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Testint API Example

Description and Reference

With Borland C++ Builder

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The testint example is a small example program that tests if the board's interrupts work as expected. The example will work with HERON module carrier boards, such as the HEPC8 and HEPC9.

(This example will **not** work with TIM-40 carrier boards such as the HEPC2E, HEPC3, HEPC4 or HECPCI1. It will also **not** work with the HEPC6, a one 'C6x processor board.)

Compiling/Linking the Example

To compile/link the example, please create a new project with your Borland C++ compiler ('Win32 Console Application'). After you created a new project, you need to set the path to the Hunt Engineering API include file ("heapi.h") and library ("hendrv.lib"). There is an environment variable "HEAPI_DIR" that points to the directory where you installed the Hunt Engineering API.

Include directory: $(HEAPI_DIR)

Add library file: $(HEAPI_DIR)\hendrv.lib

How to create and start a new project (Borland C++ Builder)

In Borland C++ Builder, create a new workspace

1. Make a directory on the hard disk where you want to keep the new project.
2. File → New Application.
3. View → Project Manager.
4. Remove 'Unit1.cpp' from the project. (Select 'Unit1.cpp' in the 'Project Manager' window. Click the button marked with a folder and a minus sign. Answer 'no' when asked if you would like to save changes to 'Unit1.cpp').
5. Close the Project manager window by clicking on the 'x' in the top right hand corner.
6. File → Save Project As. Navigate to the directory where you want to keep this project. Next, enter a name for the project, and click the 'save' button. (Note that with C++ Builder you cannot give the project the same name as the name of the main CPP file that you want to include.)

Add files and libraries to the project

7. View → Project Manager. Add 'testint.c' located in the testint example directory: click on the button that shows a folder and a plus sign. Change 'Files of Type' to 'C file (*.c)'. Browse to the 'testint' example directory. Select 'testint.c'. Click 'Open'.
8. Go back to the 'Project Manager' window. Click on add again and change 'Files of type' to 'Library file (*.lib)'.
9. Navigate to the directory that contains 'hebdrv.lib' (usually 'c:\heapi') and include it.
10. Close the Project Manager window.

Include files

11. Options → Project.
12. Select 'Directories/Conditionals' tab from the window that pops up ('Project Options').

13. Add to the end of the line of text in the box marked Include Paths the location of the include files from the HUNT ENGINEERING CD (usually 'c:\heapi').
14. Add to the end of the line of text in the box marked Library Paths the location of the library files from the HUNT ENGINEERING CD (usually 'c:\heapi').
15. Click 'OK'.

Linker

16. Options → Project.
17. Select the Linker tab from the window that pops up ('Project Options').
18. Change the Application Type to Console application and click 'OK'.

Compile and Link

19. File → Save All (save all the changes you have made to the new project).
20. Select Build All from the Project Menu.

Running the example

Open a DOS box and browse to the testint example directory. Change directory to your project's directory. Assuming that your executable is called 'test.exe', and you use a HEPC8 carrier board, type:

```
testint hep8a 0
```

Possible output screens are:

```
Interrupts work fine.
Interrupt test failed.
Interrupts disabled.
Interrupt test failed, due to a driver problem.
```

If you have any other response than the first one ('Interrupts work fine.'), then you first need to resolve the interrupt problem. Please refer to the 'Troubleshooting' section in the API - Windows Installation & User Manual.

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