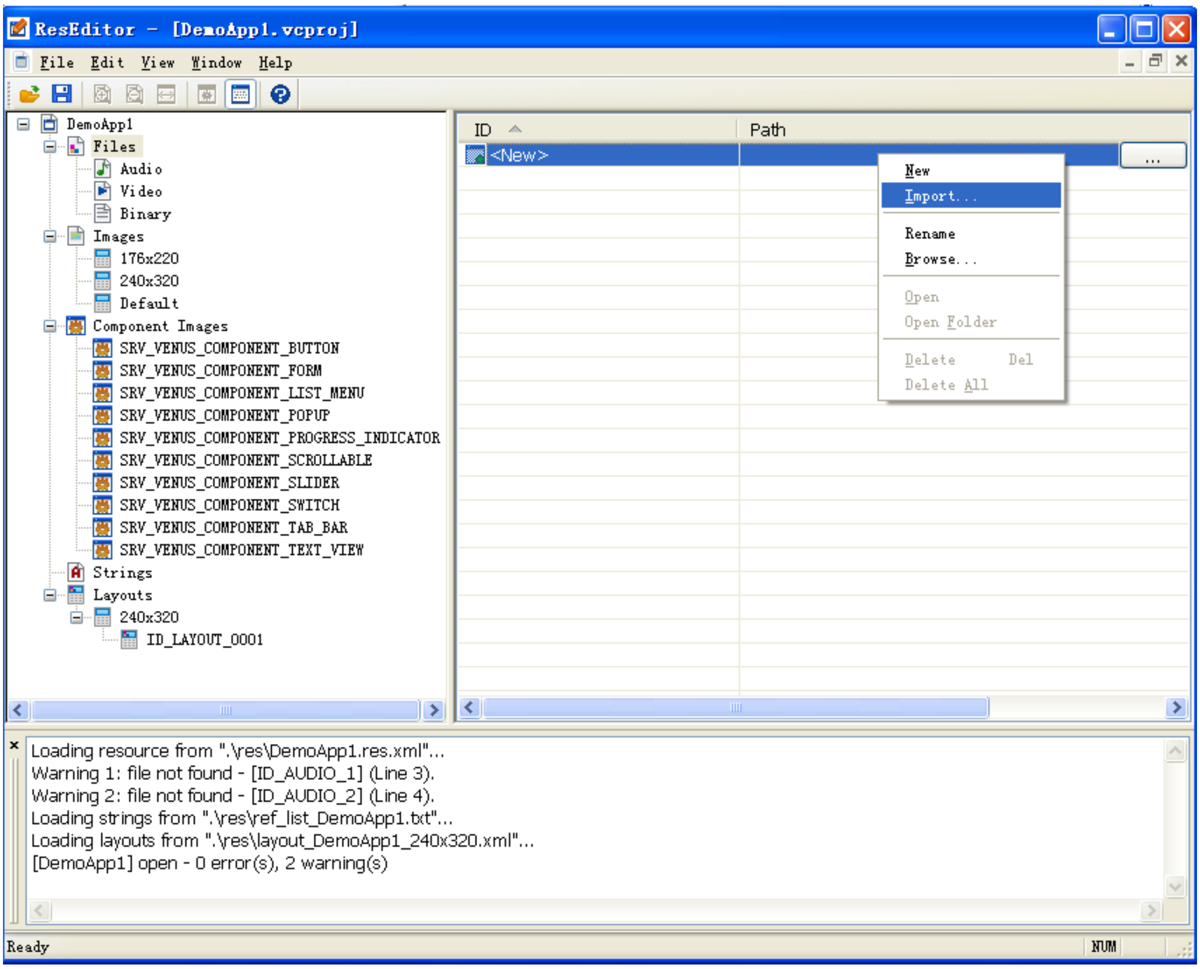
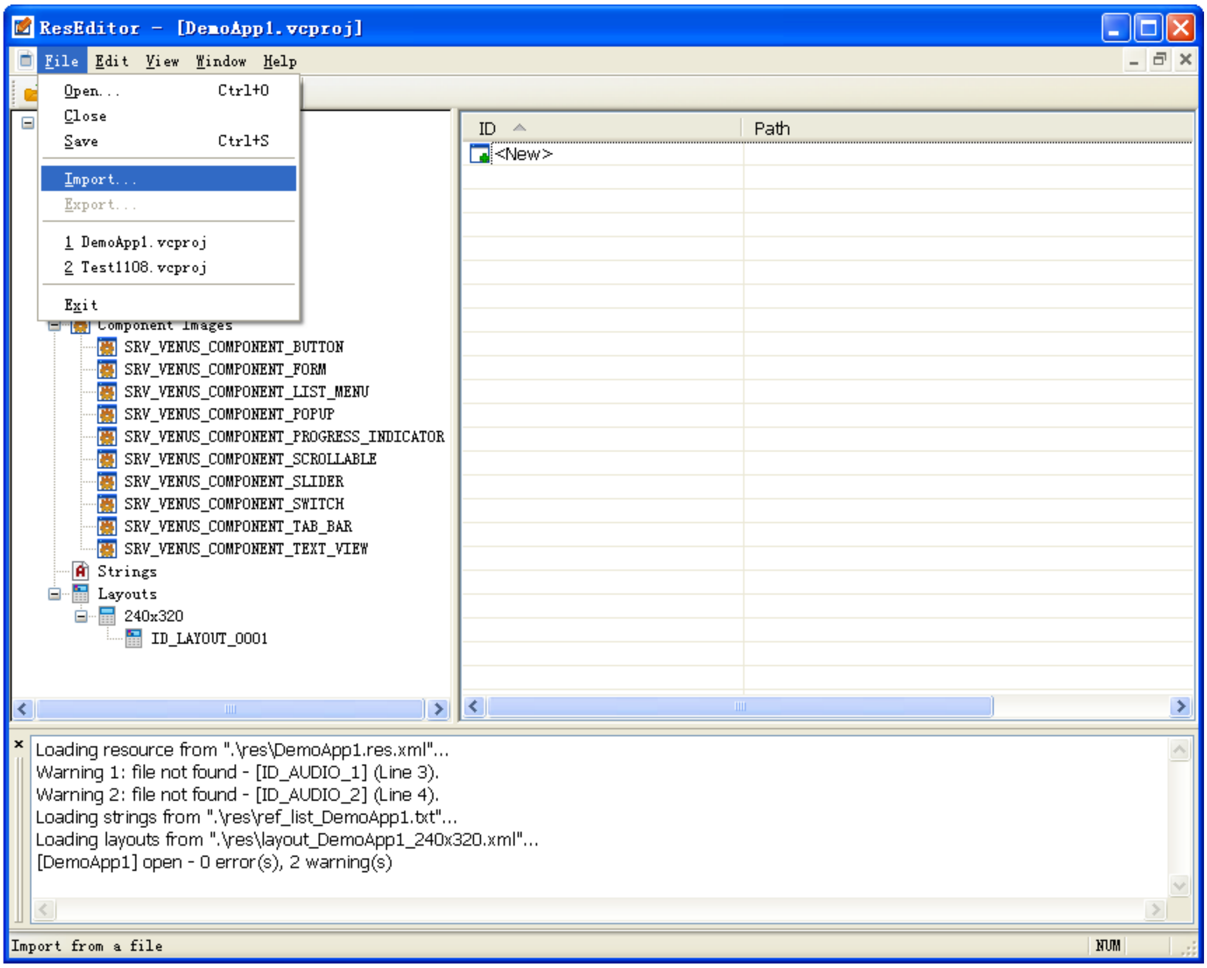

ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
ID
Path
<New>
...
New
Import...
Rename
Browse...
Open
Open Folder
Delete Del
Delete All
Ready
NUM

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-9 Right-click options


ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
Open... Ctrl+O
Close
Save Ctrl+S
Import...
Export...
1 DemoApp1.vcproj
2 Test1108.vcproj
Exit
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
ID
Path
<New>
Import from a file
NUM

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-10 Selecting from the menu

After selecting the Import option, a file selection dialog box will appear, allowing you to select resource files; you can select multiple files.

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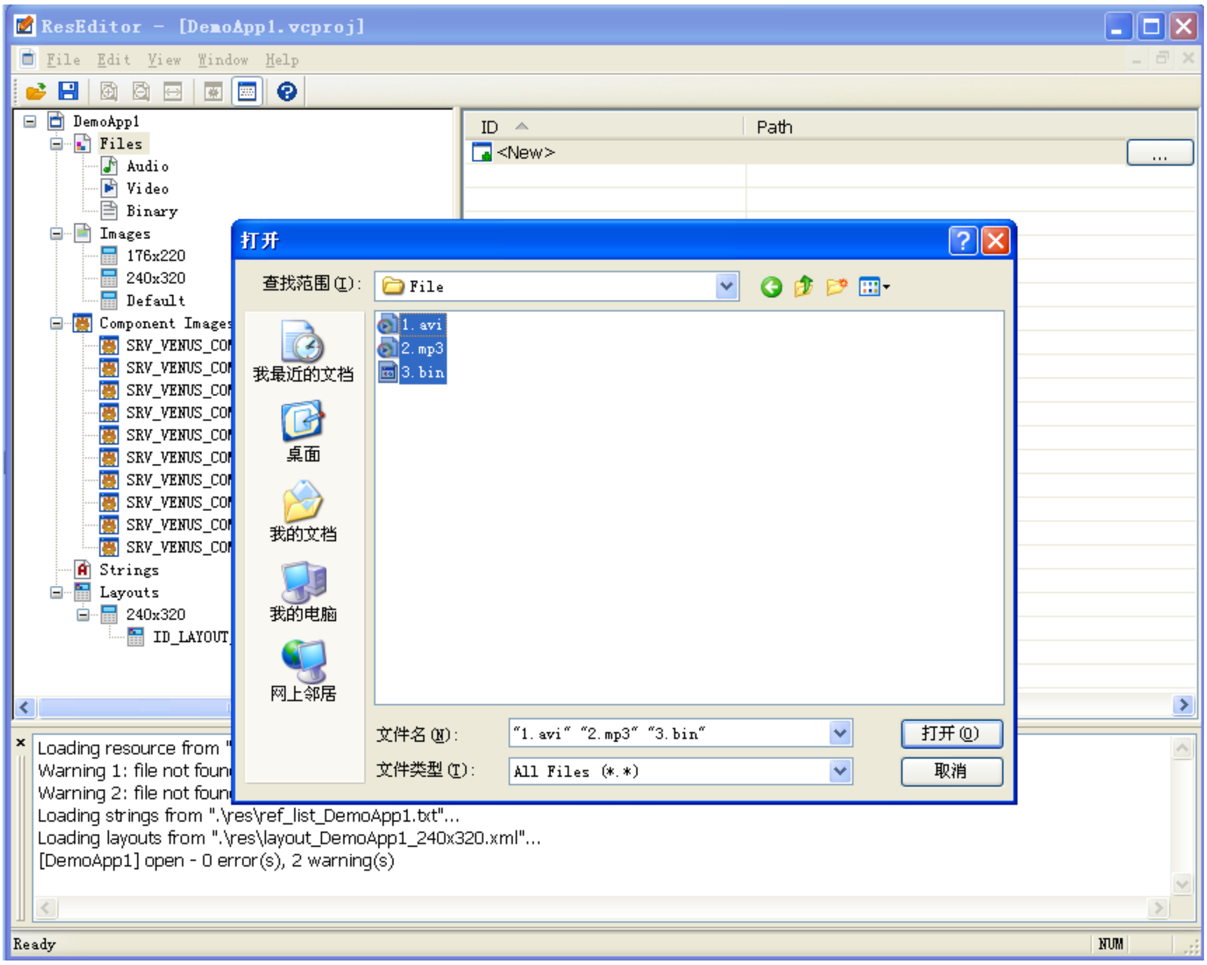

文件名(N): "1. avi" "2. mp3" "3. bin"

文件类型(T): All Files (*.*)

```
Loading resource from "
Warning 1: file not foun
Warning 2: file not foun
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-11 Selecting multiple files

After you click on Open to select the resource file(s), ResEditor will automatically assign IDs to the selected resource files.

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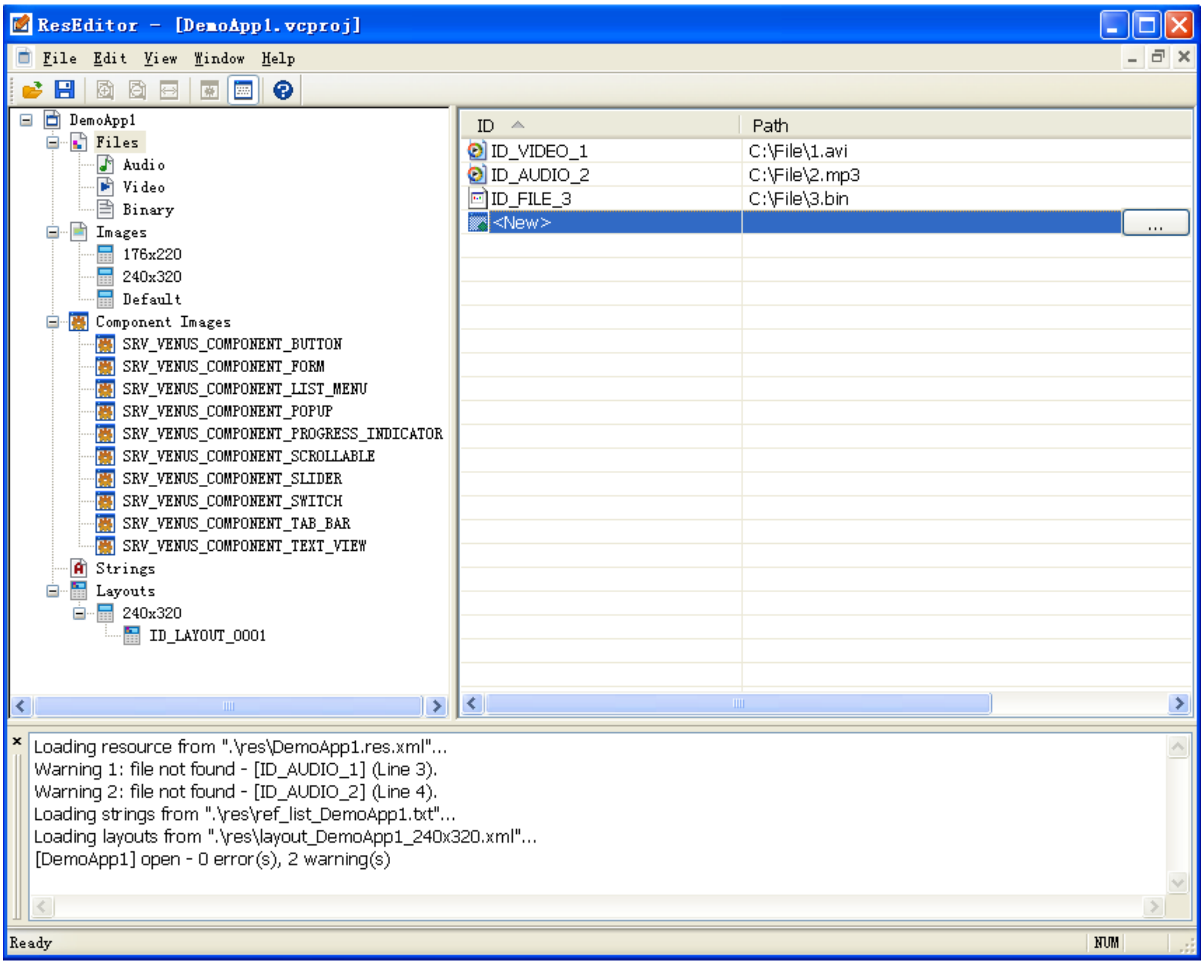
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
...
Ready
NUM

ID	Path
ID_VIDEO_1	C:\File\1.avi
ID_AUDIO_2	C:\File\2.mp3
ID_FILE_3	C:\File\3.bin
<New>	

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-12 Adding multiple resources

5.6.1.4 Editing resources

In the case of file resources, you can edit the ID corresponding to the resource and the corresponding resource file; to change the ID corresponding to the resource, right click on the resource pane, and select "Rename" from the menu that appears.

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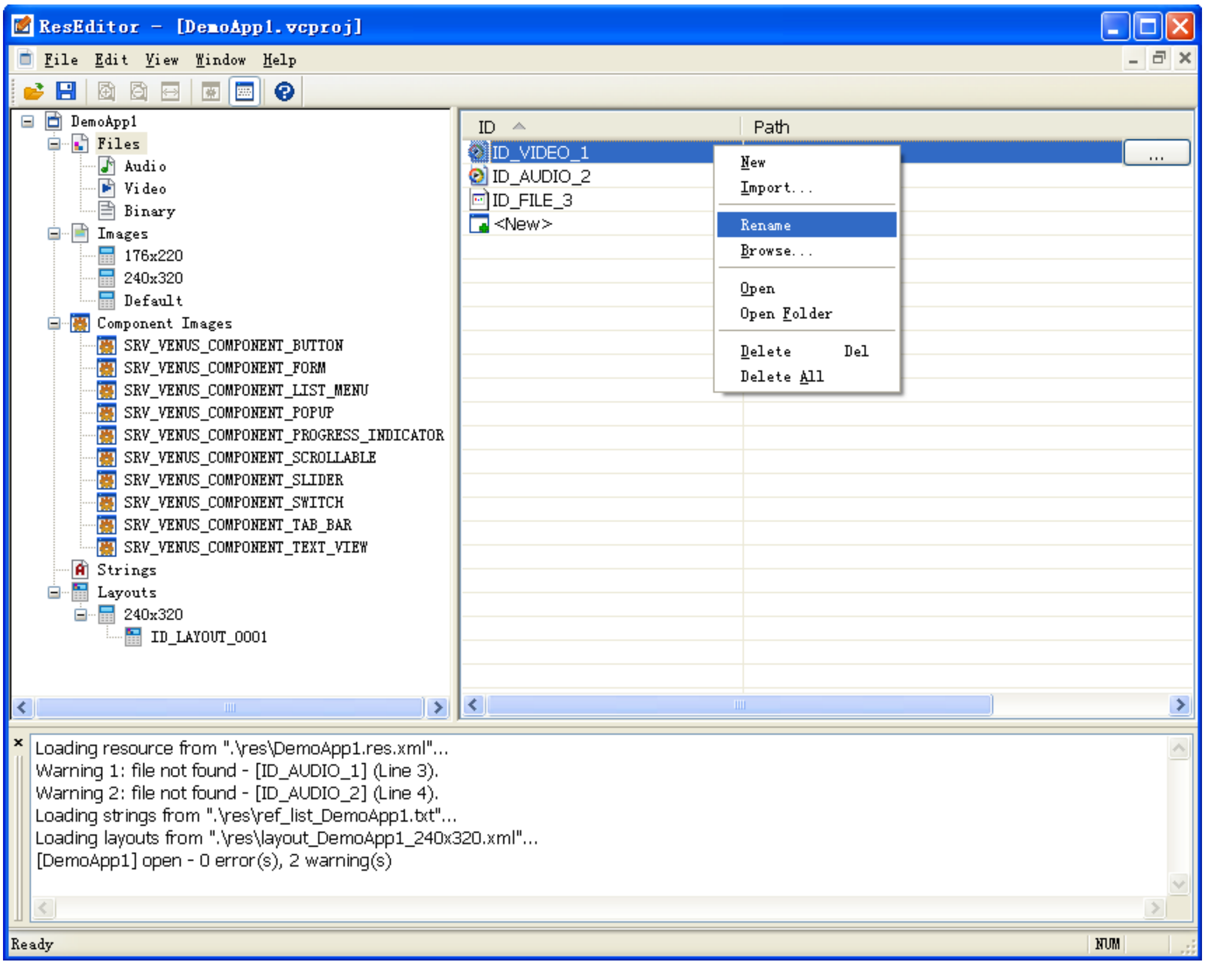
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
ID
Path
ID_VIDEO_1
ID_AUDIO_2
ID_FILE_3
<New>
...
New
Import...
Rename
Browse...
Open
Open Folder
Delete Del
Delete All
Ready
NUM

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-13 Renaming an ID

You can also double click the editing frame of an ID corresponding to the resource to function; the resource ID will be editable after double clicking on it or selecting the "Rename" option.

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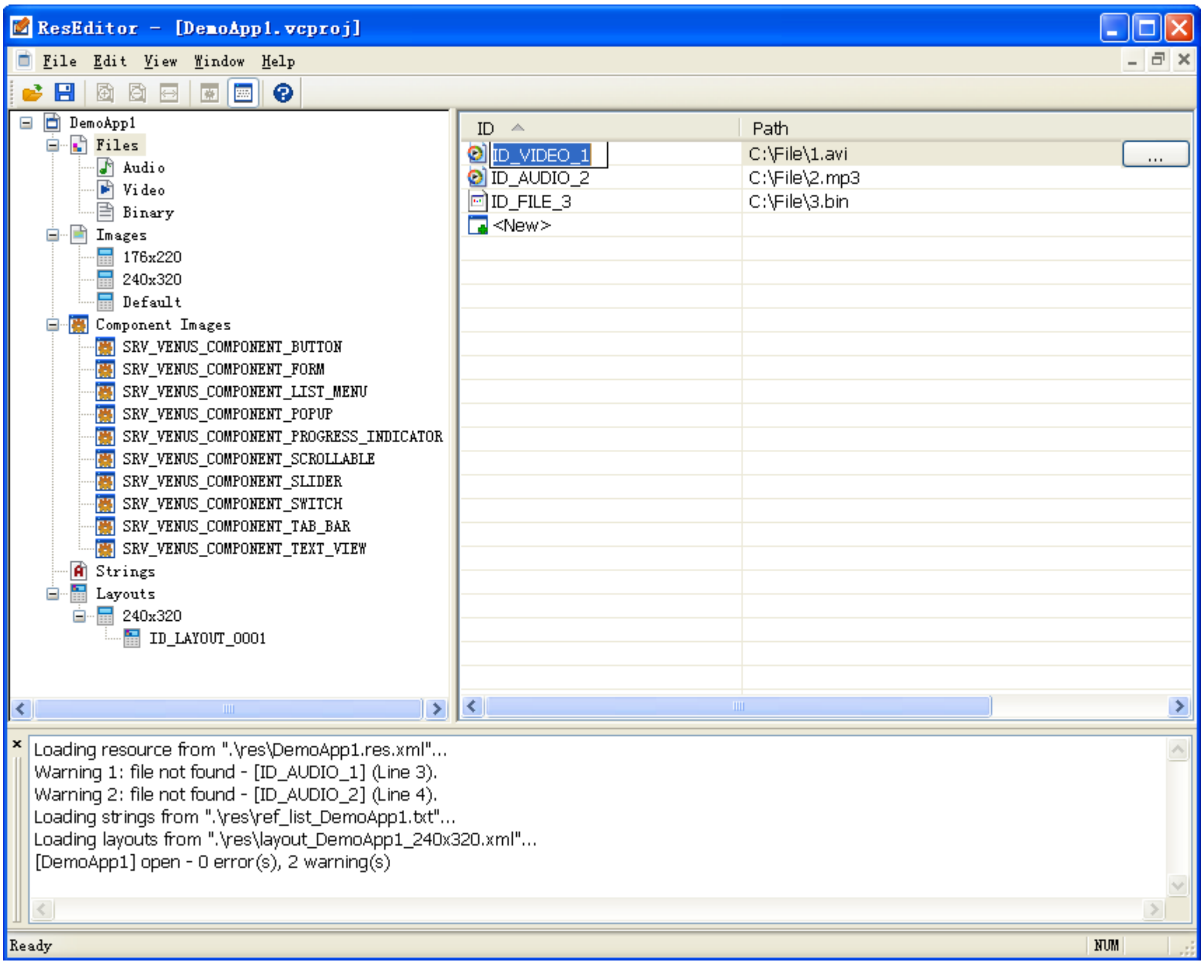
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
Ready
NUM

ID	Path
ID_VIDEO_1	C:\File\1.avi
ID_AUDIO_2	C:\File\2.mp3
ID_FILE_3	C:\File\3.bin
<New>	

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-14 Editing a resource ID

Enter the ID you wish to change

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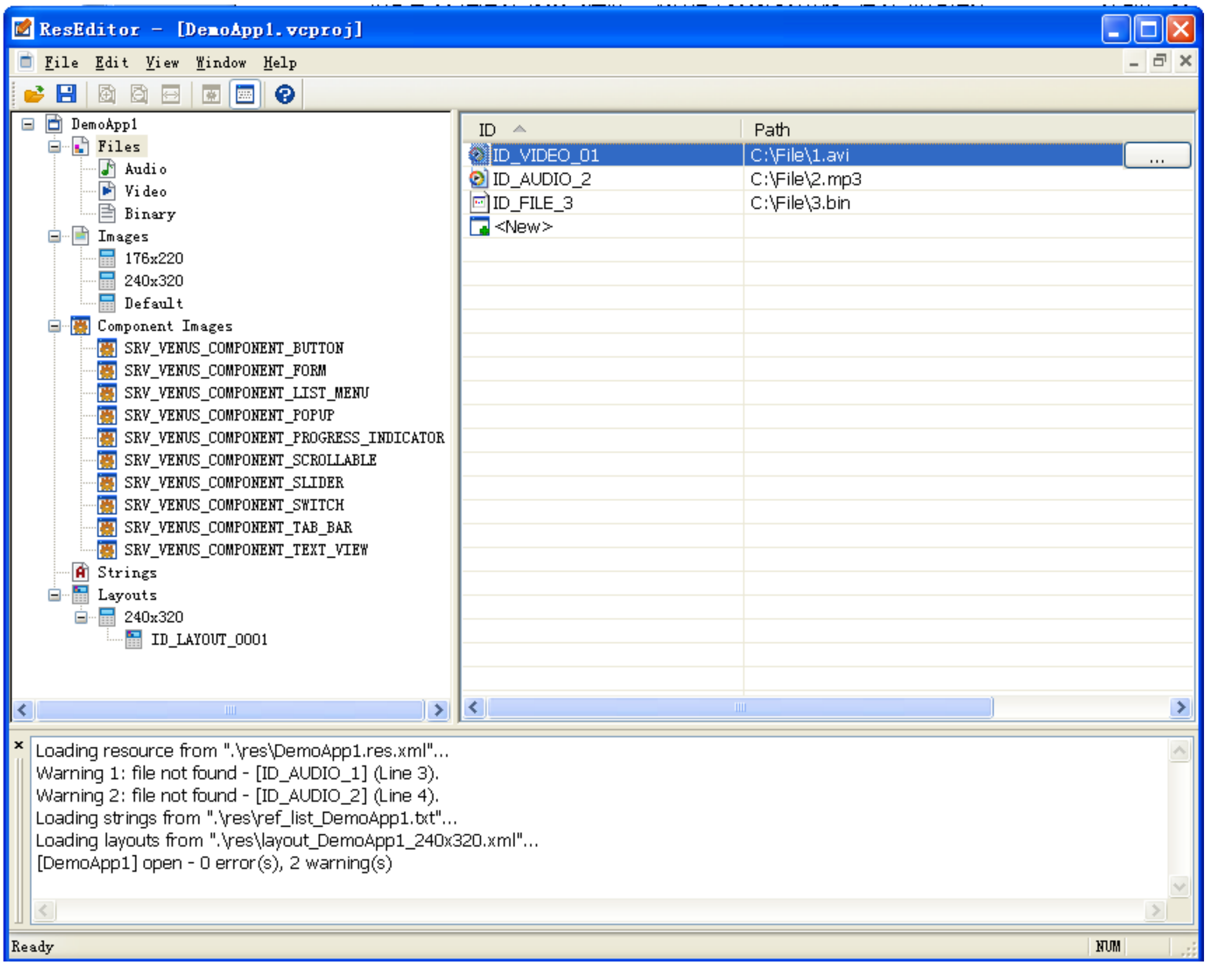
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
...
Ready
NUM

ID	Path
ID_VIDEO_01	C:\File\1.avi
ID_AUDIO_2	C:\File\2.mp3
ID_FILE_3	C:\File\3.bin
<New>	

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-15 Resource after changing ID

You can also edit a resource by changing the resource file corresponding to the ID; after selecting the resource, click on the ... button and select a new resource file.

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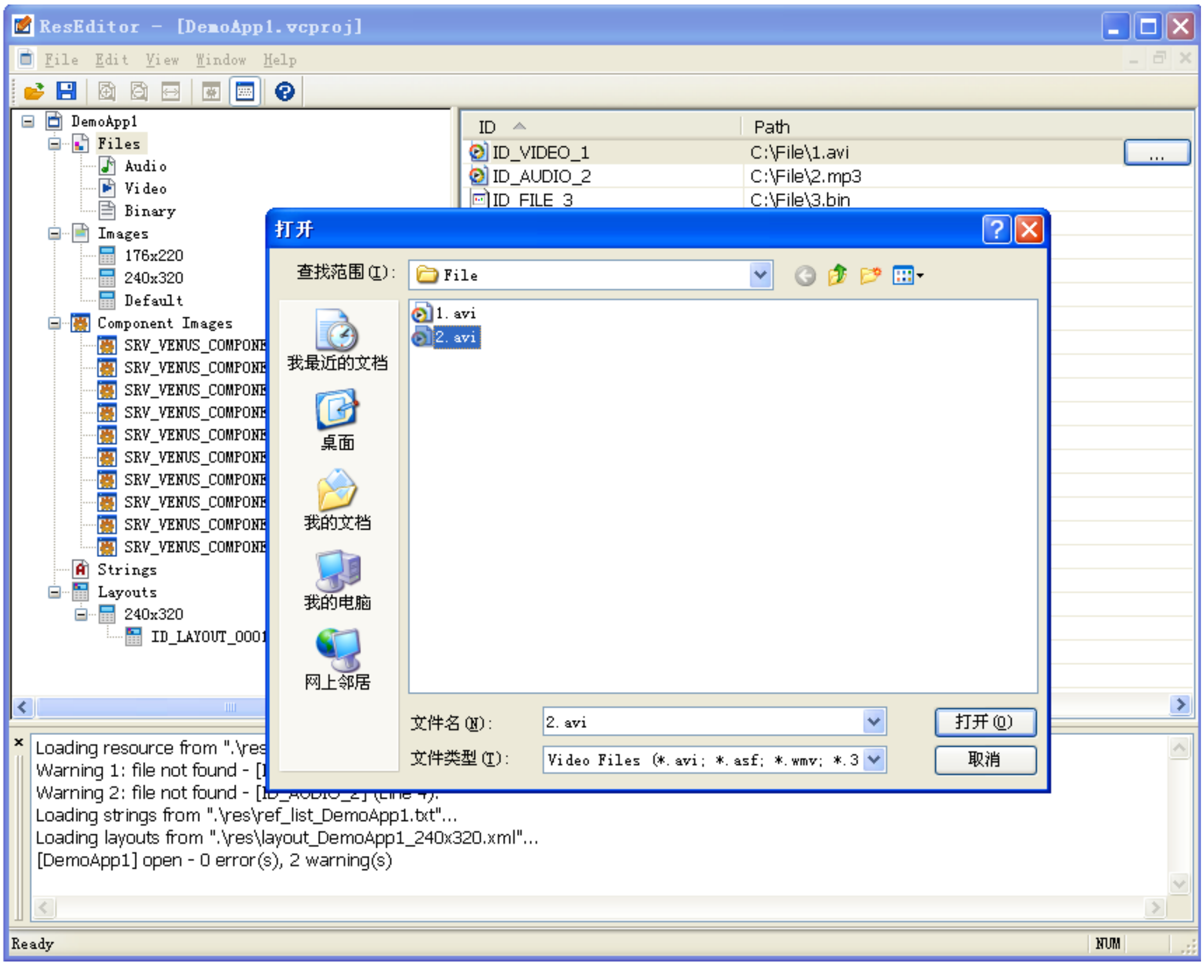

ID	Path
ID_VIDEO_1	C:\File\1.avi
ID_AUDIO_2	C:\File\2.mp3
ID_FILE_3	C:\File\3.bin

查找范围(I): File

文件名(N): 2.avi

文件类型(T): Video Files (*.avi; *.asf; *.wmv; *.3

```
Loading resource from ".\res
Warning 1: file not found - [I
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-16 Selecting a resource file

Click on the "Open" button to select a resource file to be updated

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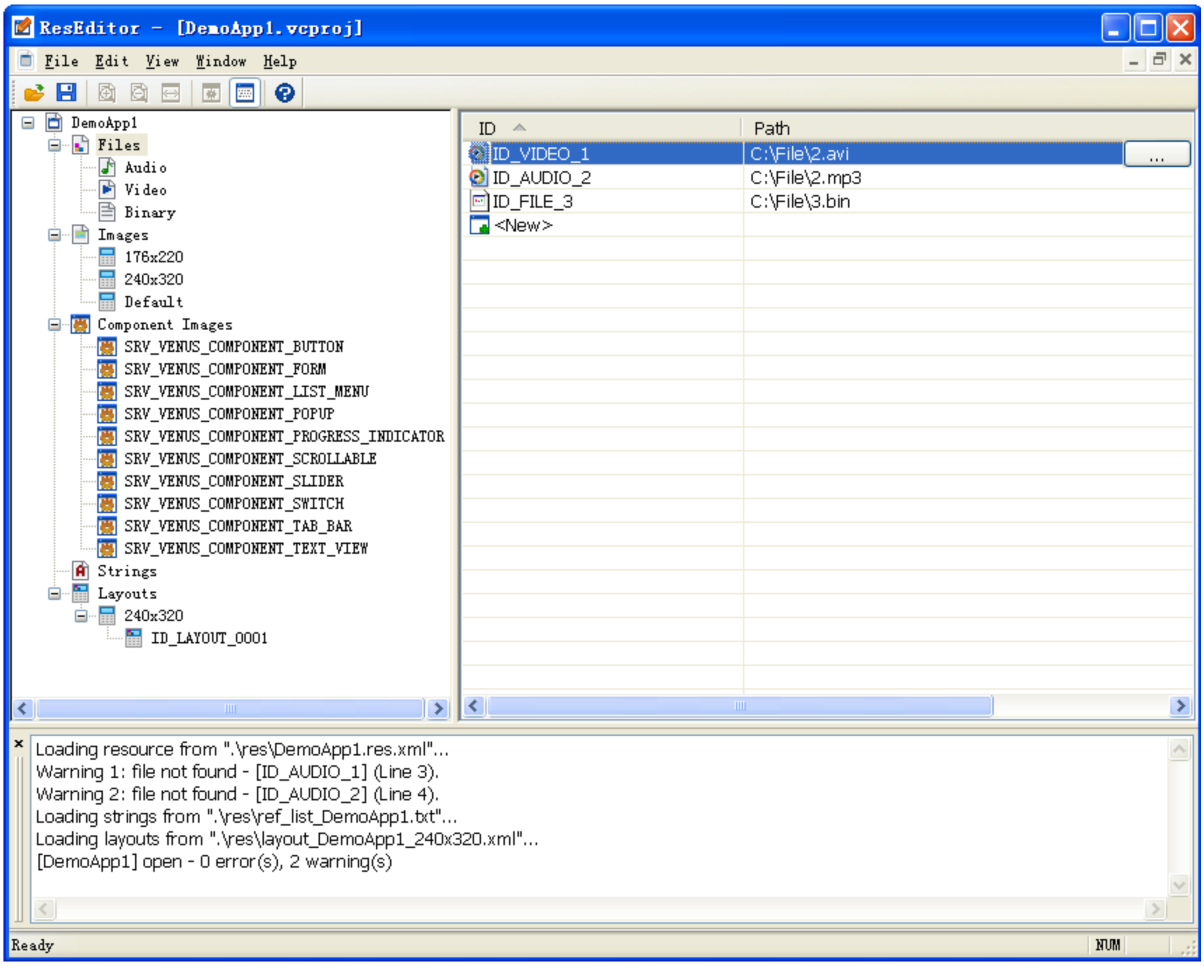
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
...
Ready
NUM

ID	Path
ID_VIDEO_1	C:\File\2.avi
ID_AUDIO_2	C:\File\2.mp3
ID_FILE_3	C:\File\3.bin
<New>	

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-17 Updating a resource file

5.6.1.5 Opening a resource file

Right click on a resource, and select "Open" in the menu that appears; the resource file will be opened using the operating system's default handling procedures.

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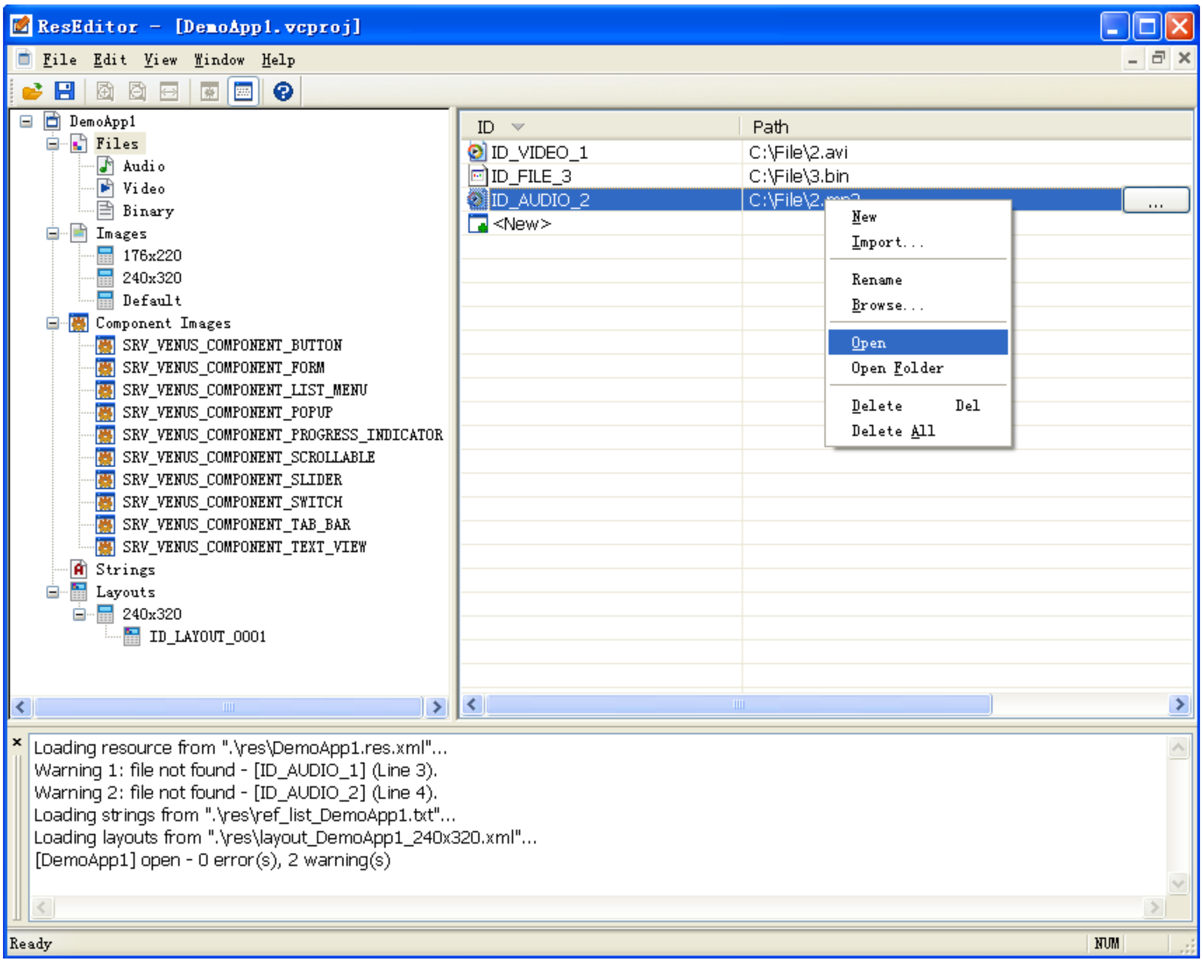
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
New
Import...
Rename
Browse...
Open
Open Folder
Delete Del
Delete All
Ready
NUM

ID	Path
ID_VIDEO_1	C:\File\2.avi
ID_FILE_3	C:\File\3.bin
ID_AUDIO_2	C:\File\2.mp3
<New>	

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-18 Opening a resource file

5.6.1.6 Opening the folder containing a resource file

Right click on the "Open Folder" option in the menu that appears to open the folder containing a resource file

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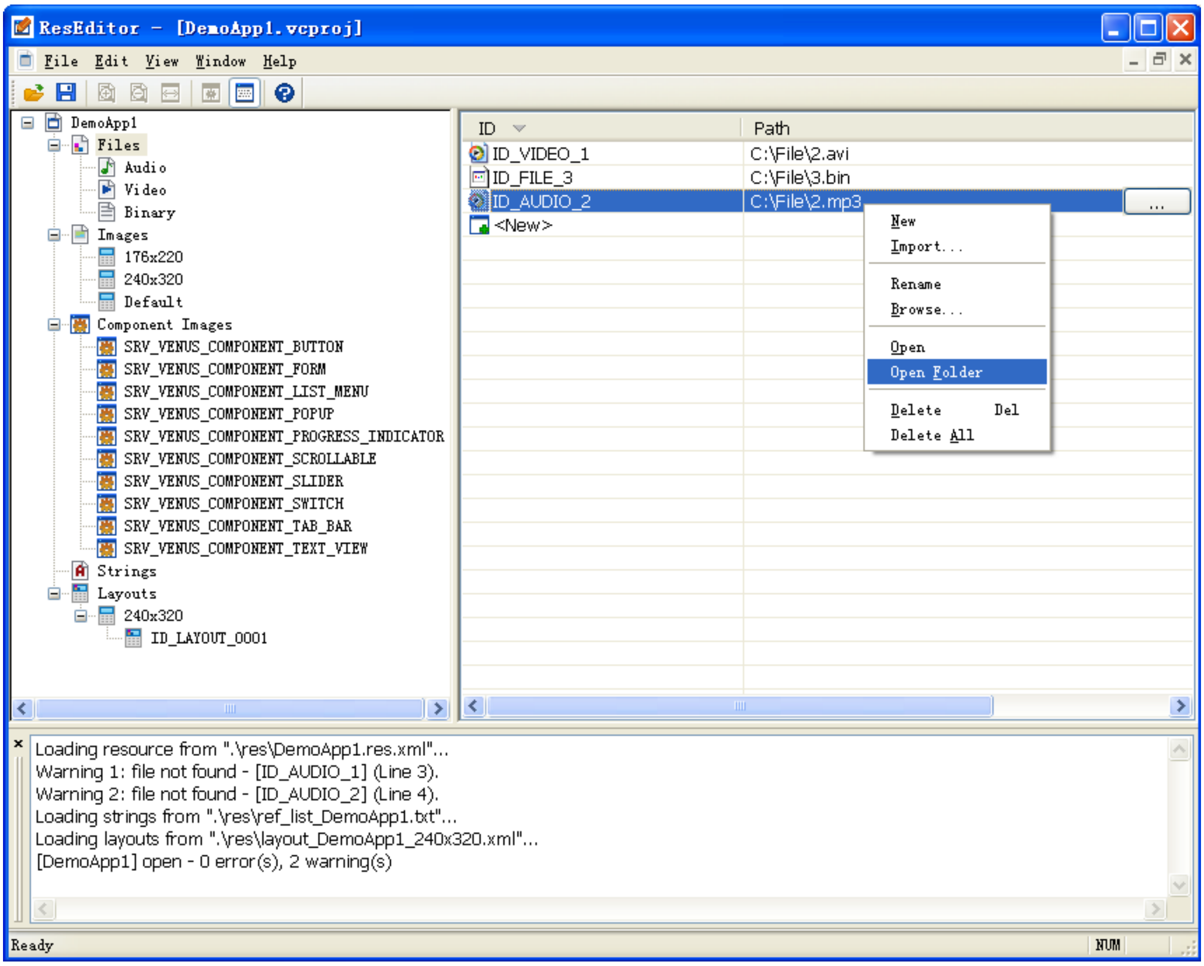
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
New
Import...
Rename
Browse...
Open
Open Folder
Delete Del
Delete All
Ready
NUM

ID	Path
ID_VIDEO_1	C:\File\2.avi
ID_FILE_3	C:\File\3.bin
ID_AUDIO_2	C:\File\2.mp3
<New>	

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-19 Opening a folder

5.6.1.7 Deleting resources

ResEditor can delete one resource or multiple resources each time. After selecting the resources to be deleted, use the options "Delete" or "Delete All" on the right click menu, or use Edit->Delete or Edit->Delete All from the menu items; you can also press the Delete key on the keyboard to delete. Using Delete All will delete all corresponding resources.

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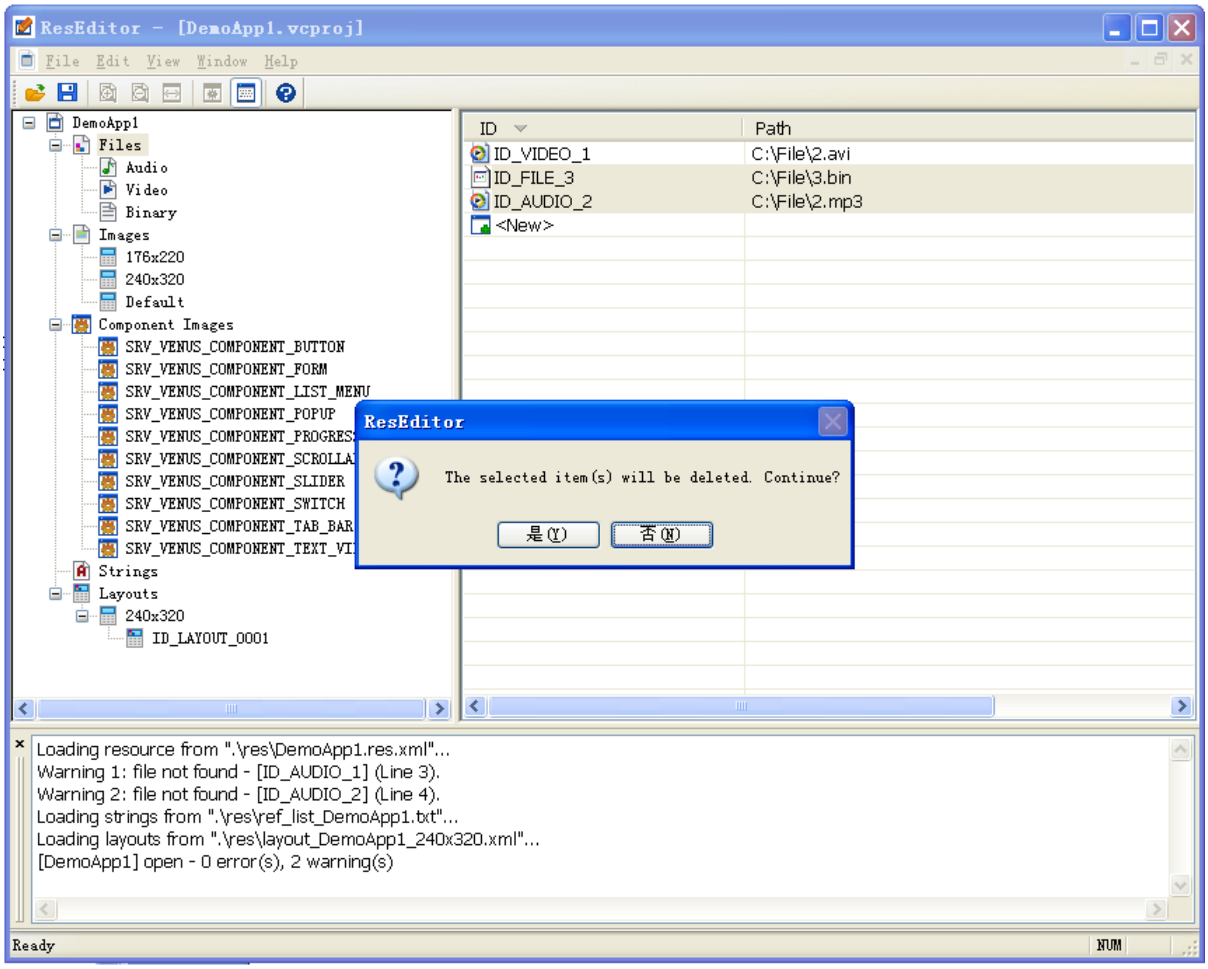
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRES
SRV_VENUS_COMPONENT_SCROLLA
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VI
Strings
Layouts
240x320
ID_LAYOUT_0001
ResEditor
是(Y)
否(N)
Ready
NUM

ID	Path
ID_VIDEO_1	C:\File\2.avi
ID_FILE_3	C:\File\3.bin
ID_AUDIO_2	C:\File\2.mp3
<New>	

The selected item(s) will be deleted. Continue?

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-20 Deleting selected resources

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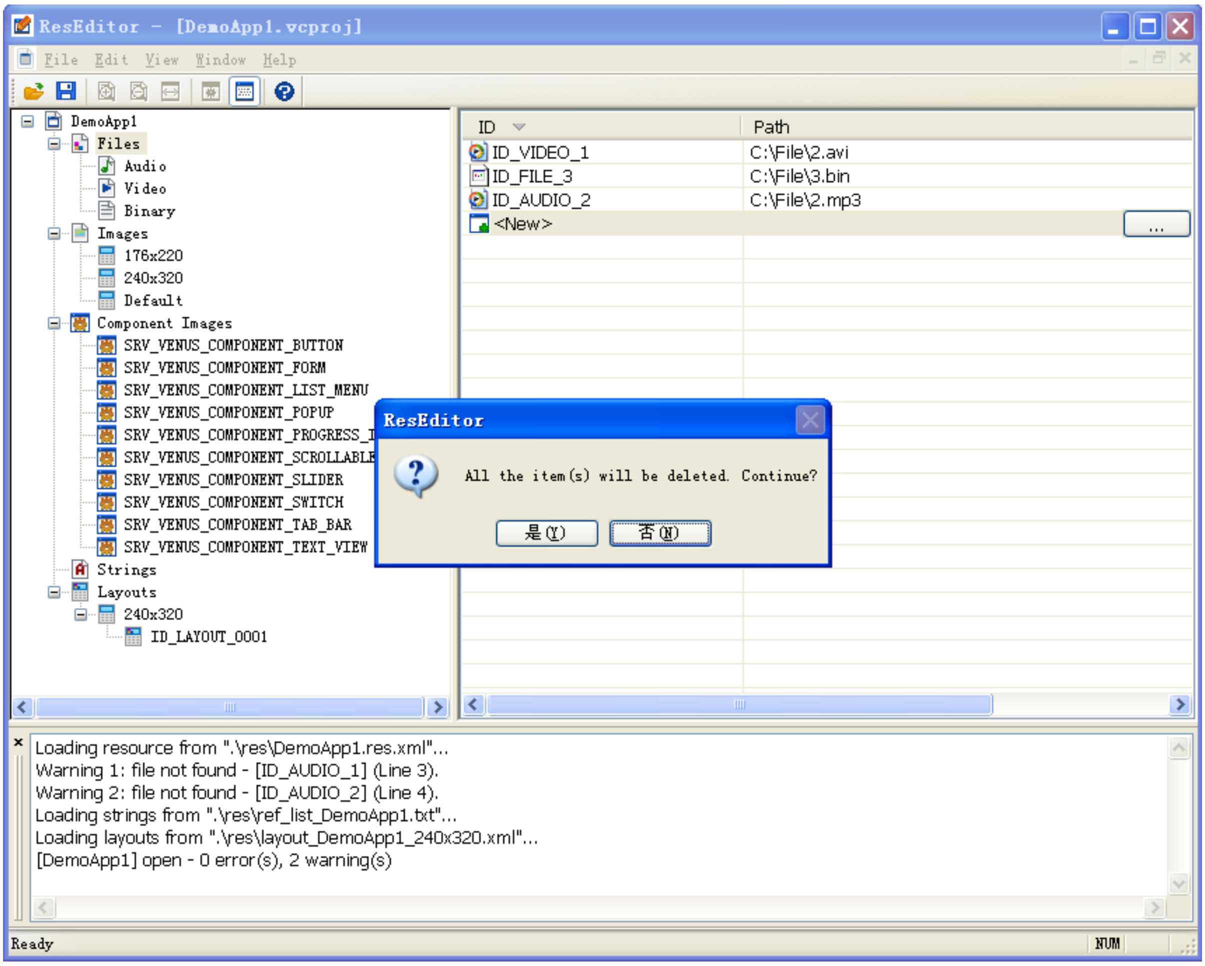
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_I
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
ResEditor
是(Y)
否(N)
...
Ready
NUM

ID	Path
ID_VIDEO_1	C:\File\2.avi
ID_FILE_3	C:\File\3.bin
ID_AUDIO_2	C:\File\2.mp3
<New>	

All the item(s) will be deleted. Continue?

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-21 Deleting all resources

5.6.1.8 Clearing resources

To clear all resources of a selected type, right click on the item on the resource tree and then choose "Clear." For instance, right click on the File item and select "Clear" to delete all file-type resources.

The following example explains how to use Audio resources.

```
Static void aud_play_bytes_cb(VMINT evt)              // callback function definition
{
    return;
}
VMUINT8* m_audData = GetAudio(ID_AUDIO_SND);        // get audio data from res file
VMUINT   file_size          = 0;
vm_file_getfilesize (fileName,&file_size);                     // get file size
if(m_audData && file_size)
{
    // play audio
    vm_audio_play_bytes(m_audData,
                file_size,5,0,VM_DEVICE_SPEAKER_BOTH, aud_play_bytes_cb);
}
```

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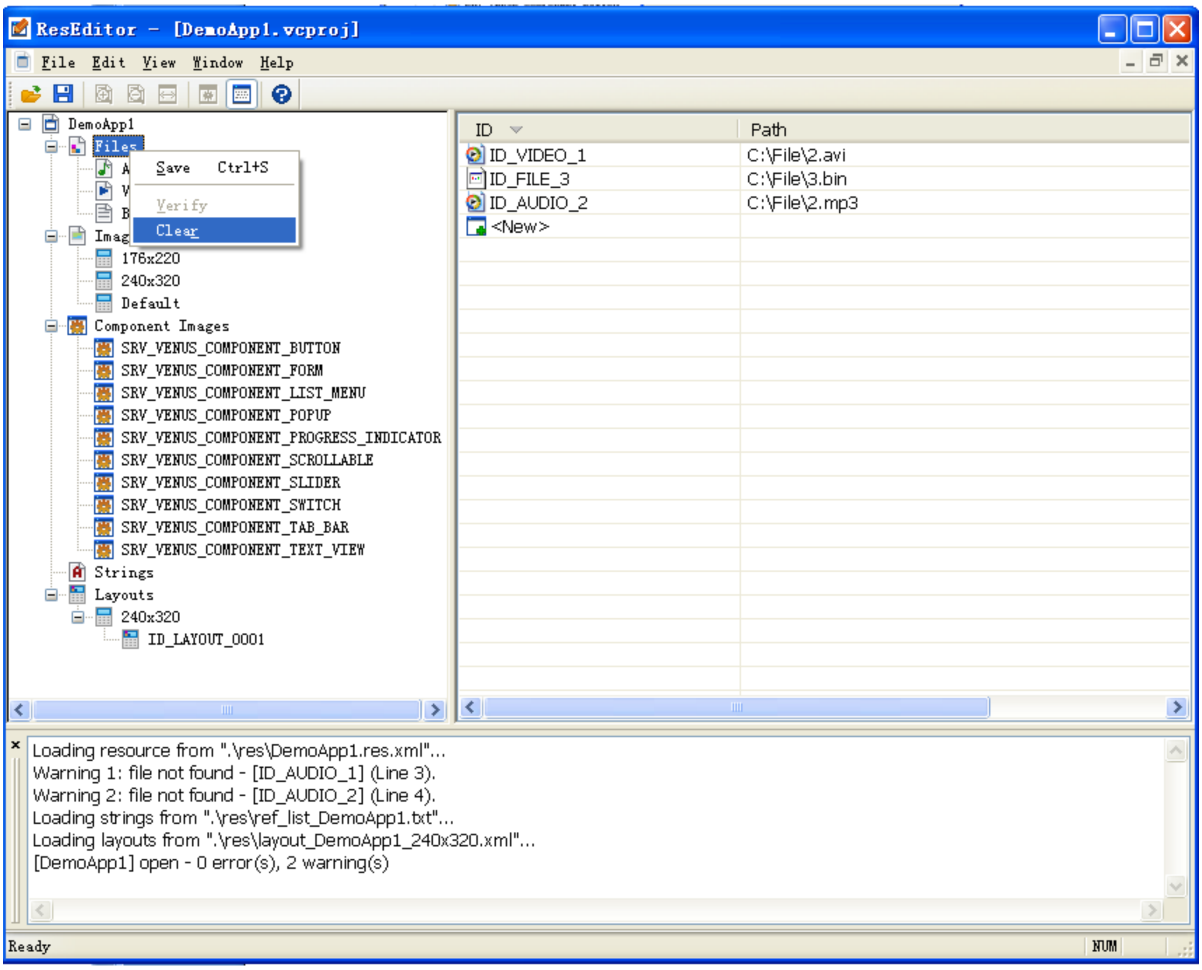
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Save Ctrl+S
Verify
Clear
Imag
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
Ready
NUM

ID	Path
ID_VIDEO_1	C:\File\2.avi
ID_FILE_3	C:\File\3.bin
ID_AUDIO_2	C:\File\2.mp3
<New>	

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-22 Clearing file-type resources

5.6.2 Graphic Resources

Image resources are managed in the same way as file resources; the only difference is that image resources support multiple resolution options.

5.6.2.1 Managing resolution

Right click the image item on the resource tree and select the "Resolution" item in the menu that appears.

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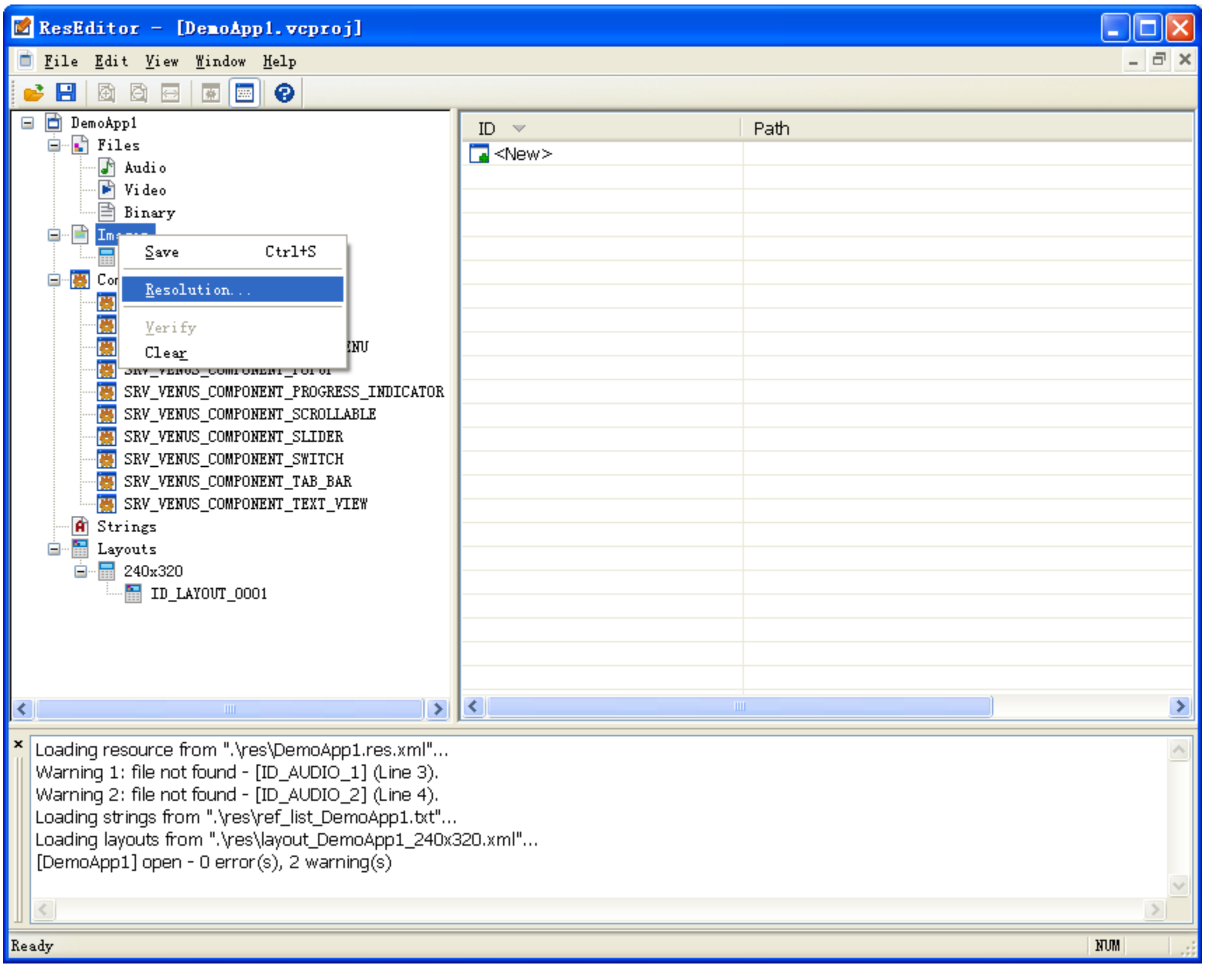
ResEditor - [DemoApp1.vcproj]
File
Edit
View
Window
Help
DemoApp1
Files
Audio
Video
Binary
Images
Save Ctrl+S
Resolution...
Verify
Clear
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
ID
Path
<New>
Ready
NUM

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-23 Resolution item

Now check the resolutions that must be supported in the dialog box that appears. All unneeded resolutions can be deleted by unchecking them. "Select All" can be used to check all resolutions, and "Clear All" can be used to uncheck all resolutions.

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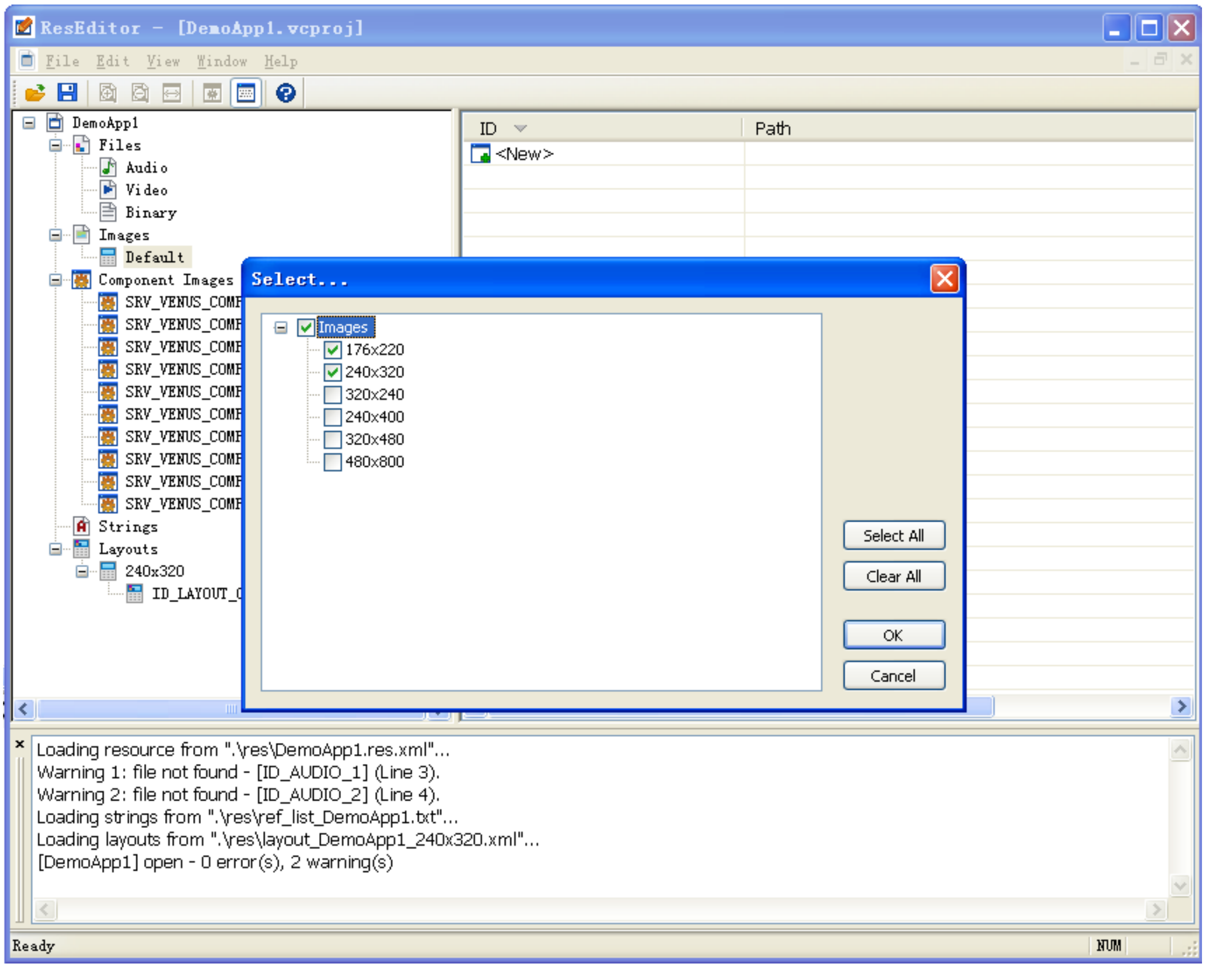

☑ Images
- ☑ 176x220
- ☑ 240x320
- □ 320x240
- □ 240x400
- □ 320x480
- □ 480x800

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-24 Selecting resolutions

After clicking on the "OK" button, the corresponding resolution items will be added to the resource tree.

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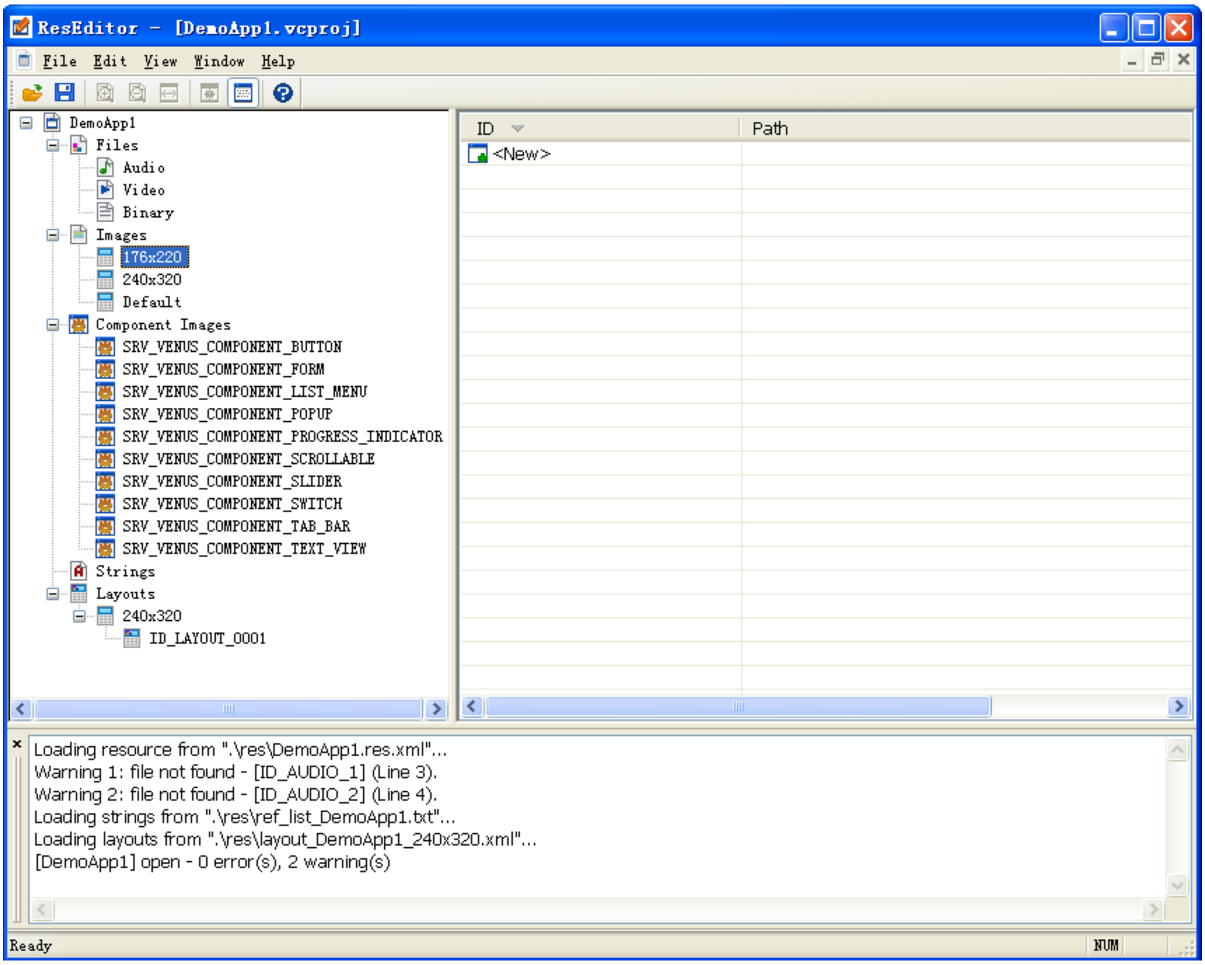

ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
240x320
ID_LAYOUT_0001
ID
Path
<New>
Ready
NUM

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-25 Adding resolutions

5.6.2.2 Adding Resources

Image resources with different resolutions can be added; please refer to the file resource adding method for this function.

5.6.2.3 Inserting resources

Inserting resources with different resolutions can be added; please refer to the file resource adding method for this function.

5.6.2.4 Editing resources

Please refer to file resource editing method.

5.6.2.5 Opening resource files

Please refer to file resource opening instructions.

5.6.2.6 Opening the folder containing a resource file

Please refer to the instructions for file resources.

5.6.2.7 Deleting resources

Please refer to the deleting instructions for file resources.

5.6.2.8 Clearing resources

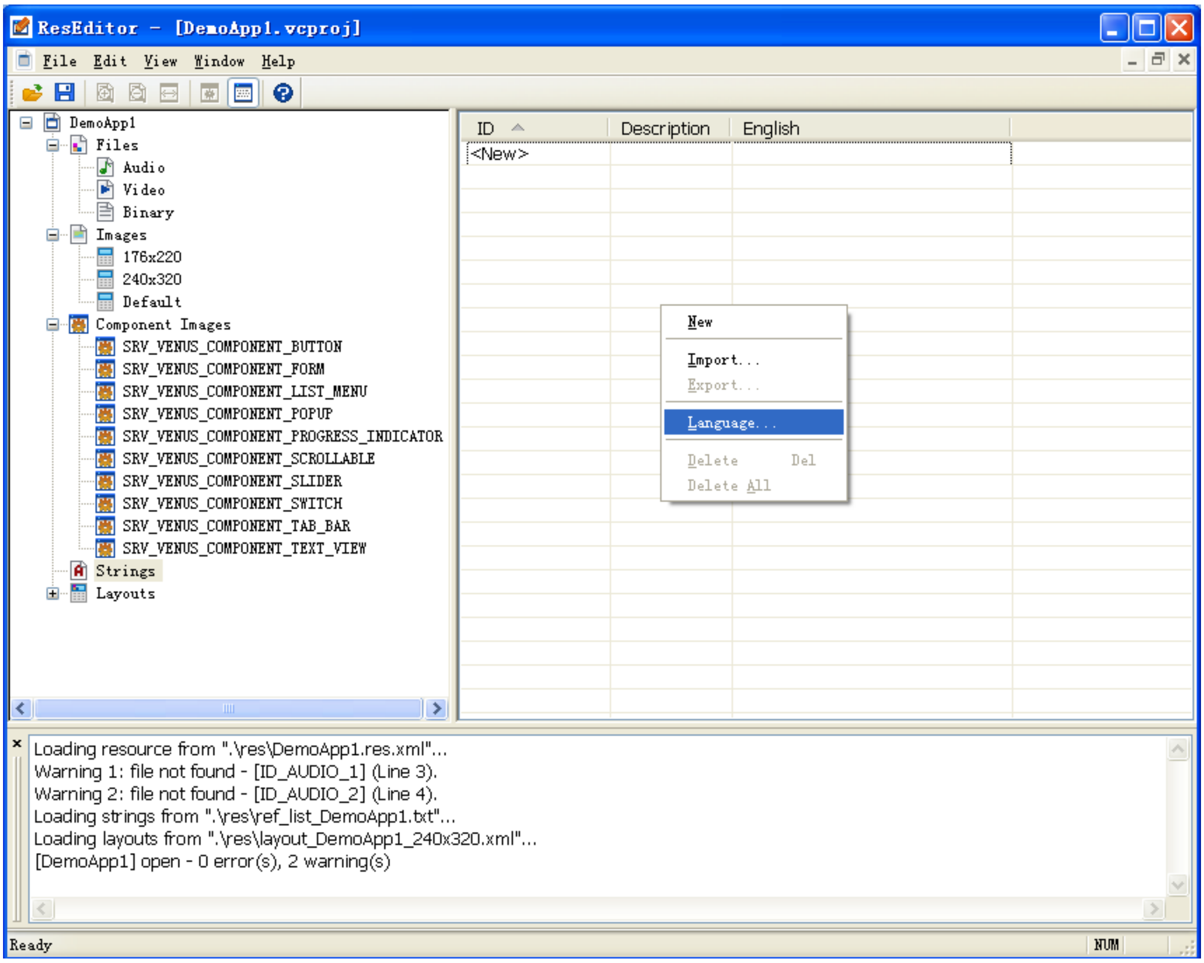
Please refer to the clearing instructions for file resources.

5.6.3 String resources

ResEditor provides multi-language support for character string resources, and export and import to and from Excel files can be used to facilitate editing of resources; this function currently only supports Excel 2003.

5.6.3.1 Management language

Right click the resource editing pane and select the "Language" item in the menu that appears.


ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
ID
Description
English
<New>
New
Import...
Export...
Language...
Delete Del
Delete All
Ready
NUM

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

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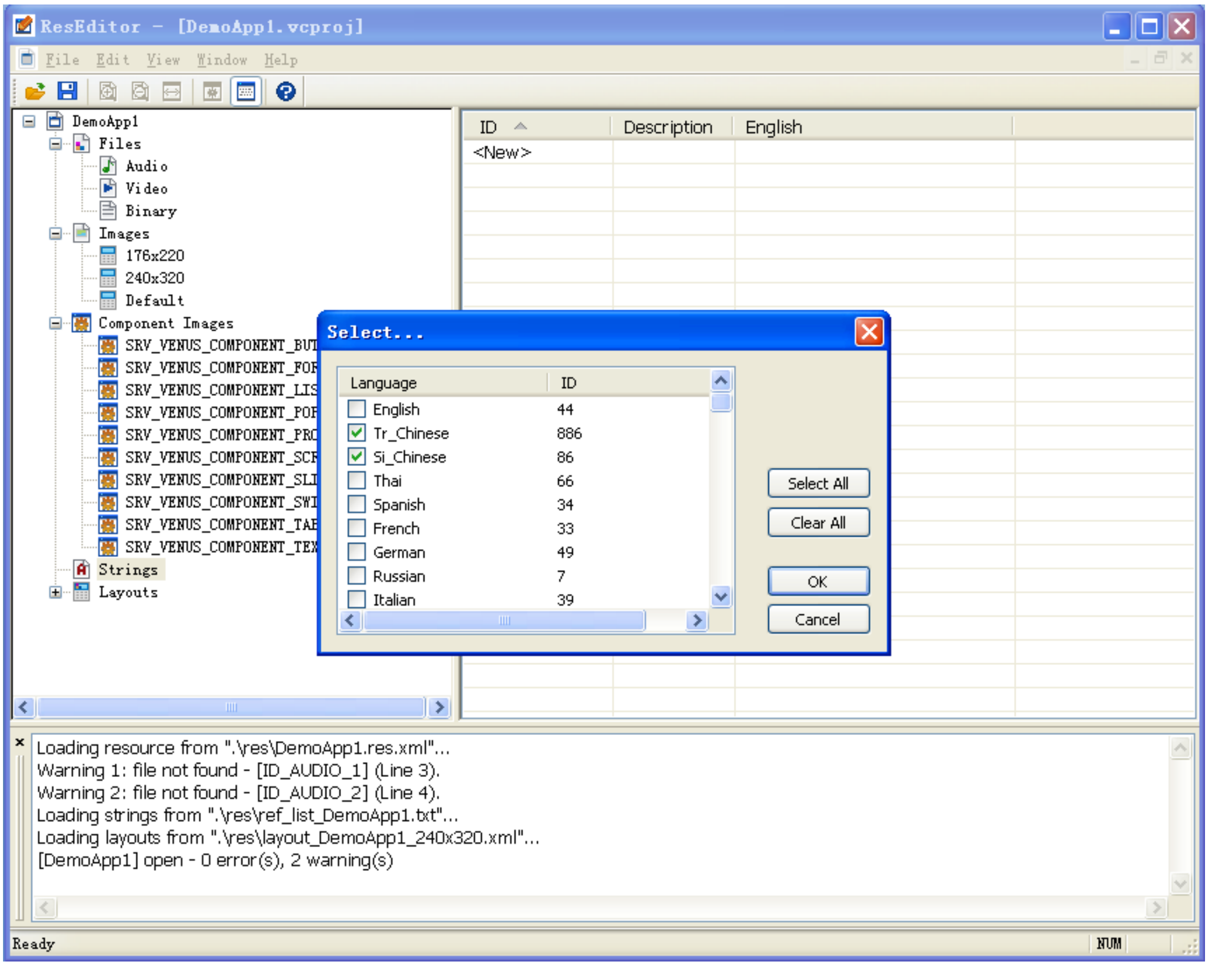
Fig 4-38 Language item

Check needed languages in the Language dialog box that appears; unneeded languages can be unchecked.



Language	ID
□ English	44
☑ Tr_Chinese	886
☑ Si_Chinese	86
□ Thai	66
□ Spanish	34
□ French	33
□ German	49
□ Russian	7
□ Italian	39

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-39 Selecting languages

After selecting languages, the checked languages will be displayed in the resource editing pane.

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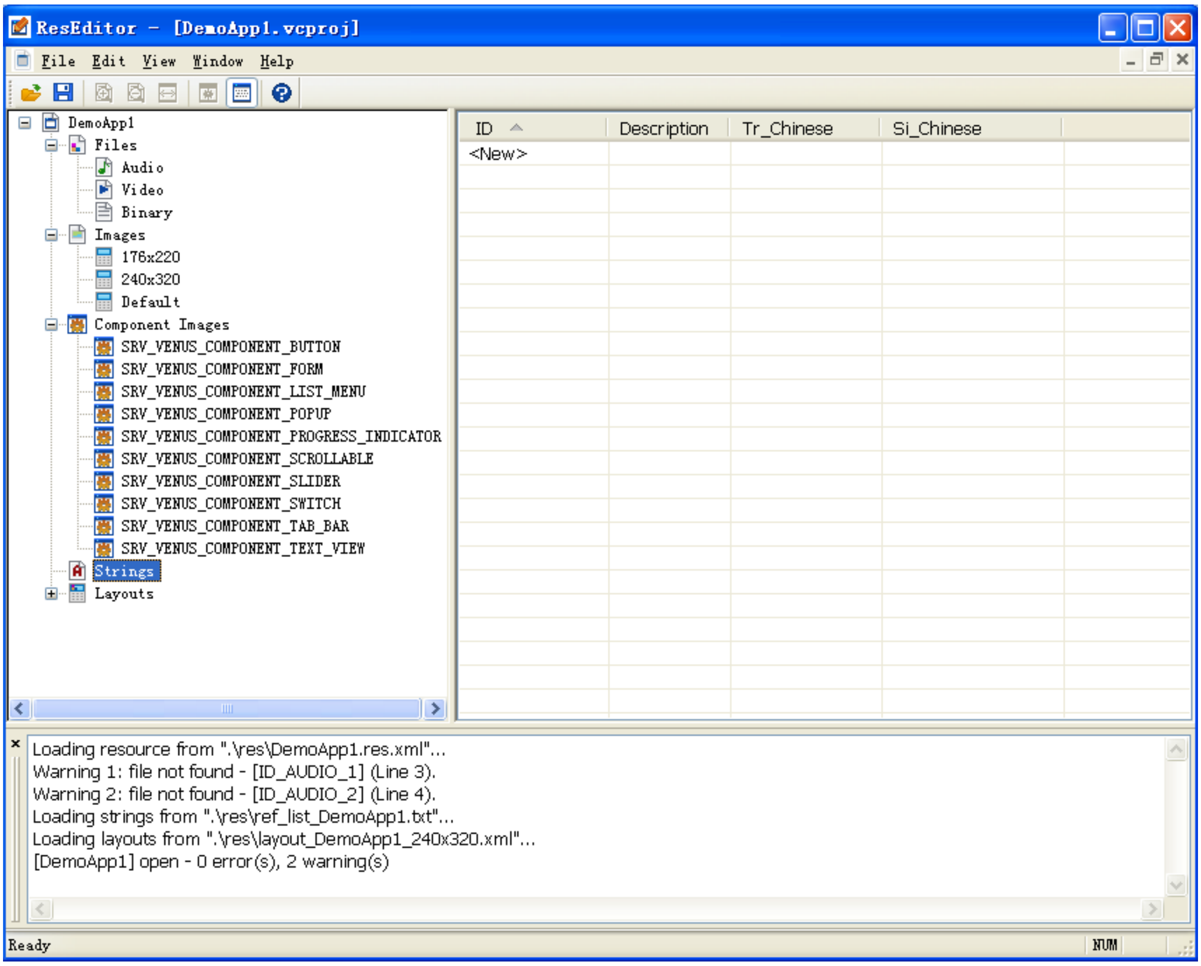
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
ID
Description
Tr_Chinese
Si_Chinese
<New>
Ready
NUM

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

Fig 4-40 Language display

5.6.3.2 Adding Resources

Double click the "ID" item in the resource editing pane to edit the ID of a new resource. If you do not edit the ID, the resource will use the default ID. Then, double click the "Description" item and edit the ID description. Lastly, double click each language item and edit each language's string resources for the ID.

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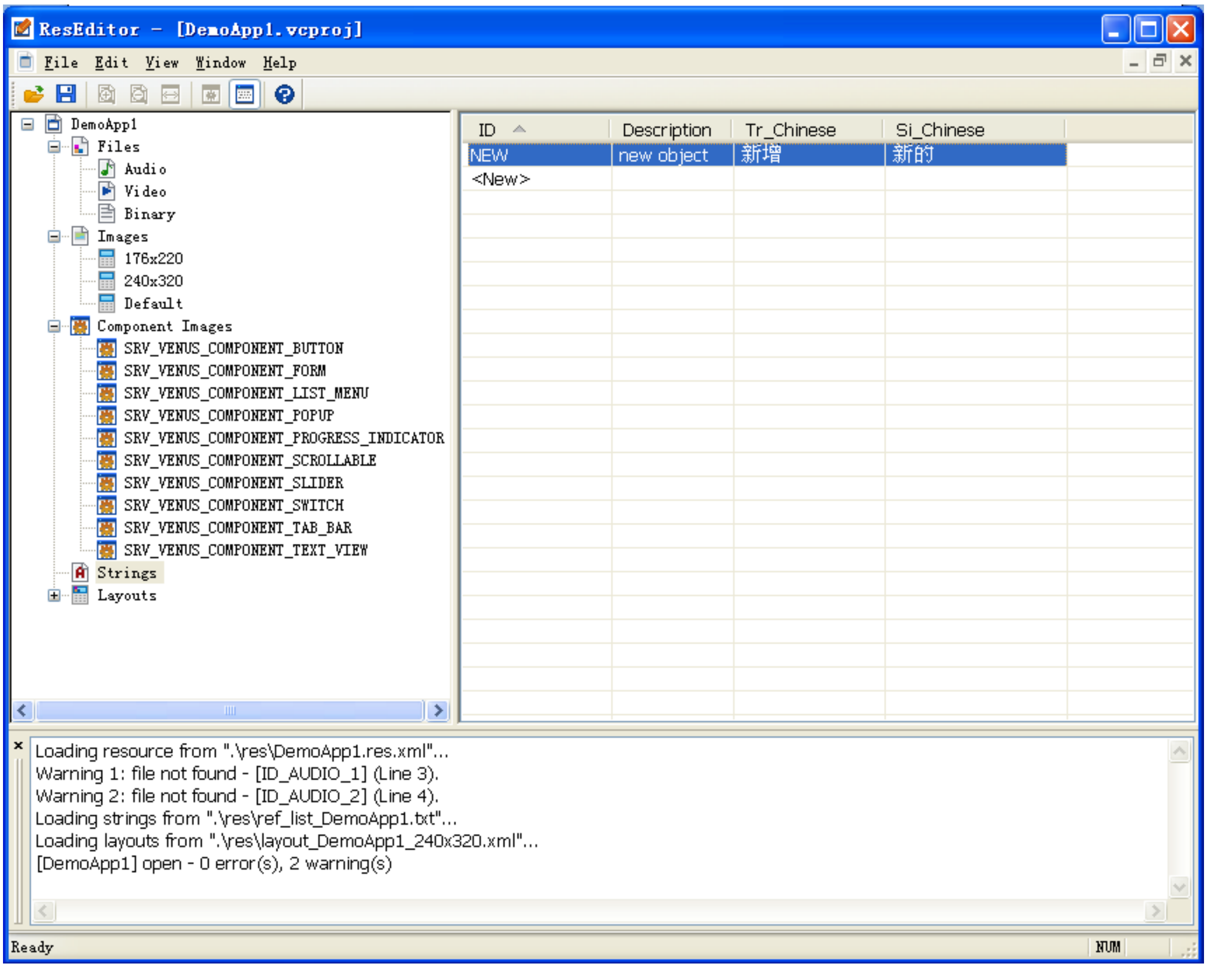

ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
Ready
NUM

ID	Description	Tr_Chinese	Si_Chinese
NEW	new object	新增	新的
<New>			

```
Loading resource from ".\res\DemoApp1.res.xml"...
Warning 1: file not found - [ID_AUDIO_1] (Line 3).
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
```

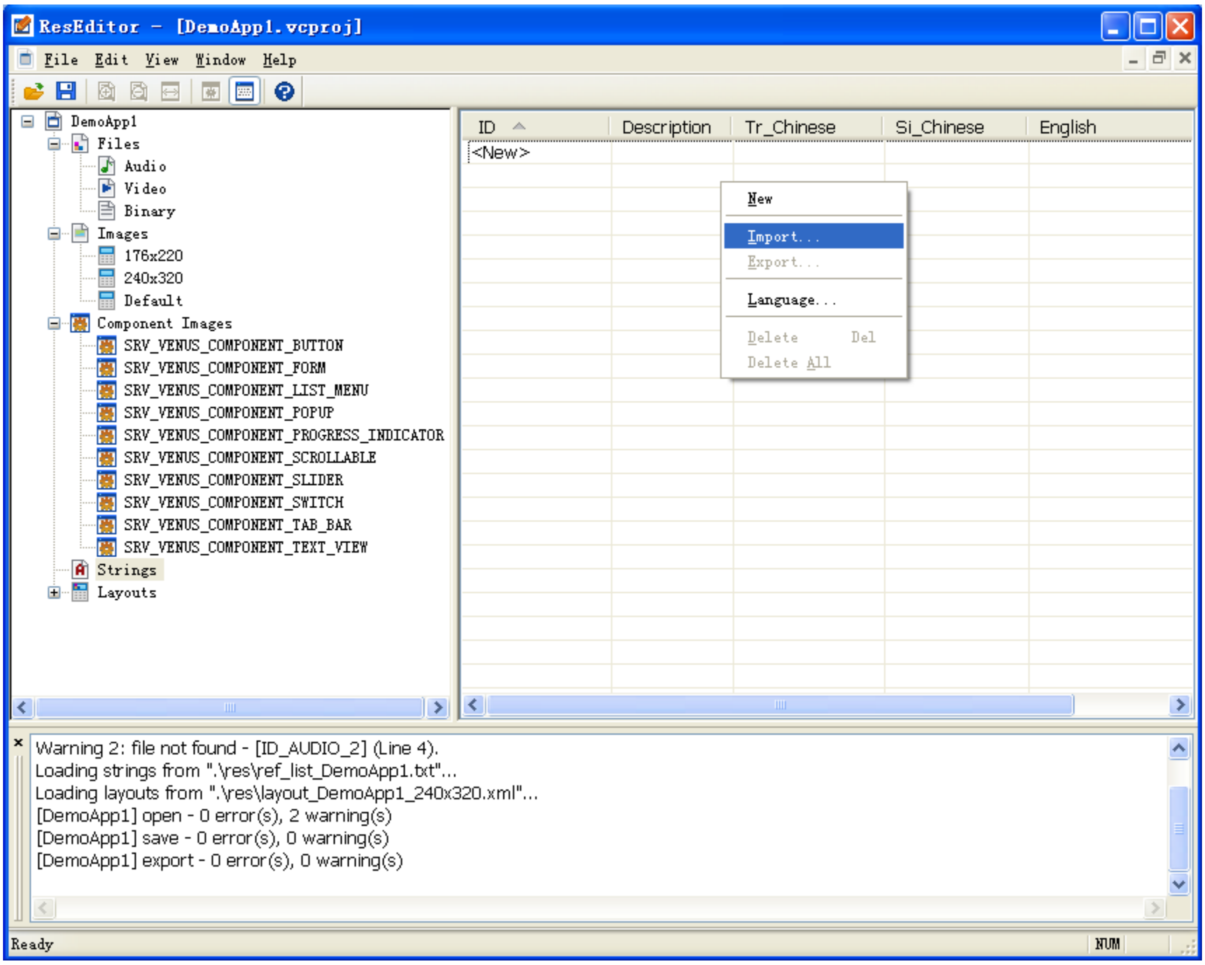
Fig 4-41 Adding resource

The following example explains how to use string resources.

```
// Assume that we have already created a resource named ID_STRING_0001.
// Create VcpButton corresponding to VfxTextFrame
VfxWString page_hint;
VfxTextFrame text_frame;
VFX_OBJ_CREATE(text_frame,VfxTextFrame,this);
// Set string resources for this VfxTextFrame.
 page_hint = VFX_WSTR_RES(ID_STRING_0001);
text_frame->setString(page_hint);
```

5.6.3.3 Importing Excel forms

Right click the resource editing pane and select the "Import" item in the menu that appears; or select File->Import menu. Imported Excel forms must be in a certain format; please refer to Appendix 5-1.


ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
ID
Description
Tr_Chinese
Si_Chinese
English
<New>
New
Import...
Export...
Language...
Delete Del
Delete All
Ready
NUM

```
Warning 2: file not found - [ID_AUDIO_2] (Line 4).
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
[DemoApp1] save - 0 error(s), 0 warning(s)
[DemoApp1] export - 0 error(s), 0 warning(s)
```

Fig 4-42 Import item

After clicking on the "Import" item, a file dialog box will appear to let you select the Excel form file you wish to import.

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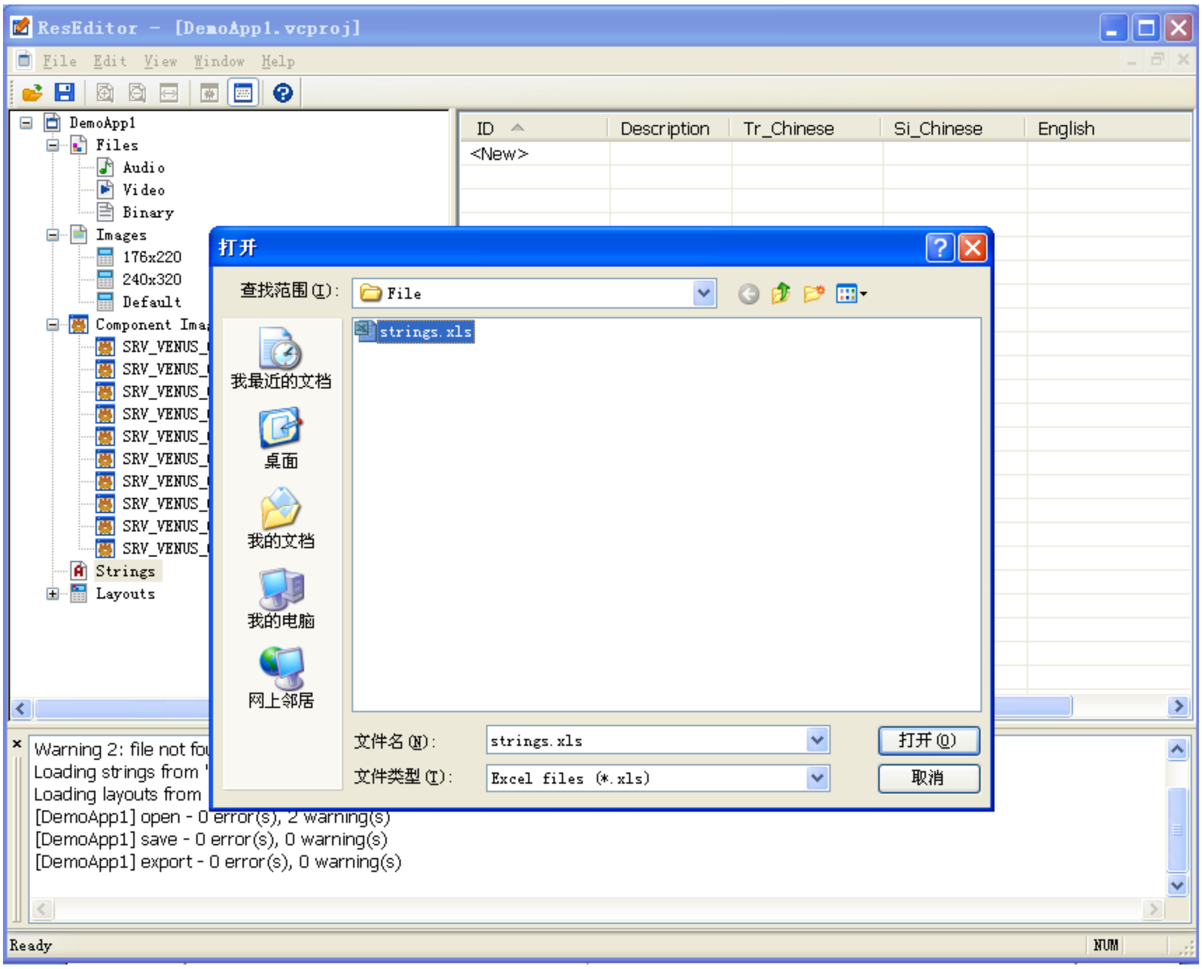

ID	Description	Tr_Chinese	Si_Chinese	English
<New>				

查找范围(I): File

文件名(N): strings.xls

文件类型(T): Excel files (*.xls)

```
Warning 2: file not fou
Loading strings from '
Loading layouts from
[DemoApp1] open - 0 error(s), 2 warning(s)
[DemoApp1] save - 0 error(s), 0 warning(s)
[DemoApp1] export - 0 error(s), 0 warning(s)
```

Fig 4-43 Selecting an Excel form

After importing an Excel form, string resources in the form will be displayed in a resource editing pane.

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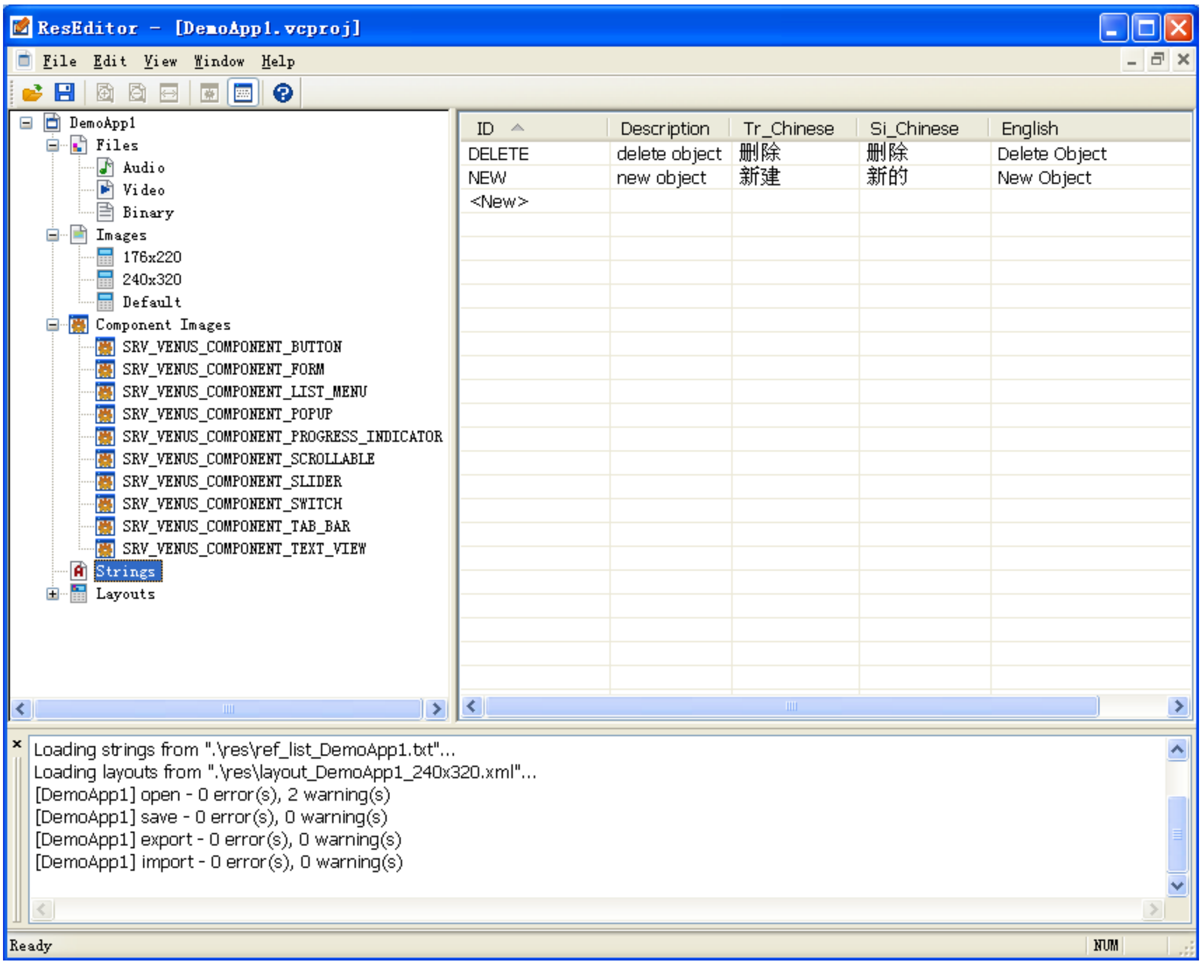
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
Ready
NUM

ID	Description	Tr_Chinese	Si_Chinese	English
DELETE	delete object	刪除	删除	Delete Object
NEW	new object	新建	新的	New Object
<New>				

```
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
[DemoApp1] save - 0 error(s), 0 warning(s)
[DemoApp1] export - 0 error(s), 0 warning(s)
[DemoApp1] import - 0 error(s), 0 warning(s)
```

Fig 4-44 Displaying resources

5.6.3.4 Exporting Excel forms

Exporting Excel forms requires writing character resources in a certain format to an output Excel file. Right click the resource editing pane and select the "Export" item in the menu that appears to employ this function; you can also click on the procedure menu File->Export to use this function.

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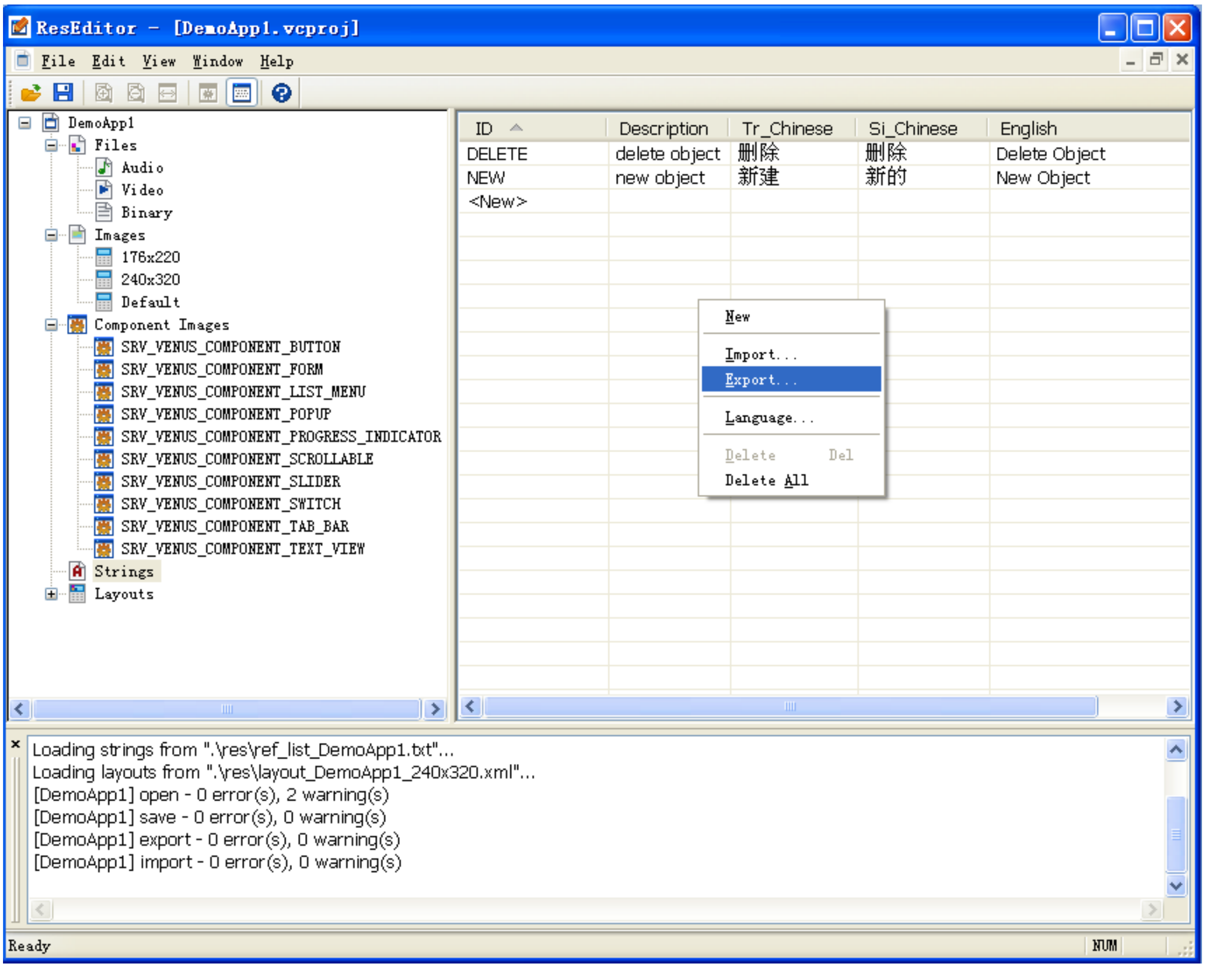
ResEditor - [DemoApp1.vcproj]
File Edit View Window Help
DemoApp1
Files
Audio
Video
Binary
Images
176x220
240x320
Default
Component Images
SRV_VENUS_COMPONENT_BUTTON
SRV_VENUS_COMPONENT_FORM
SRV_VENUS_COMPONENT_LIST_MENU
SRV_VENUS_COMPONENT_POPUP
SRV_VENUS_COMPONENT_PROGRESS_INDICATOR
SRV_VENUS_COMPONENT_SCROLLABLE
SRV_VENUS_COMPONENT_SLIDER
SRV_VENUS_COMPONENT_SWITCH
SRV_VENUS_COMPONENT_TAB_BAR
SRV_VENUS_COMPONENT_TEXT_VIEW
Strings
Layouts
New
Import...
Export...
Language...
Delete Del
Delete All
Ready
NUM

ID	Description	Tr_Chinese	Si_Chinese	English
DELETE	delete object	刪除	删除	Delete Object
NEW	new object	新建	新的	New Object
<New>				

```
Loading strings from ".\res\ref_list_DemoApp1.txt"...
Loading layouts from ".\res\layout_DemoApp1_240x320.xml"...
[DemoApp1] open - 0 error(s), 2 warning(s)
[DemoApp1] save - 0 error(s), 0 warning(s)
[DemoApp1] export - 0 error(s), 0 warning(s)
[DemoApp1] import - 0 error(s), 0 warning(s)
```

Fig 4-45 Export item

After clicking on the "Export" item, a file dialog box will appear to let you select the path of the file to be exported.

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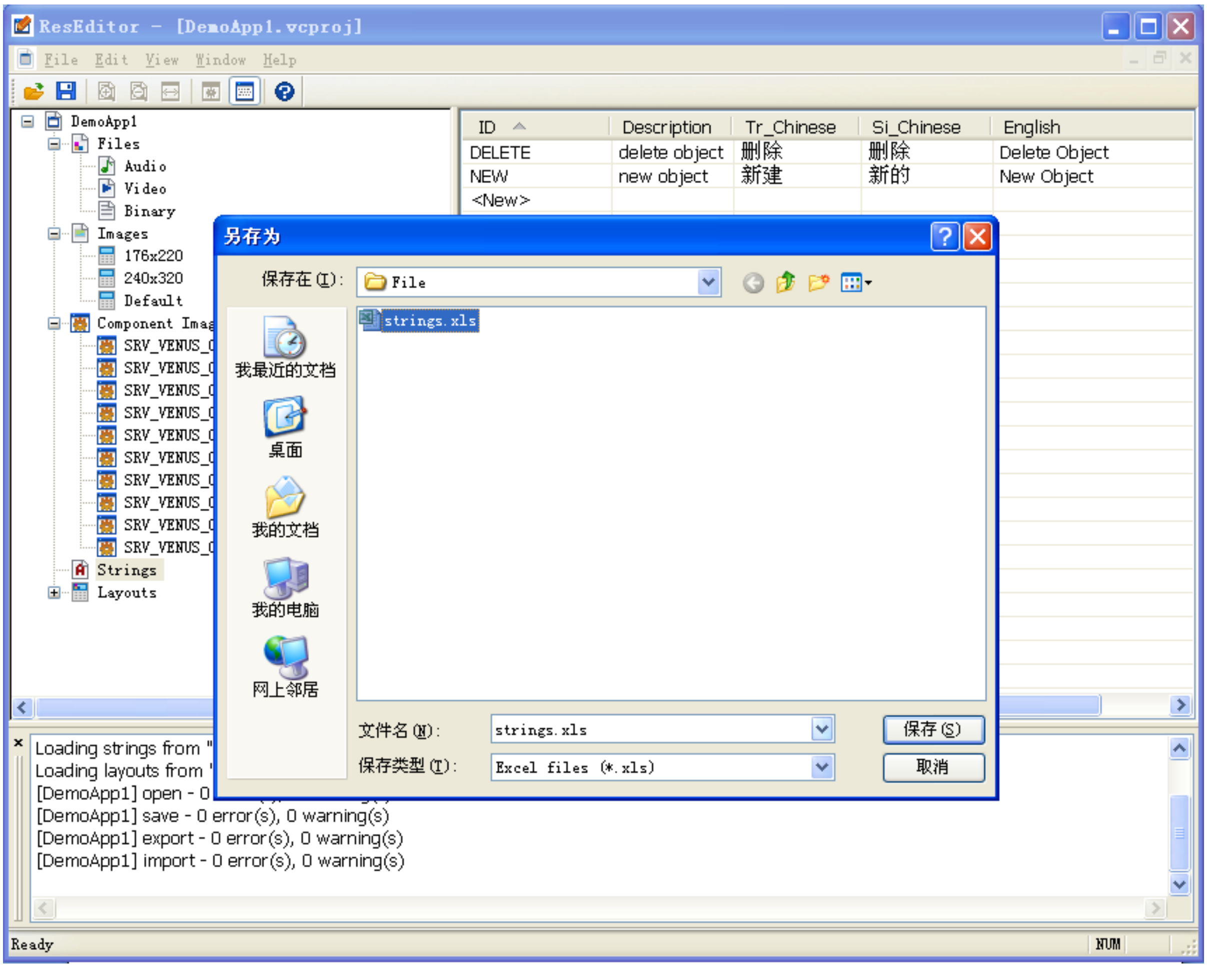

ID	Description	Tr_Chinese	Si_Chinese	English
DELETE	delete object	刪除	删除	Delete Object
NEW	new object	新建	新的	New Object
<New>				

strings.xls

文件名(N): strings.xls

保存类型(T): Excel files (*.xls)

```
Loading strings from "
Loading layouts from '
[DemoApp1] open - 0
[DemoApp1] save - 0 error(s), 0 warning(s)
[DemoApp1] export - 0 error(s), 0 warning(s)
[DemoApp1] import - 0 error(s), 0 warning(s)
```

5.7 Saving Resources

Click on the 💾 button on the toolbar, or click on File->Save among the menu items, or right click on some arbitrary item on the resource tree, and select the "Save" item on the menu to perform this function. After saving resources, the ResID.h and mmi_rp_xxx_def.h head files will appear in the ResID folder in the project folder. These head files define each resource value corresponding to the ID, and are used during compilation. The content of these files is as shown in the following diagram:

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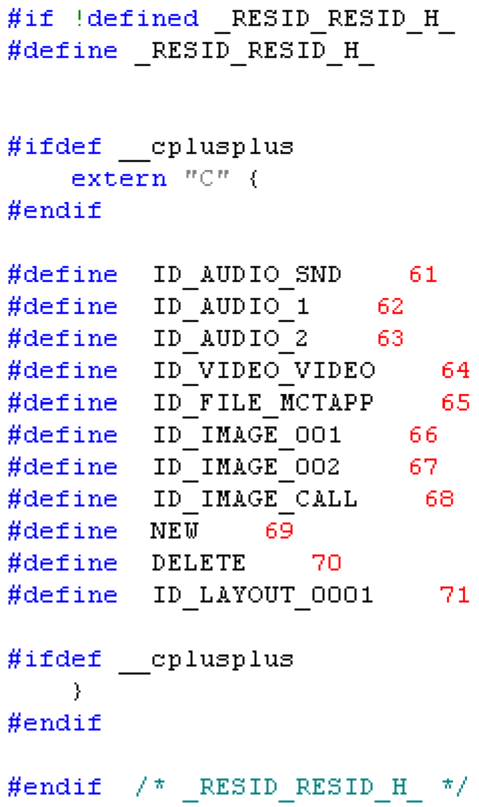
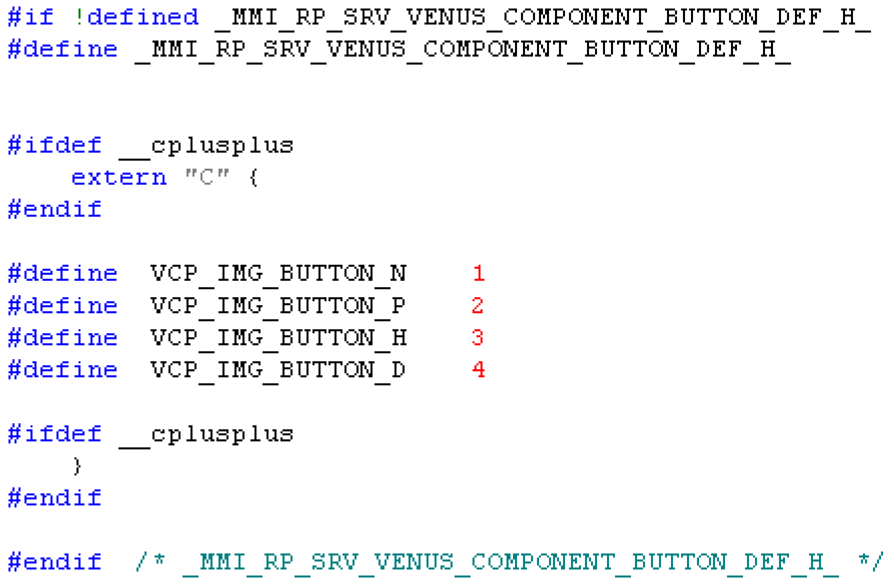


```
#if !defined _RESID_RESID_H_
#define _RESID_RESID_H_


#ifdef __cplusplus
    extern "C" {
#endif

#define  ID_AUDIO_SND    61
#define  ID_AUDIO_1    62
#define  ID_AUDIO_2    63
#define  ID_VIDEO_VIDEO    64
#define  ID_FILE_MCTAPP    65
#define  ID_IMAGE_001    66
#define  ID_IMAGE_002    67
#define  ID_IMAGE_CALL    68
#define  NEW    69
#define  DELETE    70
#define  ID_LAYOUT_0001    71

#ifdef __cplusplus
    }
#endif

#endif  /* _RESID_RESID_H_ */
```

Fig 4-69 ResID.h



```
#if !defined _MMI_RP_SRV_VENUS_COMPONENT_BUTTON_DEF_H_
#define _MMI_RP_SRV_VENUS_COMPONENT_BUTTON_DEF_H_


#ifdef __cplusplus
    extern "C" {
#endif

#define  VCP_IMG_BUTTON_N    1
#define  VCP_IMG_BUTTON_P    2
#define  VCP_IMG_BUTTON_H    3
#define  VCP_IMG_BUTTON_D    4

#ifdef __cplusplus
    }
#endif

#endif  /* _MMI_RP_SRV_VENUS_COMPONENT_BUTTON_DEF_H_ */
```

Fig 4-70 mmi_rp_xxx_def.h

After resources are saved, the following files in the res folder being the new project folder will be updated:

1、 *projname*.res.xml: This file records all resources used in the entire project.

2、 layout_*projname*_*resolution*.xml: This file records all layout resources under each resolution.

3、 ref_list_*projname*.txt: This file records string resources used by the project.

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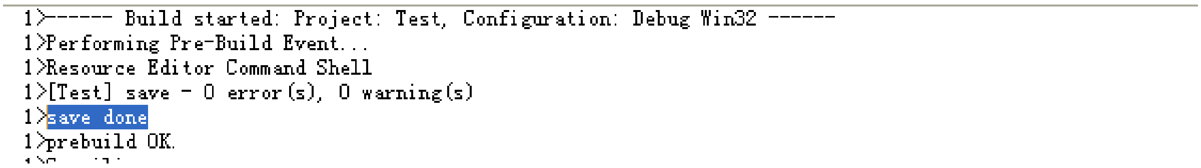
5.8 Builds

Outputting builds will enable you to uncover problems occurring during the loading, saving, and packing processes, as well as the results of these operations. When VS2008 or MRE Launcher is used, ResEditor will be called up in the background. At this time, ResEditor's builds will be displayed in the call-up tool's build output.

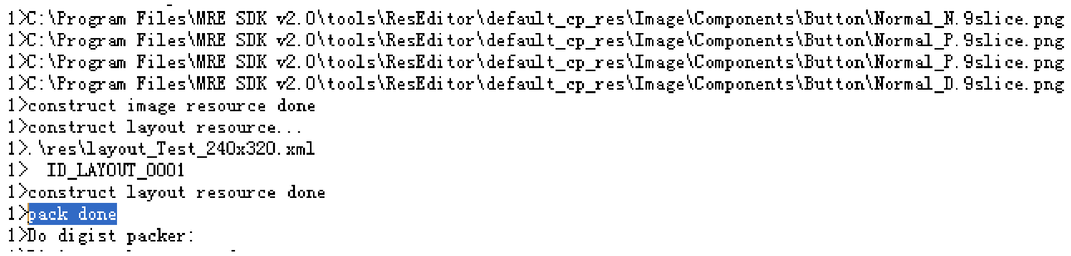
When VS2008 is used to compile a completed project, it will first invoke ResEditor's save function to save resources. Relevant builds can now be seen in VS2008's build output window. If "Save done" is displayed, this verifies that the resources have been saved successfully. If an error message is displayed, you can take appropriate action as directed by the message.



```
1>------ Build started: Project: Test, Configuration: Debug Win32 ------
1>Performing Pre-Build Event...
1>Resource Editor Command Shell
1>[Test] save - 0 error(s), 0 warning(s)
1>save done
1>prebuild OK.
```

Fig 4- 71 Successful save

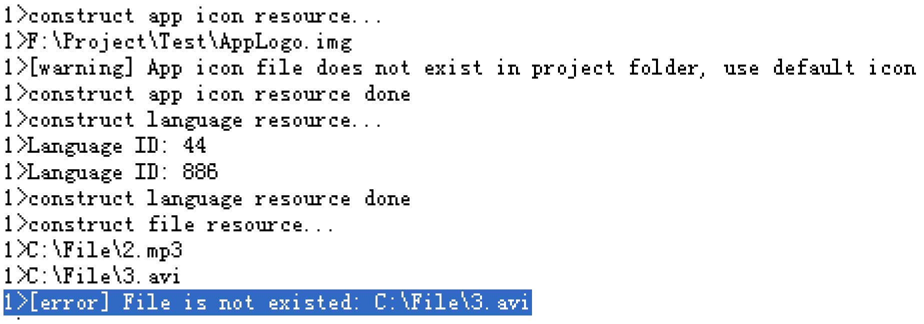
After a successful compilation, ResEditor's packing function will be invoked. If "pack done" is displayed, and there are no error messages, this indicates that packing was successful.



```
1>C:\Program Files\MRE SDK v2.0\tools\ResEditor\default_cp_res\Image\Components\Button\Normal_N.9slice.png
1>C:\Program Files\MRE SDK v2.0\tools\ResEditor\default_cp_res\Image\Components\Button\Normal_P.9slice.png
1>C:\Program Files\MRE SDK v2.0\tools\ResEditor\default_cp_res\Image\Components\Button\Normal_F.9slice.png
1>C:\Program Files\MRE SDK v2.0\tools\ResEditor\default_cp_res\Image\Components\Button\Normal_D.9slice.png
1>construct image resource done
1>construct layout resource...
1>.\res\layout_Test_240x320.xml
1>  ID_LAYOUT_0001
1>construct layout resource done
1>pack done
1>Do digist packer:
```

Fig4-72 Successful packing

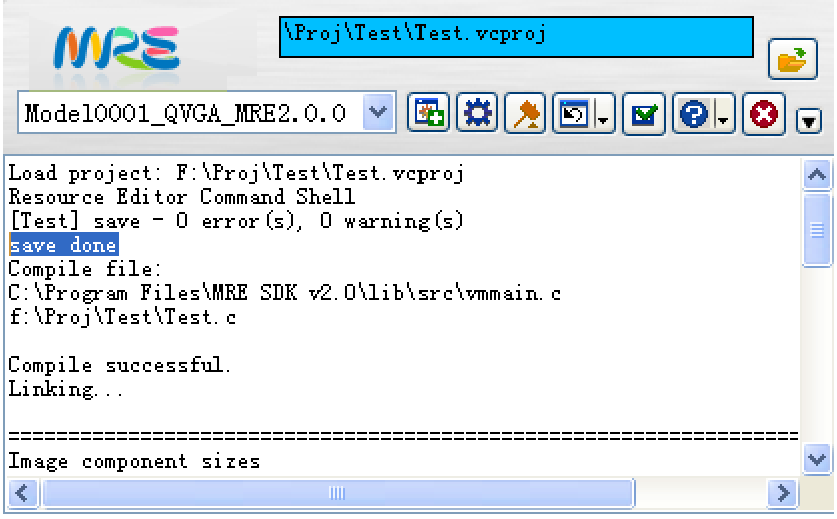
If there is an error in the packing process, an error reminder will be output.



```
1>construct app icon resource...
1>F:\Project\Test\AppLogo.img
1>[warning] App icon file does not exist in project folder, use default icon
1>construct app icon resource done
1>construct language resource...
1>Language ID: 44
1>Language ID: 886
1>construct language resource done
1>construct file resource...
1>C:\File\2.mp3
1>C:\File\3.avi
1>[error] File is not existed: C:\File\3.avi
```

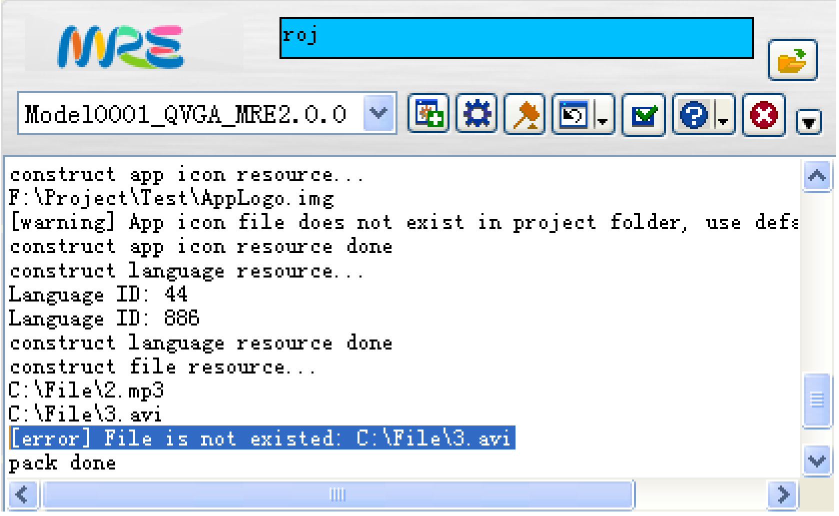
Fig 4- 73 Packing error

When the MRE Launcher tool is used, the build output will be displayed in the MRE Launcher's build output window.



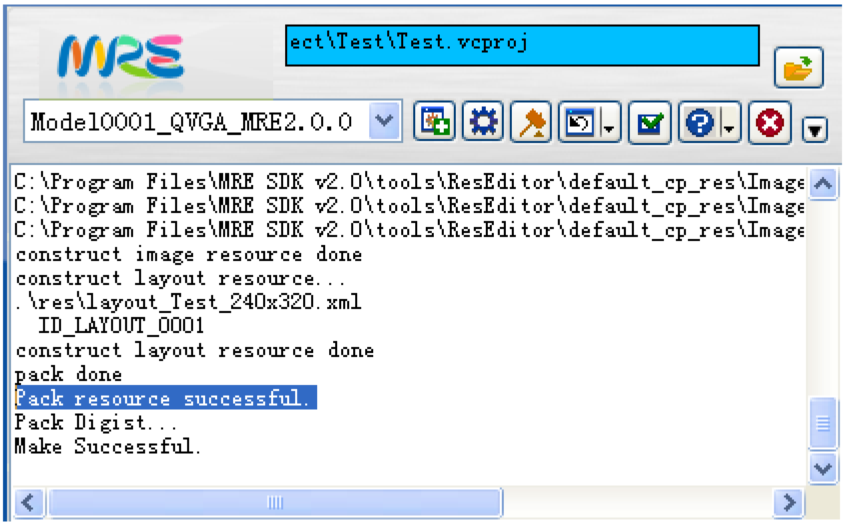
```
Load project: F:\Proj\Test\Test.vcproj
Resource Editor Command Shell
[Test] save - 0 error(s), 0 warning(s)
save done
Compile file:
C:\Program Files\MRE SDK v2.0\lib\src\vmmain.c
f:\Proj\Test\Test.c

Compile successful.
Linking...

=====================================================================
Image component sizes
```

Fig 4-74 Successful save



```
construct app icon resource...
F:\Project\Test\AppLogo.img
[warning] App icon file does not exist in project folder, use defa
construct app icon resource done
construct language resource...
Language ID: 44
Language ID: 886
construct language resource done
construct file resource...
C:\File\2.mp3
C:\File\3.avi
[error] File is not existed: C:\File\3.avi
pack done
```

Fig 4-75 Packing failure



```
C:\Program Files\MRE SDK v2.0\tools\ResEditor\default_cp_res\Image
C:\Program Files\MRE SDK v2.0\tools\ResEditor\default_cp_res\Image
C:\Program Files\MRE SDK v2.0\tools\ResEditor\default_cp_res\Image
construct image resource done
construct layout resource...
.\res\layout_Test_240x320.xml
  ID_LAYOUT_0001
construct layout resource done
pack done
Pack resource successful.
Pack Digist...
Make Successful.
```

Fig 4-76 Successful packing

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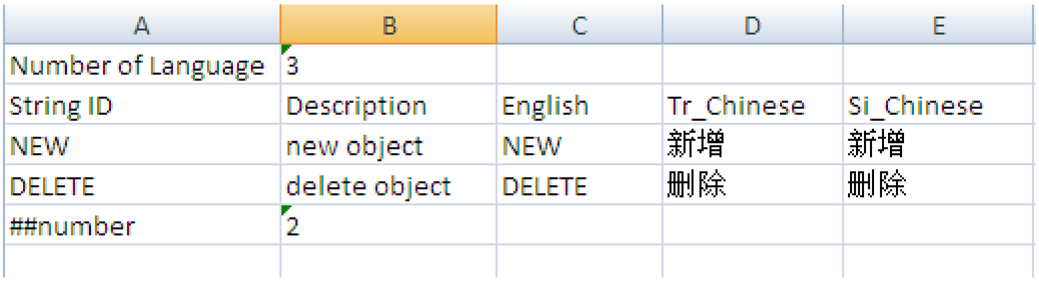
5.9 Appendix

5.10 Format of imported Excel forms

See the format in the following table. The first column of the first row must start with "Number of Languages"; the second column indicates the number of languages included. The first column of the second row is "String ID"; the second column contains "Description," and subsequent columns contain the names of languages. The first column of the final row must be "##number," and the second column contains the number of string IDs.



A	B	C	D	E
Number of Language	3			
String ID	Description	English	Tr_Chinese	Si_Chinese
NEW	new object	NEW	新增	新增
DELETE	delete object	DELETE	刪除	删除
##number	2			

Fig 5-1 Excel format

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6 Uninstall MRE SDK 2.0

Close Visual Studio 2008 Professional Editor and Visual Studio 2008 Express Editor, and close the MRE IDE Launcher. From the Start menu →MRE SDK 2.0 → Uninstall MRE SDK 2.0.

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