

Diploma/Master Thesis “A nesC Plug-In for Eclipse”

TinyOS is the quasi standard operating system for sensor nodes like the Mica2 motes. It is designed to cope with the limited capabilities of the underlying hardware and provides its own programming language nesC. This C derivate has only a limited functional range but it extends basic C by some new concepts like bidirectional interfaces. While TinyOS and nesC are in wide use, there is no reasonably sophisticated IDE for this system available, yet.

The goal of this thesis is to design and implement an Eclipse plug-in for nesC. The desired features of this plug-in are numerous, including:

- Syntax highlighting
- Code completion
- Compilation within the IDE
- "Outline" of interfaces and corresponding implementations
- Graphical representation of the setup of an application
- ...



As it will not be possible to implement all features within one thesis, extensibility is an important aspect which has to be considered in the design of the plug-in.

If you are interested in the topic, feel free to make an appointment to get more information and a short presentation of nesC.

Skills

- Java (to write the Eclipse plug-in)
- Basic C knowledge

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