

PRESS RELEASE

PRESS RELEASE

August 20, 2015 || Seite 1 | 2

Mastering Big Data using smart sensor technology – First open source software released as part of EU “FERARI” project

In this age of Industry 4.0 and the “Internet of Things” direct machine-to-machine communication (M2M) is taking on an increasingly important role. The result, however, is that data streams within industry are increasing in volume at such an alarming rate that they are posing a growing challenge to data processing systems. The first open source software designed to deal with the real-time analysis of massive data streams in distributed systems – with the specific aim of closing this gap – has now been released as part of the EU “Flexible Event Processing for Big Data Architectures” (FERARI) project. The project team is made up of experts from the Fraunhofer Institute for Intelligent Analysis and Information Systems IAIS plus five other partners who not only manage its application but also provide users with the support they need to ease them into using the software.

“FERARI is intended to provide a general sense of relief to data processing systems. The individual sensors of the associated machines ultimately decide for themselves if they want to communicate the information they collect and which other components within the system they consider it relevant to”, comments Dr. Michael Mock, project manager at Fraunhofer IAIS. “This means that the entire data stream is reduced to the bare essentials.” When combined with “Complex Event Processing” methods – i. e. the processing of complex interdependent events – it means that important correlations can now be found within multi-connected real-time data streams.

“During the development phase, in particular, we felt it was crucial to give users the option to familiarize themselves with the software as fast as possible”, emphasizes Mock. “For this and other reasons we decided to integrate the entire software configuration into a docker container.” This means that users can get started immediately after the download without the need for any further installations. Supplementary video documentation shows how the initial applications can be developed with just a few steps and subsequently tested using the data sets supplied as examples. The idea behind the easy access is to advance the distribution of modern Big Data applications for science and economy as widely as possible.

A technological basis for the project was provided by partner IBM Haifa and their “IBM Proactive Technology Online (Proton)” tool which was specifically designed to process complex events. “In order to be used in conjunction with FERARI, Proton needed to be equipped to process enormous data streams, therefore we decided to combine the

Press Contact

Katrin Berkler M.A. | Fraunhofer Institute for Intelligent Analysis and Information Systems IAIS | Phone +49 2241 14-2252 | Schloss Birlinghoven | 53757 Sankt Augustin | Germany | www.iais.fraunhofer.de | pr@iais.fraunhofer.de

software with the Storm Big Data system”, explains Dr. Fabiana Fournier, the IBM scientist responsible for the project. This allows “Proton on Storm” to run on several computers simultaneously which is an essential prerequisite to processing data volumes at the Big Data level.

In addition to the Fraunhofer IAIS and IBM Haifa Research Labs other contributors to the “FERARI” project include the Israel Institute of Technology (TECHNION), the Technical University of Crete, Croatian Telecom and the Croatian company Poslovna Inteligencija. The project receives a total of 36 months funding as part of EU's Seventh Framework Programme for Research (FP7).

PRESS RELEASE

August 20, 2015 || Seite 2 | 2

More information

<http://www.ferari-project.eu>

Open source software download

<https://bitbucket.org/sbothe-iais/ferari>

Contact

Katrin Berkler
Head of PR at Fraunhofer IAIS
Phone +49 2241 14-2252
pr@iais.fraunhofer.de