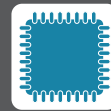




**SOMNIUM® DRT Cortex-M IDE** is a complete tools solution using SOMNIUM's customized industry-standard Eclipse platform, extended and improved for ease of use and high productivity. DRT provides state-of-the-art RTOS aware embedded debug and trace. DRT's GNU-compatible tools are fully validated using commercial test suites used for ISO26262 certification and use SOMNIUM's patented resequencing technology to generate the smallest, fastest, most energy efficient code with no source code changes required.

DRT is available on Windows, Linux and macOS, and provides automatic import from entry-level tools with full compatibility with our silicon partners' software enablement. DRT is provided with full commercial support, direct from our engineering team and is available with a choice of fixed or floating licenses to suit your development team's needs.

### GNU compatible with unique benefits



Save memory



Increase performance



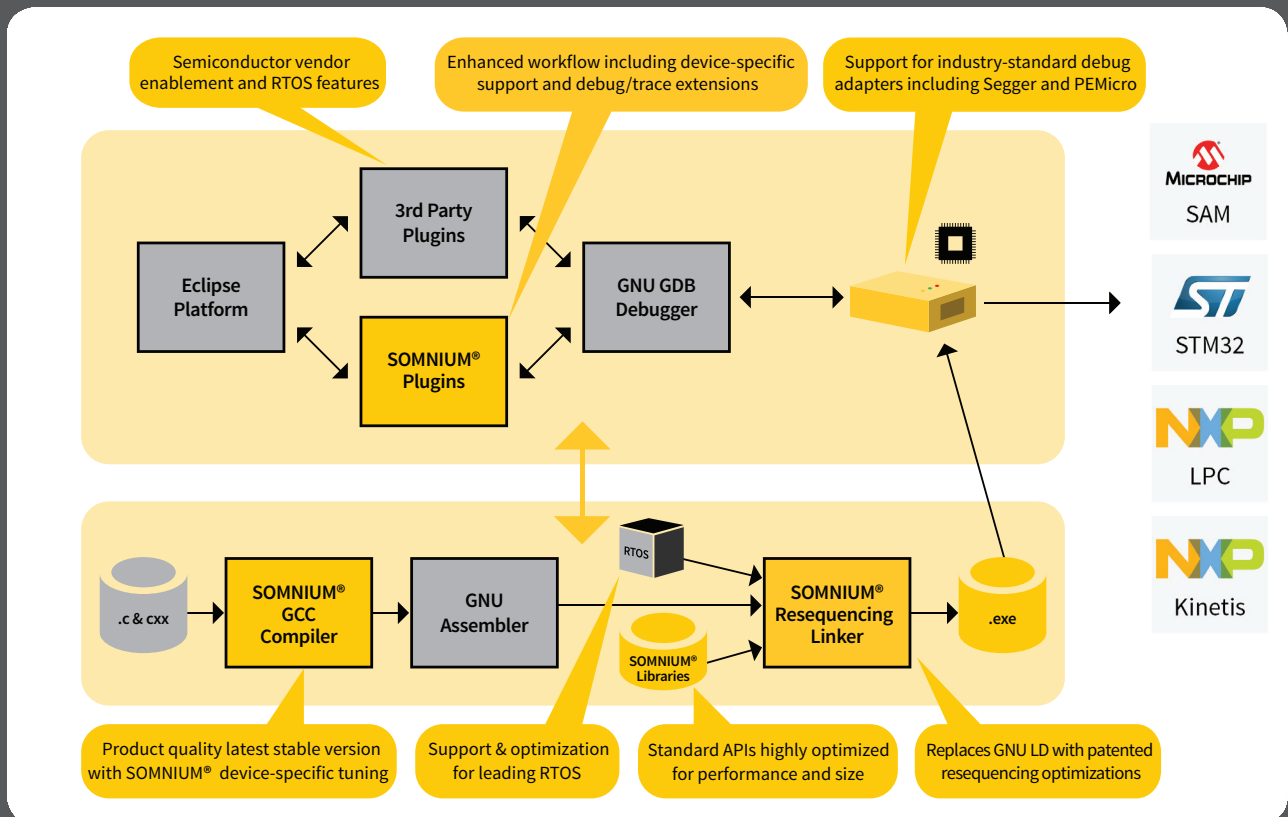
Save energy



Save money

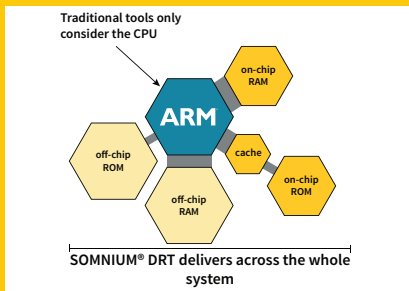
### Key features

- Professional quality, industry standard compatible tools available on Windows, Linux and macOS
- State-of-the-art RTOS aware embedded debug and trace
- Smallest, fastest and most energy efficient code, combined with industry standard GNU GCC compatibility
- Quality validated with ISO26262 test suites (certified version also available)
- Supports C11, C++14 and C++ exception handling
- Automatic import and conversion from legacy tools
- Lightweight static C/C++ analysis
- Technical support from SOMNIUM's engineering team
- Regular updates adding new features and device support



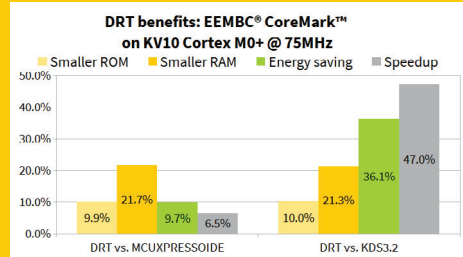
## Traditional tools are the problem

Memory dominates the performance, energy and cost of embedded systems. Full optimization requires information about the whole system, including the memory hierarchy and the entire program. Despite these facts, traditional tools ignore the problem and only consider the CPU.



STM32F4xx Nucleo Photoframe

	ROM		RAM	
	KBytes	DRT smaller (% and bytes)	KBytes	DRT smaller (% and bytes)
<b>DRT 4.0</b>	28.0	n/a n/a	28.0	n/a n/a
<b>SW4STM32 v1.13.1</b>	35.3	26.4% 7560	28.0	0.5% 36
<b>TrueSTUDIO v7.1.0</b>	42.4	51.7% 14812	28.0	16.5% 1288
<b>IAR v7.80</b>	32.6	16.6% 4767	28.0	4.6% 360

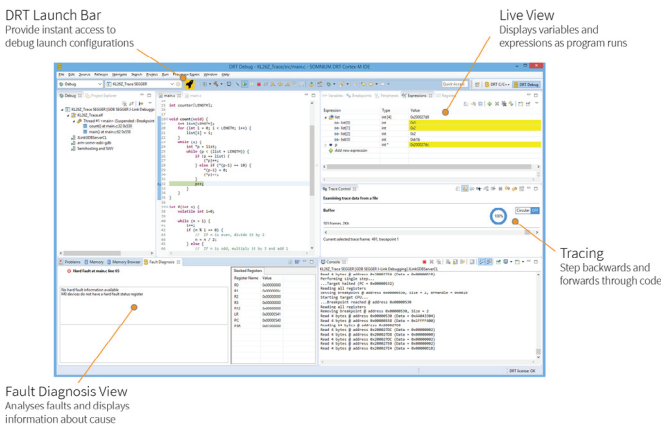


## State-of-the-art debug and trace

DRT supports PEMicro, Segger and evaluation boards including Microchip Xplained Pro, NXP FRDM and TWR, STMicroelectronics Nucleo and Discovery. DRT's debug features are auto-configured, making them easy to use so you can concentrate on debugging your design rather than reading the debug hardware architecture manual!

DRT includes fully integrated Percepio Tracealyzer for real-time RTOS analysis and supports FreeRTOS aware debugging plus:

- MTB trace – automatically configure and extract trace, with full source navigation backwards and forwards
- Live expressions view – access memory and variables will full C/C++ type casting and without breakpointing
- SWO trace - for hardware-level performance analysis and tuning
- Fault diagnosis – extract, explain and navigate source code when faults are triggered



## Smallest, fastest, lowest energy code

SOMNIUM are experts in GNU internals and maintain tools for leading semiconductor vendors. DRT offers full GNU compatibility and validated quality with SOMNIUM's patented resequencing linker and libraries to optimize your code to save memory, energy and deliver higher performance.

SOMNIUM use facts not adjectives! Our benchmark document shows see how DRT beats both vanilla GNU tools and other vendors proprietary compilers.

[bit.ly/DRTBenchmarks](http://bit.ly/DRTBenchmarks)

## Productivity enhancements

Eclipse is a hugely powerful IDE, but its “jumbo jet flight-deck” complexity and legacy non-embedded features, make it hard to use and error prone. Unlike other vendors, SOMNIUM improve the Eclipse CDT core to give you the embedded IDE you deserve, not the one you inherit from uncurated Eclipse sources.

DRT includes Advanced project importers from entry-level tools and supports our partners' latest enablement including Atmel START, STM32Cube and MCUXpresso, and their historic enablement including CodeWarrior, KDS and LPCXpresso. DRT's Quick launch bar lets you start debugging with a single click. DRT includes a version control plugin for git. DRT supports lightweight static analysis for C/C++.

## Not all tools are equal!

Other products freeloader on the vanilla GNU ARM launchpad project. SOMNIUM are experts in GNU internals and maintain tools for leading semiconductor vendors. DRT offers full GNU compatibility and validated quality, combined with our patented resequencing linker and libraries to optimize your code to save memory, energy and deliver higher performance.

DRT is regularly updated with new features and support for Cortex-M MCUs from additional vendors in 2017 and beyond.

M0	M0+	M3	M4	M7
Microchip SMART				coming soon
NXP Kinetis		NXP Kinetis		
NXP LPC				
STMicroelectronics STM32				

DRT is available for all major host platforms

Windows	Linux	MacOSX
Windows 7, 8 and 10	64-bit RHEL, Centos 7, Ubuntu 14.04 and compatible	OSX El Capitan, macOS Sierra

## Trial and Buy

Upgrade your Cortex-M design today, with no source code changes required. Get your 30 day free trial from the SOMNIUM portal.

[www.somniumtech.com/cortex-m](http://www.somniumtech.com/cortex-m)



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