



Sandblaster® IDE Feature List

- **Compatible with Microsoft Windows™ 2000, XP and Vista Operating Systems**
- **Fully Integrated Tools in an Industry Standard Graphical User Interface Based on the ECLIPSE Open Source Project.**
- **Full Documentation**
- **DSP Processor Tools**
 - Developed internally
- **ARM Processor Tools**
 - Port open source tools (GNU)
- **Hardware Board Interface**
 - Enables download of DSP and ARM programs to the development board
- **Extensive Wireless Standards Based DSP Library Routines for FFT, DFT, FEC, etc.**
- **DSP Tools**
 - Compiler, Assembler, Linker, Loader
 - Library
 - C library
 - Standard C & Math
 - Device drivers
 - Dynamic cycle accurate DSP simulator
 - Models peripherals
 - Models 3 cores + ARM (without ARM OS)
 - Integrated S/W Multi-threaded/Multi-core debugger
- **Real Time OS for DSPs (Embedded in the tools)**
 - Light-weight kernel
 - Based on POSIX API
 - File system
 - Built around pthreads
 - Priority scheduling
 - Locks: mutex, cond, rwlock, barrier
 - Very close to compliance with
 - POSIX real-time applications environment profile PSE51
 - Embedded Linux Consortium ELCPS
- **Extended xcoff Object Format**
 - csects allow relocation of individual data/function objects
 - TOC allow shared text sections without virtual memory
 - Extended to support multiple discontinuous memories
- **Bootloader**
- **Standard Linker Features**
 - Eliminates unused functions & data objects
 - Extended features provided by .at files
 - Link time mapping of functions/data to different memories
 - Link multiple programs together into one executable
- **Profiler**
 - Provides cycle counts, memory size, opcode usage, cache hit ratio, instruction distribution
 - Additional statistics using hook functions
- **mem_hook**
 - Programmed using hook API
 - Tracks all accesses to memory
 - Automatically creates .at file to optimize placement of memory
- **Event Tracer**
 - Displays thread creation/deletion, synchronization and user specified events on a timeline