Applied Engineering: Electronics-ICT (Master Test) Tim Van Overtveldt Peter De Cauwer



WORK IN PROGRESS

10/02/2009

We had a meeting with our main promoter, Jeroen Doggen. He gave us an interesting paper about a technique to use with localization of unknown nodes. We talked about our progress, compared to our last meeting. We finalized the comparison between the two projects of the theme weeks of ICT.

PROJECT PETER

- Controller:
 - o can work with 1 DB and 2 GUI's and 2 WSNs
 - consists of:
 - SocketServer
 - SocketClient
 - Processor
 - XML convertor
 - DB connector
- Controller seems to be hard-coded en static.
- TelosB consists of:
 - o nesC code
 - o XML parser in JAVA!
- MySQL
 - o DB-schema is given
 - o Works with stored procedures, these will need to be modified

PROJECT TIM

Controller:

- Works with 2 databases (MySQL & DB2), 2 GUI's (C# en php website) and with 2 WSN's (TelosB & Sun spot)
- o written in java following the 2EE standaard, so it is platform independent
- o J2EE Application zoals Apache Tomcat 6.0
- o Installation happens with the WAR bestand
- Consists of:
 - datasource (platform independant) for DB2 & MySQL
 - DOM XML parser (Xerces-J library)
 - DAO (Data Access Object) framework
 - Communication by webservices: /frontedService or /backendService or /backendDiscoveryService

TelosB

- NesC
- o XML parser written in java (can only transmit data to the controller)

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MySQL

- O DB-scheme contains manly 4 tabels:
 - Node (info zbout the node: ID, status, netwerk interface, location, voltage, speed...)
 - Measurement (all the data that the nodes have to offer: ID, unit of the measurement, time, date, value...)
 - Network (info about the netwerk: ID, name, number of nodes, time, date...)
 - NodeService (services that the node supports: ID and an ID for the service)
- Does not work with stored procedures
- Works with foreign keys
- o Software: MySQL server 5

We are going to use the project which Peter was the project leader off.

We had a meeting with the bachelor student Omar Lakhal. We are going to guide this student with his bachelor test. We explained the project we made during the thematic ICT week.

Furthermore, we specified the assignment of Omar together with Jeroen. Omar is going to start up our project from ICT and is going to attach a development board to the wireless sensor nodes (Sun Spots).

Finally, we had a talk with our other promoter, Jerry Bracke about our international project.