

ICP (In-Chip Programming) Tool Revision History

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1 Revision History

Version	Release Date	Description
3.05	2020/12/4	Added supported microcontroller: NuMicro 8051 Family: MS51EB0AE.
3.04	2020/9/24	 Added supported microcontroller: NuMicro M0 Family: M031TE3AE. NuMicro M23 Family: M2351SFSIAAP.
3.03	2020/7/17	 Added supported microcontroller: NuMicro M0 Family:NUC131LC2AEU, NUC131SC2AEU, NUC131LD2AEU, NUC131LD2AEU, NUC029MDE, M030FD2AE, NM18307Y, M071 series, M030G series, M0A21 series, M0515, NM1240 and N569J series. NuMicro M23 Family: NDA102SD, M258, M2354 series. NuMicro M4 Family: M487KMCAN, M471 series. NuMicro 8051 Family: ML56 series. Added multiple data storage option of Nu-Link2-Pro, allowing users to download the programming data in SD Card and USB flash drive to run offline programming. (include M2351, M261, and NUC505 series) Supported target chip auto detection. Nu-Link-Gang bin: Support M471 / Version No. v2.2.
3.02	2020/2/1	 Added two-stage programming function of all NuMicro ICs except M2351, M261, 8051(1T) and NUC505 series. In the first stage, users can download the programming data from PC to programmer while connecting to the target chip is not necessary. In the seconed stage, users can connect the target chip with this programmer to run offline programming. Added multiple data storage option of Nu-Link2-Pro, allowing users to download the programming data in SD Card and USB flash drive to run offline programming. (except M2351, M261, and NUC505 series) Added supported microcontroller: NuMicro M4 Family: M48x8AE, M48xCAE, M479 series and M487KMCAN. NuMicro M0 Family: M031BTYE3AN, M030TD2AE, M030LD2AE, M031BTYD2AN, M058MDE, NM18202S, NM1232D, NM1220EBKO, NM1232Y.
3.01	2019/9/30	 Supported NUC1311, M032C/D for NuMicro M0 series. Supported MR63 for NuMicro M23 series. Add "Erase Whole Chip" option for user setting of online/offline programming (excluding 80511T M2351 and M261).
3.00	2019/5/3	 Added TF5100/ M031 (256/512 KB) for Cortex M0 series. Added M261 for Cortex M23 series. Added three help function (open user manual, version check, open



		NuMergeFile tool). • Supported Nu-Link2 ICE adapter.
2.06	2019/02/26	 Supported M480LD for NuMicro M4 series. Supported NM1230 for Motor MCU. Supported ML51/MS51 for NuMicro 8051 series. Nu-Link2 debug probe supported mass storage programmer mode.
2.05	2018/09/06	 Cortex-M Supported Nu-Link2. Supported NUC029DE/EE/GE, NUC2201, NUC1261, NDA102, M031, NM1230 for NuMicro M0 series. Supported M4521 for NuMicro M4 series. C51 Supported Nu-Link2.
2.04.6725	2018/04/03	 Improved download performance around 10~20% of both online and offline modes. Enabled secure boot option for M480 series. Supported auto-programming option of 8051 1T offline mode. (target board can't be self-powered in this case).
2.03.6674	2017/12/11	Supported M2351 for NuMicro M23 series.
2.02.6629	2017/06/23	 Supported Mini57 for NuMicro M0 series. Supported M480 for NuMicro M4 series. Supported I94000 for NuVoice series.
2.01.6592	2017/01/13	 Supported NUC121, NUC125, NUC126, M0564, NM1810 and I91200 series.
2.00.6561	2016/07/22	 Supported 8051 1T series (N76E885, N76E884, N76E616, N76E003, N76E002). Added "checksum verify" function for M451 series. In offline mode, added SN (serial number) function for NUC505 series. Use "page erase" instead of "chip erase" if only partial flash segments are programmed, user can preserve configuration page in that case.
1.31.6535	2016/02/01	 Supported Nano103, NM1120, NM1330, NM1820 for NuMicro M0 series. Supported M4TK for NuMicro M4 series. Supported N575, N576 and N570 for NuVoice series. Programming APROM with given offset (must be page alignment). Fixed NUC505 crash issue when exporting binary file. In offline mode, fixed the problem that sometimes total count can't reach maximum value.
1.30.6491	2015/07/21	Added "NuMergeFile.exe" under the installation folder for binary files merging.



		 Supported APROM programming at specific address.
		 NUC505: Supported to re-program MTP while MTP key status is invalid.
		NUC230/240AE: Supported 8 KB LDROM (4 KB in previous version)
		Mini58: Supported SPROM programming.
		 Mini58: Supported 2.5 KB LDROM (2 KB in previous version).
		Mini58: Fixed chip erase function in security lock mode.
		Modified the Data Flash configuration method.
		Displayed user defined part number (from UCID) for NUC100 series.
		Supported Mini55LDE and Mini55ZDE for NuMicro M0 series.
		 NUC100, M051: Supported to keep previous Config0[10] value after whole chip erase.
		Renamed NUC123BE to NUC123AE.
		NUC505: Changed offline download mode from ICP to SWD.
		Improved user interface to be resizable and scrollable.
		 Disabled Watchdog while programming target Flash to avoid failure caused by Watchdog reset.
		 Supported not to automatically read Flash after configuration page update and first connection to avoid reading large amounts of data.
1.29.6425	2015/03/27	Replaced ICE clock 16 MHz with 12 MHz for compatibility issue.
		Added part number: NUC220LE3AE.
		Supported M0519, NM1320 and Mini58 for NuMicro M0 series.
		 Provided an option to install Bulk USB driver when Nu-Link driver installation completed.
		 Supported USB Bulk mode which can improve downloading and programming speed on Win7.
		Added part number: NUC120LD2DE.
1.28.6386	2015/01/14	Supported NUC505 internal/external SPI flash option.
		Supported NUC029 for NuMicro M0 series.
		Fixed Configure Setting dialog GUI for Nano102/112 series.
		Supported NUC505 for NuMicro M4 series.
		 Supported ISD9100 and ISD9300 for ARM based Audio series.
		 Supported N571 and N572 for NuVoice series.
1.27.6340	2014/9/29	 Added part numbers: M4LEDRG6AE, M4LEDRE6AE, M4LEDLG6AE, M4LEDLE6AE.
		Added part number: NUC100VE3DE.
		 Updated Chapter 5, 6, and 8 in the ICP Programming Tool User Manual.
1.20.0244	2014/07/24	Supported M0518 for NuMicro M0 series.
1.26.6314	2014/07/21	 Supported M0518 for NuMicro M0 series. Added M452 and M453 part number for M451 series.



. Supported ISD9300 for ISD series Supported ne computer can be connected to 10 Nu-Link devices simultaneously Renamed the part number MT530 to NM1530. 1.24.6211 2014/01/16 • Supported Nano112AN and MO58SFAN for NuMicro M0 series Supported M051DN, M051DE, Mini51DE, NuC100EN, NUC200AE, MT500BE for NuMicro M0 series Supported NuC442/472 for NuMicro M4 series Supported [Nu-Link-MP] to beep three times when being downloaded successfully and display the part number on LCD Added the new parts: NANO1202D2AN, NANO1205D3AN and NANO1202C2AN Created new config dialogs for NUC102, M058S and NANO100 BN Provided re-connect function after writing config0/1, except batch mode Enabled config setting menu options when chip is not connected Supported specific flash programming (LDROM, APROM, DataFlash and configuration area) in Offline mode. 1.21.5905 2012/12/27 • Updated rules of automatically version check mechanism. Fixed the import function bug Modified the Part number information to NUC100 DN series. Disabled the Nu-Link-Pro IO Voltage (2.5V and 5.0V) settings in NanoNANO1100 BN series Added MiniMINI51 BN series config settings dialog Modified the flash address of NanoNANO100 BN, MT500, MINIS1 BN and M051 CN series. Integrated some message boxes to reduce operation flow. Updated the MINIS1 config0 dialog. 2012/10/24 • Supported to show ID, UID and UCID. Supported to export an all-in-one project with or without encryption. Supported to export an all-in-one project with or without encryption. Supported to show RAM size of target chip. Updated to not to show firmware update dialog if Nu-Link firmware is compatible. Updated to not to show firmware update dialog if Nu-Link firmware is compatible. Supported to select multiple Nu-Links.			
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 Updated the MINI51 config0 dialog. Supported to show ID, UID and UCID. Supported to erase M051 series when it is locked. Supported to export an all-in-one project with or without encryption. Supported NANO100 and MINI51 series. Fixed image errors in traditional Chinese. Supported to show RAM size of target chip. Updated to not to show firmware update dialog if Nu-Link firmware is compatible. 			 Supported NUC100 DN, NUC123, NUC200, NANO100 BN, MT500, MINI51 BN and M051 CN series.
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 1.18.5320 2011/11/17 • Supported to erase M051 series when it is locked. Supported to export an all-in-one project with or without encryption. Supported NANO100 and MINI51 series. Fixed image errors in traditional Chinese. Supported to show RAM size of target chip. Updated to not to show firmware update dialog if Nu-Link firmware is compatible. 			 Updated the MINI51 config0 dialog.
 Supported to export an all-in-one project with or without encryption. Supported NANO100 and MINI51 series. Fixed image errors in traditional Chinese. Supported to show RAM size of target chip. Updated to not to show firmware update dialog if Nu-Link firmware is compatible. 			Supported to show ID, UID and UCID.
 Supported NANO100 and MINI51 series. Fixed image errors in traditional Chinese. Supported to show RAM size of target chip. Updated to not to show firmware update dialog if Nu-Link firmware is compatible. 	1.18.5320	2011/11/17	 Supported to erase M051 series when it is locked.
• Fixed image errors in traditional Chinese. • Supported to show RAM size of target chip. • Updated to not to show firmware update dialog if Nu-Link firmware is compatible.			Supported to export an all-in-one project with or without encryption.
1.17.5218 2011/08/11 • Supported to show RAM size of target chip. • Updated to not to show firmware update dialog if Nu-Link firmware is compatible.			Supported NANO100 and MINI51 series.
• Updated to not to show firmware update dialog if Nu-Link firmware is compatible.			Fixed image errors in traditional Chinese.
 Updated to not to show firmware update dialog if Nu-Link firmware is compatible. 	1.17.5218	2011/08/11	 Supported to show RAM size of target chip.
Supported to select multiple Nu-Links.			
			Supported to select multiple Nu-Links.



Improved security of offline download: Forbid reading SPI data without correct password. Write configuration area before other data for safety in offline downloading. Encoding downloading data on SWD in offline mode. Force unlocked Nu-Link to update configuration of its own. Encrypt SPI data by data flash Use password exchange algorithm to enhance security. Supported Auto-program mode for offline download. Supported to limit the count of programming for offline download. Supported to write serial number. Fixed a bug to change I/O voltage immediately after setting options. Supported NUC122, MOS1 BN and NUC100 CN series. Supported to adjust target power by Nu-Link pro. Fixed a bug to support random byte write when writing size/4 is not equal to 0. Changed "external 12 MHz crystal clock" to "4-24 MHz". Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file.			Supported auto-frequency on SWD (512K~4 MHz)
- Forbid reading SPI data without correct password. - Write configuration area before other data for safety in offline downloading. - Encoding downloading data on SWD in offline mode Force unlocked Nu-Link to update configuration of its own Encrypt SPI data by data flash - Use password exchange algorithm to enhance security Supported Auto-program mode for offline download Supported to limit the count of programming for offline download Supported to write serial number Fixed a bug to change I/O voltage immediately after setting options. - Supported to adjust target power by Nu-Link pro Fixed a bug to adjust target power by Nu-Link pro Fixed a bug to support random byte write when writing size/4 is not equal to 0 Changed "external 12 MHz crystal clock" to "4-24 MHz" Supported LED indication for USB/Target power Added settings for target power and I/O voltage. - Supported NUC122 series Fixed a bug to avoid crash problem when network is disconnected Supported to diffline download mode via data flash Added compare function with file data Supported to dump error information Fixed a bug to drive target chip to run when connected Added reset and run program in target chip after programming Renamed "I/CP Tool" to "NuMicro ICP Programming Tool" Fixed a bug to update locked chip in offline mode Supported SPI flash Removed some message boxes in batch program mode Supported ICP project file.			
- Write configuration area before other data for safety in offline downloading Encoding downloading data on SWD in offline mode Force unlocked Nu-Link to update configuration of its own Encrypt SPI data by data flash - Use password exchange algorithm to enhance security Supported Auto-program mode for offline download Supported to limit the count of programming for offline download Supported to write serial number Fixed a bug to change I/O voltage immediately after setting options Supported NUC122, MOS1 BN and NUC100 CN series Supported to adjust target power by Nu-Link pro Fixed a bug to support random byte write when writing size/4 is not equal to 0 Changed "external 12 MHz crystal clock" to "4-24 MHz" Supported LED indication for USB/Target power Added settings for target power and I/O voltage Supported NUC122 series Fixed a bug to avoid crash problem when network is disconnected Supported offline download mode via data flash Added compare function with file data Supported offline download mode via data flash Added compare function with file data Supported to dump error information Fixed a bug to drive target chip to run when connected Added reset and run program in target chip after programming Renamed "ICP Tool" to "NuMicro ICP Programming Tool" Fixed a bug to drive target chip to run when connected Added reset and run program in target chip after programming Renamed "ICP Tool" to "NuMicro ICP Programming Tool" Fixed a bug to drive target chip to run when connected Supported to check update from network Supported SPI flash Removed some message boxes in batch program mode Supported ICP project file.			
- Force unlocked Nu-Link to update configuration of its own Encrypt SPI data by data flash - Use password exchange algorithm to enhance security. Supported Auto-program mode for offline download Supported Statistics of offline download Supported to limit the count of programming for offline download Supported to write serial number Fixed a bug to change I/O voltage immediately after setting options. Supported NUC122, M051 BN and NUC100 CN series Supported to adjust target power by Nu-Link pro Fixed a bug that the hex viewer didn't show updated data Fixed a bug to support random byte write when writing size/4 is not equal to 0 Changed "external 12 MHz crystal clock" to "4-24 MHz" Supported LED indication for USB/Target power Added settings for target power and I/O voltage. Supported NUC122 series Fixed a bug to avoid crash problem when network is disconnected Supported offline download mode via data flash Added compare function with file data Supported to dump error information Fixed a bug to drive target chip to run when connected Added reset and run program in target chip after programming Renamed "ICP Tool" to "NuMicro ICP Programming Tool" Fixed a bug to update locked chip in offline mode Supported to check update from network Supported SpI flash Removed some message boxes in batch program mode Supported ICP project file.			- Write configuration area before other data for safety in offline
- Encrypt SPI data by data flash - Use password exchange algorithm to enhance security. Supported Auto-program mode for offline download. Supported statistics of offline download. Supported to limit the count of programming for offline download. Supported to write serial number. Fixed a bug to change I/O voltage immediately after setting options. Supported NUC122, M051 BN and NUC100 CN series. Supported to adjust target power by Nu-Link pro. Fixed a bug that the hex viewer didn't show updated data. Fixed a bug that the hex viewer didn't show updated data. Fixed a bug to support random byte write when writing size/4 is not equal to 0. Changed "external 12 MHz crystal clock" to "4-24 MHz". Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported to check update from network. Supported Supported ICP project file.			 Encoding downloading data on SWD in offline mode.
- Use password exchange algorithm to enhance security. Supported Auto-program mode for offline download. Supported statistics of offline download. Supported to limit the count of programming for offline download. Supported to write serial number. Fixed a bug to change I/O voltage immediately after setting options. Supported NUC122, M051 BN and NUC100 CN series. Supported to adjust target power by Nu-Link pro. Fixed a bug that the hex viewer didn't show updated data. Fixed a bug to support random byte write when writing size/4 is not equal to 0. Changed "external 12 MHz crystal clock" to "4-24 MHz". Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported offline download mode via data flash. Added compare function with file data. Supported offline download mode via data flash. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file.			 Force unlocked Nu-Link to update configuration of its own.
Supported Auto-program mode for offline download. Supported statistics of offline download. Supported to limit the count of programming for offline download. Supported to write serial number. Fixed a bug to change I/O voltage immediately after setting options. Supported NUC122, M051 BN and NUC100 CN series. Supported to adjust target power by Nu-Link pro. Fixed a bug that the hex viewer didn't show updated data. Fixed a bug to support random byte write when writing size/4 is not equal to 0. Changed "external 12 MHz crystal clock" to "4-24 MHz". Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported Offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported ICP project file.			- Encrypt SPI data by data flash
Supported statistics of offline download. Supported to limit the count of programming for offline download. Supported to write serial number. Fixed a bug to change I/O voltage immediately after setting options. Supported NUC122, M051 BN and NUC100 CN series. Supported to adjust target power by Nu-Link pro. Fixed a bug to support random byte write when writing size/4 is not equal to 0. Changed "external 12 MHz crystal clock" to "4-24 MHz". Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode.			 Use password exchange algorithm to enhance security.
Supported to limit the count of programming for offline download. Supported to write serial number. Fixed a bug to change I/O voltage immediately after setting options. Supported NUC122, M051 BN and NUC100 CN series. Supported to adjust target power by Nu-Link pro. Fixed a bug that the hex viewer didn't show updated data. Fixed a bug to support random byte write when writing size/4 is not equal to 0. Changed "external 12 MHz crystal clock" to "4-24 MHz". Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode.			Supported Auto-program mode for offline download.
Supported to write serial number. Fixed a bug to change I/O voltage immediately after setting options. Supported NUC122, M051 BN and NUC100 CN series. Supported to adjust target power by Nu-Link pro. Fixed a bug that the hex viewer didn't show updated data. Fixed a bug to support random byte write when writing size/4 is not equal to 0. Changed "external 12 MHz crystal clock" to "4-24 MHz". Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported to Check update from network. Supported ICP project file.			Supported statistics of offline download.
Supported to write serial number. Fixed a bug to change I/O voltage immediately after setting options. Supported NUC122, M051 BN and NUC100 CN series. Supported to adjust target power by Nu-Link pro. Fixed a bug that the hex viewer didn't show updated data. Fixed a bug to support random byte write when writing size/4 is not equal to 0. Changed "external 12 MHz crystal clock" to "4-24 MHz". Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode.			Supported to limit the count of programming for offline download.
1.05.5008 2011/05/04 2011/05/05 2011/0			Supported to write serial number.
1.05.5008 2011/05/04 2010/12/08 2010/12			Fixed a bug to change I/O voltage immediately after setting options.
1.05.5008 2011/05/04 • Fixed a bug that the hex viewer didn't show updated data. • Fixed a bug to support random byte write when writing size/4 is not equal to 0. • Changed "external 12 MHz crystal clock" to "4-24 MHz". • Supported LED indication for USB/Target power. • Added settings for target power and I/O voltage. • Supported NUC122 series. • Fixed a bug to avoid crash problem when network is disconnected. • Supported offline download mode via data flash. • Added compare function with file data. • Supported to dump error information. • Fixed a bug to drive target chip to run when connected. • Added reset and run program in target chip after programming. • Renamed "ICP Tool" to "NuMicro ICP Programming Tool". • Fixed a bug to update locked chip in offline mode. • Supported SPI flash. • Removed some message boxes in batch program mode. • Supported ICP project file.			Supported NUC122, M051 BN and NUC100 CN series.
1.05.5008 2011/05/04 • Fixed a bug to support random byte write when writing size/4 is not equal to 0. • Changed "external 12 MHz crystal clock" to "4-24 MHz". • Supported LED indication for USB/Target power. • Added settings for target power and I/O voltage. • Supported NUC122 series. • Fixed a bug to avoid crash problem when network is disconnected. • Supported offline download mode via data flash. • Added compare function with file data. • Supported to dump error information. • Fixed a bug to drive target chip to run when connected. • Added reset and run program in target chip after programming. • Renamed "ICP Tool" to "NuMicro ICP Programming Tool". • Fixed a bug to update locked chip in offline mode. • Supported to check update from network. • Supported SPI flash. • Removed some message boxes in batch program mode. • Supported ICP project file.			 Supported to adjust target power by Nu-Link pro.
equal to 0. Changed "external 12 MHz crystal clock" to "4-24 MHz". Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file.			 Fixed a bug that the hex viewer didn't show updated data.
Supported LED indication for USB/Target power. Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file.	1.05.5008	2011/05/04	
Added settings for target power and I/O voltage. Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file.			Changed "external 12 MHz crystal clock" to "4-24 MHz".
Supported NUC122 series. Fixed a bug to avoid crash problem when network is disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file.			Supported LED indication for USB/Target power.
* Fixed a bug to avoid crash problem when network is disconnected. * Supported offline download mode via data flash. * Added compare function with file data. * Supported to dump error information. * Fixed a bug to drive target chip to run when connected. * Added reset and run program in target chip after programming. * Renamed "ICP Tool" to "NuMicro ICP Programming Tool". * Fixed a bug to update locked chip in offline mode. * Supported to check update from network. * Supported SPI flash. * Removed some message boxes in batch program mode. * Supported ICP project file.			Added settings for target power and I/O voltage.
disconnected. Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file.			Supported NUC122 series.
 Supported offline download mode via data flash. Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file. 			
 Added compare function with file data. Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file. 			
 Supported to dump error information. Fixed a bug to drive target chip to run when connected. Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file. 			• •
 Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file. 			•
 Added reset and run program in target chip after programming. Renamed "ICP Tool" to "NuMicro ICP Programming Tool". Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file. 	1 02 4228	2010/12/09	Fixed a bug to drive target chip to run when connected.
 Fixed a bug to update locked chip in offline mode. Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file. 	1.03.4228	2010/12/08	
 Supported to check update from network. Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file. 			
 Supported SPI flash. Removed some message boxes in batch program mode. Supported ICP project file. 			· · · · · · · · · · · · · · · · · · ·
 Removed some message boxes in batch program mode. Supported ICP project file. 			· ·
Supported ICP project file.			• •
1.02.3814 2010/04/20 • Release primary version.			
	1.02.3814	2010/04/20	Release primary version.



2 Supported Debugger and Programmer

Debugger and Programmer	Device Type	Supported Product
Nu-Link2-Pro	Stand-alone	NuMicro 8051 (1T) / M0 / M23 / M4 Family
Nu-Link-Pro	Stand-alone	NuMicro 8051 (1T) / M0 / M23 / M4 Family
Nu-Link	Stand-alone	NuMicro 8051 (1T) / M0 / M23 / M4 Family
Nu-Link2-Me	Attached to NuMicro EVB	NuMicro 8051 (1T) / M0 / M23 / M4 Family
Nu-Link-Me	Attached to NuMicro EVB	NuMicro 8051 (1T) / M0 / M23 / M4 Family



3 Supported Mass Production Programmer

Mass Production Programmer	Device Type	Supported Product
Nu-Link-Gang	Stand-alone	NuMicro 8051 (1T) / M0 / M23 / M4 Family



4 Supported Microcontroller

Product Line	Series	Part Number
	MS51	MS51BA9AE, MS51DA9AE, MS51XB9AE, MS51XB9BE, MS51FB9AE, MS51FC0AE, MS51XC0BE, MS51EC0AE, MS51TC0AE, MS51PC0AE, MS51EB0AE
NuMicro® 8051 Family	ML51	ML51BB9AE, ML51DB9AE, ML51FB9AE, ML51OB9AE, ML51XB9AE, ML51EB9AE, ML51UB9AE, ML51PB9AE, ML51TB9AE, ML51ECOAE, ML51UCOAE, ML51PCOAE, ML51TCOAE, ML51TD1AE, ML51LD1AE, ML51SD1AE, ML54MD1AE, ML54LD1AE, ML54SD1AE, ML56MD1AE, ML56LD1AE, ML56SD1AE
	N76E003	N76E003AT20, N76E003AS20, N76E003AQ20, N76E003BQ20, N76E003CQ20
	N76E616	N76E616AL48, N76E616AF44, N76E616AM44
	N76E885	N76E885AT28, N76E885AT20, N76E885AQ20, N76E885AS28
	Mini51	MINI51LAN, MINI51ZAN, MINI51TAN, MINI52LAN, MINI52ZAN, MINI52TAN, MINI54LAN, MINI54ZAN, MINI54TAN, MINI54LDE, MINI51ZDE, MINI51TDE, MINI51FDE, MINI52LDE, MINI52ZDE, MINI52TDE, MINI52FDE, MINI54FDE, MINI54FDE, MINI54FDE, MINI54FDE, MINI54FDE, MINI54FDE, MINI54FDE, MINI54FDE, MINI54FDE, MINIS4FDE, MINIS4FDE, MINIS4FDE
	Mini55	MINI55LDE, MINI55ZDE, MINI55TDE
	Mini57	MINI57EDE, MINI57FDE, MINI57XDE, MINI57TDE
	Mini58	MINI58FDE, MINI58LDE, MINI58QDE, MINI58TDE, MINI58ZDE
	M030G	M030GGD1AE, M030GTD1AE, M030GGC1AE, M030GTC1AE M030GGC0AE, M030GTC0AE
	M030	M030TD2AE, M030LD2AE, M030FD2AE
NuMicro® M0 Family	M031	M031BTYD2AN, M031BTYE3AN, M031BTY, M031LE3AE, M031SE3AE, M031TE3AE, M031TD2AE, M031LD2AE, M031LC2AE, M031SD2AE, M031SC2AE, M031FC1AE, M031EC1AE, M031TC1AE, M031FB0AE, M031EB0AE, M031TB0AE, M031SIAAE, M031KIAAE, M031LG8AE, M031SG8AE, M031KG8AE, M031LG6AE, M031SG6AE, M031KG6AE
	M032	M032LE3AE, M032SE3AE, M032SIAAE, M032KIAAE, M032LG8AE, M032SG8AE, M032KG8AE, M032LG6AE, M032SG6AE, M032KG6AE, M032TD2AE, M032LD2AE, M032LC2AE, M032FC1AE, M032EC1AE, M032TC1AE
	M051	M052LAN, M052ZAN, M054LAN, M054ZAN, M058LAN, M058ZAN, M0516LAN, M0516ZAN, M052LBN, M052ZBN, M054LBN, M054ZBN, M058ZBN, M0516LBN, M0516ZBN, M0516ZBN, M052LDN, M052ZDN, M054LDN, M054ZDN, M058ZDN, M0516LDN, M0516ZDN, M0516ZDN, M058ZDN, M0516LDN, M0516ZDN, M058ZDE, M058ZDE, M058ZDE, M058ZDE, M058ZDE, M058ZDE, M058ZDE, M058ZDE, M058MDE, M0516LDE, M0516ZDE
	M0515	M0515LDE
	M0518	M0518LD2AE, M0518LC2AE, M0518SD2AE, M0518SC2AE
	M0519	M0519LD3AE, M0519LE3AE, M0519SD3AE, M0519SE3AE, M0519VE3AE



M0564	M0564LE4AE, M0564LG4AE, M0564SE4AE, M0564SG4AE, M0564VG4AE
M058S	M058SLAN, M058SZAN, M058SSAN, M058SFAN
10/1071	M071MC2AE, M071MD2AE, M071R1D3AE, M071R1E3AE, M071SD3AE, M071SE3AE, M071QE4AE, M071QG4AE, M071VG4AE
M0A21	M0A21OB1AC, M0A21OC1AC, M0A21EB1AC, M0A21EC1AC, M0A23OC1AC, M0A23EC1AC
NUC029	NUC029NAN, NUC029LAN, NUC029TAN, NUC029CIG1, NUC029ZAN, NUC029TAE, NUC029FAE, NUC029LDE, NUC029SDE, NUC029MDE, NUC029LEE, NUC029SEE, NUC029LGE, NUC029SGE, NUC029KGE
NUC100	NUC100LE3AN, NUC100LD3AN, NUC100RE3AN, NUC100RD3AN, NUC100VE3AN, NUC100VD3AN, NUC100VD2AN, NUC100LE3DN, NUC100LD3DN, NUC100LD2DN, NUC100LD1DN, NUC100LC1DN, NUC100RE3DN, NUC100RD3DN, NUC100RD2DN, NUC100RD1DN, NUC100RC1DN, NUC100VE3DN, NUC100VD3DN, NUC100VD2DN, NUC100VE3DE, NUC120LE3AN, NUC120LD3AN, NUC120RE3AN, NUC120RD3AN, NUC120LE3AN, NUC120VE3AN, NUC120VD2AN, NUC120VD2AN, NUC120LE3DN, NUC120LD3DN, NUC120LD3DN, NUC120LD1DN, NUC120LC1DN, NUC120VE3DN, NUC120VD3DN, NUC120VD2DN, NUC120RD3DN, NUC120RD3DN, NUC120RD2DN, NUC120RD1DN, NUC120RD3DN, NUC120RD2DN, NUC120RD1DN, NUC120RC1DN, NUC120RD2DE
NUC121	NUC121ZC2AE, NUC121LC2AE, NUC121SC2AE, NUC121WC2AE, NUC121Y25CN
NUC122	NUC122LD2AN, NUC122LC1AN, NUC122SD2AN, NUC122SC1AN, NUC122ZD2AN, NUC122ZC1AN, NUC122ZD2AN, NUC122ZC1DN, NUC122ZC1DN, NUC122ZC1DN, NUC122LD2DN, NUC12ZC1DN, NUC122LC1DN, NUC122SC1DN
NUC123	NUC123SC2AN1, NUC123SD4AN0, NUC123LC2AN1, NUC123LD4AN0, NUC123ZC2AN1, NUC123ZD4AN0, NUC123SC2AE1, NUC123SD4AE0, NUC123LC2AE1, NUC123LD4AE0, NUC123ZC2AE1, NUC123ZD4AE0
NUC125	NUC125ZC2AE, NUC125LC2AE, NUC125SC2AE
NUCTZ6	NUC126LE4AE, NUC126LG4AE, NUC126SE4AE, NUC126SG4AE, NUC126VG4AE, NUC126NE4AE
NUC1261	NUC1261LE4AE, NUC1261LG4AE, NUC1261SE4AE, NUC1261SG4AE
KII 17 7 2 11	NUC130LE3CN, NUC130LD2CN, NUC130LC1CN, NUC130RE3CN, NUC130RD2CN, NUC130RC1CN, NUC130VE3CN
NUC131	NUC131LD2AE, NUC131LC2AE, NUC131SD2AE, NUC131SC2AE, NUC131LD2AEU, NUC131LC2AEU, NUC131SD2AEU, NUC131SC2AEU
NUC1311	NUC1311LD2AE, NUC1311LC2AE
NUC140	NUC140LE3CN, NUC140LD2CN, NUC140LC1CN, NUC140RE3CN, NUC140RD2CN, NUC140RC1CN, NUC140VE3CN
NUC200	NUC200LE3AN, NUC200LD2AN, NUC200LC2AN, NUC200VE3AN, NUC200SE3AN, NUC200SD2AN, NUC200SC2AN, NUC220LE3AN, NUC220LD2AN, NUC220LC2AN, NUC220VE3AN, NUC220SE3AN, NUC220SD2AN, NUC220SC2AN
 NUC2201	NUC2201LE3AE, NUC2201SE3AE

	NUC230	NUC230LC2AE, NUC230LD2AE, NUC230LE3AE, NUC230SC2AE, NUC230SD2AE, NUC230SE3AE, NUC230VE3AE
	NUC240	NUC240LC2AE, NUC240LD2AE, NUC240LE3AE, NUC220LE3AE, NUC240SC2AE, NUC240SD2AE, NUC240SE3AE, NUC240VE3AE
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	Nano102	Nano102ZB1AN, Nano102ZC2AN, Nano102LB1AN, Nano102LC2AN, Nano102SC2AN
	Nano103	Nano103ZD3AE, Nano103LD3AE, Nano103SD3AE
	Nano110	Nano110KE3BN, Nano110SE3BN, Nano110KD3BN, Nano110KD2BN, Nano110SD3BN, Nano110SD2BN, Nano110KC2BN, Nano110SC2BN, Nano110RC2BN, Nano110RD3BN
	Nano112	Nano112LB1AN, Nano112LC2AN, Nano112SB1AN, Nano112SC2AN, Nano112RB1AN, Nano112RC2AN, Nano112VC2AN
	Nano120	Nano120VD3AN, Nano120VD2AN, Nano120SD3AN, Nano120SD2AN, Nano120LD3AN, Nano120LD2AN, Nano120SC2AN, Nano120LC2AN, Nano120ZD3AN, Nano120ZD2AN, Nano120ZC2AN, Nano120KE3BN, Nano120SE3BN, Nano120LE3BN, Nano120KD3BN, Nano120SD3BN, Nano120SD2BN, Nano120LD3BN, Nano120LD2BN, Nano120SC2BN, Nano120LC2BN
	Nano130	Nano130VD3AN, Nano130KE3BN, Nano130SE3BN, Nano130KD3BN, Nano130KD2BN, Nano130SD3BN, Nano130SD2BN, Nano130KC2BN, Nano130SC2BN
	NDA102	NDA102EC1, NDA102FC1 NDA103EC1, NDA103FC1, NDA102SD2
NuMicro® M23 Family	M251	M251FC2AE, M251EC2AE, M251ZC2AE, M251SC2AE, M251LC2AE, M251SD2AE, M251LD2AE, M251ZD2AE, M251KB3AE, M251SB3AE, M251LE3AE, M251KG6AE, M251SG6AE, M251LG6AE, M252FC2AE, M252EC2AE, M252ZC2AE, M252SC2AE, M252LC2AE, M252SD2AE, M252LD2AE, M252ZD2AE, M252KE3AE, M252SB3AE, M252LE3AE, M252KG6AE, M252SG6AE, M252LG6AE, M254SD3AE, M254SB3AE, M254PD3AE, M254PE3AE, M254KD3AE, M254KE3AE, M256SD3AE, M256SB3AE, M256PD3AE, M256PE3AE, M256KD3AE, M256KE3AE, M258SD3AE, M258SE3AE, M258PD3AE, M258PE3AE, M258KD3AE, M258KE3AE, M253ZE3AE, M253LE3AE, M253LD3AE
	M261	M261KIAAE, M261SIAAE, M261ZIAAE, M262KIAAE, M262SIAAE, M262ZIAAE, M263KIAAE, M263SIAAE, M263ZIAAE
	M2351	M2351KIAAE, M2351SIAAE, M2351ZIAAE, M2351SFSIAAP
	M2354	M2354ES, M2354KJFAE, M2354SJFAE, M2354LJFAE
NuMicro® M4 Family	M451	M451VG6AE, M451VE6AE, M451RG6AE, M451RE6AE, M451LG6AE, M451LE6AE, M451RD3AE, M451RC3AE, M451LD3AE, M451LC3AE, M452VG6AE, M452VE6AE, M452RG6AE, M452RE6AE, M452LG6AE, M452LE6AE, M452RD3AE, M452LD3AE, M452LC3AE, M453VG6AE, M453VE6AE, M453RG6AE, M453RE6AE, M453LG6AE,



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NM1100 NM1100XBAE, NM1100FBAE
NM1120 NM1120FC1AE, NM1120EC1AE, NM1120XC1AE, NM1120ZC1AE
NM1200 NM1200LBAE, NM1200TBAE, NM1200ZBAE
NM1230 NM1234D, NM1232D, NM1220EBKO, NM1234Y, NM1232Y, NM1233D, NM1233Y
NM1243 NM1243D48, NM1243Y48, NM1243Y NM1244D48, NM1244Y48, NM1244Y
NM1320 NM1320LC2AE
Motor Control NM1330 NM1330LC1AE, NM1330LD2AE
NM1510LC1AE, NM1520LC2AE, NM1520LD2AE, NM1520RC2AE, NM1520RD2AE, NM1530VD3AE, NM1530VE3AE, NM1530LE3AE
NM1810 NM18100Y, NM18101Y, NM18105Y, NM18107Y, NM1817NT
NM18200S, NM18201S, NM18202S, NM1820ZB0AE, NM18200D, NM18200Y, NM18201Y, NM18202Y
NM1830 NM18307Y
TF5100 TF5103D, TF5103Y, TF5102Y
Audio Audio 194000 194124A, 194123A, 194121A, 194120A, 194114A, 194113A, 194111A, 194110A, 194134A 194133A, 194131A, 194130A, 194124B, 194123B, 194113B, 194124C, 194123C, 194113C 194124E, 194124D, 194124P, 194124N, 194124G, 194124S, 194124Z, 194100A, 1941R00
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		ISD9160C2, ISD9160T, ISD9145
	191300	I91361, I91361C, I91331
	191200	191260, 191260C, 191230, 191230C, 191260B, 191260G, 191230G, 191230P
	191000	I91032F, I91032C, I91032T
	N569S	N569S250, N569S500, N569S750, N569S1K0, N569S1K5, N569S2K0, N569S3K0, N569S4K0, N569S8K0, N569SAK0, N569S251, N569S501, N569S751, N569S1K1, N569S1K6, N569S2K1, N569S3K1, N569S4K1, N569S8K1, N569SAK1, N569SBK2, N569S502, N569SAK2
	N569J	N569J502L, N569J1K0L, N569J2K0L, N569J4K0L
	N570	N570F064, N570C064, N570B12, N570H064, N570HC64
	N570J	N570J08AL, N570J16AL, N570J32AL, N570J04DL, N570J08DL, N570J16DL, N570J32DL, N570J64DL, N570J131GL, N570J256GR, N570J512GR, N570J01GR, N570J08DF, N570J16DF, N570J09DF
	N570S	N570S04A, N570S08A, N570S16A, N570S32A, N570S64A, N570S128, N570SC04, N570SC08, N570SC16, N570SC32, N570SC64, N570SCA2, N570S04B, N570S08B, N570S16B, N570S32B, N570S64B, N570S129, N570SC05, N570SC09, N570SC17, N570SC33, N570SC65, N570SCA3, N570S256, N570S130
	N571	N571P032
	N572	N572F064, N572F065, N572F072, N572C065, N572C072, N572S08A, N572S16A, N572S32A, N572S64A, N572SC08, N572SC16, N572SC32, N572S6C4, N572U08A, N572U16A, N572U32A, N572U64A, N572U128, N572S08B, N572S16B, N572S32B, N572S64B, N572SC09, N572SC17, N572SC33, N572S6C5, N572U08B, N572U16B, N572U32B, N572U64B, N572U129
	N575	N575C145, N575F145, N575A145, N575S08A, N575S16A, N575S32A, N575S64A, N575S08B, N575S16B, N575S32B, N575S64B



5 Resources

Website	Details
	https://www.nuvoton.com/tool-and-software/software-development-tool/programmer/
NuTool on nuvoton.com	 Download the latest NuTool installation file. View the NuTool revision history.
NuTool on GitHub	https://github.com/OpenNuvoton/Nuvoton Tools
<u>NUTOOL</u> OII <u>GILHUD</u>	Check the open source example code of NuTool for easier development.

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