

Bruce E. Hayden Sample Patents

Patent No.	Issued	Patent Title	Brief Description
<u>6,779,132</u>	08/17/04	Preserving dump capability after a fault-on-fault or related type failure in a fault tolerant computer system	Computer Firmware
<u>6,763,328</u>	07/13/04	Method and data processing system for emulating virtual memory utilizing threads	Software - emulation
<u>6,754,859</u>	06/22/04	Computer processor read/alter/rewrite optimization cache invalidate signals	Computer processor architecture
<u>6,728,846</u>	04/27/04	Method and data processing system for performing atomic multiple word writes	Software - emulation
<u>6,697,959</u>	01/24/04	Fault handling in a data processing system utilizing a fault vector pointer table	Software - Operating Systems
<u>6,687,845</u>	01/03/04	Fault vector pointer table	Software - Operating Systems
<u>6,665,699</u>	12/16/03	Method and data processing system providing processor affinity dispatching	Software - Operating Systems
<u>6,615,217</u>	09/02/03	Method and data processing system providing bulk record memory transfers across multiple heterogeneous computer systems	Software - database
<u>6,609,246</u>	08/19/03	Integrated development environment for high speed transaction processing WWW applications on heterogeneous computer systems	Software - Internet/WWW
<u>6,606,694</u>	08/12/03	Write logging in mirrored disk subsystems	Disk Drives
<u>6,604,060</u>	08/05/03	Method and apparatus for determining CC-NUMA intra-processor delays	Software - Operating Systems
<u>6,574,748</u>	06/01/03	Fast relief swapping of processors in a data processing system	Software - Operating Systems
<u>6,530,076</u>	03/04/03	Data processing system processor dynamic selection of internal signal tracing	Computer processor architecture
<u>6,529,862</u>	03/04/03	Method and apparatus for dynamic management of translated code blocks in dynamic object code translation	Software - emulation
<u>6,516,295</u>	02/04/03	Method and apparatus for emulating self-modifying code	Software - emulation
<u>6,484,272</u>	11/19/02	Gate close balking for fair gating in a nonuniform memory architecture data processing system	Software - Operating Systems
<u>6,480,072</u>	11/19/02	Gate close failure notification for fair gating in a	Computer processor

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		processing system	
<u>6,480,845</u>	11/12/02	Method and data processing system for emulating virtual memory working spaces	Software - emulation
<u>6,459,571</u>	10/01/02	Packaging system for mass memory units	Disk Drives
<u>6,457,171</u>	09/24/02	Storage structure for dynamic management of translated code blocks in dynamic object code translation	Software - emulation
<u>6,449,613</u>	09/10/02	Method and data processing system for hashing database record keys in a discontinuous hash table	Software - database
<u>6,446,094</u>	09/03/02	Data structure for emulating virtual memory working spaces	Software - emulation
<u>6,446,062</u>	09/03/02	Method and apparatus for improving the performance of a generated code cache search operation through the use of static key values	Software - database
<u>6,446,034</u>	09/03/02	Processor emulation virtual memory address translation	Software - emulation
<u>6,442,681</u>	08/27/02	Pipelined central processor managing the execution of instructions with proximate successive branches in a cache-based data processing system while performing block mode transfer predictions	Computer processor architecture
<u>6,442,676</u>	08/27/02	Processor with different width functional units ignoring extra bits of bus wider than instruction width	Computer processor architecture
<u>6,438,536</u>	08/20/02	Method and system for dynamically generating code to enhance the performance of a relational database manager that provides access to a relational database	Software - database
<u>6,363,474</u>	03/26/02	Process switching register replication in a data processing system	Computer processor architecture
<u>6,360,194</u>	03/19/02	Different word size multiprocessor emulation	Software - computer emulation
<u>6,353,821</u>	03/05/02	Method and data processing system for detecting patterns in SQL to allow optimized use of multi-column indexes	Software - database
<u>6,353,820</u>	03/05/02	Method and system for using dynamically generated code to perform index record retrieval in certain circumstances in a relational database manager	Software - database

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<u>6,353,819</u>	03/05/02	Method and system for using dynamically generated code to perform record management layer functions in a relational database manager	Software - database
<u>6,351,807</u>	02/26/02	Data processing system utilizing multiple register loading for fast domain switching	Computer processor architecture
<u>6,339,752</u>	01/15/02	Processor emulation instruction counter virtual memory address translation	Software - computer emulation
<u>6,330,642</u>	12/11/01	Three interconnected raid disk controller data processing system architecture	Disk drive architecture
<u>6,292,360</u>	09/18/01	Packaging system for mass memory units having uniform or mixed form factors	Disk drive packaging
<u>6,289,347</u>	09/11/01	Data processing system utilizing web forms	Software - Internet/WWW
<u>6,282,681</u>	08/28/01	Method and apparatus for testing finite state machine (FSM) conformance utilizing unique input/output sequence (UIO) sets	Software - CAD
<u>6,249,880</u>	06/19/01	Method and apparatus for exhaustively testing interactions among multiple processors	Hardware test and verification
<u>6,247,170</u>	06/12/01	Method and data processing system for providing subroutine level instrumentation statistics	Software - program debugging
<u>6,230,263</u>	05/08/01	Data processing system processor delay instruction	Computer processor architecture
<u>6,230,256</u>	05/08/01	Data processing system having a bus wider than processor instruction width	Computer processor architecture
<u>6,223,228</u>	04/24/01	Apparatus for synchronizing multiple processors in a data processing system	Hardware test and verification
<u>6,216,213</u>	04/10/01	Method and apparatus for compression, decompression, and execution of program code	Data compression
<u>6,215,834</u>	04/10/01	Dual bandwidth phase locked loop frequency lock detection system and method	Electronics
<u>6,209,123</u>	03/27/01	Methods of placing transistors in a circuit layout and semiconductor device with automatically placed transistors	Software - CAD
<u>6,202,077</u>	03/13/01	SIMD data processing extended precision arithmetic operand format	Software - SIMD
<u>6,199,156</u>	03/06/01	System for explicitly referencing a register for its current content when performing processor context switch	Computer processor architecture

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<u>6,175,897</u>	01/16/01	Synchronization of branch cache searches and allocation/modification/deletion of branch cache	Computer processor architecture
<u>6,161,174</u>	12/12/00	Pipelined central processor incorporating indicator busy sensing and responsive pipeline timing modification	Computer processor architecture
<u>6,128,730</u>	10/03/00	Method and apparatus for multilevel software configuration having administrator and software driven override limiting capabilities	Software - Operating Systems
<u>6,067,579</u>	05/23/00	Method for reducing message translation and traffic through intermediate applications and systems in an internet application	Software - Internet/WWW
<u>6,065,140</u>	05/16/00	Optimized computation of first and second divider values for a phase locked loop system	Electronics
<u>6,059,840</u>	05/09/00	Automatic scheduling of instructions to reduce code size	Software - compiler
<u>6,058,405</u>	05/02/00	SIMD computation of rank based filters for M.times.N grids	Software - SIMD
<u>6,052,700</u>	04/18/00	Calendar clock caching in a multiprocessor data processing system	Computer processor architecture
<u>6,049,865</u>	04/11/00	Method and apparatus for implementing floating point projection instructions	Software - library
<u>6,044,220</u>	03/28/00	Method and apparatus for operating a data processor to execute software written using a foreign instruction set	Software - emulation
<u>6,012,149</u>	01/04/00	Computer system with polymorphic fault processing	Computer processor architecture
<u>6,012,076</u>	01/03/00	Arithmetic logic unit having preshift and preround circuits	Computer processor architecture
<u>6,006,024</u>	12/21/99	Method of routing an integrated circuit	Software - CAD
<u>6,004,027</u>	12/21/99	Method and apparatus for constructing test subsequence graphs utilizing unique input/output sequence (UIO) sets	Software - CAD
<u>5,995,731</u>	11/30/99	Multiple BIST controllers for testing multiple embedded memory arrays	Computer processor architecture
<u>5,987,486</u>	11/16/99	Apparatus and method for data processing	Software - msc.
<u>5,987,086</u>	11/16/99	Automatic layout standard cell routing	Software - CAD
<u>5,984,510</u>	11/16/99	Automatic synthesis of standard cell layouts	Software - CAD
<u>5,966,143</u>	10/12/99	Data allocation into multiple memories for concurrent access	Software - compiler

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<u>5,961,622</u>	10/05/99	System and method for recovering a microprocessor from a locked bus state	Software - Operating Systems
<u>5,960,171</u>	09/28/99	Dynamic signal loop resolution in a compiled cycle based circuit simulator	Software - CAD
<u>5,958,635</u>	09/28/99	Lithographic proximity correction through subset feature modification	Software - CAD
<u>5,951,688</u>	08/14/99	Low power data processing system for interfacing with an external device and method therefor	Computer processor architecture
<u>5,923,658</u>	07/13/99	ATM line card and method for transferring connection memory data	Data communications
<u>5,920,487</u>	07/06/99	Two dimensional lithographic proximity correction using DRC shape functions	Software - CAD
<u>5,911,151</u>	06/08/99	Optimizing block-sized operand movement utilizing standard instructions	Computer processor architecture
<u>5,905,453</u>	05/18/99	Dithered sigma delta modulator having programmable full scale range adjustment	Electronics
<u>5,903,748</u>	05/11/99	Method and apparatus for managing failure of a system clock in a data processing system	Electronics
<u>5,819,062</u>	10/06/98	Method for converting design intent into a neutral-file-format for computer aided design applications	Software - CAD
<u>5,805,774</u>	09/08/98	Circuit and method for determining membership in a set during a fuzzy logic operation	Computer processor architecture
<u>5,799,143</u>	08/25/98	Multiple context software analysis	Compiler/instrumentation
<u>5,768,170</u>	06/16/98	Method and apparatus for performing microprocessor integer division operations using floating point hardware	Software - compiler
<u>5,761,215</u>	6/.2/98	Scan based path delay testing of integrated circuits containing embedded memory elements	Test
<u>5,751,593</u>	05/12/98	Accurate delay prediction based on multi-model analysis	Software - CAD
<u>5,740,469</u>	04/14/98	Apparatus for dynamically reading/writing multiple object file formats through use of object code readers/writers interfacing with generalized object file format interface and applications programmers' interface	Software - msc.
<u>5,740,199</u>	04/14/98	High speed wire-or communication system and method therefor	Data communications

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<u>5,726,944</u>	03/10/98	Voltage regulator for regulating an output voltage from a charge pump and method therefor	Electronics
<u>5,721,726</u>	02/24/98	Transmission load control for multichannel HDLC TDM line	Data communications
<u>5,721,509</u>	02/24/98	Charge pump having reduced threshold voltage losses	Electronics
<u>5,717,931</u>	02/10/98	Method and apparatus for communicating between master and slave electronic devices where the slave device may be hazardous	Computer processor architecture
<u>5,703,885</u>	12/30/97	Method and apparatus for constructing verification test sequences by merging and touring hierarchical unique input/output sequence (UIO) based test subsequence graphs	Software - CAD
<u>5,701,488</u>	12/23/97	Method and apparatus for restoring a target MCU debug session to a prior state	MCU
<u>5,689,684</u>	11/18/97	Method and apparatus for automatically reconfiguring a host debugger based on a target MCU identity	MCU
<u>5,687,378</u>	11/11/97	Method and apparatus for dynamically reconfiguring a parser	MCU
<u>5,687,289</u>	11/11/97	Circuit and method for determining membership in a set during a fuzzy logic operation	MCU
<u>5,680,542</u>	10/21/97	Method and apparatus for synchronizing data in a host memory with data in target MCU memory	MCU
<u>5,680,332</u>	10/21/97	Measurement of digital circuit simulation test coverage utilizing BDDs and state bins	Software - CAD
<u>5,675,817</u>	10/07/97	Language translating pager and method therefor	Pager
<u>5,671,223</u>	11/23/97	Multichannel HDLC framing/deframing machine	Data communications
<u>5,668,807</u>	09/16/97	Synchronization of transparent TDM superchannels	Data communications
<u>5,657,252</u>	08/12/97	Dynamically configurable equipment integration architecture	System Design
<u>5,648,924</u>	07/15/97	Method and apparatus for finding arctangents	Software - library
<u>5,646,876</u>	07/08/97	Method and apparatus for reducing rounding error when evaluating binary floating point polynomials	Software - library

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<u>5,630,051</u>	05/13/97	Method and apparatus for merging hierarchical test subsequence and finite state machine (FSM) model graphs	Software - CAD
<u>5,557,615</u>	09/17/96	Method and apparatus for identifying embedded framing bits	Data communications
<u>5,555,270</u>	09/10/96	Method and apparatus for constructing unique input/output sequence (UIO) sets utilizing transition distinctness measurements	Software - CAD