

EU project AutoTune starts Demonstration Centre

The European Commission (EC) funded project in the field of high-performance computing (HPC) prolongs its optimization services after the official project end in April 2015 with a dedicated centre hosted at Leibniz Supercomputing Centre in Garching (Germany). // An AutoTune book with details on tuning methods and the plugins developed in the project will be published by co-ordinator Prof. Dr. Michael Gerndt, Technische Universität München, in April.

The European consortium forming the “Automatic Online Tuning” (AutoTune) project announces to open the AutoTune Demonstration Centre (ADC) after the end of the project in April 2015. The purpose of the Centre is to bring together users, developers, vendors, and supercomputing experts and educate them on the benefits of the automatic online optimisation of scientific codes as well as plugins and methods developed within the AutoTune project. Thereby, the consortium members want to exploit the project results and make them available to a larger interested HPC audience. This shall enable scientists and commercial HPC users alike to make better usage of supercomputing resources regarding not only the compute performance but also energy efficiency. The ADC will be hosted at Leibniz Supercomputing Centre in Garching, near Munich (Germany) and ICHEC (Ireland) and will be open to users working with the consortium. Users will also have access to online documentation, best practice guides, discussion forums, individual support as well as training sessions.

Additionally, an in-depth documentation of the AutoTune project is provided in the book “Automatic Tuning of HPC Applications – The Periscope Tuning Framework (PTF)” edited and published by Michael Gerndt (TU Munich), Eduardo César (Universitat Autònoma de Barcelona) and Siegfried Benkner (University of Vienna). PTF was developed within the AutoTune project. The goal is to close the gaps in the application tuning process and thus to simplify development of efficient parallel programs on a wide range of architectures. The framework is unique, since it combines analysis and tuning of multiple aspects into an online automatic tuning framework. The book will be published in April and is available via Shaker Verlag. It will go into detail on different tuning concepts as well as on various tuning plugins like for instance MPI parameters plugin or a Parallelism Capping Plugin.

“The project was a complete success. It developed the first production ready tuning environment for HPC applications.” Says Prof. Dr. Michael Gerndt, the project co-ordinator. “I am thrilled that we have found a way to continue AutoTune and to provide the results to users of scientific and industrial HPC applications.”

About AutoTune

AutoTune is a European Commission (EC) funded research project made up of an international consortium of scientific institutions and industrial companies coordinated by Technische Universität München (TUM). The project started mid of October 2011 and ends in April 2015. It disposed of an overall funding of 2.3 MEuro and pursued the target of automatically optimizing applications in the area of high-performance computing. Next to TUM, the Leibniz Supercomputing Centre (LRZ) of the Bavarian Academy of Sciences, the Universitat Autònoma de Barcelona (UAB), the Centre for High-End Computing (ICHEC) at the University of Galway as well as the University of Vienna are partners in the project with IBM as associated partner.

Contact:

Dr. Wolfram Hesse, Leibniz Supercomputing Centre

Phone: +49 89 35831-8845, E-Mail: Wolfram.Hesse@lrz.de