

Overview

EZchip offers a comprehensive Software Development Kit (SDK) consisting of microcode development tools, software tools, sample code, and host Application Programming Interface (API) library to facilitate software development for its Network Processor Units (NPU).

EZdesign manages the data plane and allows designers to create, build and debug microcode applications for the EZchip family of NPUs. Designers can quickly develop microcode for the EZchip NPUs, and test the microcode using the provided simulation and debugging tools. In addition, EZdesign provides GUI tools to easily define the various configurations and search structures for the NPU.

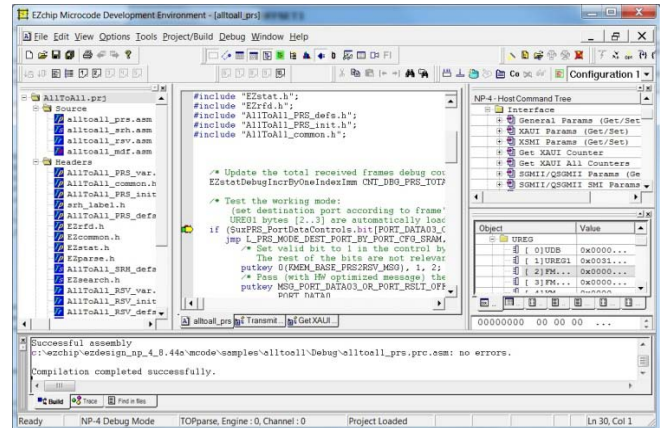
EZdriver API C library manages the control plane and facilitates the development of host software for systems based on the EZchip NPUs. The EZdriver provides a set of libraries for easy configuration and management of the EZchip NPUs. In addition, EZdriver provides tools and utilities for rapid development of the host application, such as automatic C source code generation from EZdesign configuration files.

EZdesign Software Toolset

EZdesign is a comprehensive data plane set of design and testing software tools for developers, enabling short time to market of new designs based on EZchip's NPUs. EZdesign allows designers to create, build and debug NPU applications to meet specific functionality and performance targets. The EZdesign basic tools can be used on both Linux and Windows based platforms, while the GUI is only available on Windows.

EZdesign components include:

- **EZmde (Microcode Development Environment):** A unified GUI for editing, building and debugging code, including setting breakpoints, single-stepping program execution and access to internal resources. Features include a code editor, view of the NPU memory and register contents, and script execution. EZmde is used in development and debugging of code on both the simulator and the actual NPU.



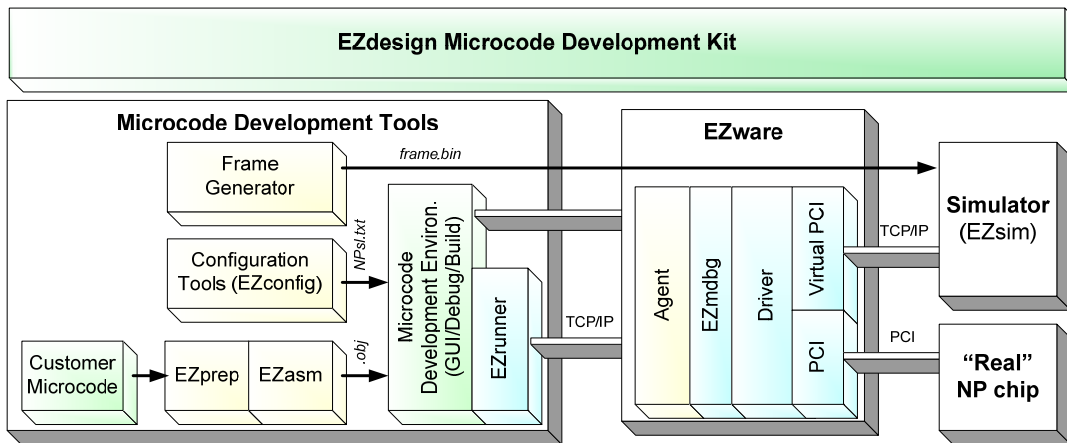
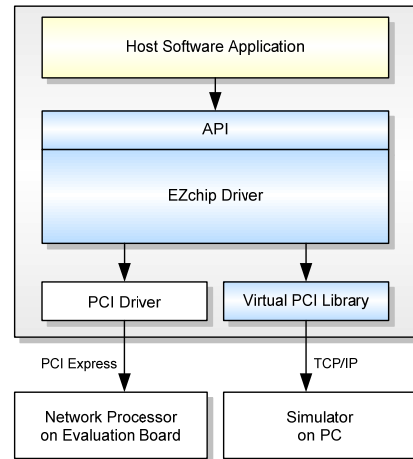
- **EZprep and EZasm (Preprocessor and Assembler):** Generates optimized code for execution on EZchip's NPU. The assembly supports high-level macros.
- **EZsim (Simulator):** Provides cycle accurate simulation of the EZchip NPU for code functionality testing and performance optimization.
- **EZfrmgen (Frame Generator):** A GUI for generation of frames of different types, protocols and user-defined fields.
- **EZconfig:** A GUI for configuration of the EZchip NPU and definition of data structures used by the NPU for forwarding and policy table lookups (e.g. hash, trees), their keys and associated result information.
- **EZTMcfg (Traffic Manager Configurator):** A GUI for configuration of the traffic manager integrated in the NPU. This includes configuration of the hierarchical topology and QoS parameters for each level.
- **Applications Library:** Sample code implementing high-level applications for reference when designing new networking platforms and services. Sample code is available for L2 switching, Metro Ethernet, MPLS LER and SER, MPLS-TP, IPv4/IPv6 routing, NAT (Network Address Translation), EPON/GPON OLT, ACL (Access Control Lists) and more.

EZdriver API Library

EZdriver API Library manages the control plane and facilitates the development of the control path software for EZchip NPU based systems. It enables applications that run on the control CPU to communicate with the EZchip NPU in a user friendly way without having to know internal NPU HW addresses. EZdriver consists of APIs for chip configuration, microcode loading, creation and maintenance of lookup structures, sending and receiving frames to and from the network processor, configuration of the traffic manager, as well as configuration and access to the statistics block. In addition, it includes a tool for automatic C code generation.

The EZdriver API is a full source code C library that easily can be ported to any OS. It also includes object code libraries that have been verified for Linux and Windows.

EZdriver includes several C source code sample applications for the host CPU.



Ordering Information

PRODUCT	CATALOG NO.	DESCRIPTION
EZdesign	20765300	Data plane software development tools.
EZdriver	20765200	Control plane C source code API library.

About EZchip

EZchip is a fabless semiconductor company that provides Ethernet network processors. EZchip provides its customers with solutions that scale from 1-Gigabit to 200-Gigabits per second with a common architecture and software across all products. EZchip's network processors provide the flexibility and integration that enable triple-play data, voice and video services in systems that make up the new Carrier Ethernet networks. Flexibility and integration make EZchip's solutions ideal for building systems for a wide range of applications in telecom networks, enterprise backbones and data centers. Visit our web site at www.ezchip.com.



Email: ezsupport@ezchip.com • Web: www.ezchip.com

EZchip Technologies Inc. • 900 E Hamilton Ave, Suite 100, Campbell, CA 95008, USA • Tel: (408) 879-7355, Fax: (408) 879-7357
 EZchip Technologies Ltd. • 1 Hatamar Street, PO Box 527, Yokneam 20692, Israel • Tel: +972-4-959-6666, Fax: +972-4-959-4166

©2012 EZchip Technologies. All rights reserved. EZchip is a registered trademark of EZchip Technologies Ltd. Brand and product names are trademarks or registered trademarks of their respective holders. This document contains information proprietary to EZchip and may not be reproduced in any form without prior written consent from EZchip Technologies. This document is provided on an "as is" basis. While the information contained herein is believed to be accurate, in no event will EZchip be liable for damages arising directly or indirectly from any use of the information contained in this document. All specifications are subject to change without notice. Document Number: 27-8076-01. Revised: March 13, 2012.