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# Release Note: CalmSHINE16Plus V1.14 Release History

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<b>Title</b>	Release Note: CalmSHINE16Plus V1.14 Release History
Keywords	CalmSHINE16Plus
Abstract	This document is the release note of CalmSHINE16Plus V1.14

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## Revision History

Date	Version	Author	Approver	Amendment
Sep, 18 2008	1.0	Jieun You		Create document for CalmSHINE16Plus V1.13 package
Dec, 22 2008	1.14	Yongjoo Kwon		Create document for CalmSHINE16Plus V1.14 package

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## 1 How to get V1.14 Install Package

[http://www.aijssystem.com/english/product/download/CalmSHINE16\\_download.htm](http://www.aijssystem.com/english/product/download/CalmSHINE16_download.htm)

You can download CalmSHINE16Plus\_V1\_14

## 2 Release History V1.14

Each tool version according to Packages

	Package Ver.	V 1.11	V 1.12	V 1.13	V 1.14
Tool		2008.03.21	2008.05.16	2008.09.19	2008.12.22
GUI& Debugger		1.56e+b	1.56f+a	1.56 g+a	1.56 h+a
Compiler		V1.02b	V1.02d	V1.02k	V1.02s
Assembler		V1.00n	V1.00n	V1.00q	V1.00u
Linker		V1.00y	V1.00y	V1.01b	V1.01c
Librarian		V1.00a	V1.00a	V1.00a	V1.00d
Library				V1.02k	V1.02s

## 3 Matters that Require Attention

### 3.1 Features of the CalmSHINE16Plus

- More Optimized Code Size
- More Flexible Memory Description
- Support ELF Format
- Support DWARF2 Debugging

### 3.2 Device Files and C Startup and Memory Description File.

-. The User should copy some of the “\include\mon\\*.\*” (.mon, .dvm ) on the CalmSHINE16 TO “\include\mon\” directory on the CalmSHINE16Plus.

If the user does not have experience to use CalmSHINE16 tool chain, if You don’t have the Device files what you want to use , then Please request the Device File sets to the Device Vendor.

Of course if the user want to set the User Define directory for DVM or MD file, you can use the Project Option Page. Please refer the way how in the *CalmSHINE16Plus\_PortingGuide\_IDE.pdf*.

- Device Vendor should support the Device files(.mon, .dvm) and cstartup file, md file.
- Default CStartup File Should be allocated on the “\sFile” directory
- Default MD file Should be allocated on the “\ldscripts” directory
- The Aiji system Web site support the Device Dependent Files (sFile, include\mon, lscripts) by zip file. When you want to get the new Device files Please download these.

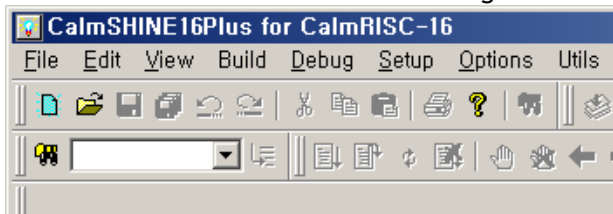
The supported Devices Files are

S3CC40D.DVM  
S3FC40D.DVM

### 3.3 Known Problem

### 3.4 Issues

-. You can classify the CalmSHINE16Plus with existed CalmSHINE16 by the Program Title. It shows the “CalmSHINE16Plus for CalmRISC-16” string.



Or you can check this inform in the Tool info(Help menu/About CalmSHINE16)

## 4 Revision History

### 4.1 GUI - CalmSHINE16Plus

Version	Released date	Comments
V1.56h+a	Dec 22 2008	[FIX] Bug fix for breakpoint icon. [FIX] Bug fix for register modifying value in register view.
V1.56g+a	Sep 19 2008	[FIX] C3200 firmware update. [FIX] Bug fix for Find in files error [FIX] Bug fix for Trace view

V1.56f+a	May 16 2008	[FIX] Multiple Section debugging [FIX] Breakpoint save in DPJ Project. [NEW] Disassembly scroll up support.
V1.56e+b	Mar 21 2008	[FIX] Section debugging
V 1.56e+a	Jan 11 2008	[NEW] debugging support at SWI, return lib
V 1.56d+e	Oct 30 2007	[NEW] DVM File memory check. [NEW] Flash memory erasing check option add. [NEW] Multiple data download [FIX] Load from file Error [FIX] flash download error in case of "RO" area. [FIX] library optimization option remove in LPJ project. [FIX] Bug fix dependency check problem when one file is compiled. [FIX] Bug fix Flash download error [FIX] Bug fix Watch variable problem about register pair..
V1.56d+d	Feb 6 2007	[FIX] Bug fix Object file Building Error. [FIX] Bug fix Flash download error [FIX] Bug fix Register value and Watch variable view aren't equal..
V1.56d+c	Mon 20 2006	[NEW] Call Stack view supported
V1.56d+b	Sep 11 2006	[FIX] automatically add C startup file when the user select the Option Page [FIX] automatically delete .i file when making header dependency [FIX] fix code keyword pointer variable bug [FIX] add browse button on Project Option page [FIX] remove mem file dependency
V1.56d+a	Aug 14 2006	[NEW] Hot key for Debug/Code Download(Ctrl+Q) & Debug/Data Download(Ctrl+R) [FIX] Bug fix for Assembly File Step in [FIX] Bug fix for Disassembly view of Assembly Source File
V1.56d	Jul 31 2006	This IDE support the DWARF2 Debugging Information and New language set build process. The CalmSHINE16Plus Base is the CalmSHINE16 1.56d.

## 4.2 Language tools

### 4.2.1 Compiler - UCC.exe

Version	Released date	Comments
V1.02s	Dec 22 2008	[FIX] Fixed bug of incorrect code generation of (char & 0xff) operation. [NEW] --copmc option for using LDC for constant objects was added
V1.02r	Dec 08 2008	[FIX] Fixed several performance problems with memory allocation in variables allocator. [FIX] Bug fixing of DWARF information for function at user section (by "#pragma section") [FIX] Fixed calculation of the value ranges for right shift operation of the unsigned values. [FIX] Fixed bad common sub-expression elimination with new address optimization enabled .
V1.02p	Nov 11 2008	[FIX] Bug fixing in memory id flag for aggregate initializer/ [NEW] Usage eeprom section for aggregate =initializer under pragma section with 'E' attribute [NEW] Added pragma inlinefactoronce for =ontrolling the Zj option behavior.

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V1.02o	Oct 30 2008	[FIX] Fixed bug with infinite loops in forward stores optimization. [FIX] Disabled optimization of volatile variables by forward stores optimization [FIX] CSE fix for better elimination of dereferences expressions. [FIX] Fixed elimination of dereferences in CSE. [FIX] Bug with usage typedef name and ext-specifier for function return type creation [NEW] Supporting macro-replacing inside built-in asm. <pre>#define NUM 0x33 __asm { LD R0, #NUM; }</pre>
V1.02n	Oct 22 2008	[FIX] Bug fixing of AO with --copm option
V1.02m	Oct 20 2008	[FIX] Bug fixing and supporting of .bss section (.lcomm instruction). Bug appears in case of -copm option [FIX] Bug fixing in type check of common and extension types
V1.02l	Sep 25 2008	[FIX] Fixed bug in alias analysis of statically=initialized constant pointers.
V1.02k	Sep 17 2008	[FIX] string access bug fix for -copm option
V1.02j	Sep 5 2008	[FIX] Address optimization bug fix for --copm option
V1.02i	July 29 2008	[FIX] Fixed bug with allocation of non-equal variables to the same register(union type member) [FIX] Fixed crashing under -copm option.
V1.02h	Internal	[NEW] Warning generation for constant truncation [FIX] Fixed bug with -stat option and '(' symbol [NEW] added -copm option for locating const object to PM.
V1.02g	July 14 2008	[FIX] fixed instruction-scheduling bug. [FIX] Fixed bug with char type bit field and int type together as the member of structure
V1.02f	July 3 2008	[FIX] If constant expression of the pointer type is more than pointer type can keep the constant will be truncated (no maximum)
V1.02e	June 20 2008	[FIX] Fixed crash with --stat key if some array is declared by macros . [FIX] Fixed bug with passing generic structure as a parameter. [FIX] Fixed bug in elimination of the expressions that contain dereferences of pointers. [NEW] Changed searching "include" directory mechanism further to your request, added --noenv option to deny CALM_INCLUDE environment variable using
V1.02d	May16 2008	[FIX] Fixed a bug with composition of already composed expressions, which caused incorrect computation order. [FIX] Alias analysis fix for volatile variables. [FIX] Fixed bug with allocation of parameters and stack variables
V1.02c	Apr 30 2008	[NEW] enhanced address optimization for control area.
V1.02b	Feb 27 2008	[FIX] bug "no error if different section of declaration and definition of the variables (except integer)". [FIX] unsigned long comparison operation. [NEW] Added error message for symbol re-declaration with a different align factor.
V1.02a	Feb 4 2008	[FIX] Bug with warning and error generation. [NEW] option for disable special warning added [NEW] Forward stores optimization enhanced [NEW] Low-level value range optimization enhanced
V1.02	Dec 5 2007	[FIX] Bug with packed structure. [FIX] Debug info regarding function epilog bug [NEW] Value Range optimization added [NEW] Constant propagation optimization enhanced [NEW] Common Sub Expression optimization enhanced
V1.01b	Nov 28 2007	[FIX] Bug with packed structure.

V1.01a	Nov 13 2007	[FIX] Bug with packed structure. [FIX] Bug with Algebraic Simplification optimization
V1.01	Oct 29 2007	[NEW] Alias by Type optimization added [NEW] High Level Combining optimization added [NEW] Enhancement of Conditional Expressions Simplification optimization added [NEW] Algebraic Simplification optimization added
V1.00v	Oct 3 2007	[FIX] Bug with PSM feature.

#### 4.2.2 Assembler - CalmSDKAs.exe

Version	Released date	Comments
V1.00u	Dec 16 2008	[NEW] C style pre-processing directives supported (#define #include etc.) [NEW] Option --full-path implemented
V1.00t	Dec 2 2008	[NEW] "fatal error" tag not printed in XML file
V1.00s	Dec 1 2008	[FIX] Parsing immediate operands with # fixed.
V1.00r	Nov 4 2008	[NEW] Logical operators &&    supported in .ifdef .ifndef
V1.00q	Sep 16 2008	[NEW] Instruction SUB Rn, #_xyz supported with ADD Rn,#-(_xyz). The 16bit immediate value -(_xyz) is calculated at link time.
V1.00p	Jun 20 2008	[NEW] Option --no-relax removed. [NEW] Section attribute 'N' supported. Sections with 'N' attribute are not optimized at link time.
V1.00o	Jun 20 2008	[NEW] Extra debug information added for GDB.
V1.00n	Mar 19 2008	[NEW] Error checking added for non-absolute expression in some directives.
V1.00m	Feb 23 2008	[NEW] Debug information for profiling generated in the output file.
V1.00l	Jan 9 2008	[FIX] Priorities set for '>' '<' operators in conditional statements.
V1.00k	Dec 5 2007	[NEW] KEEP attribute supported in old CalmSHINE16 assembly syntax.
V1.00j	Sep 20 2007	[FIX] Higher 16bit value of the constant operand taken when '<' operator is applied.

#### 4.2.3 Linker - CalmSDKLd.exe

Version	Released date	Comments
V1.01c	Dec 18 2008	[NEW] Option --full-path supported [NEW] Short summary printed on screen
V1.01b	Sep 16 2008	[NEW] Instruction SUB Rn, #_xyz supported with ADD Rn,#-(_xyz). The 16bit immediate value -(_xyz) is calculated at link time.
V1.01a	Sep 4 2008	[NEW] Sections with 'N' attribute are not optimized.
V1.01	Aug 22 2008	[FIX] When INIT table is not given then the first ILOAD aligned during optimization.
V1.00z	Aug 7 2008	[NEW] Warning generated when --auto-init and __INIT_TABLES__ are incompatible.
V1.00y	Mar 18 2008	[NEW] New directives #strict_grouping and #skip_abs supported in MD file [NEW] Proper error generated for invalid syntax.
V1.00x	Feb 11 2008	[NEW] Debug information for profiling generated in the output file.
V1.00w	Jan 15 2008	[NEW] Specific library module selection supported in --whole-archive option
V1.00v	Dec 17 2007	[NEW] Option --rec-len <num> supported for user defined record length in Intel/Motorola output files.
V1.00u	Dec 5 2007	[NEW] Error handling done after optimization. [NEW] IMG file containing detailed section allocation information generated [NEW] During MAP file linking, duplicate symbols from standard library files are not loaded [NEW] Empty load/exe regions removed

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V1.00t	Oct 31 2007	[NEW] Size library files added for internal garbage collection.
V1.00s	Oct 24 2007	[NEW] Symbol  IMAGE\$\$EPDM\$\$LIMIT  has been generated.

#### 4.2.4 Librarian - CalmSDKAr.exe

Version	Released date	Comments
V1.00d	Dec 20 2008	[FIX] Parsing of file names in -n<file> corrected.
V1.00c	Dec 2 2008	[NEW] Option --stat=<file> supported to print error/earning messages in XML file
V1.00b	Nov 4 2008	[NEW] Option '@<file>' supported to read all options form a file
V1.00a	May 21 2007	[NEW] Library file supported as one of input files (Only members are read from this file).
V1.00	Jul 29 2006	[NEW] Option -n <list> supported to read member names from a file.

#### 4.2.5 Library

Version	Released date	Comments
V1.02s	Dec 23 2008	Built with compiler V1.02s and assembler V1.00u
V1.02r	Dec 9 2008	Built with compiler V1.02r and assembler V1.00t
V1.02k	Sep 16 2008	Built with compiler V1.02k and assembler V1.00q
V1.02b	Mar 20 2008	Built with compiler V1.02b and assembler V1.00n
V1.02	Dec 5, 2007	Built with compiler V1.02 and assembler V1.00k
V1.00v	Oct 3, 2007	Built with compiler V1.00v and assembler V1.00j