Name

Srijan – Data-driven Macroprogramming for Heterogeneous Sensor Networks

Activity Details

Macroprogramming is an application development technique for wireless sensor networks (WSNs) where the
developer specifies the behavior of the system, as opposed to that of the constituent nodes. In this research, we
are working on Srijan, a toolkit that enables application development for WSNs in a graphical manner using
data-driven macroprogramming.

It can be used in various stages of application development, viz.

1. specification of application as a task graph,
2. customization of the autogenerated source files with domain-specific imperative code,
3. specification of the target system structure,
4. compilation of the macroprogram into individual customized runtimes for each constituent node of the target system, and
5. deployment of the auto generated node-level code in an over-the-air manner to the nodes in the target system

Period

October 2009 - September 2010

Partners

Partners: INRIA (CRI Paris-Rocquencourt, EPI ARLES)

Related Research Activity

Data-driven Macroprogramming for Heterogeneous Sensor Networks