Release Notes

TriCore Development Platform v4.9.3.0-infineon-1.0

HighTec EDV-Systeme GmbH

1. Product Changes

1.1. Toolchain

- A new compiler option `-mpragma-section-filter` is introduced to provide an alternate usage of `#pragma section`. Multiple `#pragma section` statements can be opened with different flags. The compiler will apply `#pragma section` only to objects which match the flags set by the corresponding statements. This option is not set per default.
- The compiler option `-mpipeline` was initialized to 0 which corresponds to `<standard>` pipelining. This means if a derivative or core – e.g. TC1.6.1 – was specified then the corresponding pipeline optimization was not selected automatically, it had to be specified explicitly. This usability is improved by implicitly setting the core specific pipeline optimization.
- The PCP compiler component of the TriCore Development Platform is removed.
- The compiler ignored some of the `attribute longcall` with high register pressure when called with optimization level at least `-O2`. This bug is fixed.
- The following values for the TriCore linker's `--mcpu=<core>` option were marked as deprecated: tc16e, tc16p, tc27xx, tc2d5d, aurix. The support of these values is removed.
- The `mcs-ld` option `-extmap=a`, which is used to get extended symbol information in the linker map-file, emitted wrong information about the end address and the symbol size due to the use of the generic bfd linker function to generate the linker symbol hash table. A back-end function is defined and used to store the symbol information according to elf hash entry.
- The length of the long data type differs for 32-bit and 64-bit versions of `objcopy`, therefore their length in the generated C-array output also differs. This difference is resolved by using uint32_t type in the output functions.
- The TriCore linker produced a segmentation fault when the output format was set as srec. This bug is fixed.
- The `mcs-as` option `-a` without passing an architecture option `-mV<x>` didn't set the default V1 architecture, thus only instructions assigned to the base architecture were recognized. This bug is fixed.

1.2. IDE

The HighTec IDE is updated to version 2.2.4. The exact changes can be found in the IDE's Release Notes document.

- The HighTec Content Manager is available in the IDE menu under Help → HighTec Content Manager.
- Documentation about our IDE is available in the IDE menu under Help → Help Contents → HighTec Development Platform 2.0.

1.3. Installer

- Added an option for custom installation type with feature selection.
- Because of a known issue with the installer tool, the toolchain cannot be uninstalled from the Control Panel's *Programs and Features* dialog.
  The toolchain can be uninstalled by using the *Uninstall.exe* from the toolchain directory.

1.4. Board Support Package and Examples

- Fixed using of proper endinit protection of `SCU_SWRSTCON` in `SYSTEM_Reset()` for AURIX™ TC38x and AURIX™ TC39x derivatives.

2. List of Supported Boards

TriBoard

TC1130	TC1197	TC1724	TC1736	TC1767	TC1784	TC1793	TC1797
TC1167	TC1387	TC1728	TC1766	TC1782	TC1791	TC1796	TC1798

AURIX™ Application Kit	AURIX™ TriBoard	Other
TC224 (TLF35584 A-Step)	TC222 A-Step	ShieldBuddy TC275 C-Step
TC224 (TLF35584 B+C-Step)	TC223 A-Step	ShieldBuddy TC275 D-Step
TC234 (TLF35584 A-Step)	TC224 A-Step	EasyKit TC1767
TC234 (TLF35584 B+C-Step)	TC233 A-Step	phyCORE TC1130
TC237	TC234 A-Step	phyCORE TC1793
TC265 B-Step, TC267 B-Step	TC26x A-Step, TC26x B-Step	phyCORE TC1796
TC275 A-Step, TC275 B-Step	TC27x A-Step, TC27x B-Step	phyCORE TC1797
TC275 C-Step	TC27x C-Step, TC27x D-Step	
TC277 C-Step, TC277 D-Step	TC29x A-Step, TC29x B-Step	phyCORE TC29x B-Step [new]
TC297 B-Step	TC38x A-Step	phyCORE TC39x B-Step [new]
TC397 A-Step	TC39x A-Step, TC39x B-Step	
TC397 A-Step (ADAS)		
	TC39x B-Step (ADAS) [new] [3]	
TC387 A-Step [new]	TC35x A-Step [new]	
TC397 B-Step [new]	TC35x A-Step (ADAS) [new] [1] [2]	
	TC37x A-Step [new]	

[new] The support for this board is new in HDP-v4.9.3.0-infineon-1.0.

[1] Applicable for AURIX™ TC356 ADAS device in TriBoard TC3x6 ADAS board.

[2] Applicable for AURIX™ TC357 ADAS device in TriBoard TC3x7 ADAS board.

[3] Applicable for AURIX™ TC397 B-Step ADAS device in TriBoard TC3x7 ADAS board.

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