

Config. program  V1.00  
Firmware for BDI2000  V1.01  
Logic for BDI2000  V1.00

# ABATRON

Date: Jan. 14, 2002

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## Enhancements

- New configuration parameter (RESET) added to define the target reset type (NONE, JTAG, HARD).
- Support for Alchemy Au1000 added.

Config. program  V1.01  
Firmware for BDI2000  V1.02  
Logic for BDI2000  V1.00

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Date: July 2, 2002  
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## Enhancements

- The new Telnet command RDUMP writes the value of all user defined registers to a file on the host.
- The Windows setup tool is now a WIN32 application.
- BDI Firmware programming time improved for the Linux setup tool (bdisetup).
- Delay after reset added to support the IDT EB355 board.

## Error Correction

- M4Kx : Error when setting a data watchpoint corrected
- RC32355 : Fast upload / download now also possible with RC32355
- M4Kx : Correct calculation of the offset value for the CACHE instruction when reading Cache Tags.

Config. program  V1.01  
Firmware for BDI2000  V1.03  
Logic for BDI2000  V1.00

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Date: Sept. 26, 2002  
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## Enhancements

- Support for AMD MirrorBit flash added.
- Linux MMU support added. This allows to debug kernel code (e.g. loadable modules) that is allocated in mapped kernel address space (kseg2). The BDI searches the page table(s) and if necessary allocates a temporary TLB before accessing mapped memory space. See user's manual for more information about this new feature.

## Error Correction

- RC32300: Workaround implemented for the case where the PC keeps staying at the same position during a single step (STEPMODE HWBP).

Config. program  V1.02  
Firmware for BDI2000  V1.04  
Logic for BDI2000  V1.00

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Date: January 17, 2003  
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## Enhancements

- Support for multiple devices on the JTAG scan chain added (see new configuration parameters).
- Support for network configuration via BOOTP added.
- Support for 32 bit wide flash chips added.
- New Telnet command to unlock multiple (same size, continuous) flash sectors with one command.
- Improved Telnet „erase“ command to erase multiple (same size, continuous) flash sectors with one command.
- Memory test function implemented (Telnet MT command).
- Improved Telnet interface with history buffer and line editing.

## Note:

The BDI's ethernet MAC address will change with this release.  
The setup tool displays the new MAC address.

Config. program  V1.02  
Firmware for BDI2000  V1.05  
Logic for BDI2000  V1.00

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Date: March 12, 2003  
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## Enhancements

- New Telnet command (IFLUSH) to invalidate the instruction cache.
- New Telnet command (DFLUSH) to flush the data cache.
- If necessary, the BDI flushes the data cache and invalidates the instruction cache before starting the target. This solves some problems when downloading to cached memory regions.

Config. program  V1.03  
Firmware for BDI2000  V1.06  
Logic for BDI2000  V1.00

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Date: February 6, 2004  
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## Enhancements

- New configuration parameter (WAKEUP) added to support targets that needs some wake-up time after a reset.
- The Telnet command „CONFIG“ allows to change the name and IP address of the configuration file. The new name and IP address is stored in the BDI's flash and a boot sequence is started.
- The file names in the configuration file maybe relative to the configuration file path.
- The Telnet command „reset“ is now synchronous. This allows the use of it via a GDB monitor command. Also the handling of GDB monitor commands has been improved.
- New Telnet DELAY command added. Maybe useful when working with GDB command scripts.
- New configuration parameter (REGLIST) added (see user's manual).

Config. program  V1.03  
Firmware for BDI2000  V1.07  
Logic for BDI2000  V1.00

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Date: July 20, 2004  
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## Enhancements

- The Telnet command CONFIG allows to change all BDI network parameters. The new parameters are stored in the BDI's flash and a boot sequence is started.
- New init list entries allow to read memory and CP0 registers.
- The erase list accepts a new UNLOCK option (see user's manual).
- A work around for reset problems with some IDT RC32300 chips added.

Config. program  V1.03  
Firmware for BDI2000  V1.08  
Logic for BDI2000  V1.00

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Date: Sept. 29, 2004  
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## Enhancements

- Flash programming with workspace is 2 to 3 times faster.
- Telnet history buffer no longer filled with repeated commands.



Config. program  V1.03  
Firmware for BDI2000  V1.10  
Logic for BDI2000  V1.00

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Date: March 9, 2005

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## Error Correction

- Compatibility problem with GDB 6.3 solved. Reading a single register was not implemented correct.

Config. program  V1.03  
Firmware for BDI2000  V1.11  
Logic for BDI2000  V1.00

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Date: August 5, 2005  
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## Enhancements

- Support for M24K family added
- Access to floating-point and CP1 control registers added.
- Support for MIPS16 code added. It is now possible to debug MIPS16 code via GDB.

Config. program  V1.04  
Firmware for BDI2000  V1.12  
Logic for BDI2000  V1.00

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Date: Febr. 17, 2006  
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## Enhancements

- Support for Multi-Core debugging added. Concurrent debugging of up to 4 daisy chained MIPS32 cores with different GDB sessions is now possible.
- Enhanced flash erase support via configuration file (see user's manual).
- The Windows setup tools now allows to select a COM port in the range 1 - 19.
- The Telnet CONFIG command displays the firmware version.
- New configuration parameter (POWERUP) added to support a target that needs some wake-up time after a power-up.
- The Telnet BD (set data breakpoint) command accepts now a [<mask>] parameter.

Config. program  V1.04  
Firmware for BDI2000  V1.13  
Logic for BDI2000  V1.00

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Date: March 31, 2006

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## Error Correction

- Big endian communication problem with GDB solved. This error was newly introduced with V1.12. This error was not present in V1.11 or older firmware.

Config. program  V1.04  
Firmware for BDI2000  V1.14  
Logic for BDI2000  V1.00

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Date: July 18, 2006  
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## Enhancements

- Improved Telnet history buffer handling.
- Support for 64-bit Linux page table entries (PTE's) added (see PTBASE parameter).

Config. program  V1.04  
Firmware for BDI2000  V1.15  
Logic for BDI2000  V1.00

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Date: October 20, 2006  
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## Enhancements

- New flash algorithm types added (S29M64X8, S29M32X16).
- The MirrorBit algorithm uses the write buffer also when no workspace is defined.
- An open TCP/IP connection (e.g. Telnet) will be closed if there is a connect request from the same host (same IP address). The old connection will be closed in such cases.

Config. program  V1.04  
Firmware for BDI2000  V1.16  
Logic for BDI2000  V1.00

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Date: June 6, 2007  
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## Enhancements

- New RECONNECT option to the DEBUGPORT parameter added. When present, a Telnet/GDB (TCP) connection request to an already open TCP channel is accepted if the host IP is the same as the initial one. The old TCP channel will be closed immediately.
- Telnet accepts now multiple commands separated by a semi-colon on one line.
- Support for low level scan chain configuration added (see user's manual).

Config. program  V1.04  
Firmware for BDI2000  V1.17  
Logic for BDI2000  V1.00

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Date: Sept. 28, 2007  
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## Enhancements

- Telnet IAC option handling improved.
- Support for MIPS 34K added.
- New telnet commands added to display MT and DSP ASE status.



Config. program  V1.04  
Firmware for BDI2000  V1.18  
Logic for BDI2000  V1.00

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Date: January 3, 2008  
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## Enhancements

- New option JTAGDELAY in [TARGET] section added (see user's manual).
- The instruction(s) used to bypass additional devices on the JTAG scan chain can now be defined. This for special devices where all 1's does not work (e.g. NXP8935).

Config. program  V1.04  
Firmware for BDI2000  V1.19  
Logic for BDI2000  V1.00

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Date: March 18, 2009  
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## Enhancements

- Improved Telnet MT command.
- New init list entry added that allows to set PC, HI and LO.

## Error Correction

- TLB handling crashed for cores with 64 TLB entries. This has been fixed now.

Config. program  V1.04  
Firmware for BDI2000  V1.20  
Logic for BDI2000  V1.00

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Date: April 13, 2011  
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## Enhancements

- Support for MIPS 74K added.
- Download speed via GDB improved.
- Support for single step mode HWBP and SWBP for MIPS16 code added.

Config. program  V1.04  
Firmware for BDI2000  V1.21  
Logic for BDI2000  V1.00

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Date: November 7, 2011  
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## Enhancements

- Support for Spansion S29GL-S flash added (S29GLSX16 algorithm)

## Error Correction

- Error when reading bytes from odd addresses corrected. This error was only present in version 1.20.

Config. program  V1.04  
Firmware for BDI2000  V1.22  
Logic for BDI2000  V1.00

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Date: July 9, 2012  
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## Enhancements

- Support for Spansion S29VS-R flash added (S29VSRX16 algorithm)
- The JTAG clock frequency can be entered in Hertz and not only as an index.
- GDB: The BDI now answers with 1 to the GDB qAttached packet.
- Maximal Telnet and GDB remote command length increased to 256 characters.
- Telnet command EXEC, RGPR, WGPR and SYNC added (see user's manual).
- Telnet command UPDATE added that allows to reload a configuration file without booting the BDI.

## Error Correction

- A too long GDB remote command (monitor command) no longer crashes the BDI.

Config. program  V1.02  
Firmware for BDI2000  V1.23  
Logic for BDI2000  V1.00

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Date: April13, 2015  
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## Enhancements

- For flash algorithm MIRRORX16 and S29GLSX16 the Telnet unlock command erases the PPB bits.
- The sector erase function for S29GLSX16 uses the S29GL-S Blank Check command to test if a sector is already erased. The erase command is only execute if the sector is not already blank.
- The WREG init list entry now accepts all names from the register definition file.
- New and changed Multi-Core related Telnet commands (see manual).
- Configuration and register definitions can be stored in the BDI internal Flash memory. In this case no TFTP server is necessary to load the configuration files.
- Maximal number of cores increased to 8.