



HUNT ENGINEERING
Chestnut Court, Burton Row,
Brent Knoll, Somerset, TA9 4BP, UK
Tel: (+44) (0)1278 760188,
Fax: (+44) (0)1278 760199,
Email: sales@hunteng.demon.co.uk
URL: <http://www.hunteng.co.uk>



We are a
committed
member of the
Texas Instruments
3rd party
programme

For Sales and Support in North America Please Contact Our Strategic Partner:

Traquair Data Systems Inc, 114 Sheldon Road, Ithaca, NY 14850 USA

Tel 607 266 6000, Fax 607 266 8221

Email Traquair@traquair.com, URL <http://www.traquair.com>

For Sales and Support in Other Areas Please Contact Your Local Reseller.

HUNT ENGINEERING

HSB API Example

Description and Reference

With Borland C++ Builder

Document Rev A
API HSB Example Rev 1.0
J.Thie 20-04-01

COPYRIGHT

This documentation and the product it is supplied with are Copyright HUNT ENGINEERING 1999. All rights reserved. HUNT ENGINEERING maintains a policy of continual product development and hence reserves the right to change product specification without prior warning.

WARRANTIES LIABILITY and INDEMNITIES

HUNT ENGINEERING warrants the hardware to be free from defects in the material and workmanship for 12 months from the date of purchase. Product returned under the terms of the warranty must be returned carriage paid to the main offices of HUNT ENGINEERING situated at BRENT KNOLL Somerset UK, the product will be repaired or replaced at the discretion of HUNT ENGINEERING.

Exclusions - If HUNT ENGINEERING decides that there is any evidence of electrical or mechanical abuse to the hardware, then the customer shall have no recourse to HUNT ENGINEERING or its agents. In such circumstances HUNT ENGINEERING may at its discretion offer to repair the hardware and charge for that repair.

Limitations of Liability - HUNT ENGINEERING makes no warranty as to the fitness of the product for any particular purpose. In no event shall HUNT ENGINEERING'S liability related to the product exceed the purchase fee actually paid by you for the product. Neither HUNT ENGINEERING nor its suppliers shall in any event be liable for any indirect, consequential or financial damages caused by the delivery, use or performance of this product.

Because some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, the above limitations may not apply to you.

TECHNICAL SUPPORT

Technical support for HUNT ENGINEERING products should first be obtained from the comprehensive Support section www.hunteng.co.uk/support/index.htm on the HUNT ENGINEERING web site. This includes FAQs, latest product, software and documentation updates etc. Or contact your local supplier - if you are unsure of details please refer to www.hunteng.co.uk for the list of current re-sellers.

HUNT ENGINEERING technical support can be contacted by emailing support@hunteng.demon.co.uk, calling the direct support telephone number +44 (0)1278 760775, or by calling the general number +44 (0)1278 760188 and choosing the technical support option.

THE HSB EXAMPLE.....	4
COMPILING, LINKING AND RUNNING THE EXAMPLE	5
COMPILING/LINKING THE EXAMPLE.....	5
HOW TO CREATE AND START A NEW PROJECT (BORLAND C++ BUILDER).....	5
<i>In Borland C++ Builder, create a new workspace.....</i>	5
<i>Add files and libraries to the project.....</i>	5
<i>Include files.....</i>	5
<i>Linker.....</i>	6
<i>Compile and Link.....</i>	6
RUNNING THE EXAMPLE.....	6
TECHNICAL SUPPORT	7

The HSB example is an example program that shows how to use the HSB interface of a HERON carrier board. The example assumes you have loaded the DSP program onto the DSP module using Code Composer Studio, and will try to send and receive messages between the Host and the DSP module.

(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 and Running the example

Compiling/Linking the Example

To compile/link the example, please create a new project with your Borland C++ Builder compiler (make it a '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 'host_hsb.c' located in the 'host_hsb' 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 'host_hsb' example directory. Select 'host_hsb.c' (if you keep the CTRL key pressed, you can select more than 1 file at once). 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 Path' the location of the include files from your API installation directory (usually 'c:\heapi').
14. Add to the end of the line of text in the box marked 'Library Path' the location of the library files from your API installation directory (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 host_hsb directory. Change directory to your project's Debug directory (or the Release directory, if you built a release version). Assuming that your executable is called 'host_hsb.exe', and you use a HEPC8 carrier board, type:

```
host_hsb
```

(You should have loaded 'heron_hsb.out' onto the DSP beforehand, for example by using Code Composer Studio). Following the instructions you should see messages being sent between the DSP and the Host.

The code for the out files is in the host_dsp example's 'dsp' sub-directory.

1. Technical support for HUNT ENGINEERING products should first be obtained from the comprehensive Support section www.hunteng.co.uk/support/index.htm on the HUNT ENGINEERING web site. This includes FAQs, latest product, software and documentation updates etc. Or contact your local supplier - if you are unsure of details please refer to www.hunteng.co.uk for the list of current re-sellers.
2. HUNT ENGINEERING technical support can be contacted by emailing support@hunteng.demon.co.uk, calling the direct support telephone number +44 (0)1278 760775, or by calling the general number +44 (0)1278 760188 and choosing the technical support option.