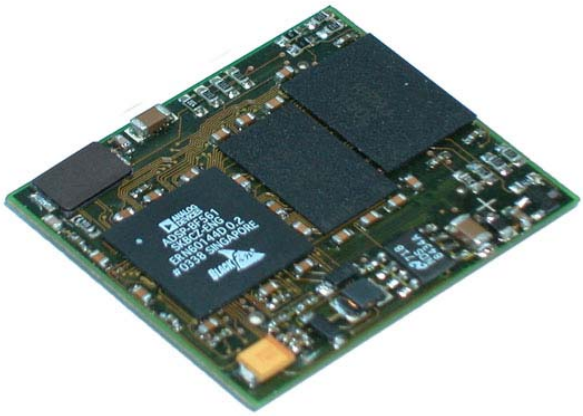
BLUE TECHNIX



Command Reference

BLACKSheep V0.5.1

www.tinyboards.com

Maximum Power at Minimum Size

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1 Command Reference

The command listed below can be used with special parameters. Please choose one of them.

Example: example [par1] [par2] means: example par1 or example par2

Please be aware that all commands are case sensitive.

- **cat**

  This is an alias for the view command.

- **can {[-s] [message] [mailbox]} {[-ih] [mailbox]} {[-r] [mailbox] [timeout]} {[-uh] [mailbox]} [-sh]**

  The *"can"* command supports sending an receiving can messages over the integrated CAN-Module of the CM-BF537x.

-s message mailbox	Sends a message of max. 8 characters to the mailbox with number selected by [*mailbox*].
-r mailbox timeout	Waits for a message for the given mailbox for "*timeout"* seconds. If a message is received in time he is printed on stdout, otherwise an error message is printed.
-ih mailbox	Installs a listener on the given mailbox. Every time a messages is received for the given mailbox he is printed out on stdout.
-uh mailbox	Uninstalls the listener for the given mailbox number.
-sh	Shows a list of all installed listener.

  Note: The *"can"* command is available only on the CM-BF537x.

- **cd**

  This command changes the working directory within the file system.

- **cp sourcefile destinationfile [-o]**

  This command copies a file from "*sourcefile*" to "*destinationfile*"

  Optional parameters:

  -*o*: overwrites the destinationfile

- **date {dd mm yyyy}**

  With no parameters this command shows the current date, otherwise sets the date.

  Example: date 31 05 2006 (sets the date to 31-05-2006)

- **exec filename**

  This command loads and executes the filename specified. The hex-file has to be compiled and linked with the VisualDSP++ environment. It has to be a valid Intel hex loader file from a VDSP++ project (File extension "*.ldr*"). Make "ls" to see the correct filename (case sensitive) before using the "exec" command.

- **flash [-rsdev] [-rsapp] [-qry] [-chkempt] [-lock] [-unlock]**

  [file to flash {-a -b}] [-ff]

  Use one of the following parameters.

-rsdev	erases the entire flash device
-rsapp	erases only the application section, without erasing the BLACKSheep
-qry	shows the vendor and manufacturer id
-chkempt	looks if flash is empty
-lock	locks all flash sectors
-unlock	unlocks all flash sectors

  hex-filename {-a –b}

  flashes the file with the hex-filename. The file must have a valid Intel hex file format. Use the –a switch to flash the file as an application. You can load thos application with the loadff command. The –a option flashes the application on the first free address in flash. With the –b flash option you can flash the file as a boot version. The BF533 then boots this application instead of the BLACKSheep. BE AWARE THAT FLASHING A FILE WITH THE –b OPTION OVERWRITES THE BLACKSHEEP CODE! Flashing with the –b option enabled is only possible, after a rsdev command that erases the entire flash. After a reset the BLACKSheep code looks for valid applications in flash and tries an autoboot after a certain timeout, if no key is pressed.

  -ff shows if any application is in flash and gives you the first free address in flash.

  Note: During the flash process a progress bar shows the status of the flash process.

- **getimg [-qvga] [-vga] [-cam1] [-cam2] [-bmp] [-jpeg] [filename]**

  This command captures a picture from a camera if installed, and stores the image as a windows bitmap or jpeg in the file specified by filename. You can transfer this file to the host pc, using the "xmt" command.

-qvga	selects the qvga resolution (320 * 240)
-vga	selects the vga resolution (640 * 480)

-cam1	selects the camera connected on PPI1
-cam2	selects the camera connected on PPI2
-bmp	saves the image as windows bitmap
-jpeg	saves the image as jpeg
filename	Name of the image file to save the picture

Note: Depending on the version of the core module not all parameters may be supported.

- **gm game**

  Start a funny tiny game. Currently only "Tetris" is available. Type *"gm tetris"*

- **help**

  Shows all available commands

- **i2c {[-s] [hwaddress] [regaddress] [value]} {[-r] [hwaddress] [regaddress]} [-scan]**

  The "*i2c*" command supports sending and receiving messages on the I2C interface. The core module acts as master.

  -s hwaddress regaddress value

  Sends one byte specified by *"value"* to the register *"regaddress"* of the slave device selected by *"hwaddress"*.

  -r hwaddress regaddress

  Reads in the content of the register *"regaddress"* of the slave device selected by *"hwaddress"*.

  -scan

  Scans for devices on the I2C interface. This command may take several time.

  Note: The *"i2c"* command is available only for the CM-BF537x.

- **kill [thread id]**

  Kills the thread with the id *"thread id"*. Use the command *"ps"* to see all running threads.

- **load [nr of application] -de**

  Loads and executes a application from flash. The application given as parameter is loaded. Loadff 1 loads the first application, loaddff 2 the second and so one. The BLACKSheep code located in the flash can't be loaded in this way. Currently only one application is supported.

-de	Starts the execution from the first address of the application, without invoking the boot process. In this way applications that are compiled for the boot mode "00" (Direct execution from flash) can be loaded. For example the "uboot" can be loaded in this way.

- **ls**

  This command shows all files in current working directory.

- **mkdir directory**

  Create a new directory.

- **pinfo**

  Shows all mounted partitions and the file system on each partition.

- **ps**

  Shows the running threads.

- **pwd**

  This command shows the current working directory.

- **reboot**

  Reboots the core module according to the boot mode settings. (Refer to the Hardware User Manuals for the "Boot Mode Settings)

- **rm filename**

  Deletes the file specified by "*filename*"

- **test [sdram] [flash] [dpram {-a} {-b}] [all]**

  This is a simple hardware test program.

  Use one of the following parameters.

  sdram: test of the sdram on the core module

  flash: test of the flash on the core module

  dpram: test of the dual ported ram, only for the DEV-BF5xx

  -*a*: for core module inserted in slot A

  -*b*: for core module inserted in slot B

  all: test of flash, sdram and dual ported ram

- **time {hh mm ss}**

  With no parameter the command shows the current time otherwise sets the time.

  Example:time 12 05 35 (sets the time at 12:05:35)

- **ver**

  The command shows the version information for the BLACKSheep.

- **view filename**

  Shows the content of the file specified.

- **xmr filename**

  This command is usesd for an XModem transfer from the host PC to the coremodule.

First you have to start the transfer on the BLACKSheep and than you have to activate the XModem transmit mode on your terminal program.

- **xmt filename**

  Used for a filetransfer via XModem protocol to the host PC.

  First you have to start the transfer on the BLACKSheep and than you have to activate the XModem receive mode on your terminal program, e.g. for the Hyper Terminal:

  Transfer → Receive File

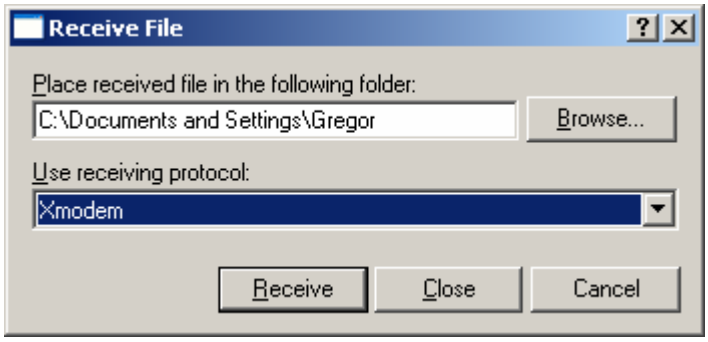

Figure 1-1: Receive File

Then press ‘receive’ and type in the local file name.

2 Revision History

2006-05-31	Release Version No. 1.0

A List of Figures and Tables