

## significant modifications:

- added option for "negative search" in "Search" function available in dialog "View/Edit Buffer", the new option allows for example to find the first non-blank data in buffer
- improved speed of "Search" function available in dialog "View/Edit Buffer"
- in Pg4uw fixed problem with ignoring of command line parameters passed by utility pg4uwcmd.exe "Automatically save Job Report file"

## added support of next devices:

Manufacturer	Device(s)
Actel	AGLN125V2 (ISP-STP), AGLN125V5 (ISP-STP), AGLN125V2-Z (ISP-STP), AGLN125V5-Z (ISP-STP), A3PN125 (ISP-STP), A3PN125-Z (ISP-STP)
Alliance Semicond.	AS7C256B
Analog Devices	ADP1046
Atmel	ATmega164A [MLF44 2Row], ATmega164PA [MLF44 2Row], ATmega324A [MLF44 2Row], ATmega324PA [MLF44 2Row], ATmega48V [MLF28], AT90SCR100H [QFN64]
Cyrod	CRD89C51AA1TA, CRD89L51AA1TA, CRD89C51AR1TA, CRD89L51AR1TA
DSP Group	DCXC78EF0D9AE [QFN88]
Energy Micro	EFM32GG290F1024 [BGA112]
ESMT	F25L64PA (DualSPI), F25L64QA (DualSPI)
Everspin	MR4A08B [TSOP44]
Exar	XRP7713
Finisar	SFP+
Freescale Semic.	MC9S12P128 [LQFP64], S9S12P128 [LQFP64], MC9S12P96 [LQFP64], S9S12P96 [LQFP64], MC9S12P64 [LQFP64], S9S12P64 [LQFP64], MC9S12HY48 [LQFP100], S9S12HY48 [LQFP100], MC9S12HY32 [LQFP100], S9S12HY32 [LQFP100], MM912F634 [LQFP48], MCF51AG128 [LQFP48], MCF51AG128 [LQFP64], MCF51AG128 [QFP64], MCF51AG96 [LQFP48], MCF51AG96 [LQFP64], MCF51AG96 [QFP64], MC9S08QB4 [TSSOP16]
Fudan Microelect.	FM24C256A [MSOP8], FM24C256A [TDFN8]
Fujitsu	MB90F553APF [QFP100], MB95F146SPMC [LQFP32], MB95F146WPMC [LQFP32], MB96F346RSBPMC [LQFP100], MB96F346RWBPMC [LQFP100], MB96F346YSBPMC [LQFP100], MB96F346YWBPMC [LQFP100], MB96F347RSBPMC [LQFP100], MB96F347RWBPMC [LQFP100], MB96F347YSBPMC [LQFP100], MB96F347YWBPMC [LQFP100], MB96F348RSBPMC [LQFP100], MB96F348RWBPMC [LQFP100], MB96F348YSBPMC [LQFP100], MB96F348YWBPMC [LQFP100]
GigaDevice Semic.	GD25Q64B [WSON8], GD25Q64B [BGA24 6x8], GD29GL064CAB [FBGA48]
Himax	CM601
Hitachi	R4F2117RVLP
Hynix	H26M31001FPR [FBGA153]
Inside Secure	AT90SCR100H [QFN64]
Lattice	LAMXO640C [fpBGA256] (SVF), LAMXO640C [ftBGA256] (VME), LAMXO640C [ftBGA256] (SVF), LAMXO640C [ftBGA256] (VME), LAMXO640E [fpBGA256] (SVF), LAMXO640E [fpBGA256] (VME), LAMXO640E [ftBGA256] (SVF), LAMXO640E [ftBGA256] (VME), LAMXO1200E [ftBGA256] (SVF), LAMXO1200E [ftBGA256] (VME), LAMXO2280E [ftBGA256] (SVF), LAMXO2280E [ftBGA256] (VME), LC4384B [fpBGA256] (SVF), LC4384B [fpBGA256] (VME), LC4384B [ftBGA256] (SVF), LC4384B [ftBGA256] (VME), LC4384C [fpBGA256] (SVF), LC4384C [fpBGA256] (VME), LC4384C [ftBGA256] (SVF), LC4384C [ftBGA256] (VME), LC4384V [fpBGA256] (SVF), LC4384V [fpBGA256] (VME), LC4384V [ftBGA256] (SVF), LC4384V [ftBGA256] (VME), LC4512B [fpBGA256] (SVF), LC4512B [fpBGA256] (VME), LC4512B [ftBGA256] (SVF), LC4512B [ftBGA256] (VME), LC4512C [fpBGA256] (SVF), LC4512C [fpBGA256] (VME), LC4512C [ftBGA256] (SVF), LC4512C [ftBGA256] (VME), LC4512V [fpBGA256] (SVF), LC4512V [fpBGA256] (VME), LC4512V [ftBGA256] (SVF), LC4512V [ftBGA256] (VME)
Macronix	MX25V1006E, MX25U3235F, MX25U6435F, MX25U12835F, MX25V1006E (ISP), MX25U3235F (ISP), MX25U6435F (ISP), MX25U12835F (ISP), MX25V1006E (Dual O), MX69N28E64 [TFBGA56], MX69V28F32xB [TFBGA56], MX69V28F32xT [TFBGA56], MX69V28F64xB [TFBGA56], MX69V28F64xT [TFBGA56]
Maxim	DS1086, DS1086L, DS1087L, DS1089L, DS1094L
Megawin	MG87FE2051A, MG87FE4051A, MG87FE6051A, MG87FL2051A, MG87FL4051A, MG87FL6051A
Microchip	93AA46A [TDFN8], 93AA46B [TDFN8], 93AA46C [TDFN8], 93AA46C (x8) [TDFN8], 93C46A [TDFN8], 93C46B [TDFN8], 93C46C [DFN8], 93C46C [TDFN8], 93C46C (x8) [DFN8], 93C46C (x8) [TDFN8], 93LC46A (x8) [TDFN8], 93LC46B [TDFN8], 93LC46C [TDFN8], 93LC46C (x8) [TDFN8], 93AA56A [TDFN8], 93AA56B [TDFN8], 93AA56C [TDFN8], 93AA56C (x8) [TDFN8], 93C56A (x8) [TDFN8], 93C56B [TDFN8], 93C56C [TDFN8], 93C56C (x8) [TDFN8], 93LC56A [TDFN8], 93LC56A [TDFN8], 93LC56B [TDFN8], 93LC56C [TDFN8], 93LC56C (x8) [TDFN8], 93AA76A [SOIC8],

dsPIC33FJ16GP101, dsPIC33FJ16GP102, dsPIC33FJ16MC101, dsPIC33FJ16MC102,  
PIC12LF1840T48A [TSSOP14], PIC16F1828 [SSOP20], PIC16LF1828 [SSOP20],  
PIC16F1829 [SSOP20], PIC16LF1829 [SSOP20], PIC16F720, PIC16LF720,  
PIC16F721, PIC16LF721, PIC18F14K22LIN [SSOP20],  
PIC24FJ16MC101, PIC24FJ16MC102

Micron  
JS28F00AP33BF [TSOP56], JS28F00AP33BF [TSOP56] (BEFP),  
JS28F00AP33EF [TSOP56], JS28F00AP33EF [TSOP56] (BEFP),  
JS28F00AP33TF [TSOP56], JS28F00AP33TF [TSOP56] (BEFP),  
JS28F128P33BF [TSOP56], JS28F128P33BF [TSOP56] (BEFP),  
JS28F128P33TF [TSOP56], JS28F128P33TF [TSOP56] (BEFP),  
JS28F256P30T2 [TSOP56],  
JS28F256P33BF [TSOP56], JS28F256P33BF [TSOP56] (BEFP),  
JS28F256P33TF [TSOP56], JS28F256P33TF [TSOP56] (BEFP),  
JS28F512P33BF [TSOP56], JS28F512P33BF [TSOP56] (BEFP),  
JS28F512P33EF [TSOP56], JS28F512P33EF [TSOP56] (BEFP),  
JS28F512P33TF [TSOP56], JS28F512P33TF [TSOP56] (BEFP),  
JS28F640P33BF [TSOP56], JS28F640P33BF [TSOP56] (BEFP),  
JS28F640P33TF [TSOP56], JS28F640P33TF [TSOP56] (BEFP),  
JS28F256P33T2 [TSOP56], JS28F256P33T2 [TSOP56] (BEFP),  
MT29C2G24MAAAAHAMD-IT [VFBGA130], MT29C2G24MAAAKAMD-IT [VFBGA130],  
MT29C2G24MAABAHAMD-IT [VFBGA130], MT29C2G24MAABAKAMD-IT [VFBGA130],  
MT29C2G24MAABAHAMD-IT [VFBGA130] (EPS-01),  
MT29F2G08ABAEAH4 [VFBGA63] (SAM-01), MT29F1G08ABADAH4 [VFBGA63] (HUMAX-01),  
MTFC2GGQDM [FBGA153], MTFC4GGQDM [FBGA153], MTFC2GGQDI [FBGA169],  
MTFC4GGQDI [FBGA169], MTFC8GKQDI [FBGA169], MTFC16GKQDI [FBGA169],  
MTFC16GKLDL [FBGA169], PC28F256P30T2 [EasyBGA64], PC28F256P30B2 [EasyBGA64],  
RC28F256P33TF [Easy BGA64], RC28F256P33TF [Easy BGA64] (BEFP),  
RC28F256P33T2 [Easy BGA64], RC28F256P33T2 [Easy BGA64] (BEFP),  
PC28F256P33BF [Easy BGA64], PC28F256P33BF [Easy BGA64] (BEFP),  
PC28F256P33B2 [Easy BGA64], PC28F256P33B2 [Easy BGA64] (BEFP),  
RC28F256P33BF [Easy BGA64], RC28F256P33BF [Easy BGA64] (BEFP),  
RC28F256P33B2 [Easy BGA64], RC28F256P33B2 [Easy BGA64] (BEFP),  
RC28F256P30T2 [EasyBGA64], RC28F256P30B2 [EasyBGA64],

Mitsubishi  
M3030RFEPGP, M3030RFDPGP, M3030RFCPGP, M3030RFAPGP, M3030SFEPGP, M3030SFDPGP,  
M30280FATHP, M30280FAVHP

Numonyx  
NAND02GW3B2DZA [VFBGA63] (SAM-01)

Nuvoton  
N79E342A, N79E342RA, N79E352A, N79E352RA,  
N79E822, N79E823, N79E824, N79E825, W79E82JA [SOP24]

NXP  
LPC1776 [TFBGA180], LPC1778 [TFBGA180], LPC1778 [TFBGA208],  
LPC1788 [TFBGA180], LPC1788 [TFBGA208], MPT613 [LQFP80]

Panasonic  
MN103SFE4K [LQFP80]

Renesas  
M3030RFEPGP, M3030RFDPGP, M3030RFCPGP, M3030RFAPGP, M3030SFEPGP, M3030SFDPGP,  
M30280FATHP, M30280FAVHP, MC-10256 [FBGA208], R4F2117RVLP,  
R5F100FAAFP, R5F100FCAFP, R5F100FDAFP, R5F100FEAFP, R5F100FFAFP, R5F100FGAFP,  
R5F100FHAFP, R5F100FJAFP, R5F100FKAFP, R5F100FLAFP,  
R5F101FAAFP, R5F101FCAFP, R5F101FDAFP, R5F101FEAFP, R5F101FFAFP, R5F101FGAFP,  
R5F101FHAFP, R5F101FJAFP, R5F101FKAFP, R5F101FLAFP

Richtek  
CM601

Silicon Laborat.  
C8051T320 (DC<1040) [LQFP32], C8051T320 (DC>=1040) [LQFP32],  
C8051T321 (DC<1040) [QFN28], C8051T321 (DC>=1040) [QFN28],  
C8051T322 (DC<1040) [LQFP32], C8051T322 (DC>=1040) [LQFP32],  
C8051T323 (DC<1040) [QFN28], C8051T323 (DC>=1040) [QFN28],  
C8051T326 (DC<1111) [QFN28], C8051T326 (DC>=1111) [QFN28],  
C8051T327 (DC<1111) [QFN28], C8051T327 (DC>=1111) [QFN28],  
C8051T620 (DC<1040) [QFN32], C8051T620 (DC>=1040) [QFN32],  
C8051T621 (DC<1040) [QFN32], C8051T621 (DC>=1040) [QFN32],  
C8051T622 (DC<1111) [QFN24], C8051T622 (DC>=1111) [QFN24],  
C8051T623 (DC<1111) [QFN24], C8051T623 (DC>=1111) [QFN24]

Spanion  
S25FL256SxxBxx20 [BGA24], S25FL256SxxBxx30 [BGA24], S25FL128SxxMxx00 [SO16],  
S25FL128SxxBxx20 [BGA24], S25FL128SxxBxx30 [BGA24],  
S25FL128Sxxxxx00 (ISP), S29GL512SxxFHx01 [FBGA64], S29GL512SxxFHx02 [FBGA64],  
S29GL512SxxFHxS1 [FBGA64], S29GL512SxxFHxS2 [FBGA64],  
S29GL512SxxFHxV1 [FBGA64], S29GL512SxxFHxV2 [FBGA64],  
S29AL016JxxTxxR1 [TSOP48], S29AL016JxxTxxR2 [TSOP48],  
S29AL016JxxBxxR1 [FBGA48], S29AL016JxxBxxR2 [FBGA48],  
S29GL128PxxDxxS1 [FBGA64], S29GL128PxxDxxS2 [FBGA64],  
S29GL128PxxDxxS5 [FBGA64], S29GL128PxxDxxS6 [FBGA64],  
S29GL128PxxDxxS7 [FBGA64], S29GL128PxxDxxS8 [FBGA64],  
S70GL02GSxxFxx01 [FBGA64], S70GL02GSxxFxx02 [FBGA64],  
S70GL02GSxxFxxV1 [FBGA64], S70GL02GSxxFxxV2 [FBGA64]

STMicroelectronics  
M24C32-DF, M24C64-DF, M24M02-DR, M24C32-DF (ISP), M24C64-DF (ISP),  
M24M02-DR (ISP), M95320-DR, M95640-DR, M95M02-DR, M95320-DR (ISP),  
M95640-DR (ISP), M95M02-DR (ISP), NAND02GW3B2DZA [VFBGA63] (SAM-01),  
STM8S005C6T, STM8S005K6T, STM8S007C8T, STM8S103F3M, STM8S903F3M, STM8S103F2M,  
STM8S005C6T (ISP), STM8S005K6T (ISP), STM8S007C8T (ISP), STM8S103F3M (ISP),  
STM8S903F3M (ISP), STM8S103F2M (ISP)

TI (TMS)  
LM3S1F11 [BGA108], LM3S1G21 [BGA108], LM3S1G58 [BGA108], LM3S2U93 [BGA108],

LM3S5U91 [BGA108], LM3S5G51 [BGA108], LM3S5G31 [BGA108], LM3S6G65 [BGA108],  
 LM3S6G11 [BGA108], LM3S8G62 [BGA108], LM3S9G97 [BGA108], LM3S9GN5 [BGA108],  
 LM3S9U90 [BGA108], LM3S9U92 [BGA108], LM3S9U96 [BGA108], LM3S9U81 [BGA108],  
 LM3S9U95 [BGA108], LM3S9BN6 [BGA108], LM3S9BN5 [BGA108], LM3S9BN2 [BGA108],  
 LM3S1811 [BGA108], LM3S1R21 [BGA108], LM3S1B21 [BGA108], LM3S2B93 [BGA108],  
 LM3S1J11 [BGA108], LM3S2793 [BGA108], LM3S9L71 [BGA108]  
 Toshiba TC58NVG1S3EBAI5 [TFBGA63] (SAM-01), TH58NVG5H0ETA20 [TSOP48],  
 TH58NVG7S2FTA30 [TSOP48], TMP86FH09AMG, TMP88FW45FG, TMP88FW45AFG  
 Winbond N79E352A, N79E352RA, N79E875A [LQFP48], N79E875RA [LQFP48],  
 N79M875A [LQFP48], N79M875RA [LQFP48], W25Q16DW, W25Q16DW (DualSPI),  
 W25Q16DW (ISP), W79E8213A, W79E8213RA, W79E82JA [SOP24]

device handling improvements:

- 3DPlus Leroy, programming algorithm improved
- Actel ProASICPlus, SW improvement for PQFP208 package
- AMD Am29F400B/BB [PSOP44], read algorithm improved
- Analog Devices ADP1046, programing algorithm improved
- Atmel AT90SCR100H [QFN64], "Override EESAVE setting" functionality improved
- Atmel AT90SCR100H [QFN64], programming of flash and eeprom improved
- Atmel AT90SCR100H [QFN64], current fuses increased
- Atmel AT90USB1286 in ZIF, "Programming parameters" section in "Device operation options" dialog window modified
- Atmel ATmega16HVB/32HVB, power-on sequence and programming the fuse bits function modified
- Atmel ATmega328 in ZIF, "Programming parameters" section in "Device operation options" dialog window modified
- BGA programming adapter S/N 70-0452/0453, improving of "Automatic YES!" function
- Cypress CY25100, increasing of overcurrent protection limits
- Cypress CY7C344B, increasing of program/read/verify actions stability
- Cypress CY7C63723C [SOIC18], CY7C63723 [SOIC18], power-up sequence modified
- Cypress CY8C20324 [MLF24], insertion test modified
- Cypress CY8C21334 [SSOP20], power-up sequence modified
- Cypress CY8C3xxxxxx, CY8C5xxxxxx, changed names of algorithm steps
- Cypress CY8C3xxxxxx, programming algorithm improved
- Cypress CY8C3xxxxxx, reading procedure improved for protected blocks
- eMMC devices, released support for BeeHive8S programmers
- eMMC devices, faster programming and reading the RPMB
- Freescale Semic. MC9S08AC60 [LQFP64], power-on sequence fixed
- Freescale Semic. MC9S08Qx, possibility to trim the internal oscillator in whole frequency range 31.25kHz - 39.0625kHz
- Freescale Semic. MC9S12HYxx, supply voltage increased
- Hitachi HD6475368, removed option of marginal verification, set to "ONCE"
- Intersil HM-6551/883, power-up sequence modified
- Microchip dsPIC33FJ64MC802, correction Device ID
- Microchip PIC16F737, programming procedure improved
- Microchip PIC24FJ32GA10x, PIC24FJ64GA10x, set of WPEND bits improved
- NAND flash devices, customized algorithm HUMAX-01: algorithm modification upon user request
- NAND flash devices: SAM-01 custom algorithm modification upon user request
- NAND flash devices, customized algorithm SAM-01: algorithm modification upon user request
- Numonyx JS28F512M29EWH [TSOP56], verify procedure improved
- Numonyx N25Qxxx, Spansion S25FLxxxP in Quad SPI mode, verify operation improvement
- Primarion PX8897EDQG [QFN48], added CRC check after load file
- Spansion S25FL256S, Advanced Sector Protection improvement
- Spansion S25FL256S, blank check after sector erase improvement
- Spansion S29GL128N [TSOP56] in x16 mode, accelerated programming mode disabled
- TI (TMS) LM3S5791, power-up sequence modified
- TI (TMS) UCD3028, programing improved

bugs fixed:

- 3DPlus Leroy, Young, Felix, Doriane, programming algorithm bug fixed
- Atmel AT49BV160C [TSOP48], "Unexpected error 1 [IEC:1, D:01]" bug fixed
- Atmel AT90SCR100H [QFN64], displaying of old fuse bits value after programming bug fixed
- Atmel AT90SCR100H [QFN64], fuse bits programming and lock bits bug fixed
- Atmel ATmega16HVB/32HVB, bug in Override EESAVE setting function fixed
- Atmel ATmega16HVB/32HVB, loading Fuse bits setting bug fixed
- Atmel ATTiny2313/A (ISP), verification error bug fixed
- Cypress CY7C344B, programming parameters assignment bug fixed
- DSP Group, DCX78EFOD9AE [QFN88], Insertion test procedure bug fixed
- Freescale Semic. MC9S12HYxx, security byte programming fixed
- Freescale Semic. MC9S12XEQ384 (ISP), DFLASH and emulated EEPROM programming error fixed
- Hitachi HN58C1001, HN58V1001, programming algorithm bug fixed
- CHiL Semiconductor CHL8112A, programming algorithm bug fixed
- Lattice LC4064ZC [TQFP48], programming fuses count bug fixed
- Maxim MAXQ622G, automatic YES bug fixed
- Megawin MPC82L54, programming option registers bug fixed
- Microchip PIC16Fxxx, PIC12Fxxx, save to hex file bug fixed
- Microchip PIC16F6xx, save to hex file bug fixed
- NEC/Renesas uPD78F184x, Insertion test procedure bug fixed

- Numonyx NAND16GAHAP [LBGA100], erase size bug fixed
- Primarion PX8897EDQG [QFN48], project file CRC bug fixed
- Rohm BR24L04, insertion test bug fixed
- Silicon Laborat. C8051F527A (ISP), LockByte address bug fixed
- Spansion S25FL256S, sector erase error fixed
- Toshiba THGBM3G4D1FBAIG [TFBGA153], THGBM3G5D1FBAIE [TFBGA169] Device info bug fixed
- fixed bug in setting correct voltage in device options for Microchip PIC16F76 (ISP) when loaded from old project file and previously selected device was PIC24... (ISP)