Performance visualisation in a portable parallel programming environment

Performance and Energy-Tuning Methodology for Wireless Sensor Networks Using TunableMAC

Application Performance of Physical System Simulations

Decentralised Workflow Scheduler for Resource Allocation in Computational Clusters


Application-Specific Energy Modeling of Multi-Core Processors

New Frontiers in Energy-Efficient Computing

Sensor Intelligence for Tackling Energy-Drain Attacks on Wireless Sensor Networks

AGOCS – Accurate Google Cloud Simulator Framework

Context-aware Approach for Determining the Threshold Price in Name-Your-Own-Price Channels

A Meta-Heuristic Load Balancer for Cloud Computing Systems

Towards an Application-Specific Thermal Energy Model of Current Processors

Workload Schedulers - Genesis, Algorithms and Comparisons

Scientific Grand Challenges: Toward Exascale Supercomputing and Beyond

Distributed Agent-Based Load Balancer for Cloud Computing
Context-Aware Framework for Performance Tuning via Multi-action Evaluation

Performance Tuning of Database Systems Using a Context-aware Approach

A few notes on Amdahl’s law

Computing laws: origins, standing, and impact

System evolution for unknown context through multi-action evaluation

Topic 2: performance prediction and evaluation

Cloud adoption issues: interoperability and security

Smart computational grids: infrastructure for tackling global integration challenges

Computing in Asia: a sampling of recent success stories

Hybrid cloud adoption issues are a case in point for the need for industry regulation of cloud computing
Getov, Vladimir. 2012. Hybrid cloud adoption issues are a case in point for the need for industry regulation of cloud computing. Business Computing World.

Process-driven biometric identification by means of autonomic grid components

Security as a service in smart clouds: opportunities and concerns

Plenary panel description: challenges towards the global adoption of cloud computing

Characterizing application-architecture co-design by suitability functions

WMIN-MOBILE: a mobile learning platform for information and service provision

CoreGRID/ERCIM workshop on grids, clouds and P2P computing: CGWS2011

Codesign for systems and applications: charting the path to exascale computing
Navigating the cloud computing landscape: technologies, services, and adopters
https://doi.org/10.1109/MC.2011.91

From invisible grids to smart cloud computing

Component-oriented approaches for software development in the extreme-scale computing era

Software development productivity: challenges and future trends

Safety and liveness of component-oriented protocols: a feasibility study

Extreme-scale computing–where ‘just more of the same’ does not work
https://doi.org/10.1109/MC.2009.354

GCM: a grid extension to Fractal for autonomous distributed components

Integrating autonomous grid components and process-driven business applications

Temporal specification and deductive verification of a distributed component model and its environment

State-based behavior specification for GCM systems

Special roundtable discussion: 70 years electronic digital computing that changed the world

e-Science: the added value for modern discovery

Dynamic reconfiguration of GCM components
https://doi.org/CoreGRIDTechnicalReportNumberTR-0173

HLA component based environment for distributed multiscale simulations
Ryczek, K., Bubak, M., Słoot, P.M.A. and Getov, Vladimir 2008. HLA component based environment for distributed multiscale simulations.CoreGRID.
https://doi.org/CoreGRIDTechnicalReportNumberTR-0137

Dynamic service-based integration of mobile clusters in grids
https://doi.org/CoreGRIDTechnicalReportNumberTR-0094

Advanced Grid programming with components: a biometric identification case study
Domain-specific metadata for model validation and performance optimisation

A component-based integrated toolkit

Transaction-oriented simulation in ad hoc grids: design and experience

Dynamic service-based integration Of mobile clusters in Grids

Evaluation of dynamic clustering architecture for utilising mobile resources

Integrated framework for development and execution of component-based Grid applications

Design and implementation of a hybrid P2P-based Grid resource discovery system

Methodology for component-based development of grid applications

Behavioural model of component-based Grid environments

Automata-based formal specification of stateful systems

Automata based formal specification of stateful systems

Proceedings of the CoreGRID Workshop on Grid Systems, Tools and Environments, 1st December 2006, Sophia-Antipolis, France

Problem solving environment for distributed interactive applications

Domain-specific metadata for model validation and performance optimisation

Design support for componentising and grid-enabling scientific applications

Letters to the editor
Corrections

Proceedings of the 2007 symposium on Component and framework technology in high-performance and scientific computing

Specification and verification of reconfiguration protocols in grid component systems

Componentising a scientific application for the grid

Mapping "heavy" scientific applications on a lightweight grid infrastructure

Security models for lightweight grid architectures

Lightweight grid platform: design methodology

Specification and Verification of Reconfiguration Protocols in Grid Component Systems

A metadata extracting tool for software components in grid applications

Dependability in hybrid grid systems: a virtual clusters approach

Specification and verification of reconfiguration protocols in grid component systems

Towards building a generic grid services platform: a components-oriented approach

An architecture for a portable grid-enabled engine

A lightweight platform for integration of mobile devices into pervasive grids

Integrating mobile devices into the grid: design considerations and evaluation

Developing grid services with Jini and JXTA
Computational grid and web services: concepts, functionalities and comparisons

Improving quality of service in application clusters

Performance evaluation of hybrid parallel programming paradigms

Using Java for plasma PIC simulations

Mixed language high-performance computing for plasma simulations

Intelligent fault tolerant architecture for cluster computing: a high level overview

Intelligent architecture for automatic resource allocation in computer clusters

Improving quality of service in application clusters

Cluster infrastructure for biological and health related research

Autonomous agents-based security infrastructure

Agent-based service management in large datacentres and grids

Performance comparisons of basic openMP constructs

Assignment schemes for replicated services in Jini

Simulation of replicated services in Jini

Mult paradigm communications in Java for grid computing

JavaGrande - high performance computing with Java
Java communications for large-scale parallel computing

Message-passing computing with Java: performance evaluation and comparisons

A mixed-language programming methodology for high performance Java computing

Guest editorial: Java in high-performance computing

Programming languages, models, and methods

Panel on Metacomputing

Aspects of portability and distributed execution for JNI-wrapped message passing libraries

MPJ: MPI-like message passing for Java

Obituaries: Roger Hockney

Design issues for efficient implementation of MPI in Java

Performance optimisations of the NPB FT kernel by special-purpose unroller

MPI and Java-MPI: contrasts and comparisons of low-level communication performance

Multi-language programming environments for high performance Java computing

A programming environment for high-performance computing in Java

MPI for Java

MPI for Java: position document and draft API specification

High-performance parallel programming in Java: exploiting native libraries

Low-level benchmarking: performance profiles
Towards portable message passing in Java: binding MPI

P MPI: high-level message passing in Fortran77 and C

Automatic binding of native scientific libraries to Java

Message-passing performance of parallel computers

Massively parallel computing in Java

Benchmarking the cache memory effect

The GENESIS distributed memory benchmarks. Part 2: COMMS1, TRANS1, FFT1 and QCD2 benchmarks on the suprenum and IPSC/860 computers

Performance characterisation of the cache memory effect

Benchmarking for distributed memory parallel systems: gaining insight from numbers

Comparison of HPF-like Systems


PARKBENCH Report - 1: Public international benchmarks for parallel computers

Performance analysis of distributed applications by suitability functions

Comparative performance analysis of uniformly distributed applications

The GENESIS distributed memory benchmarks

The GENESIS benchmark suite: current state and results

Benchmarking the cache memory effect
Getov, Vladimir 1992. Benchmarking the cache memory effect. in: Proceedings of the Sixth Euromicro Workshop on Parallel and Distributed Processing (PDP '92) IEEE . pp. 50-56

Towards portable message passing in Java: binding MPI
The GENESIS benchmark suite manual. Release 2

The GENESIS distributed-memory benchmarks

The GENESIS distributed-memory benchmarks. Part 1: Methodology and general relativity benchmark with results for the SUPRENUM computer

Final report on benchmark suite

Mid-term report on benchmark suite

Benchmarking for MPP procurement. Mid-term report

1-Dimensional parallel FFT benchmark on SUPRENUM

Simulation facility of distributed memory system with 'mad postman' communication network

Evaluation facility for high-speed network systems

Architecture of a high-speed network interconnection unit
A number of performance visualisation tools have evolved to meet this need for particular systems but they are often not portable to other machines. We regard portability as crucial to the widespread acceptance and use of such tools, and have investigated several approaches to achieving it. FINESSE is a prototype environment designed to support rapid development of parallel programs for single-address space computers by both expert and non-expert programmers. The environment provides semi-automatic support for systematic, feedback-based reduction of the various classes of overhead associated with parallel execution. The characterisation of parallel performance by overhead analysis is first reviewed, and then the functionality provided by FINESSE is described. A number of performance visualisation tools have evolved to meet this need for particular systems but they are often not portable to other machines. We regard portability as crucial to the widespread acceptance and use of such tools, and have investigated several approaches to achieving it. Each approach has been based on the public domain ParaGraph tool, which enables trace data collected during a program's execution to be viewed from various different visual perspectives. We also describe ongoing work within the PPPE Esprit project to integrate ParaGraph into a portable parallel programming environment based on the PCTE portable common tool environment.