## Enhancements

- Recovers after download to illegal memory space.
- Faster Telnet response (push TCP segments).
- New names for JEDEC files.

## Error Correction

- Correct start-up when target is powered up after the BDI2000.
Enhancements

• Support for more than one ELF physical header added.
• New configuration parameters added (INITTIME and WORKSPACE), see manual for more information.
• Faster flash programming with target based programming algorithm added.
• Improved Telnet error output during startup in Gateway mode.

Error Correction

• Correct handling of TFTP file access errors.
• Correct access to the PPC time base register (TBL/TBU)
Enhancements

• Detection if target is freezed has been improved. Freeze detection also works when the BDM connector pins VFLS0 and VFLS1 are not connected to the target. If not connected to VFLSx, this BDM connector pins should be left open or tied to Vcc.

• New Telnet command (QUIT) added to terminate the Telnet session.

• Support for Tornado 2 added (see manual).

• Agent mode supports Tornado 2 hardware breakpoints. The Tornado 2 shell command BH is supported (e.g. >BD &loopCount,3).

• A new serial gateway mode has been added (for more information see manual).

Error Correction

• An error in the fast programming algorithm for Intel flashes has been corrected. The fast algorithm did not work for Intel flashes connected to a 16bit or 8bit memory bus. For a 32bit memory system, the algorithm was correct.

Information

• In Gateway mode, hardware breakpoints can not be supported even when the target agent supports it. This is because when debug mode is enabled (BDM enabled), the application running on the target has no access to the development support registers.
Enhancements

• The Telnet memory modify commands (MM, MMH, MMB) support a new <count> parameter. It's now possible with these commands to fill a memory range with a byte, half word or word pattern.

• The Telnet memory display commands (MD, MDH, MDB) output the memory content also in ASCII format.
## Enhancements

- HDLC driver added for serial gateway mode (see manual).
- Support for host communication via network gateway added.
- Load offset added to Telnet LOAD, VERIVY and PROG command.
- Registers can be defined and access by name via Telnet (see manual).
Enhancements

- User selectable Telnet prompt added. The Telnet prompt can be defined in the configuration file and also interactively changed during a Telnet session.
- Flash programming support for Atmel AT49 chips added.
- New flash erase modes support now chip and block erase.
- The flash programming function (PROG) now supports different file formats.
- New Telnet command (BREAK) added to display and change current breakpoint mode.
Enhancements

- BDM interface timing improved.
Enhancements

- Faster programming for Intel StrataFlash.
- New Telnet command (DUMP) added to upload a binary memory image.
- A copy of the self clearing ICR register is held in the BDI. Reading the ICR returns this copy.
- The host can take control over the watchpoint / breakpoint hardware in the target.
  As soon as ICTRL, LCTRL1 or LCTRL2 is written to, the BDI assumes that the host controls the
  watchpoint / breakpoint hardware. This way the debugger or the user via Telnet has access to all
  features of this watchpoint / breakpoint hardware. A hardware breakpoint set via BI or BDx gives
  control back to the BDI.
- A write to the ICTRL register in the initialization list can be used to define the value of the ISCT_SER
  field. In the past, the BDI has used the fix value of 7 for this field. This has caused problems on some
  special hardware.
- Via Telnet, the DTAG and the copy back buffer content can be displayed.
- Support for the AT29 flash memory added (only for chips with 256 byte page size)
- While in debug mode, the BDI forces the CIDEF bit in MD_CTR to zero. This way, cache coherent
  accesses is guaranteed.
Error Correction

- New logic for the BDI2000 CPLD. The previous one did not reliably work at the highest BDM clock rate of 16.7MHz (CPU Clock >= 50'000'000).
Enhancements

• Support for MPC5xx targets added. This includes floating point register access and also programming of the internal flash of MPC555 and MPC565.

Error Correction

• Error when host uses 64k TCP window corrected.
Enhancements

• During flash programming, the SC bit in DER is automatically set and restored afterwards.
• The RS232 port of the target can be routed via the BDI to a TCP/IP channel, see user’s manual.
• Maximal number of programming pulses for MPC555 internal flash increased.
• Support for AMD MirrorBit flash added.
• The new Telnet command RDUMP writes the values of all user defined registers to a file on the host.
• New configuration parameter (STARTUP) added, see user’s manual for more information.

Error Correction

• The erase time-out for AMD flashes has been increased. This was necessary because of long chip erase time.
• Invalidate instruction cache only for MPC8xx targets. Do not write to SPR 560 on MPC5xx targets.
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**Enhancements**

- Support for network configuration via BOOTP added.
- New Telnet command added 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.
- Support for 32 bit wide flash chips added.
- Improved Telnet interface with history buffer and line editing.
- The instruction used for a software breakpoint can be a TRAP or ILLEGAL (see manual).
- The Windows setup tool is now a WIN32 application.

**Note:**

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

- The file names in the configuration file maybe relative to the configuration file path.
- 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.
Enhancements

• Make compatible with new BDI2000 internal flash type.
• The MirrorBit algorithm uses the write buffer also when no workspace is defined.
• Telnet history buffer no longer filled with repeated commands.
• The Windows setup tools now allows to select a COM port in the range 1 - 19.
• The flash unlock command has more features (see user’s manual).
• The erase list accepts a new UNLOCK option (see user’s manual).