

- CVD Ver 3.53 (2022/03) Release Note

Division	Items	Contents
New	UI	Support CYT3DN,CYT3DL,CYT3DN,CYT4DL
	UI	Support -FLTO compile option
	UI	[About CVD] windows will show all supported license
Fix	UI	Fixed can't load module symbol on linux kernel v5.x
	UI	Fixed status error when running script file
	UI	Fixed Flash.erase error on cypress chip
	UI	Fixed data.pattern issue
	UI	Improve data compare speed on speedup mode
	Firmware	Reduced ARM register access on prepare mode
	Firmware	Fixed can't connected to Cortex-R core when using SWD interface
	Firmware	If slave option on, don't reset jtag state machine on Cortex-M
	Firmware	Fixed SWDPTARGETSEL issue on some target board
	Firmware	Fixed accessport issue on CVD-multi / slave when using Cortex-M
	Firmware	Fixed timing issue on Codeviser ver1.21.

- CVD Ver 3.51 (2021/05) Release Note

Division	Items	Contents
New	UI	Support Cypress Traveo II CYT2xx/CTY3xx/CYT4xx
	UI	Support user register files for Cypress Traveo II CYT2xx/CTY3xx/CYT4xx
	UI	Support OSEK rtos awareness
	CMD	Support CFLASH.RESet/ CFLASH.Creat/ CFLASH.TARGET
Fix	Firmware	Fixed can't connect to Traveo II board with SWD issue
	Firmware	Fixed can't connect to NXP secure jtag implemented target board issue
	Firmware	Fixed can't connect to target board when debugaccess port set to 2
	UI	Fixed can't connect to target board when debugaccess port set to 2
	UI	Fixed "Memory allocation error" on simulator

- CVD Ver 3.49 (2020/06) Release Note

Division	Items	Contents
New	CMD	Support IF (&var==100)&&(&NUM==(0x400 0x800 0x1000)) style in script file
	CMD	Support NewLine command in Per file
	CMD	Add OPTION.SecureDebugMode on/off for secure/non-secure debugging
	CMD	Support /Censorchip option for FLASH.Auto command
Fix	firmware	Fixed data.set not working when using flash programing
	UI	Fixed bit field crash issue
	UI	Fixed callstack list with GreenHills compiler
	UI	Fixed status bar output error message twice if firmware is not match
	UI	Fixed can't connect to target board if MemoryAccessPort set to 2 in Cortex-M
	UI	Fixed MMU list issue with nGnRE attrfield value

- CVD Ver 3.48 (2019/09) Release Note

Division	Items	Contents
New	UI	Auto Detect mode doesn't support SWD any more, will change to Manual mode automatically if check SWD mode
	CMD	Support FLASHFILE.TARGET, FlashFile.GETID, FlashFile.LOAD
	CMD	Support space when assign value to a macro. (ex: &a = 0x1000)
	CMD	Support /Censorchip option for FLASH
Fix	CMD	Fixed per file item can't show correct value issue
	CMD	Fixed pbreak not working in step
	CMD	Do without file extension will search .cmm and .csf
	UI	Fixed performance doesn't working on multi slave cvd

- CVD Ver 3.47 (2019/04) Release Note

Division	Items	Contents
----------	-------	----------

New	UI	Support Tkernel 2.0/Utkernel 2.0
	UI	Minimum value of [Config]-[Debugger]-[Emulator Response time] changed to 1000ms
	UI	Support HSM debugging for TC2XX,TC3XX
	UI	Support Icache/Dcache dump (CortexA5/A7/A8/Krait)
	CMD	Add task config ucos/ucos2/ucos3 command
	CMD	Support /AutoInc option for FLASH.Create
Fix	Firmware	Can set HWBP on 4GB address of Cortex-M(FPB version 2)
	Firmware	Memory download mode will change to [Norma] on AXI/AHB/APB memory class, even [Speed up] checked.
	UI	Fixed can't show source file with Data.load.elf /RELPATH /PATH ./ command
	CMD	Fixed the problem that can't show assembly source code with sYmbol.Spath.Translate command

- CVD Ver 3.45 (2018/08) Release Note

Division	Items	Contents
New	UI	Support Cortex-M23/M33
	UI	Remove [Config]-[Interface]-[System]-[Method]-[Auto]
	UI	CVD-API can be used on multi-Codeviser
	UI	Support Linux kernel 4.09~ os awareness
	UI	Support Icache/Dcache dump (CortexA5/A7/A8/Krait)
	UI	Break list window can also save as cmm file
	UI	If can't install software breakpoint, then CVD will install onchip breakpoint
	UI	Add [Copy Symbol]/[copy Address] function in watch window
	CMD	Support E:/DAP:/ EDAP: memory class
	CMD	add SCRIPT.MESSAGE.OPEN/SCRIPT.MESSAGE.CLOSE/SCRIPT.MESSAGE.ERROR/OPEN/SCRIPT.MESSAGE.ERRORCLOSE csf command
	CMD	Support Var.if, Var.Assign, Var.draw, Var.Profile
	CMD	Support SYStem.Option DualPort on/off
	CMD	Support Setup.Dump /Be command
	CMD	Support PRIVATE,PARAMETERS, On error continue,
	CMD	Support %open %recursive option for var.view/var.watch/var.addwatch
	CMD	Support FORMAT.UnixTime() function
	CMD	Support SYStem.Option AHBPROT command
	CMD	Support color on MENU.AddTool command
	CMD	Support FLASH.ReProgram command
	CMD	Support /compare /diff option for Data.Set command
Fix	Firmware	Support up to 16 watch point
	Firmware	Fixed the problem that can't connect to Cortex-R5 smp core
	Firmware	Fixed the problem that stop doesn't working correct on IT instruction
	UI	Fixed the problem that doesn't support symbol name in memory dump window
	UI	Fixed the problem that can't show macro value in cmm file
	UI	Fixed the problem that can't show static variable value
	UI	Fixed user tool button size
	UI	Fixed the problem that can't decode ERET instruction
	UI	Fixed the problem can't show some static variable on watch window
	UI	Fixed the problem can't show MMU register on FA626TE
	UI	Fixed can't show callstack on Cortex-M exception
	UI	Fixed the problem that memory changed to 0 after executing semihosting
	CMD	Fixed the problem STRING.SPLIT() doesn't work issue

- CVD Ver 3.43 (2017/06) Release Note

Division	Items	Contents
New	UI	Support t-kernel os awareness
Fix	Firmware	Support up to 16 watch point
	UI	Fixed the problem that doesn't support symbol name in memory dump window
	UI	Fixed the problem that can't show marco value in cmm file
	UI	Fixed the problem that can't be stop after prepare and attach

- CVD Ver 3.42 (2016/04) Release Note

Division	Items	Contents
New	UI	Support google arm cross toolchain(2015.05)
	UI	Support overlay debugging
	UI	Support Cortex-M7
	CMD	Support JTAG SCAN related commands, JTAGSCAN, JTAGIR(), JTAGDR()
	CMD	Support overlay related commands, OVERLAY.AutoID, OVERLAY.Create OVERLAY.DETECT, OVERLAY.FRIEND, OVERLAY.List OVERLAY.RESet, OPTION OVERLAY
Fix	Firmware	Support up to 16 watch point
	UI	Support Cortex-m semihosting on simulator
	UI	Fixed can't set data on per window
	UI	Fixed can't use speed up mode on imx6 processor
	UI	Fixed can't show some character on terminal window
	UI	Fixed can't use symbol expression in memory dump window
	UI	Fixed can't show overlay page symbol
	UI	Fixed step issue on Cortex-M on simulator
	UI	Fixed Coprocessor and VFP instructions shown as undefined issue.
	UI	Fixed swbp issues on ARM926 Thumb mode
	UI	that Data Width is not applied in the Memory Dialog
	UI	[Config]-[Store Option] also saves semihosting argument
	UI	Fixed the problem that selecting [FREERTOS]-[Task List] Will cause CVD cash
	UI	Fixed the problem that can't load some format .per file
	UI	Fixed the problem that can't show whole task list of FreeRTOS 8.x

- CVD Ver 3.40 (2015/03) Release Note

Division	Items	Contents
New	Common	Support ASM callstack
	Common	Support Cortex-A17
	Common	Support FA616TELLITE,FA616TEMPU
	Common	Support Cortex-M0+
	Common	Support STV0991
	Common	Support OS awareness for FreeRTOS 8.0
	Common	API source and server file changed to support interworking with CVD64
	CMD	Support EDBG, EAXI,NAHB,NAXI memory access class
	CMD	Support SYSTEM.DETECT JTAGCLOCK command
	CMD	Support %continue option for PRINT command
	CMD	Support cable.twowire() command
	CMD	Support DEBUG.ClearCache command.
	Change	Common
Common		Script_CortexR4.ars file changed to show 12 set MPU Control Registers
CMD		Source file will immediately show after using sYmbol.SourcePATH.Translate command
UI		Support .reloc can be loaded
UI		Support EXAI type on windows related to memory, load and download binary
Fix	Common	Fixed v.value(&variable) issue
	Common	Fixed single step issue on SMC instruction
	Common	Fixed memory values were changed by AHB bus with multi-debugging environment
	Common	Fixed the problem when setting software breakpoint with clear cache on upload/download
	Common	Fixed the connection was disconnected when open a stack frame view window after booting a kernel
	UI	Fixed watch window casting issue
	UI	Fixed task callstack issue for Threadx 5.6
	UI	Fixed disassemble issue for 0xFA1FF888
	UI	Fixed debuglist issue on Cortex-A5 when FPU register window open
	UI	Fixed watch window doesn't show correct value for pointer
	UI	Fixed debug list window doesn't change when press [prev]-[next] button on callstack window
	UI	Fixed ICACHE doesn't show correct value on Cortex-A5
	UI	Fixed the problem when selection of CPU
UI	Fixed progress bar still kept 0% when an error occurred.	

	UI	Fixed cp register window when the same items existed on it with CortexA7 or A15
	UI	Fixed did not update debug list view window when pressing prev button
	UI	Fixed did not show instructions with opening FPU register window
	UI	Fixed memory fill feature
	UI	Fixed the menus of ucos3 os awareness did not showed correctly
	UI	Fixed enum pointer variables showed abnormally
	UI	Fixed the problem if there was no cpu name in script files
	UI	Fixed did not connect with corenumber 1 on CA15A7
	UI	Fixed connecting after setting corenumber on CA9x4
	UI	Fixed did not show sources with y.spath.t in network driver
	UI	Fixed pc would move 0x0 when doing register undo
	CMD	Fixed menu.reprogram aaa opens dialog box for aaa.cmm
	CMD	Fixed display type of var.watch
	CMD	Fixed AREA.select A000
	CMD	Fixed to support parameter of core.assign
	CMD	Fixed sys.config.debugporttype swd/jtag
	CMD	Fixed the problem when using quotation in IF structure
	CMD	Fixed data.pattern
	CMD	Fixed core.assign biglitle

- CVD Ver 3.3 (2014/04) Release Note

Division	Items	Contents
New	Common	Support dwarf4 format
	Common	Added 64bit Coprocessor register read/write on CortexA7/A15
	CMD	Added the result of data.compare() leads to found()
	CMD	Added data.image /bgr565
Change	Common	Changed the serial digit numbers
Fix	Common	Fixed the problem thumb mode with core 1,2 and 3 had changed to arm mode on Cortex15 after doing attach
	Common	Fixed the problem CVD crashed when entering local variable view
	Common	Fixed the problem the code executed abnormally when data cache was enabled
	Common	Fixed of rfeia instruction
	Common	Fixed the problem load instruction was not executed when cpsr_c was 0xDF
	Common	Fixed the problem data was changed when watchdog reset raised
	Common	Fixed the problem data was not downloaded abnormally on CortexA7 with speed up mode
	Common	Fixed the problem TC2 board was connection failed when doing save binary to file with speed up mode
	Common	Fixed the problem could not access core1 when doing system.reset on CortexA7MP
	Common	Fixed the problem could not check core index when SMPcore is more than two
	Common	Fixed the problem could not connect to ARM1176 JTAG-AP when TRST was applied
	Common	Fixed the problem could not handle the image has abnormal characters
	Common	Fixed the range problem when using memory fill
	Common	Fixed the problem could not change information of breakpoint on CortexM4F
	Common	Fixed the problem showed arm mode although the current is thumb mode
	Common	Fixed the problem did not execute when using autodetect
	Common	Fixed the problem could not set software breakpoint when using map.nobonchip command
	UI	Fixed the problem CVD included full header files for the inlined function
	UI	Fixed the problem did not work semihosting on Simulator
	UI	Fixed the problem showed type abnormally when adding the bool type global variable to watch window
	UI	Fixed the problem vector catch enabled when setting related options
	UI	Fixed the problem CVD didn't respond from inserting the module
	CMD	Fixed core.assign command
	CMD	Fixed register.log command
	CMD	Added off parameter of system.option.waitreset
	CMD	Fixed menu.rp command
	CMD	Fixed TermSet.SERialport command
	CMD	Fixed print CFORMAT
	CMD	Fixed STM1/FUNNEL/ETF3 command
	CMD	Fixed task.mod.magic("module_name") command

- CVD Ver 3.2 (2013/12) Release Note

Division	Items	Contents
New	Common	Support new core - Cortex-A12
	Common	Support Hyper and Visualization registers
	Common	Support Mcompare command
	UI	Added Core.showactive command
Change	Common	Modified Big.Little command
Fix	Common	Fixed the problem refreshing the linux task list window automatically
	Common	Fixed the problem cannot use attach command on SWD
	Common	Fixed the problem the target was disconnected after setting core 1 as reset and doing go
	Common	Fixed the problem the memory values were not showed from M0 when CortexM0 and CortexA7 were connected together
	Common	Fixed the problem the register values were abnormal when changing a COREJTAG value
	Common	Fixed of range breakpoint on CortexA9
	UI	Fixed the problem disassembly code did not show correctly when executing the same script continuously

- CVD Ver 3.2 (2013/07) Release Note

Division	Items	Contents
New	Common	Support new cores - Cortex-A15A7 / PXA1088
	Common	Support Hypervisor Mode - Cortex-A7 / Cortex-A15
	Common	Support 64bit System Control Coprocessor (CP15) Read/Write feature - Cortex-A7 / Cortex-A15
	Common	Support 32bit exceeded Address (LPAE) Memory Read/Write feature - Cortex-A7 / Cortex-A15
	Common	Added Memory Read/Write through AXI-AP bus
	Common	Added big.Little feature
	Common	Added Core state view
	Common	Added Breakpoint / Watchpoint feature on Hypervisor Mode - Cortex-A7 / Cortex-A15
	Common	Added PA / Semi-hosting / DCC features of SMP Core - Cortex-A / Cortex-R SMP Core
	Common	Added Coprocessor Data Abort - ARM11 / Cortex-A / Cortex-R
	Common	Added CTI - Cortex-A / Cortex-R SMP Core
	Common	Added Hyp Trap Exception - Cortex-A7 / Cortex-A15
	Common	Added cache management feature when downloading /uploading
	Common	Added Context ID option when setting breakpoint
	Common	Added VFPv4, SIMDv2 features
	Common	Added Non Secure bit Read/Write feature - ARM1176 / Cortex-A
	Common	Support checking CVD version by command
	Common	Support Interface.sim()
	Common	Support r.s pc <address> /core <number>
	Common	Support upgrading firmware on DOS window
	UI	Added the feature saving script macro view window
	UI	Added ARGB format(ARGB, ARGB1555, ARGB1666, ARGB2554, ARGB3565, ARGB4444, ARGB6666)
	UI	Added search feature on cache dump
UI	Added check firmware version when opening CVD	
UI	Support SDIV/MDIV command	
UI	Support symbol.foreach command	
Change	Common	Changed the fixed JTAG Clock should be set when users use JTAG Cycle / JTAG Shift features
	Common	Changed the selected address range should be clean and invalidate data cache line when accessing memory on Cortex-A / Cortex-R Core.
	UI	Changed the structure of flash command Flash.erase/Flash.program
	UI	Changed users can input AHB-AP / APB-AP / JTAG-AP / AXI-AP Port Number (Default value : If any value isn't written, AHB:0 / APB:1 / JTAG:2 / AXI:4 will be set up.)
	UI	Changed how to show static local variable out of function
	UI	Changed vector catch window and terminal window
	UI	Changed how to input the values on window
Fix	Common	Fixed the problem of connection, cores had lost signals via Time out when more than 3 cores is Core Power Down status on Cortex-A / Cortex-R SMP Core and executed Stop
	Common	Fixed the problem memory cannot be written well with Multi-Mode on ARM926EJS (JTAG-AP) Core
	Common	Fixed the problem ASM Interrupt Disable Option was not applied on Cortex-M Core
	Common	Fixed the problem the connection had lost when accessing Physical Memory with set MMU on in Cortex-A9 SMP Core
	Common	Fixed the problem the connection could not make it on Debug status when Target Power Off → On
	Common	Fixed the problem the connection had lost ARM7 when it is reached at Start Kernel on MDM9215
	Common	Fixed the problem the connection can be made it with setting ResBreak Option checked

		on MDM9215
Common		Fixed the problem CVD did not realize the status of Current core status on Exynos5410
Common		Fixed the problem memory values were changed when Connection → System Down → Attach with setting DACR checked on ARM926EJ Core
Common		Fixed the problem there was a limit the number of Breakpoint / Watchpoint on Cortex-A / Cortex-R Core
Common		Fixed the problem about FPU Register Read/Write on Cortex-M4 Core
Common		Fixed ASM Single Step features - IT, RFE, ERET, HVC, SMC
Common		Fixed the problem system down was showed up when Condition Breakpoint feature was executed continuously
Common		Fixed the problem CVD could not realize Chip Reset when running with SWD Interface on Cortex-M Core
Common		Fixed the problem the results were different 32bit set and 32bit(multi) set on memory range
Common		Fixed the problem when saving memory with speed up mode on CortexA7MP2 core
Common		Fixed the problem there was an error message when doing autodetect
Common		Fixed the problem memory was crashed on CortexM4
UI		Fixed the problem about testapi.exe
UI		Fixed the problem with -gdwarf-3 option when building the image
UI		Fixed the problem when using store options menu
UI		Fixed about multi core count and index on command
UI		Fixed about HW breakpoint numbers limit
UI		Fixed dialog feature on a script file
UI		Fixed the way of showing BP List
UI		Fixed the problem not to display any messages on script message view window
UI		Fixed the problem not to support the specific intel hex file
UI		Fixed the command Data.load.elf a.elf &spaceid:&address
UI		Fixed the problem didn't apply JTAG clock during disconnect status
UI		Fixed the problem load r14,=0x3AC00028 command didn't work on simulator
UI		Fixed rfeia lr command
UI		Fixed ITT command didn't work
UI		Fixed the problem connection had lost during trustzone debugging
UI		Fixed about the way of handling core power down
UI		Fixed the problem when there were many factors of macro with NULL
UI		Fixed about the way of handling memory abort
UI		Fixed the problem there was an error when scrolling address on memory view window
UI		Fixed the problem some instructions displayed as undefined on ARMv7VE
UI		Fixed the problem watch window didn't display enum type variables
UI		Fixed y.spath + ..
UI		Fixed the problem module list on show module list was not matched with module list with lsmod
UI		Fixed the problem CVD tends to include full header file for inline function

- CVD Ver 3.1 (2012/12/14) Release Note

Division	Items	Contents
New	Common	Support new cores - PXA988
	Common	Support DP/AP Register Access in case of ARM7/9/11 Cores are based on CoreSight
	Common	Support Memory Access via AHB/APB in case of ARM7/9/11 Cores are based on CoreSight
	Common	Support StandBy Mode
	Common	Support memory abort function on SWD interface
	UI	Added to save information on script macro view window to text file
	CMD - CSF	Added CFlash.LoaderSymbolInfo
Change	Common	Changed not to do clean and invalidate the specific range when accessing memory on Cortex-A7 Core
	Common	Changed not to handle error although Sticky reset status bit[bit3] of Device Power Down and Reset Status Register is set when debugging on Cortex-A/R Core
	Common	Changed to carry out Clean and Invalidate Data or Unified cache line by MVA to PoC Function with the current PC value when escape debug mode on Cortex-A Core
	Common	Changed to carry out Invalidate all Data caches function when escape debug mode on Cortex-R Core
	Common	Changed to apply TRST option for Control/Status Word Register on ARM7/9/11 Core is connected to JTAG-AP
Fix	Common	Fixed the ARM7EJS connection failure
	Common	Fixed the problem could not display thumb2 instruction when scrolling mouse on debuglist window
	Common	Fixed the problem did not show BP mark with asm mode
	Common	Fixed the problem was duplicated or removed c source when switching asm mode to mix mode on debuglist window
	Common	Fixed the problem pc line created at the part between functions on debuglist window
	Common	Fixed the problem when doing step over in for loop function
	Common	Fixed the problem about BLX Instruction display, and malfunction
	Common	Fixed the problem did not stop when setting SW Breakpoint on the specific range with Cortex-series
	Common	Fixed the problem displayed port fail when multi-debug without connecting to target
	Common	Fixed the problem did not display C++ library local variables on the specific image
	Common	Fixed the problem opened debuglist window with doing step although hide debug windows option is enabled
	Common	Fixed to keep enabling interrupt disable option after connection
	Common	Fixed the problem showing Error:break message when writing Break command while target is running
	Common	Fixed the problem showed SYSOFF although CVD is idle status
	Common	Fixed the problem displayed ENUM values
	Common	Fixed the problem the variables on watch window was not displayed
	Common	Fixed the problem module list was not matched the list via lsmdb
	Common	Fixed linux library list limit's expansion
	Common	Fixed the way of setting as PID when setting task bp
	Common	Fixed the problem did not stop when setting S/W bp
	Common	Fixed the problem did not recognized symbol name has more than 41 characters on expression from breakpoint setting dialog
	Common	Fixed the problem when updating about system option view from multi page tab
	Common	Fixed order of tab on each dialog window
	Common	Fixed the problem memory window was crashed when minimizing the window on Windows7
	Common	Fixed Enable/Disable Button Title on Processor view window
	Common	Fixed the way of putting address decimal character to hex character on Flash Address Range tab from [Config]-[Memory]-[Flash Range]
	Common	Fixed the problem about re-connection on ARM11 Core is connected to JTAG-AP
	Common	Fixed showed up protection error on multi-debugging
	Common	Fixed the problem lost DCC Write Data when entering debug mode with DCC write status on Cortex-A/R Core
	Common	Fixed the problem SMP core was synced when sync options are enabled on multi-debugging
	Common	Fixed the problem disconnected when multi core debugging on ARM7/9 Core is connected to JTAG-AP

Common	Fixed the problem disconnected when change daisy chain via memory write on ARM926EJ Core
Common	Fixed the problem about speed up mode when core switches Run status to Attach status
Common	Fixed the problem did not apply DACR option
Common	Fixed the problem cannot access memory normally when debug mode is monitor mode
Common	Fixed the problem did not apply setting information of memory range when downloading a file with normal mode with 32bit of bus width on memory range tab
Common	Fixed Store options
Common	Fixed the problem did not updated option configuration on more than two pages
Common	Fixed the problem disconnected when using sys.up or connect while target is already connected
Common	Fixed the problem disappeared a radio button when switching display mode or upload/download option
Common	Fixed Help shortcut
Common	Fixed the problem did not display a message on Script message view window
Common	Fixed Processor properties window
Common	Fixed back trace function
Common	Fixed abnormal execution after stopping at BP on Cortex-A9 quad core
Common	Fixed the problem showed a dialog window when running linux-/proc menu
Common	Fixed the problem applied -1 when using sys.option.waitreset option without time
Common	Fixed module debugging with Big.LITTLE target
Common	Fixed the problem move to unexpected location when setting a bp at timer interrupt service routine
Common	Fixed the problem the specific memory values are changed when doing memory dump with speed up mode on Cortex-A5/A7 Core
Common	Fixed the problem did not recognize core stops by breakpoint on Cortex-A/R SMP Core
Common	Fixed the problem should reset Codeviser from no response when setting resetwait as -1
Common	Fixed the problem sync configuration was not applied when does multicore debugging.
Common	Fixed the problem about connection failed via AHB-AP was fixed as 0 on Cortex-M Core
Common	Fixed the problem did not update information on local variable view window promptly when changing core on SMP environment
Function	Fixed S32 option of MREAD function
Function	Fixed VARFLOATVALUE() function
CMD	Fixed declaration of macro which is assigned without local or global is handled to local
CMD - CSF	Fixed to save information on Coresight tab from system option view window when executing STOREOPTions
CMD - CSF	Added AutoComplete function on MULtiCore.ETMBASE, MULtiCore.ETMFUNNELPORT, MULtiCore.FUNNELBASE, MULtiCore.TPIUBASE
CMD - CSF	Fixed the problem disconnected when writing parameter of /CORE option much more than the core number on BackTrace
CMD - CMM	Fixed the problem disconnected when writing parameter of /CORE option much more than the core number on Var.Frame
CMD - CMM	Supported ARGB format of Data.Image
CMD - CMM	Fixed the problem when writing resetwait on with checked ResetBreak on system option view window
CMD - CMM	Fixed y.spath + ..
CMD - CMM	Supported string.lower
CMD - CMM	Fixed var.sting
CMD - CMM	Expanded Comport of PROC.Serialport
CMD - CMM	Expanded Memory Class(PM,UM) when executing Data.long
CMD - CMM	Fixed about the function of OS.RETURN()
CMD - CMM	Fixed the function of PBREAK
CMD - CMM	Fixed the function of Epilog, Prolog

- CVD Ver 3.0 (2012/05/14) Release Note

Division	Items	Contents
New	Common	Support new cores - Cortex-M3S - CortexM0/M1/M4/A7/A15/R5 - PMB87XX - PXA968/DM8168/AM3871
	Common	Support simulator
	Function	Display data abort in the memory window for ARM7 Core
	Function	Add the function of preventing memory access (For Cortex-M3S) - prevent the range access such as read / write/ readwrite
	Function	Add Cortex-A7 Core ICache / DCache Dump
	UI - Common	Freeze/Unfreeze the window (except for Trace view window)
	UI - View	Add memory class (EAHB, EAPB, DBG)
	UI - View	Support CP register value display - CP10, CP11, CP14, CP15
	UI - RTOS	Support for OS awareness for Micro COSIII
	UI - RTOS	Support for OS awareness for FreeRTOS
	UI - RTOS	Support for OS awareness for ThreadX
	UI - RTOS	Add PID sorting function of Linux Task window
Change	Common	Change of the Core List management
	Common	Change of the System Option management
	Common	Change protocol for connection with CodeViser
	Common	Send error messages according to Error status in Firmware
	UI - Help	Change of 'CVD About' Option management
	Register	Able to access FPU System Register according to access authority
	Register	Able to access FPU Register according to access authority
	Help	Change the way of showing menu [Help]
Fix	Common	static variable management in Watch window Fixed
	Common	breakpoint error and register value on Hynix CortexM3S Fixed
	Common	sorting problem in Linux Task window Fixed
	Common	task information display in Linux kernel 3.0 Fixed
	Common	enum type variable display Fixed
	Common	disconnect when downloading with speed up mode on ARM11 Core Fixed
	Common	speed up mode download problem on ARM7 Core with JTAG-AP Fixed
	Common	Thumb2 Instruction ASM single step problem (TBH/TBB Instruction) Fixed
	Common	Fixed the problem PC value can't return normally after downloading with flashloader on Cortex-M3 Core
	Common	can't read memory after accessing abort range on Cortex-M3 Core Fixed
	Common	Fixed the problem booting is not worked normally after changing the image on Cortex-A7 Core
	Common	Fixed the problem about Reset Break function
	Common	Fixed the problem ICache/DCache Dump function error on ARM920T Core
	Common	Fixed the problem supported cores are not displayed on About CVD
	Common	Fixed the problem create dump when loading symbol after doing attach
	Common	Fixed the problem store options to non-writable network or CDROM, could not save the file
	Common	Fixed the problem display CP register values on CortexR4
	Common	Fixed the order that moves cursor after clicking Heap Base tab on Processor properties.
	Common	Fixed the way to displaying BP List
	Common	Fixed the problem disabled stop button after using continue button
Common	Fixed the problem stay running status when using single step on C level mode	
Common	Fixed the problem cannot access secure configuration register and secure debug enable	

		register after changing bit[0] from secure to non-secure
Common		Fixed the problem cannot connect to OMAPL138(ARM926EJS)
Common		Fixed the problem when downloading the image on QSC61x5 with speed up mode
Common		Fixed the problem when doing step over on CortexM3
Common		Fixed the problem after reloading image with enabled data cache
Common		Fixed the problem on ARM1176 with speed up mode
Common		Fixed the problem the script file seems to finish running, but it stops at any position
Common		Fixed the problem about Reset Break function
RTOS - Linux		Abnormal operation when loading Linux Module symbol Fixed
RTOS - Linux		Abnormal operation in Linux Task window when loading symbol Fixed
RTOS - Linux		Fixed the problem create error message when using trim option on load option on [Linux]-[App. Debugging]
RTOS - Linux		Fixed the problem create dump file when put on name field on system_server window.
RTOS - Android		Fixed the problem show the different source code
RTOS - ThreadX		Abnormal operation of Refresh in ThreadX window Fixed
CMD - Config		option.Serialwire on fixed
CMD - Config		Added System.Config option fixed
CMD - Debug		Var.watch fixed
CMD - CSF		Stop when meeting /* in the script file fixed
CMD - CSF		Dialog.view fixed
CMD - CSF		Data.Print fixed
CMD - CSF		Can't arrange when using speedup mode, and data.test fixed
CMD - CSF		Data.Assem fixed

- CVD Ver 2.4 (2011/07/22) Release Note

Division	Items	Contents
New	Common	Support new cores - Cortex SMP : Cortex-A/R series Single SMP Core - CortexA9MPCoreSMP4 - CortexA5 : Cortex-A5 Single / SMP Core - DB8500, DB8500APE-CORE0/1, DB8500MOD-CORE1/2 - PXA920 (Xscale License) - TMS320DM368 (TI)
	Common	Support new processor with FPU - FA626, ARM11 series with JTAG-AP
	Common	Prepare mode is added in SWD
	UI - View	Can set number of SMP Core
	UI - View	Support each SMP Core debug windows for - DebugList, General Register, CP Register, FPU Register, MMU, CallStack, User Register
	UI - View	Add Next(Go Next) button on Debug List window
	UI - View	Press Esc to close window
	UI - View	Logical address search supported in MMU Table
	UI - View	Save contents of Cache, TLB window to file
	UI - View	Display Thread List/ID on CallStack window
	UI - RTOS	Can set debugging base path when Linux debugging
	UI - RTOS	Search/sort in Linux, Windows CE debugging window
	UI - Config	Time interval setting for GoStop Breakpoint
	CMD - Config	OPTIOIN.Update [ON OFF] - Whether update opened debugging windows, when connect to target.(for those window access memory)
	CMD - View	CPRegister {/CORE <Core No>} - Display CP register (core numbers can be given if the core is smp)
	CMD - View	FPURegister {/CORE <Core No>} - Display FPU register ((core numbers can be given if the core is smp)
	CMD - View	USERRegister {/CORE <Core No>} - Display User Register(core numbers can be given if the core is smp)
Change	Common	Range abort for memory(not for XScale)
	Common	Prepare - Users can manage own Lock, Power related operation
	Common	All cores use same option when using SMP Core - DCC, Synch, Semihosting, Performance Anaysis etc...
	Common	Keep run state, if can't control debug register due core state on Cortex-A9MPCoreSMP2
	UI - Common	Script command can recognize default file extension.
	UI - Common	Automatically change CPSR T bit when loading Thumb Image
	UI - View	Hide PC bar on debug list window, when executing target.
	UI - Config	Support up to com16 in CVD internal com port
	CMD - Debug	Reduced time for data.test command. Overlap detection added for data.test command
	CMD - View	DebugList {/CORE <Core no>} - added /CORE option
	CMD - View	Register {/CORE <Core no>} - added /CORE option
	CMD - View	MMU {/CORE <Core no>} - added /CORE option
	CMD - View	BackTrace {/CORE <Core no>} - added /CORE option
	License	FA616TE / FA726TE added into Faraday lincense
Fix	Common	Performance analyzer doesn't work in cortex9smp core due to CTI Fixed
	Common	Doesn't stop at breakpoint if set H/W breakpoint at vector Fixed
	Common	Abnormal operation when there is too many section in image Fixed
	Common	Can't connect OMAP4430 when using RTCK and SYSRESET option fixed
	Common	Can't select supported core after CodeViser ID code write Fixed

	UI - View	Blinking on RTOS view window, can't select item when set auto refresh option Fixed
	UI - Edit	Can't save script file after editing Fixed
	UI - Debug	Assign buffer sometimes causes binary downloading error Fixed
	CMD - Debug	Target disconnect command in ARM1176 core Fixed
	CMD - Debug	Can't set H/W breakpoint when ARM1176 core is running Fixed
	CMD - Debug	Time out happens when write flash area in Cortex-A/R core Fixed
	CMD - Debug	Can't get corebase from rom table, if didn't set corebase when attaching Cortex-A/R core Fixed
Remove	UI-Config	Deleted option [Download huge file]

- CVD Ver 2.31 (2011/03/04) Release Note

Division	Items	Contents
New	Function	Added TLB cache for ARM920T, ARM922T Added L1 cache for ARM920T, ARM922T, ARM946ES Added L2 cache for CortexA8 series.
	Function	Double click on the message bar will show message history
	CMD-CMM	Command DATA.TEST supported.
	UI-Config	Added Automatically Refresh
Fix	Symbol-Info	Can't show local variables specific environment Fixed
	Symbol-Load	Can't show source file when using gcc compiler 4.5.x Fixed
	Symbol-Load	Symbol loading speed become slow in version 2.30 Fixed
	CMD-CMM	d.load.elf /RELPATH doesn't work properly Fixed.
	CMD-CMM	var.addwatch type casting error Fixed
	CMD-CMM	CMM command Term.cmdline Fixed
	CMD-CSF	CSF command VARSTRING Fixed
	CMD-CSF	CSF command Mfind Fixed
	CMD-CSF	CSF command SECTIONRANGE Fixed
	CMD-CSF	CSF command DEBUG.InerruptRESET Fixed
	CVD-View	Callstack View when Automatically refresh Fixed
	RTOS-WINCE	WinCE Thread List Fixed
	RTOS-WINCE	Fixed the problem that can't show WINCE 4.2's task list

- CVD Ver 2.3 (2010/08/16) Release Note

Division	Items	Contents
New	UI-Menu	Added TLB List / Cache Menu <ul style="list-style-type: none"> - Added [DTLB], [ITLB], [Main TLB], [Lockdown TLB], [DCACHE], [ICACHE] Items under [Register]-[MMU/Cache] Support Cores <ul style="list-style-type: none"> - DTLB : ARM1136, OMAP2420, Cortex-A8, FA626 - ITLB : ARM1136, OMAP2420, Cortex-A8 - Main TLB : ARM926EJ, ARM1136, OMAP2420 - Lockdown TLB : ARM926EJ, ARM1136, OMAP2420 - DCACHE : ARM1136, OMAP2420, Cortex-A8 - ICACHE : ARM1136, OMAP2420, Cortex-A8
	UI-Config	Added Items in the Target Processor Set up <ul style="list-style-type: none"> - Added COREBASE, CTIBASE, ROM TABLE Tabs
	UI-Menu	Added [Go Next] under [Run] Menu
	UI-Menu	Added [User] Menu to Menu Bar <ul style="list-style-type: none"> - Register, Execute and Run the frequently used User Scripts
	UI-Menu	Added [Store Options] under [Config] Menu <ul style="list-style-type: none"> - A Function which saves the Options of Current CVD as a Script.
	CMD-Option	STOREOPTions <filename> [ALL INTerface DBG PROC MEM SrcPath VArFormat] <ul style="list-style-type: none"> - Save the Current Target Interface Set up / Options related to Debugger as a File.
	CMD-View	VIEW.BookMark / BookMarkList <ul style="list-style-type: none"> - Show the Bookmark List Window
	CMD-View	VIEW.DEBUG / DEBUG <ul style="list-style-type: none"> - Show the Debugger Setting Window
	CMD-View	VIEW.ElapsedTime / ElapsedTimeList <ul style="list-style-type: none"> - Show the Elapsed Time Window
	CMD-View	VIEW.INTerface / INTerface <ul style="list-style-type: none"> - Show the Interface Option Window
	CMD-View	VIEW.PROCessor / PROC <ul style="list-style-type: none"> - Show the Processor Option Window
	CMD-View	VIEW.SRP.ProFile / SRPProFileList <ul style="list-style-type: none"> - Show the SRP-Profile Window
	CMD-View	VIEW.Stack / STackView <ul style="list-style-type: none"> - Show the Stack View Window
	CMD-View	VIEW.SYMBOL.INTernalVArIable / SYMBolINTernalVArIableList <ul style="list-style-type: none"> - Show the Internal Variable Window
	CMD-View	VIEW.SYMBOL.ProGram / SYMBolProGramList <ul style="list-style-type: none"> - Show the Program List Window
	CMD-View	VIEW.SYMBOL.SECTION / SYMBolSECTIONList <ul style="list-style-type: none"> - Show the Section List Window
	CMD-View	VIEW.SYMBOL.Variable / SYMBolVArIableView <ul style="list-style-type: none"> - Show the Local Variable List Window
	CMD-View	VIEW.TERMinal <ul style="list-style-type: none"> - Show the CVD internal Terminal Window
	CMD-View	VariableList <ul style="list-style-type: none"> - Show [Symbol]-[Symbol by address]-[Variable] Window
	CMD-View	VIEW.SYMBOL.WAtch / SYMBolWAtchView <ul style="list-style-type: none"> - Show the Watch List Window
	CMD-Option	VIEW.VArFormat / VArFormat <ul style="list-style-type: none"> - Show the Variable Format Option Window
	CMD-Option	MULtiCore.COREBASE <address_0> {<address_1> ... <address_7>} <ul style="list-style-type: none"> - Set up the Corebase (Maximum : 8)
	CMD-Option	MULtiCore.CTIBASE <address_0> {<address_1> ... <address_7>} <ul style="list-style-type: none"> - Set up the CITBASE (Maximum : 8)

	CMD-Option	PROC.Reserved [ON OFF] - Turn On/Off the Vector Catch Reserved
	CMD-Option	PROC.TERM.METHOD [None SemiHosting SERIAL DCC DCC3 DCC4A DCC4B] - Configure the Terminal Method
	CMD-Option	PROC.TERM.Mode [Ascii String Raw Hex Vt100] - Configure the Terminal Mode
	CMD-Option	PROC.SemiHost.Args <string_value> - Configure the Terminal Semihosting Argument
	CMD-Option	PROC.SemiHost.Heapinfo <heap_base> <limit> - Configure the Terminal Semihosting Heap
	CMD-Option	PROC.SemiHost.Stackinfo <stack_base> <limit> - Configure the Terminal Semihosting Stack
	CMD-Option	PROC.SemiHost.Vector <vector> - Configure the Terminal Semihosting Vector
	CMD-Option	PROC.SERialport <port> <baudrate> <data_bit> <parity> <stop_bit> <handshake> - Configure the Terminal Serial Port / Serial Communication
	CMD-Option	CFlash.RamBase <address> - Configure the RamBase in the Flash Memory Configuration
	CMD-Option	CFlash.RamSize <size> - Configure the RamSize in the Flash Memory Configuration
	CMD-Option	MemMap.MemBufMod [MIX NOCACHE CACHE] - Configure the Memory Buffer Mode
	CMD-Option	MemMap.MemBufRange <address_range> - Configure the Memory Buffer Range
	CMD-Option	MemMap.MemBufRangeRESET - Initialize the Memory Buffer Configuration
	CMD-Option	MemMap.MemBufSaveoption [ON OFF] - Activate the Memory Map Configuration
	CMD-Option	MemMap.MemRange [ReadOnly ReadWrite] [NONE W32Multi W8 W16 W32] - Configure the type of Memory Map and the way to access
	CMD-Option	MemMap.MemRangeRESET - Initialize Memory Map Configuration
	CMD-Option	VARFormat.Radix (Decimal Hex Binary Ascii DUMP STRing) - Configure the Radix in the Variable Format
	CMD-Option	VARFormat.Format.Fixed [ON OFF] - Configure the Fixed Option in the Variable Format
	CMD-Option	VARFormat.Format.Open [OFF 1 2 3 4 5] - Configure the Open Level in the Variable Format
	CMD-Option	VARFormat.Display (Type Location Spaces) - Configure the Display in the Variable Format
	CMD-Debug	GoNext - Execute and Stop the Program Counter in the next line of the current location
	Functions	Show the guide message about the renewal of the CVD S/W
Change	UI-Config	Added Variable Format Configuration Items ([Config]-[Variable Format]) - Dump, Fixed, Open, Type, Location, Spaces
	UI-Config	Show Interface Configuration Window again when the connection to the target is failed - Show Interface Configuration Window again when the connection is failed in [Config]-[Interface] Menu
	UI-Menu	Change the focus without any additional control when Each Window is called - Symbol Browse, Watch Variable, Memory, Breakpoint
	UI-Window	Able to change the inside contents of View Window by using 'F2' Key - Local Variable, Watch Variable, Stack, Register (General, CP, User, FPU)
	UI-Window	Added [Add to Watch] Menu to each Window Popup Menu - Symbol Browse, Local Variable, Call Stack, Watch Variable
	UI-Window	Color Difference between source code line and address of instruction in the Debug List View

	UI-Window	Changed the way to select the Variable in the Debug List View - The whole word is masked after double clicking a member or array of the structure
	UI-Window	Added [Show Break Set] Menu under the Break Menu of Debug List View Popup
	UI-Window	Able to input Character into the Edit Box of Symbol List View every time
	UI-Window	To Set up as a Watch Breakpoint if the selected item is Variable when [Go to Here] is executed in the Popup Menu of Symbol List View Window
	UI-Window	Added [Breakpoint] Menu in the Popup of Stack View
	UI-Window	The Type of [Perf]-[Config] Window is changed as a Modalless Dialog
	UI-Window	Call the different size Window fit for its properties
	UI-Window	Closing Window or Page is available in the list of Window Manager - Added Close Window, Close Page Menu to the Popup Menu.
	UI-Window	Located 'Change' Menu on the top of Popup Menu in Breakpoint List View
	UI-Window	Set up the Range Breakpoint automatically according to its whole range when the breakpoint is related to Structure or Array Display the range in the Breakpoint List View
	UI-Window	Able to input not only the address but the size while using Find / Fill / Compare Functions in the Memory View
	UI-Window	Able to input Symbol Name into the Dump Address / Add the Symbol Search Button.
	UI-Window	Add Symbol Browse Button, Delete All Button in Watch List View
	UI-Window	The Command is entered in the Command Line if the Command is being entered in the View Window what is not able to accept Key input
Fix	UI-Window	Fixed the problem that the Font Size is not changed normally when Debug List View is opened
	UI-Window	Fixed the problem that even though Click the 'Show Next Statement', Minimized Debug List View Window is not opened when it is minimized
	UI-Window	Able to distinguish the highlighted Breakpoint in the Breakpoint List View when it is stopped
	UI-Window	'Tap' Key is available in the Find / Fill / Compare Windows of Memory View
Remove	UI-Menu	Removed TLB List Menu under [Register]- [MMU/Cache] Menu

- CVD Ver 2.2 (2010/05/17) Release Note

Division	Items	Contents
New	UI-Config	Added 'Check target sleep mode' in the Debugger Setting Option
	UI-RTOS	Added Linux Library Debugging Function
	UI-RTOS	Added Popup Menu related to Linux Task List Window MMU - Scan MMU Pages, Scan All MMU Pages, Kill Task
	UI-Window	Display the changed contents of Memory View by Color
	UI-Window	Added the Function of Overlaped Line and MultiLine
	UI-Window	Added the Function of Console View Clipkey
	ETC	Added the Function of CVD API
	Function	Support CoreSight™ JTAG-AP Multi-Core Debug (ARM11MP Core)
	UI-Config	Added the Function of SWD - Cortex-M3 : 10KHz~20MHz - Cortex-R4 : 10KHz~50MHz
	UI-Window	Added the way to Access Memory - AHB, APB
Function	Added the Function of Range Breakpoint	
Change	UI-Menu	Changed the way to manage Hotkey - Added Customize Hotkey Menu, Removed existing Customize Menu
	UI-Memory	Changed the way to display the output of Memory View Compare
	Function	A Variable breakpoint is set by a Range breakpoint
	Function	Improved the Function of Cortex-A, Cortex-R Core Speed Up Mode
Fix	Function	Change the sequence of reading DCC data
	UI-RTOS	Fixed the problem occurred when the Image of Linux Kernel is loaded twice
	UI-Menu	Fixed the problem that the Line is displayed 1 Line fewer than Real Line in 'Replace in Files' Function
	UI-Window	Fixed the problem that Data Width is not applied in the Memory Dialog
	UI-Window	Fixed the problem that the Contents of Title is not able to be changed when The Configuration of the Console View is being modified
	UI-Window	Fixed the problem that the Character of Character Type is transformed twice when the Configuration of Console View DCC is set up
	Function	Fixed the problem that the Function of Synch Run/Stop is not normally working by Interrupt Service Routine Execution time in Multi-Core Debugging Circumstance
Function	Fixed the problem that the Function of JTAG Shift is not normally working by Data Size Error	
Remove	UI-Window	Removed the Function of Output View Window