

## SOURCEPOINT™ FOR INTEL® AND AMD PROCESSORS

**D**ESIGNED FOR USE WITH AMERICAN ARIUM JTAG EMULATORS, SOURCEPOINT™, THE COMPANY'S FLAGSHIP DEBUG INTERFACE, OFFERS EXCEPTIONAL VISIBILITY TO AND MANIPULATION OF CODE VIA A SERIES OF INTUITIVE SCREENS AND DIALOG BOXES WITH NUMEROUS VIEWING OPTIONS. ARIUM DELIVERS THE ONLY REAL-TIME DEBUG INTERFACE THAT WORKS STRAIGHT OUT OF RESET, AND IT'S THE FIRST TO OFFER INTEL® EXTENSIBLE FIRMWARE INTERFACE (EFI) DEBUG. ARIUM DEBUG SOLUTIONS SUPPORT NEARLY ALL INTEL AND AMD LAPTOP, DESKTOP, AND SERVER PROCESSORS AND ARE DESIGNED TO MINIMIZE THE TIME AND STRESS ASSOCIATED WITH THE DEBUG PHASE OF PROJECT DEVELOPMENT, HELPING COMPANIES GET TO MARKET FASTER AND WITH GREATER EASE.

### MANAGING RUN CONTROL

The key to a successful run control debug strategy lies in the ability to set accurate breakpoints and step easily through code. SourcePoint uses the usual stepping commands along with go and halt to step through source or assembly-level code. SourcePoint's C-like command language includes not only industry-standard run control commands, but lets the developer execute loops, use data and array variables, access file I/O, and more. Unlike some command languages, SourcePoint is intuitive; developers do not need to know a two-letter code for each command.

SourcePoint offers processor and soft breaks via simple GUIs. Breaks can also be set from the Code window or a command line.

Several intuitive windows can be opened to view the state of the processor(s) and make modifications to values, including Symbols windows, Registers windows, Memory windows, PCI Devices windows, and user-defined Watch windows. In multi-core environments, developers can view each processor state. And the list goes on and on.

Arium's debug solutions are designed with time in mind. Whether downloading files or images, stepping through code, or coming back after hitting stop, the event executes with incredible speed.

### Features and Benefits

#### POWERFUL

- Supports AMD and Intel laptop, desktop, and server processors (excluding Intel® Itanium® processors).
- C or C++ source, symbol, and mixed views
- Supports .elf, .hex, .sym, and .bin file formats
- C-like command language
- Multi-processor and multi-cluster support
- Execution trace capabilities (where available)
- Reliable run control

#### EASY TO USE

- Simple setup, fast downloads
- Highly intuitive; uses many Microsoft® Windows® protocols
- Designed with the developer in mind

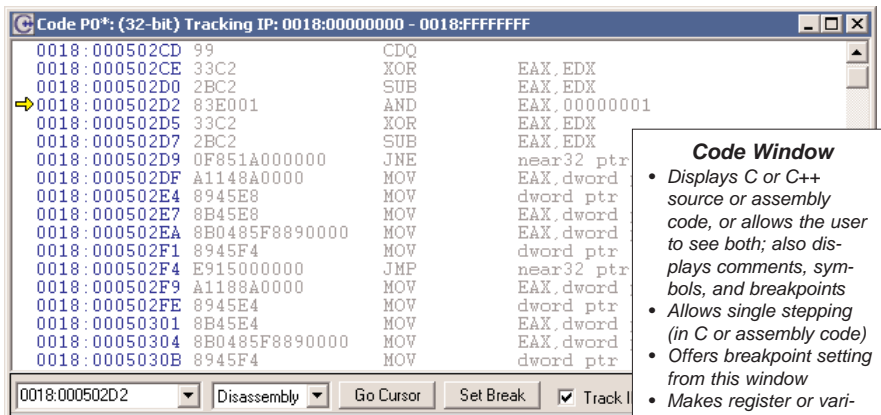
#### CUSTOMIZABLE

Lets the user:

- Build Watch tabs
- Modify toolbars
- Create and define macros
- Choose which processor to view

#### VERSATILE

- Debugs low-level code, device drivers, diagnostics, RTOS, Intel Framework for EFI, and board support packages
- Supports most popular toolchains



# SOURCEPOINT™ FOR INTEL® AND AMD PROCESSORS

Name	Value
[-] auch	"abcd"
auch[0]	0x61
auch[1]	0x62
auch[2]	0x63
auch[3]	0x64
[+] foo2	
[-] fooStr	
fooStr[0]	0x03
fooStr[1]	0x12
fooStr[2]	0x00
fooStr[3]	0x00
fooStr[4]	0x0A
fooStr[5]	0x40
fooStr[6]	0x10
fooStr[7]	0x5A
fooStr[8]	0xE2
fooStr[9]	0x02

**Watch Window**

The **Watch** window is designed to allow you to more easily "watch" those variables, registers, and expressions you want to view often, especially as they change value, by copying (or dragging and dropping) them into a **Watch** or **Quick Watch** tab in the **Watch** window. Composite variables, including arrays, structures, and unions, are expandable to show their sub-elements.

## SUPPORT FOR INTEL FRAMEWORK FOR EFI

The Intel® Platform Innovation Framework for Extensible Firmware Interface (EFI), commonly known as the Framework for EFI, is a new firmware architecture standard that defines a set of software interfaces that replaces the legacy BIOS found on traditional PC computers. This framework provides the kind of modularity, flexibility, and extensibility that was formerly unavailable with traditional BIOS. With EFI, BIOS developers can now write all their code in 'C', rather than assembly language.

SourcePoint 7.0 and later versions offer native debug support for Framework for EFI platforms. Users can set breakpoints, single step, view variables, see the call stack, and access all of the feature-rich functionality SourcePoint normally provides. This includes source-level debugging during all phases of EFI.

## SHORTCUTS WITHIN SHORTCUTS

SourcePoint incorporates hundreds of options, commands, and func-

tionalties designed to spur the debug process forward. Windows are designed to be intuitive. They can be docked, floated, or minimized. Commands are available from multiple locations - menu bars, icon bars, context menus, a command line. Symbols and their values are easy to find and change.

Items are grouped logically in intuitive windows and dialog boxes. For example, target configuration options exist under a single view. From the dialog, the memory map of the target can be defined, the type and address range of flash memory devices declared, and target flash operations performed. Target configurations can be loaded from a user's target database file and saved to SourcePoint and/or the target database file.

SourcePoint offers a number of user-defined options. This includes a window that allows definition of memory-mapped I/O devices and related registers and areas of memory in one view. Users can keep track of multiple devices without having to keep multiple views on their screen.

## JTAG Emulators



**ECM-XDP:** emulator with run control and execution trace capability for targets with XDP ports



**ECM-700:** Emulator with run control and execution trace capability for Intel targets with ITP-700 ports



**ECM-HDT:** emulator with run control and execution trace capability for AMD targets with HDT ports

SourcePoint ships with Arium hardware or separately as an upgrade to previously purchased hardware-assisted solutions. For more information, contact your sales representative or Arium tools distributor or visit our Web site at [www.arium.com](http://www.arium.com).

