ΜΕΟΙΛΤΕΚ

VRE SDK Guide

Copyright © MediaTek Inc. All rights reserved.

Create VRE App(1)

- Step1: Run the Microsoft Visual C++
- Step2: Create the VRE project
 - File->New->Projects->VRE IDE AppWizard

New	? 🛛		
Files Projects Workspaces Other Documents	1		Project name
ATL COM AppWizard	Project name:		-
BREW Application Wizard	helloworld		
CusAppWiz AppWizard	lecation:	<u> </u>	Project Leastion
Custom AppWizard	E-tty/DEMOthelloworld		Froject Location
Database Project DevStudio Add-in Wizard	E.ITTEIDEMOINENDWUND		
ISAPI Extension Wizard			
Makefile	Create new workspace		
MFC AppWizard (dll)	C Add to current workspace		
MFC AppWizard (exe)	Dependency of:		
WINFC Approvizand(exel——VC知识库			
VRE IDE AppWizard	,		
a Win32 Application			
Win32 Dynamic-Link Library	Platforms:		
Win32 Static Library	In S2		
VRE IDE Wizard	-		
	OK Cancel		

Create VRE App(2)

Step3: Setting the VRE Application

VRE IDE AppWizard - Step 1 of 1	X
VRE Settings	
Screen Type:	
C QCIF © QVGA C WQVGA C HVGA	Screen type
○ QCIF_LS ○ QVGA_LS ○ WQVGA_LS ○ HVGA_LS	
© QVGA_LS_QWER © QCIF_LS_QWER	
Memory: 800 KB	Memory size
Development Info:	
Developer Mediatek	
Application name HelloWorld	
<u>≺Back</u> <u>N</u> ext > <u>Finish</u> Cancel <u>H</u> elp	

VRE App Source File

VRE App Source File



Build the VRE App

- Build the VRE App in VC
 - Menu: Build->Rebuild All
- The build information will show in the Build page.

```
Deleting intermediate files and output files for project 'helloworld - Win32 Debug'.
-------Configuration: helloworld - Win32 Debug------
Compiling...
helloworld.c
Linking...
LINK : warning LNK4098: defaultlib "LIBCD" conflicts with use of other libs; use /NODEFAULTLIB:library
build for VRE Applications
Microsoft (R) Library Manager Version 6.00.8168
Copyright (C) Microsoft Corp 1992-1998. All rights reserved.
helloworld.exe - 0 error(s), 1 warning(s)
Build information
```



Run the VRE App

Run the VRE App in VC

– Menu: Build->Execute(Ctrl+F5)

To	olbar: 🛛 🕸 🗃 🖌 🦉	i i i i i i i i i i i i i i i i i i i	Temory State	×	v				×
			System Memory State-	MEM SMS/CALL SIM FONT					
			Total Memory(Byte): 819200					0	
			Available Size:	816512	•	¥R	E Simulat	tor (O)	
			Current Used:	2688					
_			Memory Peak:	2960					
			Malloc Count:	35					
	VRE Application		Free Count:	2					
			Failed Times:	0					
	Пенотопи		Max Failed Size:	0					
			App Memory State						
			Total Memory(Byte):	819200					
			File Used Space:	0					
			APP Available Size:	819200					
			APP Used Memory:	0					
			Malloc Count:	0					
			Free Count:	0					
			Failed Times:	0					
			Max Failed Size:	0		. [<u> </u>		
			tiEda£	HPPOPT RC		•		•	
				off on _Da		<u> </u>	AREF	-	
			output files for pr	oject 'hello		-	-		
			on: helloworld - Win	132 Debug			a	-	
							2 ABC	3 DEF	
			lib "LIPCD" conflict	e with use a	4	GHI	5 jkl	6 мно	
ersion 6.00.8168 92-1998. All rights reserved.			7	PQRS	8 тиv	9 wxyz			
			k	¢	0	# - +			
			warning(s)						

ГГК

VRE App Main Function

VRE app entry function

- vm_main()

- Register event handler
 - vm_reg_sysevt_callback()
 - handle_sysevt() System event handle function
 - vm_reg_keyboard_callback()
 - handle_keyevt() Key event handle function
 - vm_reg_pen_callback()
 - handle_penevt() Pen event handle function



handle_sysevt()

- System event handle function, deal with the system event message.
- Parameter
 - Message
 - VM_MSG_PAINT
 - Create layer, update the screen
 - VM_MSG_INACTIVE
 - Delete layer when popup
 - VM_MSG_HIDE
 - VM_MSG_QUIT
 - Delete layer and exit the app.
 - Param
 - Reserved

```
#ifdef
           SUPPORT BG
   /* The application updates the screen when receiving the message VM_MSG_PAINT
   * what is sent after the application is activated. The application can skip
      the process on screen when the VM MSG ACTIVE or VM MSG INACTIVE is received.
   ×
   */
   switch (message) {
       case UM MSG CREATE:
           /* the GDI operation is not recommended as the response of the message*/
           break;
       case UM MSG PAINT:
           /* cerate base layer that has same size as the screen*/
           layer hdl[0] = vm_graphic_create_layer(0, 0,
               vm graphic get screen width(),
               vm graphic get screen height(), -1);
           /* set clip area */
           vm graphic set clip(0, 0,
               vm_graphic_get_screen_width(),
               vm_graphic_get_screen_height());
           draw hello();
           break:
       case VM MSG HIDE:
       case VM MSG QUIT:
           if( layer_hdl[0] != -1 )
           {
               vm graphic delete layer(layer hdl[0]);
               layer hd1[0] = -1;
           }
           break;
   3
```



handle_keyevt()

- Key event handle function, deal with the KEY_DOWN, KEY_UP, etc.
- Parameter
 - Event
 - VM_KEY_EVENT_DOWN
 - VM_KEY_EVENT_UP
 - VM_KEY_EVENT_LONG_PRESS
 - VM_KEY_EVENT_REPEAT
 - Keycode
 - VM_KEY_OK
 - VM_KEY_LEFT_SOFTKEY
 - VM_KEY_RIGHT_SOFTKEY
 - VM_KEY_NUM0

VM_KEY_NUM1

void handle_keyevt(VMINT event, VMINT keycode)
{
switch(event)
{
case VM_KEY_EVENT_DOWN:
break;
case VM_KEY_EVENT_UP:
if(VM_KEY_RIGHT_SOFTKEY == keycode)
{
if(layer_hdl[0] != -1)
{
<pre>vm_graphic_delete_layer(layer_hdl[0]);</pre>
layer_hdl[0] = -1;
}
vm_exit_app();
}
Dreak;
Case UM KEY EVENT LUNG PRESS:
Dreak;
Case VM KEY EVENI KEPEHI:
Dreak;
OCTAULT:
Dreak,
7
7



handle_penevt()

- Pen event handle function, deal with the PEN_DOWN, PEN_UP, etc
- Parameter
 - Event
 - VM_PEN_EVENT_TAP
 - VM_PEN_EVENT_RELEASE
 - VM_PEN_EVENT_MOVE
 - VM_PEN_EVENT_REPEAT
 - VM_PEN_EVENT_LONG_TAP
 - X

Y

- The x-coordinate of the pen touch
- The y-coordinate of the pen touch

```
void handle penevt(VMINT event, VMINT x, VMINT y)
    switch(event)
    {
            VM PEN EVENT TAP:
    case
        break:
            UM PEN EVENT RELEASE:
    case
        if( x > (vm_graphic_get_screen_width() / 2) &&
            y > (vm graphic get screen height() * 9 / 10))
        {
            if( layer hdl[0] != -1 )
                vm qraphic delete layer(layer hdl[0]);
                layer hdl[0] = -1;
            }
            vm_exit_app();
        }
        break;
            UM PEN EVENT MOVE:
    case
        break;
    case
            VM PEN EVENT REPEAT:
        break;
            VM PEN EVENT LONG TAP:
    case
        break:
    default:
        break;
    }
```

ΜΕΟΙΛΤΕΚ

www.mediatek.com

Copyright © MediaTek Inc. All rights reserved.