Our reference
Ref.beteckn FU14-114

Software Tool Integration using Linked Data approach – Tool-chain architecture for data-intensive computations

Background
Embedded systems offer enormous opportunities in almost all application domains in our society. Because of their heterogeneity and complexity, such systems require the use of many software tools to support embedded systems development. These tools need to form a well-integrated and effective Development Environment (DE), in order to ensure that product data is consistent and correct across the developing organisation.
A promising approach to deal with this challenge is to adopt the concepts of Linked Data (http://www.w3.org/DesignIssues/LinkedData.html), to integrate data from the different engineering tools - without relying on a centralised integration platform.
While this distributed approach seems promising, the performance of such a solution remains to be validated. In particular, it is necessary to investigate how such a distributed approach to data management can be reconciled with the need for an efficient centralised source of data when performing data-intensive computations.

Aim
In this project, you are to investigate the use of the Linked Data approach to tool integration when performing data-intensive activities that require information from various data sources in the development environment.
This work entails the prototyping of a DE architecture that can best combine the Linked Data approach with the possibility to perform computation-intensive activities. This needs to be accompanied with an analysis that identifies a Scania-relevant case study that can allow one to verify/disqualify the validity of the Linked Data approach.
This work will be part of the ongoing research project Espresso.

Needed Skills:

- Working on a degree in Software Engineering, computer science or similar
- Experience with the development of web services and service oriented architecture (SOA, REST, etc)
- Experience with Java/C# programming
- Excellent written and oral English communication skills
- Experience with a variety of software tools for embedded systems.

Contact person:
Jad El-khoury, e-mail: jad.elkhoury@scania.com, phone: 08-790 6877

Application to:
Send your application to gunilla.abrink@scania.com. Label the application FU14-114
Your application should include a short letter motivating how your profile and interests fit this project, your CV and your latest academic transcripts.

Application deadline: 2014-11-30