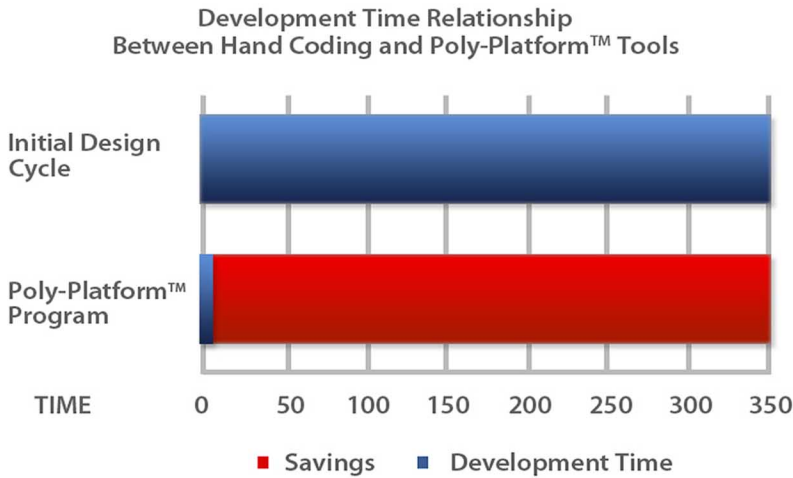


# **Poly-Platform™**

## **Simplifying Multicore**

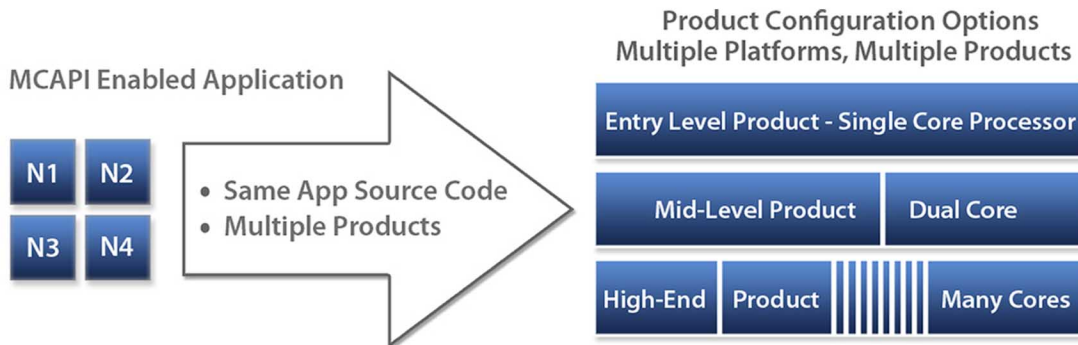
**Poly-Platform™** is a collection of productivity tools and a runtime communications engine that simplify the process of migrating to, and developing applications for multicore platforms. Developers are enabled to analyze the application for hot spots and flow. Using a friendly GUI, the topology can be diagrammed and defined, as a map. The topology map is then used to generate programming elements for the application and runtime engine, thus streamlining the process of laying out the topology, building, and running the application.

**POLYCORE SOFTWARE TOOLS IMPROVE DEVELOPMENT COSTS AND MOVES PRODUCTS TO MARKET**



**Efficiency** - Poly-Platform improves development time and cost. MCAPI\* service calls are generated via GUI wizards, communication networks are drawn, communications programming elements are created from models, and development time collapses from months to weeks and even days. Application performance can be optimized by reviewing profile data and trying alternative topologies in order to identify the most efficient topology for the application. Several scenarios can be configured and tested in a short period of time. The time and cost saving is achieved during the first program and throughout every successive program.

**MULTICORE PROGRAMMING METHODOLOGY FOR TODAY'S, AND TOMORROW'S DESIGNS**



PolyCore Software's programming methodology leverages a proven model of functional encapsulation and adds a standards-based message-passing paradigm. Product managers, designers and systems engineers can set up MCAPI enabled application nodes to leverage the same software source code across multiple hardware platforms from single to multicore and multiprocessors. The diagram above shows a range of platforms from entry-level to high-end using the same application source code, configured for target performance and optimized functionality. Using the same concepts, a single multicore platform could be used for multiple products by configuring application nodes to use only the number of cores needed to meet the product requirements.

\* MCAPI - Multicore Communications API, defined by the Multicore Association.



## Simplifying Multicore

**Simplification** Poly-Platform provides developers with the opportunity to approach multicore migration with ease and the flexibility to customize the application. Developers model the application topology with the guidance of wizards, menus and programming aides. The topology canvas provides a backdrop for drag and drop access to create and change the topology map, making quick work of the initial configuration and modifications. Nodes and communications links are dropped onto the canvas. Perfecting an application can be easy - let Poly-Platform work for you!

**Analyze** with an interactive, graphical, profiling front-end tool that assists the developer to quickly inspect and analyze application behavior and to identify hot spots from the application's profiling data.

**Automate** the programming task using a wizard-based tool that helps developers to quickly take advantage of the industry standard Multicore Association communications API. Based on user selections, MCAPI code is generated from validated templates, speeding up development and reducing coding errors.

**Design** with a GUI based, flexible tool for rapid creation of validated multicore communications topologies. Developers model the application topology with the guidance of wizards and drop down menus. Deploy the same source code on single or multicore processors - the tool makes simple work of the initial topology layout and configuration, subsequent modifications for optimization purposes, and future programs.

**Build & Execute** using a modular, efficient framework providing standardized communications for closely distributed computing - multiple cores on a chip and/or multiple processor chips on a board. The MCAPI Communications API and PolyCore Software's standards-based approach, together utilize the proven and time-tested message-passing programming paradigm.

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**PolyCore Software** provides a standards based programming model that simplifies multicore software development, improving time to market, risk and cost, while preserving existing software investments. PolyCore Software provides run-time solutions and tools for multicore platforms, serving markets as communications infrastructure, digital consumer, medical, HPC, industrial automation, aerospace and defense.

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