

# HBBR Basic Release Notes

## Version 2.000.306

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- Compiler
  - File system implementation
    - File statements: **Open**, **Close**, **Seek** fully implemented.
    - File statements: **Input**, **Line Input**, **Print**, **Write**, **Put**, **Get** fully support simple types: **Boolean**, **Sbyte**, **Byte**, **Short**, **UShort**, **Integer**, **UInteger**, **Single**, **String**
  - Library modules support fixes – MOL
  - Linker MAP enhanced to output absolute address for symbols
  - Reserved keywords changed
- IDE
  - IO pin configuration dialog
  - File open enhancement, .inc and .mol files
  - Build number included in version identification string (compiler, documentation)
- Runtime
  - HBBRFS installable file system support
  - Hardware based delay implementation `__hbbr_delay()`
  - Fixed Chr\$ function

## Version 2.000

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- Compiler
  - Linker extended to support library modules - MOL
- IDE
  - Support for library modules - MOL
  - Node-locked licensing
- Runtime

## Version 1.300 BETA17

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- Compiler
  - Fixed “out of memory” bug in SELECT CASE statement
  - In-line assembler
    - Added “LDR Rx,=XXXXX” pseudo-instruction

- Fixed various encoding bugs
- IDE
  - No change
- Runtime
  - Added full support for the ATSAM7X devices
  - Fixed Single (floating point) printing bug

## **Version 1.200 BETA16**

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- Compiler
  - Added in-line assembler
  - Extended GoTo range
- IDE
  - No change
- Runtime
  - No change

## **Version 1.200 BETA15**

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- Compiler
  - Fixed initialization of the Arrays
- IDE
  - Added handling regular expressions in Find/Replace
  - Fixed rare LPC2000 upload problem
- Runtime
  - Added support for the
    - at91sam7x128i, at91sam7x256i
    - lpc2292i, lpc2294i

## **Version 1.200 RELEASE**

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- Compiler
  - Support for Structure type
  - Enhanced support for Arrays
    - Array can be passed as argument
- IDE

- Added Check Syntax (menu and tool bar button)
- Added dialog based wizard to select runtime
- Interactive Debugger
  - Full support for Structure and Array types
  - Added Up and Down commands to navigate stack in debug
- Option to output Linker Symbol Map

## **Version 1.107 BETA14**

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- Compiler
  - Added user settable linker options
- IDE
  - Interactive Debugger
    - Fully interactive debugger
      - Added CPU View  
Shows peripheral registers
      - Added Watch View  
Shows watch expressions, allows values to be edited
      - Added Stack View  
Shows current stack
    - Linker options in Project Explorer
      - Configuration->Linker
- Runtime
  - Monitor updated

## **Version 1.106 BETA13**

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- Compiler
  - Added support for SByte, UShort and UIntger types
  - Removed requirement for string type variables and constants to end with a \$
- IDE
  - Syntax coloring updated for new types

- Runtime
  - Added support for new types
  - All registers declared as UInteger type

## **Version 1.105 BETA12**

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- IDE
  - Added cycling through source windows with CTRL TAB
- Runtime
  - Revised AT91SAM7 runtime support
    - All registers declared including AIC
    - Added constants
    - Interrupt handling is fully functional
  - AT91SAM7 SDK – revised
  - Added `__hbr_delay` milisecond blocking delay function, not fully calibrated yet.

## **Version 1.104 BETA11**

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- Added AT91SAM7 SDK – initial version
- Added `__hbr_delay` milisecond blocking delay function, not fully calibrated yet.
- Fixed AT91SAM7 GPIO, Pin function returns correct value
- Fixed GUI colorized display, class and method, print #number
- Fixed initialization of the local string
- disabled registration of the AT91Boot\_DLL.dll, it has to be registered manually or as part of installing AT91-ISP.EXE 1.9 version.

## **Version 1.103 BETA10**

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- Added supported for I2C with built-in HAL class

## **Version 1.102 BETA9**

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- Enhanced support for at91sam7s
  - Added Serial class
  - Added IO class and all pin definitions
  - Better UART flags support in the GUI
- Math related issues:
  - Fixed single constant initialization
  - Fixed internal conversions for all of the MATH functions
- IDE

- Changed Compile button and menu item to be enabled all the time
- Fixed Program Flash to be enabled when Hex only project is loaded

## **Version 1.101 BETA8**

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- Support for at91sam7s64, at91sam7s128 and at91sam7s256
- Added workspace at91sam7
- Integrated programming support for at91sam7 using serial port or JTAG

## **Version 1.100 RELEASE**

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- SCB Configuration Auto or Manual
- Resolved issues with String concatenation
- Debugger updates

## **Version 1.007 BETA7**

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- IDE Terminal updated, shows text caret
- IDE added HEX only workspace
- IDE HEX file automatically updated after compile
- IDE Fixed upload issue with certain file sizes
- Runtime fixed interrupt handling
- Runtime fixed runtime error reporting
- SDK Added HBBRTEST interactive test

## **Version 1.006 BETA6**

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- IDE Serial communication, upload/download full speed.
- IDE expiration date updated
- Help all topics visible including gui reference,index.

## **Version 1.005 BETA5**

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- IDE configuration tree sorted, hex switch for editing numerical options, Enable Optimization flag.
- Compiler fixed local stack corruption, fixed incorrect initialization of the global arrays index range
- Runtime added built-in memory arrays to provide Byte and Integer (Word) access to Flash (ROM) and SRAM/Registers (RAM)
- Installation added 2 runtime variants: Bare Metal and Full Math support

## **Version 1.004 BETA4**

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- IDE new look, XP themes

- IDE removed tab bar, added tab navigation
- IDE added clean terminal view
- IDE added file properties
- Compiler fixed local arrays initialization bug
- Runtime lpc229[2,4] external memory configuration options
  - BCFGx options
  - PINSEL2 option
- Installation added lpc2000 sdk
  - installing lpc2xxxmo.mod

## **Version 1.003 BETA3**

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- Linker changes to support external RAM memory for lpc229[2,4]
- IDE messages to report memory locations and sizes
- IDE tab bar for quick navigation
- IDE tips and prompts for all of the menus and commands

## **Version 1.002 BETA2**

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- Support for lpc210[4,5,6] and lpc229[2,4] running from internal memory only
- Fixed issue with IDE not saving source files before compile

## **Version 1.001 BETA1**

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- Support for lpc213[4,6,8] and lpc214[4,6,8]