



Arriba! Embedded Linux Edition for Intel® SA-1110

Enabling the future of the embedded systems

Executive Summary

Over the last several years, the growth in size and complexity of embedded applications has presented embedded developers with new challenges. Emerging System-On-Chip and System-On-Programmable-Chip (SOC & SOPC) devices, multi-core designs (microcontrollers & DSPs), mixed-language programming and the diversity of new and existing embedded software applications make it increasingly difficult for traditional tools vendors to provide a consistent and comprehensive tool solution across different platforms.

Arriba! Embedded Linux Edition for Intel® SA-1110 is a powerful Integrated Development Environment (IDE) and debugging solution specifically designed to address these challenges. Customized to meet the demands of the SA-1110 embedded linux and application developers, Arriba! offers the following highlights:

IDE Highlights

- *Java-based IDE with optional host environments to include Windows®, Solaris® and Linux.*
- *Cross-platform "edit-build-run" and debug functionality to remote Linux target environments.*
- *Complete integration with Intel® supplied Linux distribution.*
- *Support for complete Intel® GNU compiler and StrongARM® tool suite.*
- *Fully integrated mixed-mode, source-level C/C++ & (dis)assembly debugger.*
- *Application, loadable module & Linux kernel development /debug.*
- *Software breakpoint support.*
- *Ethernet & serial connectivity.*

Future Wise

By recognizing that good software isn't simply about the features of today, but about the ability to adapt to the changing needs of tomorrow, Viosoft took great care to ensure that the design of *Arriba! Embedded Linux Edition for Intel® SA-1110* is future-wise.

With each customized version of Arriba!, Viosoft works with IP, processor, compiler and Linux vendors to ensure maximum compatibility and the highest degree of quality.

Complete Tools Integration

Included with Arriba!, is a complete set of Intel® GNU embedded development tools including a C/C++ compiler, assembler and linker.

Arriba!'s seamless tools integration provides developers with easy and convenient access to all command-line tools from the IDE desktop. The Arriba! source-level debugger is fully compatible with object and executable files generated by the GNU compiler and linker, allowing developers the flexibility to use the Arriba! debugger with or without requiring them to import their existing source files into the IDE.

Mixed Mode Debugging

The Arriba! debugger provides full access to C/C++ source or assembly level debugging, providing developers with the means to track down difficult bugs. Intermixing source and disassembly displays allows developers to view and step through the resulting code generated for each source line to enhance understanding and debugging of applications.

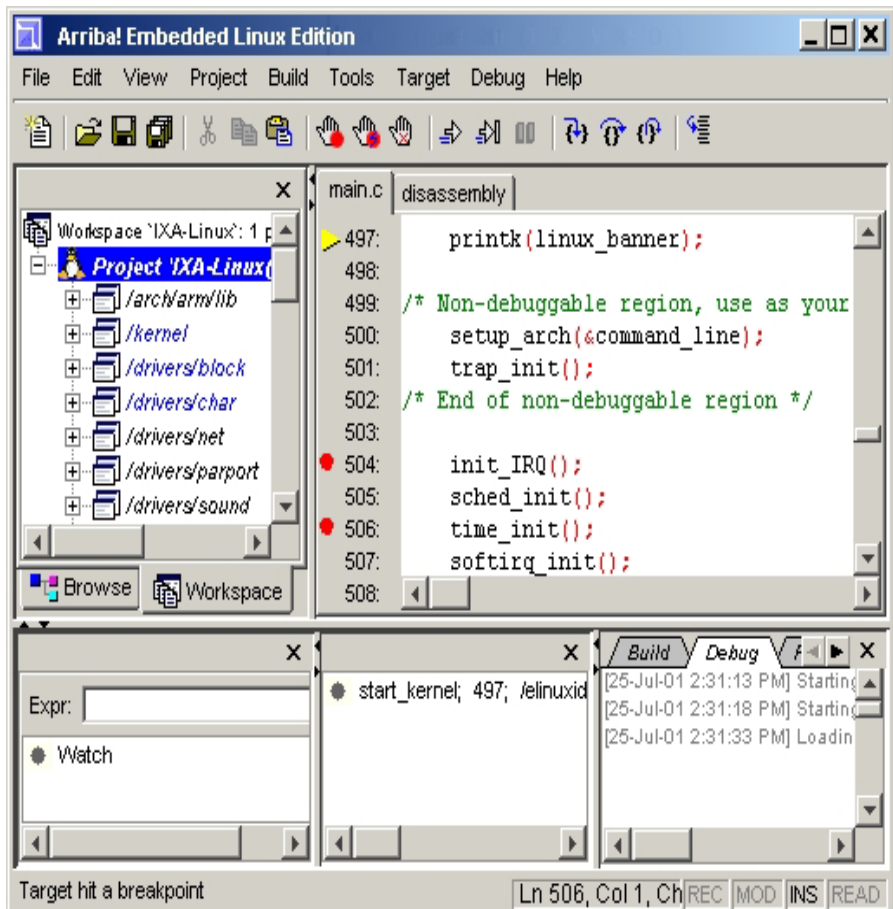
Integrated Edit-Build-Run

Arriba! provides an easy and convenient way to import existing source files into the IDE project(s). With a few simple mouse clicks, developers can "edit-build-run" and debug a Linux kernel, drivers, loadable software modules and/or applications from within a single desktop.

The Arriba! IDE exports makefiles for each project that it manages to facilitate batch processing from the command-line environment.

Fuzzy Code Browser

Arriba!'s built-in code browser analyzes the source file on-the-fly so that it's convenient for developers to navigate the body of large files. Because browsing is performed dynamically, developers can access the browser without first compiling the sources. Furthermore, the code browser skips over syntactically incorrect portions of the source file, permitting full browsing of incomplete or syntactically incorrect code.



Flexible Architecture

Unlike other development tools that are constructed from a single monolithic core, Arriba! is designed as a collection of well-defined, collaborating components that communicate using a CORBA framework. The flexibility of this architecture empowers Arriba! to be easily and quickly extended to support the future requirements of processors, target platforms and embedded developers that utilize linux.

Cross-Platform Availability

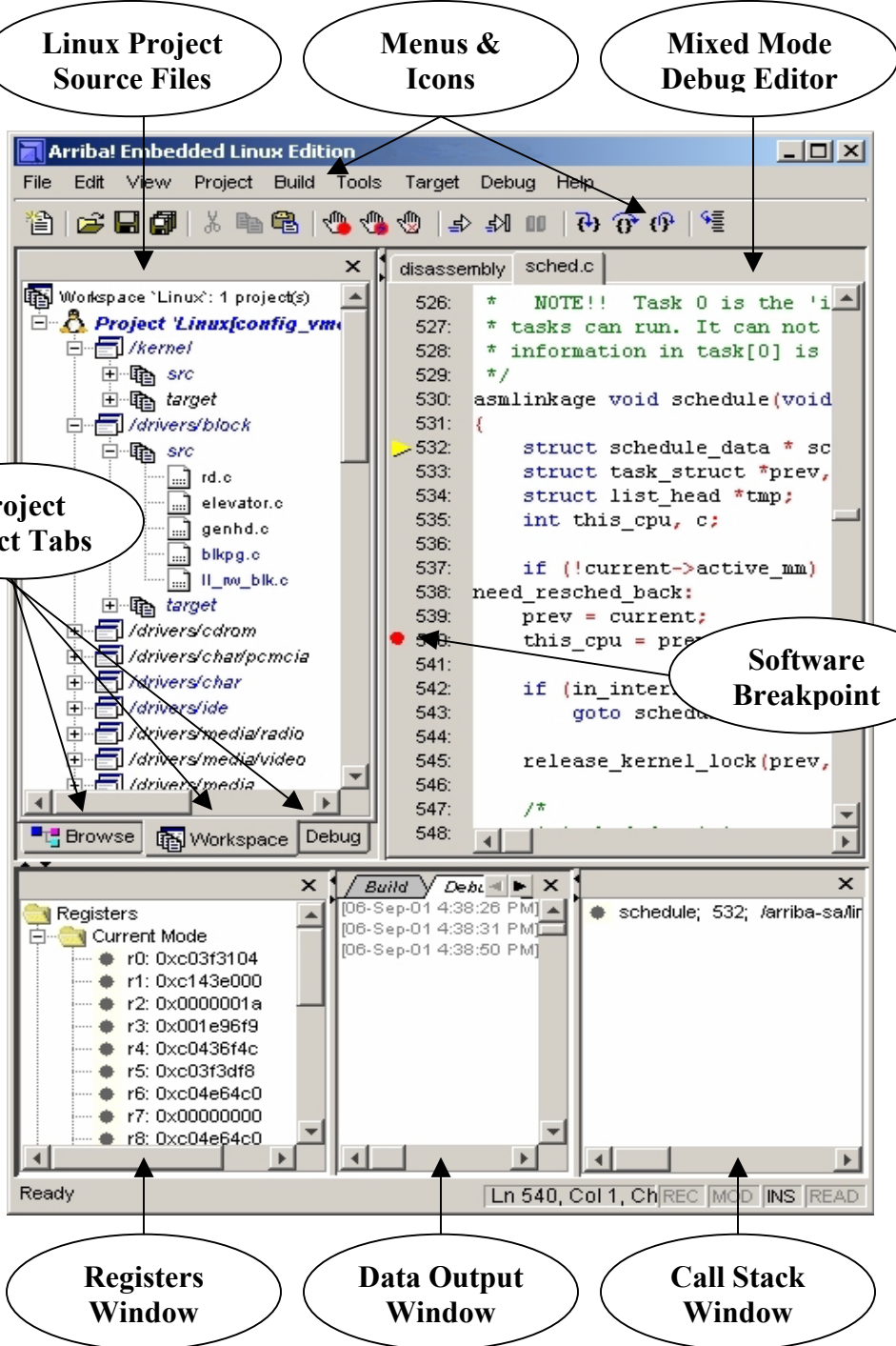
The Arriba! graphical user interface is implemented in Java, making it possible to deploy Arriba! on a variety of host platforms including Windows®, Linux and Solaris®. Using Java means having a familiar and consistent look and feel on each platform, making it easier for developers to adopt Arriba! for their requirements.

Open Framework

In some instances, developers have needs to provide or integrate value-added software tools specific to their application design. Bug tracking systems, target event monitors and post-mortem analyzers are a few examples. Arriba! facilitates such additions, both through the CORBA-based component framework, as well as through the Java Bean API graphical user interface.

Target Agent (VMON)

VMON is an advanced target monitor agent that works in conjunction with Arriba! Designed to operate as a standalone debug/boot monitor or as an integrated component within a custom-application ROM or Flash memory, VMON proves to be a flexible and sophisticated target agent that provides a cost effective and high performance alternative to hardware-assisted debug devices, such as BDM, or ICEs. It's capable of providing embedded linux developers with instant cross-platform "edit-build-run" (control) and debug functionality. Full integration with Linux allows VMON to co-exist and debug the kernel with exception handlers in place.



VMON Highlights

- Target memory, registers, call stack, variables, drivers, loadable software modules and kernel access.
- Direct run control & execution of the remote Linux target.
- Dynamically updated functionality to incorporate Linux kernel awareness.
- Quick & reliable remote debug via ethernet and serial connection.
- Small footprint within processor ROM or Flash.

Viosoft Corporation
2959 So. Winchester Blvd.
Suite 203A
Campbell, CA 95008
USA
tf: 408-341-1015
fx: 408-341-1017

www.viosoft.com

Information: info@viosoft.com

Sales: sales@viosoft.com



VIOSOFT