



## 9.17.0.0.69386 (14.06.2017)

Verified build, contains mostly bug fixes.

### ***Deprecates***

The following HW / architectures have been deprecated and are now maintained in legacy winIDEA version 9.12.288.

- iC3000 (iC3000~~HS~~ and iC3000~~GT~~ remain supported with 9.17.)
- NXP HC08, HCS12 and 68K Active POD
- ActivePRO POD / ActiveGT POD
  - all Renesas V850 Active / ActivePRO / ActiveGT PODs (Fx2, Fx3, Fx4,...)
  - Renesas 78K ActivePRO POD, 78K0R and RL78 ActiveGT POD
  - all NXP S12X ActivePRO / ActiveGT PODs
  - all NXP MPC5xxx ActiveGT PODs
- iTRACE / iTRACE PRO / iTRACE GT (ARM7 ETM, ARM9 ETM, MPC5xxx Nexus, MPC56x Nexus, PPC4xx Nexus, TMS570, Guidant,...)
- iC3000 / iC3000HS / iC3000GT iCARD on-chip debugging:
  - ST STM8
  - ARM7, ARM9
  - Intel XScale
  - NXP HCS08, HC12, S12, S12Z, S12X, ColdFire, CPU32
  - NXP PPC4xx, MPC6xx, MPC7xx, MPC82xx, MPC83xx, mobileGT (51xx/52xx), QorIQ (MPC85xx, P10xx, P20xx, P30xx)
  - Renesas 78K, 78K0R, RL78, SuperH (SH-2A)
- iC5000 / iC5500 / iC5700
  - ST STM8
  - ARM7, ARM9
  - NXP HCS08, HC12, S12, S12Z, S12X
  - NXP MPC56x Nexus
  - NXP QorIQ (MPC85xx, P10xx, P20xx, P30xx)
  - Renesas 78K, 78K0R, RL78, SuperH (SH-2A)

# 9.17.17.0.73896 (13.11.2017)

Verified build for PowerPC, V850, RH850 and TriCore family.

Use winIDEA 9.17.0 for Cortex microcontrollers, unless instructed otherwise by iSYSTEM support.

## **Hardware**

### CAN2/LIN2

Supported iC5700 add-on module CAN2/LIN2 which enables tracing and analysis of CAN, CAN-FD and LIN protocols. Note that support for LIN networks is not yet finalized and a new winIDEA version will be released soon to address that.

### Infineon DAP Active Probe

Supported DAP Active Probe, iC5700 add-on module for TriCore debug and trace. It supports DAP debug protocol, as well as dual-channel operation with DAPE support (found on Aurix+ devices). DAP / DAPE frequencies up to 160MHz supported.

### ARM HSSTP Active Probe

Supported HSSTP Active Probe, iC5700 add-on module for Cortex debug and trace. Note that support for HSSTP trace is not yet finalized and a new winIDEA version will be released soon to address that.

### USB

Improved USB device enumeration on RDP. Devices that use RemoteFX for USB forwarding are now seen in winIDEA. Fixed USB support on Citrix servers.

## **CPU Support**

### PowerPC

Added support for:

- ST Chorus2M

Unlock with password now enabled on Cobra and Cobra55 MCUs.

### Cortex

Added support for:

- NXP LPC546xx family
- Cypress Traveo II family

### TriCore

Added support for:

- TC1738

Aurora trace supported on TC3xx family.

Compact Function Trace supported, which limits the amount of trace data needed for program flow reconstruction.

## RH850

Added support for:

- RH850/D1M1A
- RH850/P1x (R7F701311, R7F701313)
- RH850/F1K (R7F701580x)

Aurora trace supported on RH850/P1H-C.

## Software

### Internal SFR database

Internal SFR database switched to SFRv2 revision. This is no longer compatible with older winIDEA versions and will be stored to a separate directory: %APPDATA%\ASYST\winIDEA\SFRv2.

### Analyzer

Reordering of profiler items now possible through drag-and-drop.

### Renesas E1 plugin

Renesas E1 plugin EXEC updated to version E4.00.00.11

## SDK

Added new functions:

- CFunction::getLocalVars() - returns list of function local variables (including parameters).
- CDataController2::evaluateComposite() - provides simple evaluation of structure and array members.

All addresses in isystem.connect functions are now 64-bit to provide support for new-generation MCUs:

- **Python:** no change, handled internally by Python
- **Java:** No changes will be required, as long type was already used due to the lack of unsigned integer types. However, this means that large addresses will be stored as negative values. To handle them properly as unsigned values, use functions in class Long, for example Long.compareUnsigned(), Long.toUnsignedString()...
- **C#:** All addresses are now 64-bit and the scripts will need to be updated. Change declaration of variables containing addresses from 32 to 64 bits.
- **All languages:** VectorDWORD was replaced with AddressVector.

If the script needs to run on multiple versions of isystem.connect, create addresses this way:

```
major, minor, build = ic.getModuleVersion().split('.')
is64BitAddresses = int(major) >= 9 and int(minor) >= 17 and int(build) >= 16
if is64BitAddresses:
    addr = ic.AddressVector()
else:
    addr = ic.VectorDWORD()
```

Otherwise use AddressVector() only.

# 9.17.39.0.78401 (10.4.2018)

Verified build for PowerPC, V850, RH850, and TriCore family.

Use winIDEA 9.17.0 for Cortex microcontrollers, unless instructed otherwise by iSYSTEM support.

## Hardware

### ADIO

Supported iC5700 Analog/Digital Input/Output add-on module (ADIO) which offers basic HIL capabilities with several digital IO ports and two analog IO ports, which can be controlled either manually or through isystem.connect interface. ADIO can also be traced to correlate HIL activity with on-chip trace data.

### FNet triggering system

IOM6 add-on modules (CAN2/LIN2, ADIO) can generate FNet triggers based on observed network traffic. The triggers can be used to trigger various actions on ADIO module. Upcoming winIDEA versions will support FNet triggers as trace triggers, as well as additional actions, such as CAN message injection and debug operations. Please refer to winIDEA Help to learn more about FNet Triggers.

### Renesas E1

- Renesas E1 plugin EXEC updated to version E4.00.00.11.
- RL78 DLL updated to version 1.09.
- winIDEA Open now supports 128kB code size with no license required.

## CPU Support

### Cortex

Added support for:

- Cypress Traveo S6J334x,
- Dialog DA1468x,
- Synergy S5/S7.

Renesas Synergy R7FS7, R7FS5 and Cypress PSoC5-LP devices now available for selection in separate CPU groups. This change will require a re-selection of the CPU in the Hardware / Emulation Options dialog.

Improved memory access performance on Cypress Traveo, which significantly improves debugging experience.

### PowerPC

Added support for:

- Chorus2M Emulation Device,
- SPC584C60,
- S32R372 (Race Runner Skinny).

### RH850

Added support for:

- RH850/D1L1 (R7F701401),
- RH850/D1L2 (R7F701402),
- RH850/F1K (R7F701567, R7F701582),
- RH850/F1KM-Sx(R7F7016xx)
- RH850/F1KM-S4,
- RH850/P1M (R7F701304).

### TriCore

Added support for:

- TC387QP,
- TC389QP,
- TC397XA,

- TC397XA Step Bx,
- TC397XE,
- TC397XL Step Ax.

Implemented connection to password protected TC3xx MCUs.

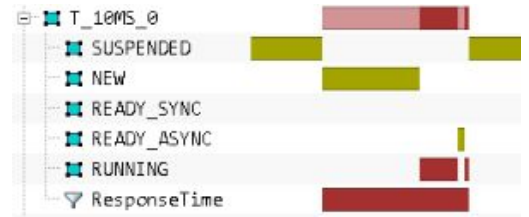
Improved Flash programming speed on Aurix and Aurix+ devices.

## Software

### Analyzer

Introduced **Inspectors**, new type of profiler areas, which, among other usages, allow complex event chain analysis. Refer to winIDEA Help to learn more about Inspectors, intended use-cases and configuration details.

*Example: Response time calculated based on task states.*



Docking for analyzer has been rewritten to allow for more intuitive movement of internal views. Views can be tabbed and moved outside of the original frame.

Productivity tip: Holding CTRL + Left/Right arrow panes the profiler timeline view by full page left/right.

Deprecated export to CSV file format.

Deprecated profiler analysis (and export) for source lines.

### SDK

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