

V4.02 Commercial Release

● Compiler

- Fixed: for chips with 128 kbytes or more FLASH and *Medium* or *Large* memory models, reading data from constant arrays or structures located in FLASH, could produce wrong results if the total size of the constant data in the program exceeds 64 kbytes.

● CodeWizardAVR

- The code preview window now also displays the contents of the generated header files.

● IDE

- Added the possibility to select a Light theme with white or yellow background.
- Improved the IDE stability.
- Fixed: Right clicking in the file open/save dialogs didn't display any context menu, if no file or folder was selected.

V4.01 Commercial Release

● Compiler

- Modified the ST7567 display library to support the ERC12864FSF-7-3080 display from www.buydisplay.com which has X shifted by 4 pixels.

In Project|Configure|C Compiler|Globally #define ERC12864FSF_7 for both Debug and Release build configurations

- Modified the ST7735 display library to support the ER-TFTM018-3 display from www.buydisplay.com which has X shifted by 2 pixels and Y by 1 pixel.

In Project|Configure|C Compiler|Globally #define ER_TFTM018_3 for both Debug and Release build configurations.

- Added hardware SPI support in the SH1106 graphic display library.

● IDE

- Prevent exceptions when there is inconsistent data in the cvavr.ini file.
- Improved menu toolbar re-positioning since V4.00.
- The Editor cursor now changes shape depending on the Insert/Overwrite mode.
- Fixed a bug that appeared in V4.00: Files didn't display correctly when the View Menu was set to Details in file open/save dialogs.

V4.00 Commercial Release

● Compiler

- Added support for the LGT8F328P chip, including the usage of the hardware arithmetic accelerator.
- Added hardware SPI support in the SSD1306 graphic display library.
- Added library for the Bosch Sensortec BMP388 and BMP390 pressure and temperature sensors.
- In the header files for AVR DD chips, added the definition of `CLKCTRL_SELHF_CRYSTAL_gc`, besides the existing equivalent `CLKCTRL_SELHF_XTAL_gc`.

- Corrected the definition of `CLKCTR_SELHF_EXTCLK` to `CLKCTRL_SELHF_EXTCLOCK` in the header files for the AVR64EA28, AVR64EA32 and AVR64EA48 chips.
- Modified the header file `nvm8x.h` so that the `nvm8x.lib` library would be compatible with the AVR DA, DB, DD and EA chips.
- Corrected the number of interrupt vectors for the AVR64EA28 and AVR64EA32 chips. The vectors for TCA1 and TCB3 were missing.
- Fixed: Writing to variables located in EEPROM was not functional for AVR EA chips.
- Added the missing definition for the `_SFR_MEM8` macro in the header files of the ATtiny1624, ATtiny202, ATtiny402, ATtiny424 and ATtiny824 chips.
- Fixed compiler error message: `SYSCFG0.RSTPINCFG=...` (*fuse byte offset 5, bits 2:3*), *will disable further UPDI programming in #pragma fuses*, applied to ATtiny and ATmega AVR8X chips, when `RSTPINCFG != 2`.
- Fixed compiler error message that the program size exceeds the boot area size of 0(!) bytes, when compiling an AVR8X bootloader that uses the whole FLASH of the chip as boot section.
- Corrected the size of the boot section (2048 words) for the ATxmega64A1U/64B1/64B3/32C3/64C3/16C4/32C4 chips.

● CodeWizardAVR

- Added support for the LGT8F328P chip.
- Improved the way the `_ALTERNATE_PUTCHAR_` and `_ALTERNATE_GETCHAR_` macros are #defined.
- Added the missing alternate pin multiplexing for USART4 for the AVR128DB48, AVR128DB64, AVR32DB48, AVR64DB48 and AVR64DB64 chips.
- Fixed: The AVR EA chips do not have the `CLKCTRL_FRQRANGE_32M_gc` option when setting the `CLKCTRL.XOSCHFCTRLA` register.
- Fixed problems when saving non-standard USART baud rate settings.
- Fixed: missing USART number when initializing the `RXPLCTRL`, `TXPLCTRL`, `EVCTRL` registers in the code generated for the USART operating in IRDA mode for AVR8X chips.

● Chip Programmer

- Added programming support for the LGT8F328P chip by selecting the `LGT8F ISP` programmer in Chip Programmer settings. Details how to build this programmer are specified in the `C:\cvavr\LGT8F ISP Programmer\ReadMe.txt` file.
- Fixed: exception in `cvavrsvs.dll` when trying to upload a program to an Arduino board using a COM port that is already used by the connected Terminal.
- Fixed: CFD fuse not programmed for the ATmega324PB chip, when using AVRDUDE.
- Fixed: "SPIEN=1, programming aborted" message when trying to program an ATtiny13(A) chip with an USBASP or USBASP clone programmer.

● IDE

- Added light and dark themes support.
- Applied various minor fixes.

