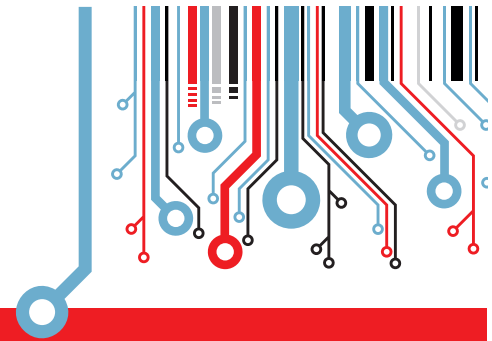




Instigate

Parallel Systems Development



Design Services Overview

SOFTWARE AND HARDWARE QUALITY ASSURANCE

- Verification of HW Fabrics (Massive parallel reconfigurable device, FPGA, SoC, NoC)
- EDA tools (modeling, simulation, profiling, synthesis)
- QA of FPGA place & route tools
- Regression testing and automation
- Comparison of models (system level model, RTL simulation, FPGA emulation, test-chip)
- GUI IDE automated testing

APPLICATION ENGINEERING

- Evaluation of the architecture programmability
- Inventing design patterns for flow control
- Creating rich function library (conversion, vector, matrix, trigonometry, filters, transforms) Complex applications
- (Wi-Fi 802.11g, WiMax, H.264 encoder/decoder)
- ESL modeling of various bus architectures (AHB, AXI, OCP)
- NoC, SoC complex designs creation
- Universal deblocking processor (H.264, MPEG2, MPEG4, H.263, AVS, VC-1 video codecs)

SOFTWARE AND HARDWARE DESIGN

- ESL/EDA tools (clock/bit accurate simulators, profilers, modeling environments)
- TLM Modeling of Memory controller, virtual platform prototyping
- IDEs for customer specific proprietary architectures
- GUI cockpit for multi-core architecture
- Compilers for EDA specific proprietary languages
- Embedded/automotive/mobile programming

IP OFFERING

- Software libraries for EDA application development
- Generic programming libraries
- C++ Compiler Front-End, abstraction layer over GCC, LLVM, etc
- Application framework for rapid development of EDA specific applications
- Application generator based on entity-relationship information
- ESL IP libraries for multimedia, communication, DSP
- Signal Processing - Filtering, Transformation, Coding, Scaling, Quantization
- Communication – Wi-Fi, WiMax, UniPro, AHB, AXI, AWGN and Multipath fading channels
- Audio/Video coding – MPEG2, H.263, MPEG4, H.264, VC-1, AVS
- Image Processing – HDR, SR, BlurFilter, Converters (JPEG, BMP)

SOFTWARE ACCELERATION AND PARALLELIZATION

- Application profiling and parallelization
- NUMA specific optimizations for multi-core systems
- Acceleration using NVIDIA and ATI GPGPU cards
- Hardware acceleration (FPGA/ASIC)

INSTIGATE ADVANTAGE

- Enable Higher Quality Products
- Strict focus on quality software engineering
- Shorten Time to Market
- Large, well trained team
- Existing, proven IP
- Focus on Customer
- Use-case/user-story/user-review based R&D methodology
- Focus on Target Market by Extreme Programming
- Competitive Pricing
- Full advantage of offshore consulting
- Significant reduction of effort due to existing IP

