Revision history

Version	Date	Description
V1.540.00	2026.09.11	flash loader fixed : A31C144, A31T413, A31C111 (FlashLoader.h) - sector erase modified - size : 2KB to 512byte - to erase user option area Fix error when write 78 times in a row
V1.530.00	2026.08.05	A31S134 : The function of Data Flash Erase of option dialog is fixed. PC Program Name changed from E-PGM+.exe to E-PGM.exe Tool name changed : E-PGM-LC is replaced by E-PGM2.
V1.520.00	2026.07.10	A31G336/346 user-option-area write added HPO file : 8bit device Data Flash added A31L133, A34M466, A31C111, A31Q633, MCF8014B, A96G160 added MC96F8204 : selected area write added Fine chip 8 bit Option Dialog fixed
V1.510.00	2026.06.01	A34M438, A34G468 add
V1.500.00	2026.04.14	A31C144 added A31R118 TFT-LCD fixed
V1.490.00	2026.04.01	A31C122, A96G629 added A31S134 : Data Flash Erase added A31G336/346 : prevent writing CP1WP option A96L623 : Data Flash write added A96Gxxx : DLL function added : DLL function added A96T396 : option display of write protection range fixed
V1.480.00	2025.12.16	A96T448, A31G346 added A96H115 : selected area write, trim check skip
V1.470.00	2025.11.10	HPO file : add data flash erase Data Flash Loading : Bin file type added E-PGM-LC: - VDD check added - add : A96T430, A94B114, MC94F1202A, A94P829, A94P830, A96T228 - Data flash write : MC97FG316, A96G150, A31S134

		- Data flash erase : MC97FG316, 32bit MCU - User Option area write : A31S134, A31L214
V1.460.00	2025.09.24	E-PGM-LC : - TFT-LCD contents are same with E-PGM+ - Support Serial ID Write - Support Write limit A96FR364C : power check fixed A33G538 : data flash write added 79F1616P, 79F6484, MC9219 added A34M420 : Limit write fixed
V1.450.00	2025.07.04	Add : A96G198 Disable Tool-Option button for E-PGM-LC
V1.430.00	2025.05.23	A31G1xx series : fixed "option write fail" - Occurred by V1.330.00 Fixed : When write limit enabled, fail to write EP_SA_ABOV_32.hex updated Data flash : Load bin file added A31S134 data flash write added Loading data flash from HPO file
V1.330.00	2025.04.30	A33M116/114 : fixed, option write fail A31G336 : added loading option info in hex file A34M456 added A34L716 added MC97F6108A : write protection area info fixed
V1.321.00	2024.12.02	A31G1xx series : fixed "option write fail"
V1.320.00	2024.11.19	32bit MCU : When reset pin disconnected, debug mode entry is enhanced with DPID reading loop. A31G213 : added user OTP erase A31G123 series : option dialog modified for low resolution monitor A34L716 : fixed option write error
V1.220.00	2024.09.20	MC96F8316P added A31S134 added m320, m330, A33G524/526/527, A33G539 boot pin fixed : from low to high
V1.210.00	2024.08.23	A33M116 data flash write added MC96F7616S added

V1.200.00	2024.04.22	A33G526/527, A34M418, A31G226, A33G538/539 A34M420 flash loader updated. SWD comm error is sometimes occurred after bulk erase. Software update check optimized.
V1.190.00	2024.03.20	Power Check added not to damage devices by high voltage VDD/VPP. After updating device firmware for E-PGM+ completed, E-PGM+ check VDD and VPP. If VDD/VPP is higher than 0.7V, write/read button is disabled.
V1.180.00	2024.03.15	Add A33M114, A96L116 Use CInternetSession to check version
V1.170.00	2023.11.30	FETR clear/verify : all related MCU Selected Area Write - Finechips 8bit OCD MCU - ABOV 32bit MCU A34M418 fix : Option write fail for read protection A33G539, A31S134 added
V1.160.00	2023.07.26	Fix : Length of hex file over 250 is failed. FETR clear/verify : 94Bxxxx series GD device : - g_ref_vdd check condition change : 3.2V => 3.0V MC96FR364C serial-id added Selected area write support : finechips S and A series A31R118 : trim check added Finechips 32bit trim check changed : PT ID => FT ID
V1.151.00	2023.06.08	A96G140, A96G174, A96G166, A96T418, A96G148, A96G181, A96G150 : FETR clear / verify added to protect trim-area in noise environment.
V1.150.00	2023.05.19	- Add : 96F7864S_WAFER,96F7816S_WAFER, A31M223 - A31R118 : retry 6 times, VDD 3.5/3.0/2.5V, 2 times respectively - selected area write support : A96G166/174 - added software version check - remove data flash read protection check box - initialize FSMC_Asynchronouswait flag - include page buffer size in E-PGM.txt - A31L222 trim check added
V1.143.00	2023.02.15	- A31L214/213 support - A31L222 support - A96L312/322 data flash erase added - A96L312/322 data flash write added - MC97FG316 data flash write added - A96G150 data flash write added - A96G148 : verify fail fixed.(disable hardware checksum)

V1.142.00	2022.12.15	A34M418 - user vector-reset instead of sys-reset - support read-protection
V1.141.00	2022.12.01	For MCF8014, 97F6108A, 97F6108M, 97C624, 97F6208 FETR clear / verify added to protect trim-area in noise environment.
V1.140.00	2022.11.10	A96Gxxx : checksum info written at option 0x10, 0x11 Hardware checksum verify : A96G140 A31G224/226 : tool option added => erase data flash MC96F7816S : dll function added A94P829 added 3.3V devices : VDD change limit => 3.6V
V1.130.00	2022.07.29	GD32 : ADAM device IRC measure, ARR = 0xffff E-PGM+ self test modified Clk/data output low pass condition : 0.2V => 0.3V
V1.120.00	2022.07.01	Added 97F2664AS, 97F6432S, 96F6408A 96G150, DSCL/DSDA, Cap 470pF, RX slow, Hardware checksum verify modified 31G112/123 DebugPowerUpRequest clear in PowerOff() : code run without POR
V1.110.00	2022.04.07	Data Flash write : - Intel hex file supported. - bin file is not supported because it can not assign address and can not check if it is corrupted.
V1.100.10	2022.03.29	USB comm. is fixed for old bootloader which has no Erase pass info.
V1.100.00	2022.03.03	Data Flash write added 96L416/414, 31G226/224, 33G524/526/527 Finechips devices power check : 10% => 15%
V1.096.00	2021.11.16	A31T214/216 added Load intel hex fixed : segment address The hex file format check is added for the device firmware in the firmware folder.
V1.095.00	2021.06.17	A31G224 added Load intel hex fixed : over 64 byte data size is supported. A96L416 : erase data flash supported A31L214 : pgm data flash supported

V1.094.00	2021.06.17	AC33M4064/3064 Flashloader updated(iosc 1MHz, otp_init() revised) Boot pin Low enabled Erase fail fixed
V1.093.00	2021.03.12	A96S174 added, 2021-02-26 Fine chip 8bit The info. of checksum and number of write is written in the option-area. Display of Hardware checksum is added. Error message is displayed on corrupted windrvr6.sys.
V1.092.00	2021.02.19	AC33M3064/4064: Flashloader updated, Boot pin high enabled
V1.091.00	2020.12.24	A33G524/526/527 : tool option added, erase data flash Device name change : 97F8324 => MCF8014
V1.090.00	2020.11.20	Add Set Target VDD Dialog E-PGM serial devices added - 96R136, 96R150 - 81F4104, 81F4204, 81F4315, 81F4316, 81F4432 - 95FG0128_ISP, 96FC864A, 96FC664A, 96F4548 80F0448, 7708 UART : VDD 5.0 -> 4.5
V1.080.00	2020.05.20	Add : A96G166, A33G524, A96G148
V1.070.00	2019.12.16	Homepage-address is changed for download button. MC95FG0128 Vdd check change 10% => 20% 94BXXXX, mode entry for Vdd is changed 4ms->2ms
V1.060.00	2019.12.03	External Power Check is modified. DIR_H(CTL2) is cleared at power-off
V1.051.00	2019.11.11	A96G166 added A31GXXX, A33GXXX, AC33MXXXX : Vdd change from 3.3V to 4.5V when devices are In reset-state at ISP. 96FXXXX A and S series : Write checksum-info at option area(0x1B~1C, 0x3B~3C) m320 added

V1.050.00	2019.09.06	E-PGM Serial added A31GXXX, A33GXXX, AC33MXXXX, 96FXXXX, 96R7XX, 97FXXXX (EP_SA_ABOV_32.hex, EP_SA_FINE_8.hex) A94B428 added 97F1204S_5V added(5.0V target only)
V1.040.00	2019.06.20	E-PGM Serial integrated Vdd is changeable Write limit : hex encryption A31G123 - hex file with user0 supported - hex file with change GPIO from SWD supported A94B316 - serial id supported
V1.034.00	2019.03.19	A33M418 added AC33M4064 / 8128 fixed : AIRCR : SYSRESET => VECTRESET Vdd : 4.5V => 3.3
V1.033.00	2019.02.07	- Fix : A96R136, write protection, config read - flash loader update : A31G213, A31T414 A31R114, A31R118
V1.032.00	2018.11.20	-Add A96R150, A31G213, A31G111 A31R112, A31R114, A31R118 - E-PGM-Serial support
V1.031.10	2018.09.14	- A31G112/123 => Option disaply by word size => Support when reset pin is not connected
V1.031.00	2018.07.25	-Fix : 32 bit SWD - AIRCR : VECTRESET => SYSRESET
V1.030.00	2018.05.03	-Add AC33M4064_SWD, AC33M3064_SWD MC96F4548, A96R136 A94E114, MC96FE316 -Fix : A96T218, Option write error fixed when locked
V1.029.00	2018.03.08	- Add MC96FT241 - Fix A96T316/326/336/346, A96T218/228 disable external reset - Fix A96R717/739 : user selection for irc-trim

V1.028.00	2017.11.16	- Add A31G123, MC96F8168TS - Fix MC95FG308_ISP : display checksum by 16bit
V1.027.00	2017.08.28	- Vdd and run-flag are off at the same time. - Avoid user-mode run at Power-off. - MC97F60128/66128 - MC97F2664/2464
V1.026.10	2017.08.04	- reset voltage trim : 4.3V => 3.3V - device : AC33M8128_SWD, AC33M4064_SWD AC30M1464_SWD, AC30M1364
V1.026.00	2017.07.24	- added MCU stop command in Power-off - Avoid user-mode run at Power-off - related devices are - MC96F6432/6332/6432S/6432A - MC96F8316/8216/8316S/8316A/8208S - MC96F6832/6632 - MC96F7816/7616 - MC96F6508A/6409 - MC97F60128/66128 - MC97F2664/2464
V1.025.00	2017.05.29	- REGDATA check for noise and poor contact - Decrease abnormal trim erase/write - MC96F6432/6332/6432S/6432A - MC96F8316/8216/8316S/8316A/8208S - MC96F6832/6632 - MC96F7816/7616 - MC96F7864/7664 - MC96F6508A/6409 - MC97F60128/66128 - MC97F2664/2464
V1.024.00	2017.05.15	Add : A97C450 Add : Offline Losd/Save HPO
V1.023.02	2017.02.01	ADAM26P20 : change power control, add delay 400ms ADAM28P16/29P16 : remove verify 3/4
V1.023.01	2017.01.24	MC97F1316S : Vpp change from 17.0V to 16.5V
V1.023.00	2017.01.06	Fix : MC81F4 Series, MC81F6104/6204 Preprogram MC96F1206 : COB add A96T316 : ADC version add ADAM22PXX : added
V1.022.00	2016.12.22	Add : A31G112, A96T326, A96T228 Fix : AC30M1464, SWD Mode Entry, Use DebugPowerRequest
V1.021.00	2016.12.02	Fix : ADAM28P16/29P16, write time enhanced Poor contact fixed
V1.020.00	2016.11.02	Add : A96T336, A96R717 ADAM29P16 : write time 5.6 sec => 2.9 sec

		Vdd rise time 2=>4ms, for poor contact error Fix : HPO file failed if no device option Add : Option length over 20
V1.019.00	2016.09.19	Fix : ADAM28P16, ADAM29P16 Add : ADAM45P5216, ADAM45P5217, ADAM45P6216, ADAM45P6217 Add : A96T316, A96T218, A94F1202A_WAFER, MC80F7708A
V1.018.00	2016.08.18	Add : MC96F6632S Fix : On saving HPO, error is occurred if option is not selected. Add : DLL function is added
V1.017.01	2016.08.03	Remove : MC97F6208
V1.017.00	2016.07.22	Add : AC30M1464_SWD, AC30M1432_SWD
V1.016.00	2016.06.03	Add : 96FC864A/664A Add : 81F6104/81F6204 Add : 33M384A_SPI Add : 96FR364C_IRC - 96F6432S/8316S/8208S => checksum is displayed when device is locked => write-speed is improved by skipping blank page
V1.015.00	2016.04.26	Add : 96FR364C, AC33M8128_SWD, 96F8204, 96F8316A, 80F0504, 80F0604 Fix : Select 96F6409 =>LCD device : 96F8204 Add : 96F6332, 96F8216, 96FT1604, 96FT202 ADAM46P2008 Firmware is modified(IRC out delay time)
V1.014.00	2016.01.22	Add : DLL function
V1.013.01	2015.12.31	Fix : FileName buffer size : 256 => 1024
V1.013.00	2015.12.11	Add : 96F6432A Fix : Moto. format HPO file save/load added
V1.012.00	2015.11.27	Add : 96F1206, 33GA256
V1.011.01	2015.11.17	Fix : 96FRXXXX, when write protection is enabled, Verify is failed. Add : 96F1206 Fix : 97F1204S, read lock checksum, vdd 2.5 => 3.6
V1.011.00	2015.10.19	Fix: 81F4104/4204/4205/4215/4315/4316/4416/4432/4432 Write check routine added before write-back-routine. Trim-erased-failure rate is decreased. 97F6108A/6208/8324 Trim(IRC) : F/T revised, Trim(0x01) : IRC trim Trim(0x1F) : 0x3C
V1.010.00	2015.10.07	Revision: 97F1104S/1204S - F/T ID : 0xF7 => 17V - F/T ID : 0xFC => 16.5V - PGM time : max 3.5ms x 4 - Verify : 3.8V & Hardware checksum
V1.009.00	2015.10.05	Add : ADAM series
V1.008.02	2015.10.02	Add

		- 96FR364B/96FR332B : support LAN socket * Level shifter LAN socket
New version rule is activated from 2015.10.02		
150804	2015.08.04	Fix: 96FT1616/FT242, DevicePowerOn() typo "return FALSE" => "return TRUE"
150803	2015.08.03	External Power check Before writing, if external Vdd is over 0.7V, "Ext. power error" is occurred.
150730	2015.07.30	Communication error fixed : Fine chips device SIO-RX(), SIO_TX() : Delay_us(1) add
150717	2015.07.17	- 97F8324 Vdd change : 5.0 => 4.5V, Clk/data pull-down resistor (4.7K) support
150714	2015.07.14	Add : Chinese / English selection Fix : 96FR364B/96FR364B-ISP end address : 0x7fff => 0xffff
150616	2015.06.16	Fix : - 97F60128 / 2664 : remove Trimming Vpp routine : Vpp Cap. 4.7uF, Power fail. - 96FR116C no operation : firmware bug
150605	2015.05.21	Add - 96F6832 / 6632 / 7816 / 7616T / 7616A / 7416A - 96F7848C
150429	2015.04.28	Add - 96FG316, 96FD316 - 96F6432/6332/8316/8216, speed-up, S-PGM+ : 8 sec., E-PGM+ : 4 sec.
150429	2015.04.28	Add - 40P5X04B - 95FG208/308 serial/parallel - 96FR332B/364B serial/parallel - 96FR3128/4128 serial/parallel Fix - 97F60128 bug : option write fail
150422	2015.03.11	Add 81F4XXX series
150113	2015.01.13	97F1204S, trim-write-back minimize
140725	2014.07.25	Fine chips device : second write removed Fix Page buffer fault
140612	2014.06.12	Add USB power off routine Fix : USB connection error
140609	2014.06.09	First release

Available device list

Device series	Devices

ADAM & SRC	ADAM24P16, ADAM24P16S, ADAM24P20 ADAM27P08, ADAM27P16 ADAM28P16, ADAM29P16 ADAM41P2723, ADAM41P2727 ADAM42P11, ADAM43P1108, , ADAM46P20 ADAM82P1216, ADAM82P1224 ADAM85F2316 MC40P5004B / 40P5104B / 40P5204B / 40P5304B / 40P5X04CB
8051 & 800	81F4104/4204/4205/4215/4315/4316/4416/4432/4432 95FG208/95FG308 96F5304 96F6409 96F6432 / 96F6332 96F8316 / 96F8216 96F6432S / 96F6332S 96F8316S / 96F8216S / 96F8208S 96F6408A/96F6508A 96F6632/96F6832 96F7416A/96F7616A 96F7616T/96F7816 96F7664/96F7864 96F7848C 96FD316 96FR116C, 96FR332B/96FR364B, 96FR4128/96FR3128 96FT1616, 96FT1604, 96FT241, 96FT242, 96FT202 97F1104S/97F1204S, 97F1316S 97F2208, 97F6108A, 97F6208, 97F8324 97F2464/97F2664 97F60128 97FG316, 96F8316A, 96F6432A 96F8204 80F0604, 80F0504, 80F0708 96FC864A / 96FC664A 81F6204 / 81F6104 80F0448 80F1604 80F7708

	80F7708A A94B114 A94B316 A94F1202A MC95FG0128-ISP MC96FR364C 96F1206, 96F4548, 96F5216 96F7848C 96L302, 96L312 96R136, 96R150, 96R717, 96R725, 96R739 96T218, 96T228, 96T316, 96T336, 96T346, 96T356 97C450, 97C624 96G140, 96G166 94B428 94B336
ARM	33MA384A AC33M4064- SPI / UART / SWD AC33M8128-SPI / UART / SWD 30M1432 / 30M1464 A31G111, A31G112, A31G123 A31G213 A31G313, A31G314, A31G316 A31R112, A31R114, A31R118 A33G526, A33G527 AC33GA256-SPI A34M418 m320 A31T414
Other	AM3111 MF6216