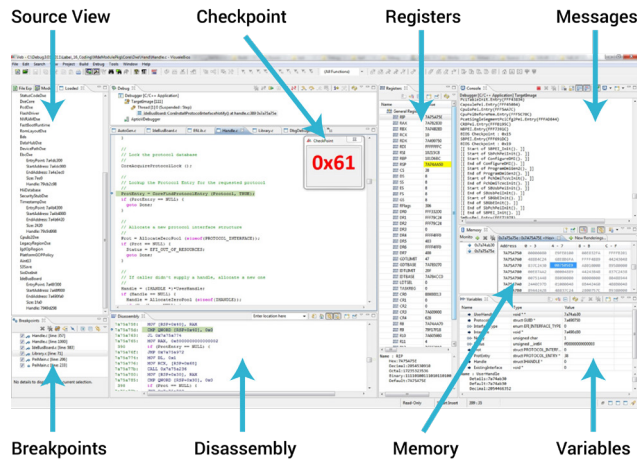


AMI Debug for UEFI

Source-Level Debugging for Aptio, Tiano & UEFI Applications



HIGHLIGHTS:

- Designed for UEFI 2.x & EFI 1.10
- Supports IA32 and x64 build targets
- Multi-function debug plug-in leveraging the Microsoft WinDBG interface
- Integrates into AMI development environment, Visual eBIOS (VeB)
- Modular, easily included in any project
- Can be embedded in target firmware or launched from the EFI Shell
- Multiple host/target hardware interfaces
 - RS-232 “null modem” cable
 - USB 3.0 Debug Cable
 - USB 2.0 Data Transfer Cable
- UEFI firmware debug features
- Embed debug features in firmware
- Debug UEFI application, DXE/UEFI drivers, PEIMs and SMM
- Optimized for smaller ROM footprints
- Support for Aptio & “TianoCore” EDK II
- Load Firmware Volume, skip flashing of new BIOS image
- Checkpoint history log
- Functionality similar to hardware based debug (ICE/ITP) tools without specialized hardware requirements
- Redirect remote text console & debug messages via debug transport
- Works with AMI Debug Rx, AMI’s innovative USB checkpoint device

AMI Debug for UEFI is a powerful solution for debugging Unified EFI (UEFI) projects, offering source-level debugging without the need for an expensive in-circuit emulator (ICE). Using standard RS-232, USB 2.0 cables or the AMI Debug Rx device and USB 3.0 Debug Cable, developers have access to source-level debugging and control the debug target hardware through a GUI application for Microsoft Windows.

AMI Debug for UEFI integrates into Visual eBIOS (VeB), AMI’s innovative development environment. AMI Debug for UEFI works with AMI’s Aptio®, projects based on the “TianoCore” EFI Development Kit (EDK II) or any UEFI Shell application. Aptio and “TianoCore” developers can debug at the firmware level, while application and driver developers can invoke debugging features at the shell without the need to embed modules in the ROM image. This flexible and inexpensive tool works for IA32 and x64 build targets.

AMI Debug for UEFI provides functionality similar to hardware-based development tools including:

- Source-level symbolic and assembler code debugging
- Stop BIOS execution on target at driver entry point or at any point
- View and edit target memory, I/O and PCI configuration space
- View and edit variables of all types
- Step into and over source or disassembled code
- Trace through code
- Global and local variables windows
- CallStack window
- View and edit any CPU register
- Set, clear, enable and disable breakpoints
- Preserve breakpoints between executions
- View and edit target memory and I/O
- Command window
- SMM Debugging (Post and Runtime)
- Performance Measurements capabilities

AMI Debug extends the power of hardware-based debug tools and low-cost hardware interfaces found on x86 platforms.

AMI Debug for UEFI can be either embedded in the firmware image or loaded from shell to debug UEFI drivers and applications. Customers using Aptio as a firmware solution can quickly integrate AMI Debug for UEFI into projects using AMI’s innovative eModule architecture.

Projects utilizing AMI Debug for UEFI make use of debug information created at build time. This allows source level debugging without the need for specialized hardware.

Refer to the user manual from AMI Customer Portal or your AMI rep for detailed features.



American Megatrends Inc. | ami.com
5555 Oakbrook Parkway, Bldg. 200
Norcross, GA 30093 | 770.246.8600

For more information: <https://ami.com>