SOFTWARE DEFINED CONTROL PLATFORM

Chameleon

Just change image of your hardware!
CHAMELEON
Software Defined Control Platform

The new innovative and efficient software suite, for development of the FPGA based control platform. The Chameleon Software Environment is dedicated to industrial hardware and control embedded systems manufacturers and OEM’s.

Technology Improvement
The Chameleon Software Environment - improves the programming and implementation of advanced FPGA technology, breaking the barriers in using complex but highly efficient and flexible solutions in control platform development process. The Chameleon changes rules of the modern electronics development process.

Simpler than ever
IP core modules included in Chameleon’s libraries allow building specific controller architecture with various processing engines, I/Os, communication ports, etc., in a simple way - just by choosing proper blocks and inserting them into an application. More advanced users can define their own new blocks of the control platforms to other hardware boards. The libraries of the Chameleon are open for all IP components which are made according to On-chip Peripheral Bus (OPB) architecture standard.

Four phases of the development process with Chameleon
- Hardware Configuration - definition of the hardware platforms with their interfaces, protocols, inputs, outputs.
- Application Development - programming of the defined control platform for dedicated target using the high level IEC 61131 languages like ST, LD, FBD, SFC, IL.
- Compilation - compiling of the application program according to defined hardware platform, declared variables, functions etc.
- VHDL Generation - phase of the VHDL code process generation. Received VHDL code is ready to use source for the application synthesis for FPGA chip.

Ultimate Controller architecture flexibility
With Chameleon Software different control platforms can be implemented in the same standard hardware board in extremely flexible and effective way. The architecture of the control platform can be changed through downloading the new bit stream as often as needed.

Powerful programming tool
The Chameleon merges friendly programming interface (PLC based) and implementation of designed control application in hardware using FPGA technology. Application program for control platform is written in standard PLC high level languages and translated by Chameleon’s process engine for implementation in FPGA chip. The application linker automatically produce VHDL code from predefined standard blocks and translate application program for VHDL Application Synthesis Tool. Chameleon Software Environment has many integrated useful tools for debugging, simulation and monitoring which make programming more convenient and reduce development time.

EUREKA! International Project
The Chameleon Software was developed by the international engineers team from Microtech International Ltd (PL), Copalp (FR) and NCI (FR). The project has been accomplished under the patronage of the International Committee EUREKA!

Cost-effective solution for...
The Chameleon software is dedicated for large companies as well as for SME’s, for manufactures and OEM’s as well as end-users in many sectors of the industry. Makes all of them more competitive in the market.
The software allows maximizing hardware board efficiency, reducing time-to-market by using standard function blocks, increasing productivity, increasing product reliability and reducing manufacturing costs.

Tool Delivered By FPGA Manufacturer