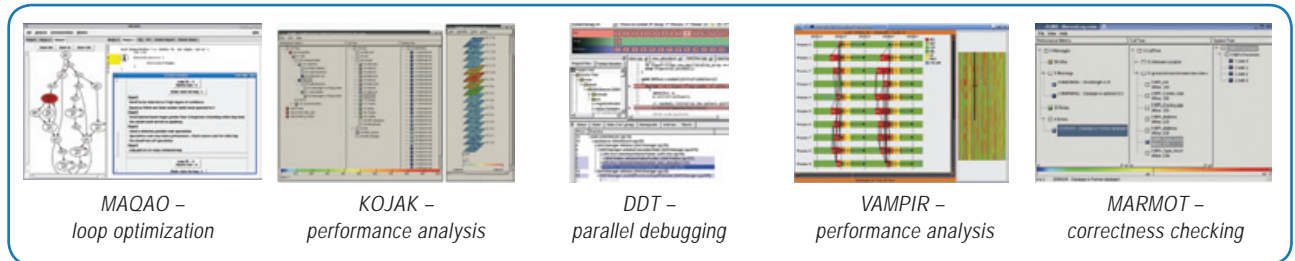


ParMA

Parallel Programming for Multi-core Architectures



EVOLVE METHODS AND TOOLS TO FACILITATE THE DEVELOPMENT (OR RESTRUCTURING) OF PARALLEL APPLICATIONS:

- Define new programming and execution models for parallel applications.
- Develop tools to create and model efficient interconnection networks for MPSoC (embedded systems).

ENHANCE AND INTEGRATE PARALLEL PROGRAMMING TOOLS (DEBUGGERS, CORRECTNESS AND PERFORMANCE ANALYSIS TOOLS):

- Support any kind of parallelism (MPI, OpenMP, threads,...).
- Offer a powerful, user-friendly, scalable environment for correctness and performance debugging in a common framework.

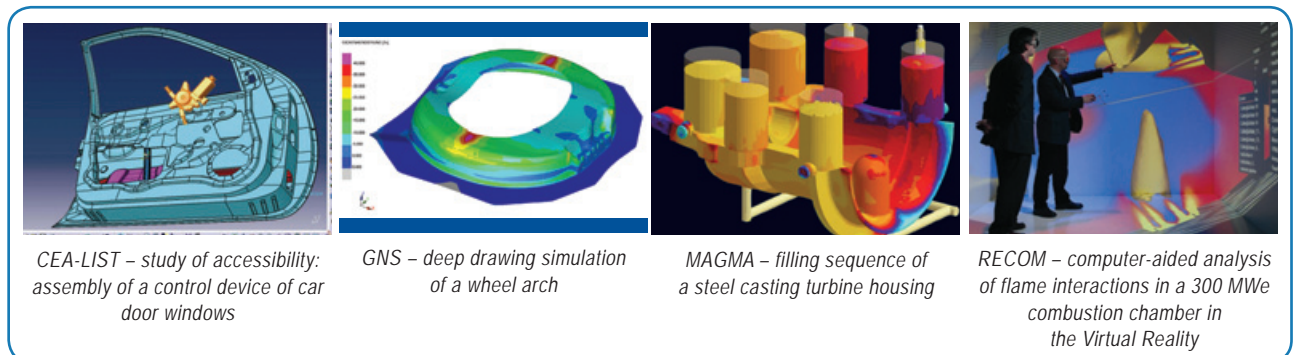
EXTEND THE LINUX OS (NUMA API, SCHEDULER, ETC.) AND OPTIMIZE LIBRARIES:

- Extend and enhance management of a large number of tasks / threads.
- Optimize numerical libraries (develop multithreaded versions thereof).



ADAPT OR DEVELOP AND OPTIMIZE APPLICATIONS FROM VARIOUS APPLICATION DOMAINS (SIMULATIONS, AVIONICS, VIRTUAL REALITY, SOFTWARE DEFINED RADIO):

- Significantly speed up existing HPC applications and enable simulation of much more complex models.
- Enable the advent of innovative power-intensive embedded applications.



CONTACT

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