

Re: Parallel port interrupt revisited

Source:

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.platbuilder/2008-02/msg00099.html>

- *From:* rafaelaroca <rafaelaroca@xxxxxxxx>
 - *Date:* Tue, 5 Feb 2008 06:02:45 -0800 (PST)
-

Hi, thanks. I tried that, and it worked.

I got my test driver compiled and in the release directory of the target as you can see in the dir command output:

Welcome to the Windows CE Telnet Service on WindowsCE

Pocket CMD v 6.00

\> cd Release

\Release> dir parallel*

Directory of \Release

```
02/05/08 04:53a 12800 parallel.dll
02/05/08 04:53a 16496 parallel.map
02/05/08 04:53a 207872 parallel.pdb
02/05/08 04:53a 3914 parallel.rel
02/05/08 05:42a 3584 parallelTest.dll
02/05/08 05:42a 6568 parallelTest.map
02/05/08 05:42a 577536 paralleltest.pdb
02/05/08 05:42a 1304 parallelTest.rel
```

Found 8 file(s). Total size 830074 bytes.

1 Dir(s) 5417906176 bytes free

\Release>

Using the Visual Studio's Remote Process Viewer, i can see that parallel.dll is running, but parallelTest.dll not.

parallel.dll was added when i checked it in the catalog items, but it has no useful functions.

parallelTest is my project, a DLL which is just like this:

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```
BOOL APIENTRY DllMain( HANDLE hModule,  
DWORD ul_reason_for_call,  
LPVOID lpReserved  
)  
{  
WritePortUchar((unsigned char *) (0x378), 0);  
  
}
```

By the way, i added parallelTest.dll to both platform.bin and platform.reg

So, please:

- 1 – Is there a way to load a DLL when the system is already up and running?
- 2 – How can i configure wince to automatically load parallelTest.dll?
- 3 – I'm using my own WritePortUchar because when i try to #include <ceddk.h> to use WRITE_PORT_UCHAR, i get a compiler error because the header is not found

thanks again for the patience

Rafael

On Feb 4, 12:17 pm, "Bruce Eitman [eMVP]"
<beitman.nos...@xxxxxxxxxxxxxxxxxxxxxxxx> wrote:

That is because it is bad practice to modify the code in Public. Instead, you should clone the code and place it in a folder that you are controlling, like your BSP. Once you do that, your error should be found during compile.

—

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"rafaelaroca" <rafaelar...@xxxxxxxx> wrote in message

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```
// Subproject5.cpp : Defines the entry point
for the console
application.
//
```

```
#include "stdafx.h"
#include <Pkfuncs.h>
#include "nkintr.h"
```

```
#define IOBASE 0x300 // default LPT base
address
#define PORTA IOBASE
#define PORTB IOBASE+1
#define PORTC IOBASE+2
#define CONTROL IOBASE+3
#define INTE 0x80
#define PORT_A_OUTPUT 0x03
#define PORT_B_OUTPUT 0xC0
#define PORT_C_OUTPUT 0x30
```

```
// Parallel interrupt event handle
HANDLE hIntPar;
```

```
// IST Thread handle
HANDLE hThreadIST;
```

```
void WritePortUchar (PUCHAR port,
UCHAR value)
{
    __asm
    {
        mov dx, word ptr port
        mov al, value
        out dx, al
    }
}
```

```
void PAR_IST(void)
{
```

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```
int result;

for(;;)
{
// Wait for the interrupt event
result = WaitForSingleObject(hIntPar,
INFINITE);
if (result != WAIT_OBJECT_0)
{
_tprintf(_T("ERROR: ThreadProc –
WaitForSingleObject\n"));
}
else
{
_tprintf(_T("Interrupt Received from PRN
Port\n"));
}
InterruptDone(SYSINTR_FIRMWARE +
7);
}

}

int _tmain(int argc, TCHAR *argv[],
TCHAR *envp[])
{

DWORD dwThrdID;

_tprintf(_T("Starting...\n"));

OEMInterruptEnable(SYSINTR_FIRMWARE
+ 7, NULL, NULL);

if
(InterruptInitialize(SYSINTR_FIRMWARE
+ 7, hIntPar, NULL,
```

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```
NULL)) // Initialize IRQ 7 and map it to the
hIntPar event
_tprintf(_T("Interrupt Initialized\n"));
else
```

```
_tprintf(_T("ERROR: Interrupt NOT
initialized at first attempt\n"));
```

```
InterruptDisable(SYSINTR_FIRMWARE +
7); // Try if this works
```

```
if (InterruptInitialize
(SYSINTR_FIRMWARE + 7, hIntPar,
NULL, NULL))
_tprintf(_T("Interrupt Initialized at 2nd
attempt\n"));
else {
```

```
_tprintf(_T("ERROR: Interrupt NOT
initialized!\n"));
//CloseHandle(hIntPar); // kill the event
handle
//TerminateThread(hThreadIST, 0); // kill
the IST
//CloseHandle(hThreadIST);
return FALSE;
}
```

```
hIntPar = CreateEvent(NULL, FALSE,
FALSE, TEXT("IntParEvent")); //
This Event is going to wakeup the IST when
an interrupt occurs
```

```
if (hIntPar == NULL)
{
_tprintf(_T("ERROR: CreateEvent\n"));
return FALSE;
}
```

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```
hThreadIST = CreateThread(NULL, 0,  
(LPTHREAD_START_ROUTINE)  
PAR_IST,  
NULL, CREATE_SUSPENDED,  
(LPDWORD) &dwThrdID); // create the  
IST  
if (hThreadIST == NULL)  
{  
_tprintf(_T("ERROR: CreateThread\n"));  
CloseHandle(hIntPar); // kill the event  
handle  
return FALSE;  
}
```

```
CeSetThreadPriority(hThreadIST, 240); //  
Set thread priority
```

```
ResumeThread(hThreadIST); // Start the IST
```

```
WritePortUchar((unsigned char *)  
(CONTROL), (INTE |  
PORT_C_OUTPUT));  
// Write 0 to data and status registers  
// WRITE_PORT_UCHAR((unsigned char  
*) (LPTBase+1), 0);  
// WRITE_PORT_UCHAR((unsigned char  
*) (LPTBase+2), 0x10); // Enable  
IRQ on ACK (bit 4 of status register)  
while (getchar() != 'Q');  
return 0;
```

```
return 0;  
}
```

After running it on a x86 target, i get the error:

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```
\> Subproject5.exe  
Starting again and over agin...  
ERROR: Interrupt NOT initialized at first  
attempt  
ERROR: Interrupt NOT initialized!
```

In intr\init.c i also have:

```
OALIntrStaticTranslate(SYSINTR_FIRMWARE  
+ 7, 7);
```

which already came pre-included.

any hints?

any kind of help would be really great

thanks

Rafael