



Intel® Application Software Development Tool Suite

for Intel® Atom™ processor

Product Brief

Intel® Application Software Development Tool Suite for Intel® Atom™ processor



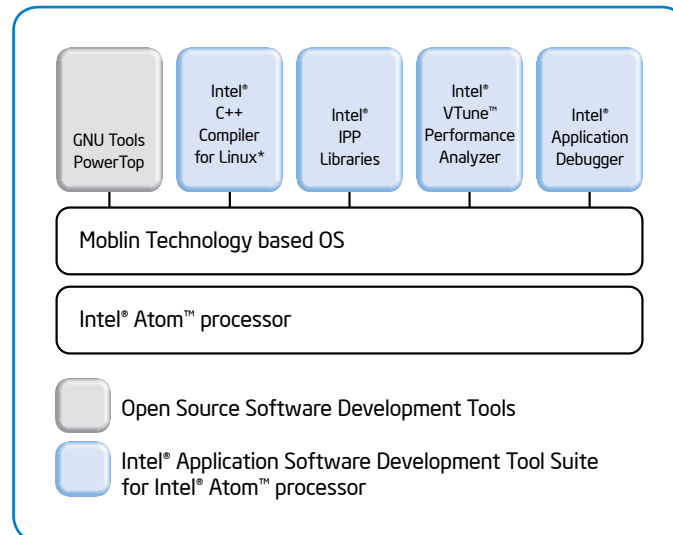
Get a complete Software Development Tools Solution for your Intel® Atom™ processor-based application software development. Coding, Compiling, Debugging, and Performance Tuning made simple.

The Intel® Application Software Development Tool Suite for Intel® Atom™ processor is a complete tools solution set to address software performance requirements of Intel® Atom™ processor-powered MID, Embedded, Netbook, and Consumer Electronic devices, and to enhance the productivity and experience of the application development process.

The Application Tool Suite covers the entire cycle of software development: coding, compiling, debugging, and analyzing performance. All included tools are Linux* hosted and compatible with GNU tools.

- Intel® C++ Compiler for Linux* OS
- Intel® Application Debugger for Intel® Atom™ processor
- Intel® Integrated Performance Primitives Libraries for Linux* OS
- Intel® VTune™ Performance Analyzer for Linux* OS

Moblin * application development support



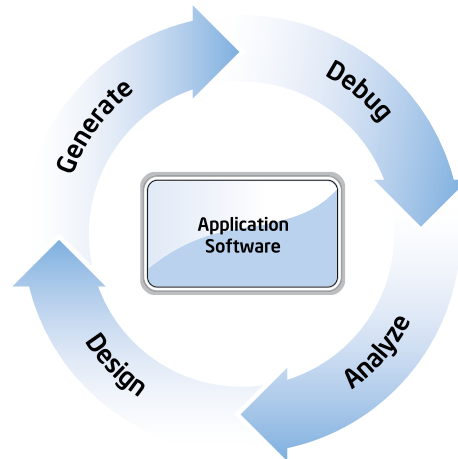
The Development Cycle: How the Application Tools Solution Can Help

Intel® C++ Compiler

- Latest high level and microarchitecture targeted optimization
- Full support for Intel® Atom™ processor
- GCC compatible

Intel® Integrated Performance Primitives Library

- Highly optimized multimedia functions
- Intel® Atom™ processor optimized



Intel® Application Debugger

- Intel® Atom™ processor support
- Application debugging
- OS awareness
- Execution trace support

Intel® VTune™ Analyzer

- Tuning code actually running on device
- Event based sampling for platform targeted performance optimization
- Identifying performance bottlenecks
- Tuning Assistant

Features

Completeness

Use a set of software tools based on the latest tools technology for the entire software product development cycle (Design, Generate, Debug, and Analyze) without the need to research the components of other tools.

Performance

New highly optimized in-order scheduler and latest Intel® Atom™ processor specific improvements in the compiler provide a significant performance advantage over GCC. Highly optimized Intel® Integrated Performance Primitives (Intel® IPP) provide the same simple API as for IA-32 architecture, while highly optimized for Intel® Atom™ processors. Intel® VTune™ Performance Analyzer helps to identify performance bottlenecks.

Multimedia and Performance Libraries

With Intel® Integrated Performance Primitives application developers can concentrate on feature implementation rather than optimization of application code. Intel® IPP provides performance-optimized building block functions for key software applications such as: multimedia playback/recording, editing, image processing, audio/speech/signal processing, and network data communications. Free code samples downloadable from the Intel website enhance the value of the Intel® IPP functions by illustrating the implementation of multithreaded application blocks such as video, audio, and speech codecs.

Efficiency and Productivity

Application Debugger

The Intel® Application Debugger for Intel® Atom™ processor support all aspects of debugging, from low-level assembler debugging to high-level language C++ application debugging,

with full execution trace support, which helps to identify runtime errors (such as stack overflows, memory leaks and segmentation faults) that are normally hard to detect.

The Application Debugger supports native development and testing of Moblin* technology-based applications within a KVM environment on the development host before they run on a real Intel Atom processor-powered device. Native testing reduces time and simplifies the development process. The full GUI-driven application debugger supports execution trace support to look back to the history of an executed program, providing OS awareness and thread aware debugging.

Moblin SDK* and Intel Tools

The Intel® Application Tool Suite is a set of highly optimizing software development tools, with a powerful debugger application for more efficient debug cycles. The tools are compatible with the GNU world and complement the standard open source GNU tools offering, which are part of the Moblin development environment.

Furthermore, the Tool Suite integrates into the Moblin Image Creator 2 (MIC2). Kickstart scripts tightly integrate the Intel® C++ Compiler and Intel® IPP into MIC2's jailroot environment. This allows for save and host environment pollution-free development, while taking advantage of the full performance of your development system at build time. Alternatively, you can also install the Intel® C++ Compiler and the Intel® IPP into a Moblin 2* virtual image running under KVM*. Simply downloading a developer Moblin 2 image and installing Intel® Software Development Tool Suite components directly into it let you start even faster with the development of Moblin technology-based system and application software.

The flexible cross-development targeted installation concept of the Intel® Application Software Development Tool Suite opens it up to be customized to the developer's setup and to be easily adjustable to future directions of the Moblin* and MeeGO* projects.

Intel® VTune™ Performance Analyzer

Intel VTune Performance Analyzer makes it fast and easy to find performance bottlenecks with a list of the most active functions. Click on a function name to display the source and show the most time-consuming source statements. Furthermore, Event Based Sampling support for low-power Intel Atom processors permits determining causes for execution stalls that impact performance.

System Requirements

Host System:

- Ubuntu 9.x*
- Asianux 3*
- Fedora 10* and Fedora 11*

Target System:

- Support of all Intel® Atom™ processor variants (Zxx, Nxx series)
- Intel® Media processor CE 3100
- Intel® Atom™ processor CE 4100
- Linux kernel 2.6.x*, Moblin 2.x*, Moblin-compliant OS

Support

Every purchase of an Intel® Software Development Product includes a year of support services, which provide access to Intel® Premier Support and all product updates during that time. Intel Premier Support gives you online access to technical notes, application notes, and documentation.

Download a trial version today.

Intel® Embedded Software Development Tool Suite for Intel® Atom™ Processor www.intel.com/software/products/compilers/flin

