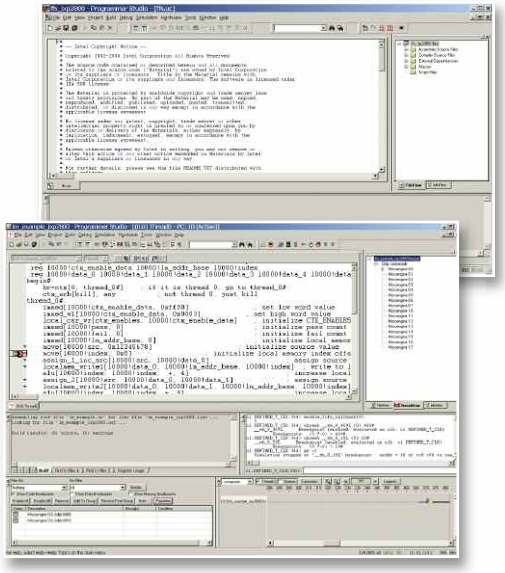
Netronome Programmer Studio™ 4.6

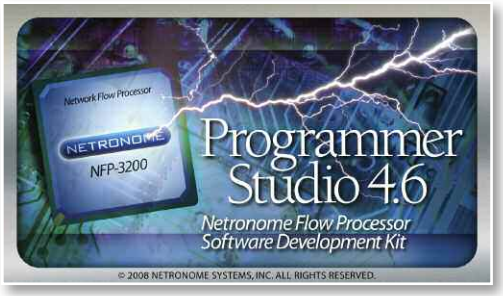
Software Development Kit

The Netronome Programmer Studio™ Software Development Kit (SDK) 4.6 provides a suite of intuitive, high-performance application development tools, a feature-rich cycle-accurate simulation environment tailored for network flow processing and IXP28XX legacy source-code compatibility to help give your design team an unparalleled time-to-market advantage.

Microengine Development Tools

Netronome Programmer Studio SDK 4.6 provides an integrated development environment for advanced graphical cycle-accurate simulation, profiling and debugging. It enables faster prototyping, intuitive optimization and fast time-to-market development of networking applications for the highly parallel, multi-threaded, microengine (ME)v2.7 architecture. Use of the cycle-accurate simulator (Precision Flow Modeler) helps solve concurrency issues by simulating packets going into and out of the network flow processor and enables the detailed visualization of processes and events within the network processor. It identifies opportunities to optimize code by capturing history and statistics that show cycle-by-cycle interactions among the threads and memory units. The Network Flow Modeler also includes a scripting engine for setting test configurations and creating test cases. Simulation tools include queue, memory and thread histories that show memory and flow processor utilization, memory reference latencies and queue depths.





Product Highlights

Key features of the Netronome Programmer Studio SDK include:

- Support for the Netronome family of Network Flow Processors (NFPs), the Netronome Flow Engine (NFE) family of acceleration cards, the Intel IXP28XX and corresponding development platforms;
- A microengine development environment;
- Advanced graphical simulation, profiling and debugging capabilities within an integrated development environment (IDE);
- Rapid prototyping and intuitive optimization of user applications;
- Support for parallel software and hardware engineering efforts; and
- The Network Flow C Compiler for Netronome NFPs, featuring high-level programming language to simplify programming of microengines and improve time-to-market.

Programming Languages

Depending on specific application requirements, developers can choose between two methods to develop microengine code for the Netronome NFP:

- The Network Flow C Compiler offers:
  - faster time-to-market;
  - optimum code portability; and
  - a familiar high-level programming language.
- The Network Flow Assembler:
  - maximizes application performance
  - minimizes code space utilization; and
  - can be embedded in Network Flow C Compiler code for optimal results utilizing both languages.

The Netronome Programmer Studio SDK provides a suite of intuitive, high-performance application development tools, a feature-rich cycle-accurate simulation environment tailored for network flow processing and IXP28XX legacy source-code compatibility to help give your design team an unparalleled time-to-market advantage. The SDK supports your software team with an easy-to-use graphical simulation environment for developing, debugging and optimizing a network application, while the hardware team can work simultaneously on design and prototyping.

Intelligent to the Core™

For more information about other Netronome products, please visit netronome.com.

Specifications

Netronome Programmer Studio SDK Tools 4.6: Prototype, develop and optimize fast-path, per-packet processing software on microengines (MEv2.7)

TOOLS
- Programmer Studio, Microcode assembler, Network Flow C Compiler for Netronome Network Flow Processors and C Run-time Library, cycle-accurate simulator, foreign model interface

PROGRAMMING LANGUAGES SUPPORTED
- Network Flow C Compiler for MEv2.7, MEv2.7 assembly

DEVELOPMENT STATION OS
- MS Windows XP® SP2/3 and Windows Vista® Business, CentOS

DEVELOPMENT STATION HARDWARE
- The CPU should be at least 2.2 GHz (x86) with at least 2.GB DRAM and 800 MB of available hard drive space.

Netronome Network Flow Processors

The Netronome NFP family of network flow processors is the third-generation design of the industry's most-popular network processing architecture. The NFP is built for high-performance network infra-structure designs that require high bandwidth, program-mable data planes that span L2-L7 applications for carrier-grade and enterprise-class networking products, as well as virtualized networked servers and appliances. The NFP also extends the Intel® IXP28XX line of products, providing software source-code compatibility to protect existing software investments, while reducing system cost and enhancing available performance. Customers can easily migrate existing designs to this new generation of silicon and take advantage of improvements in performance, power consumption and price.

NETRONOME™

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Netronome has operations in:
USA (Pittsburgh [HQ], Santa Clara & Boston), UK (Cambridge), Malaysia (Penang), South Africa (Centurion) and China (Shenzhen, Hong Kong)

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