



PAWiS Module Library

Institut für
Computertechnik

ICT

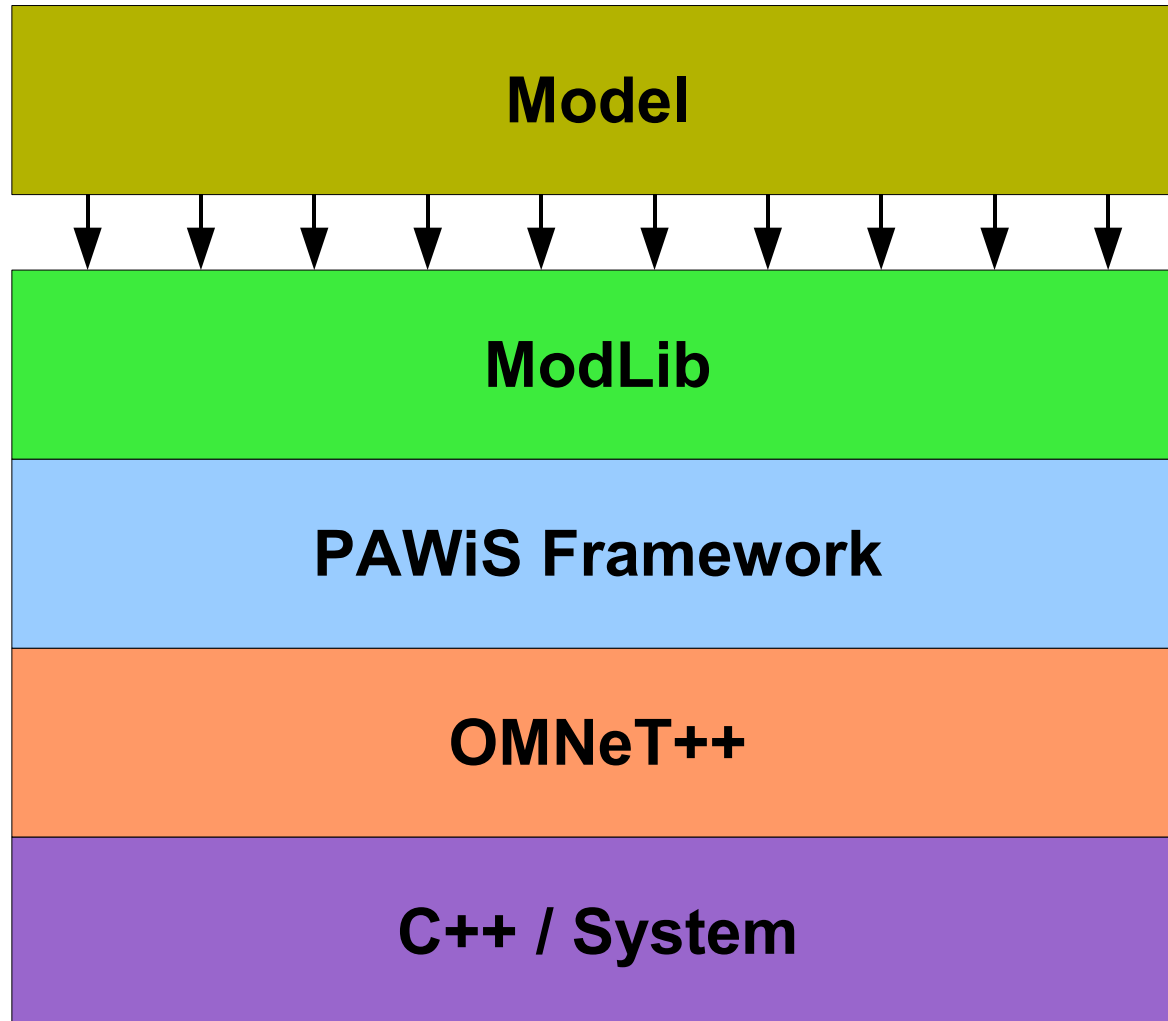
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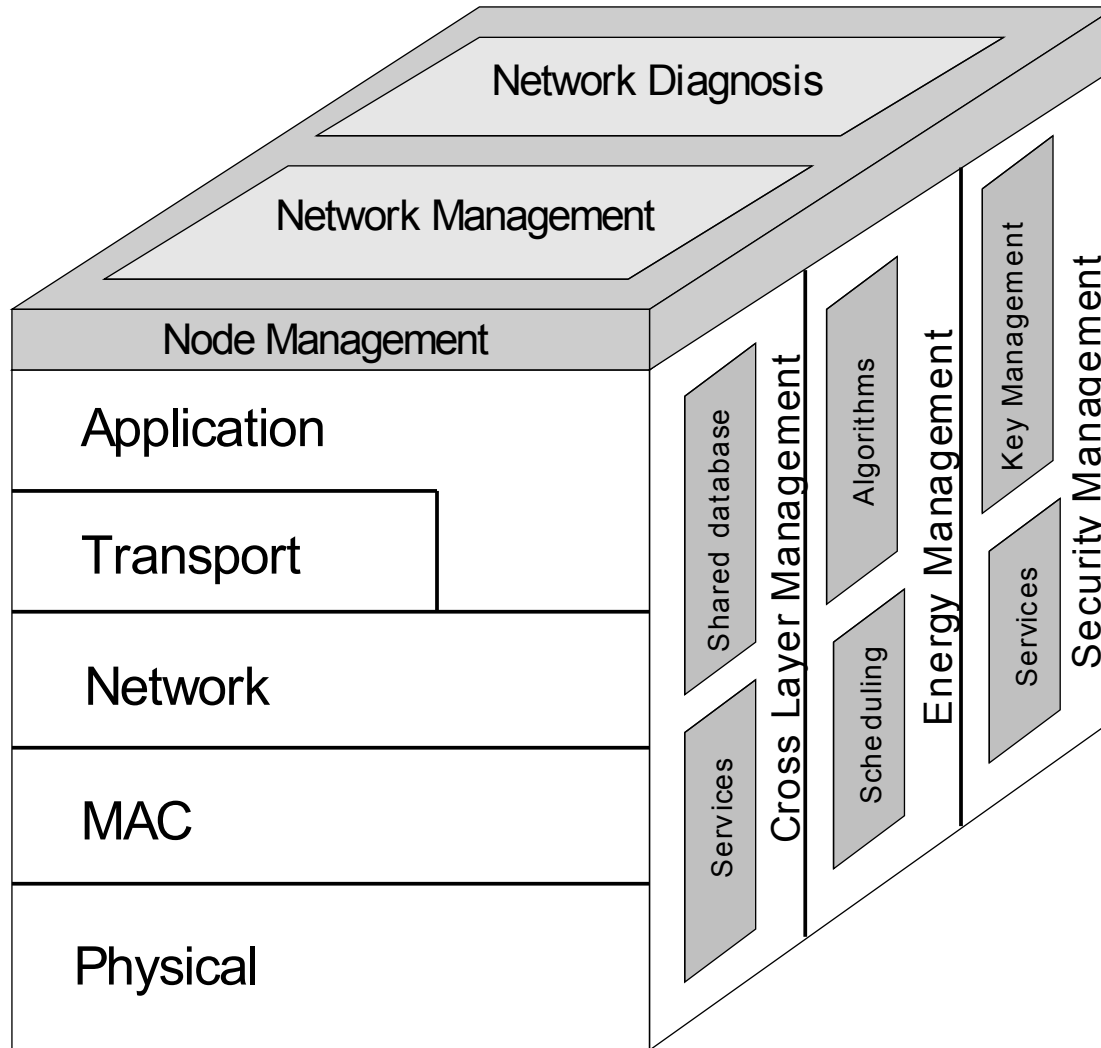
Johann Glaser

- Documentation
- Terms
- Relations
- Module Classes
- Interfaces
- Conventions
- Infrastructure
- Concept
- Modules
- TODO
- Literature

- Doxygen
- `/pawis/simulation/modlib/`
 - `INSTALL`
 - `README`
 - `TODO`
 - `doc/`
 - `modlib.txt`
 - `ModLib.{odp,pdf}`
 - `datasheet-template.txt`
 - `call-hierarchy.txt`
 - `src/`
 - `<module>.txt`
- `/pawis/projects/protarch/InterfaceSpecification...doc`

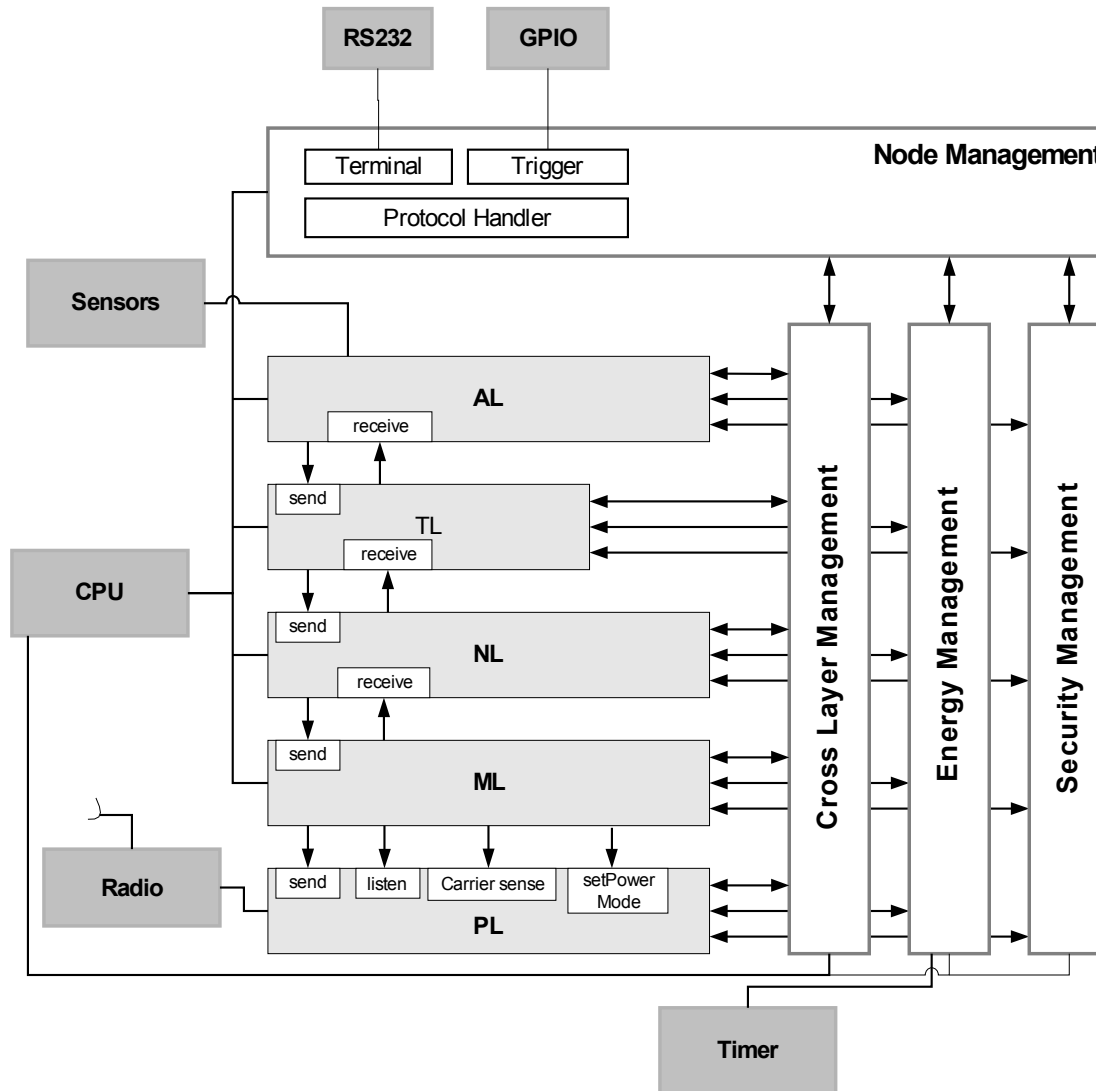
- **Module**
 - Node Functionality grouped in Modules
 - Specific Implementation (e.g., CSMA-MPS MAC)
 - Sub-Divided into Tasks
- **Module Class**
 - Class of Module Functionality
 - e.g., Phy, MAC, Routing, Transport, Application, CPU, Timer, ...
- **Functional Interfaces**
 - Remote Invocation of Tasks
 - Defined by Specification





Additionally

- Supply
- Cpu
- Adc
- Sensors
- Timer



- File names
 - e.g. `"routing-eadv. {cpp, h, txt}"`
- Class names
 - e.g. `"RoutingEadv"`
- Editor Settings
 - No Tabs
 - Indent by 2 spaces
 - Native EOL delimiters
 - EOL after last line

- Node Management
 - Initialization
 - Timer, Delays
 - Periodic Task Execution
 - Interrupt Mapping
- **class ModLib**
 - Convenience Functions
 - Clamp
 - CPU Power Modes
 - Math

- Copy modules
- Node Management: **Nm**
 - Integration
 - Initialization
 - Central Management
- Compile
- Test
- Simulation

- μ C
 - MSP430
- Phy
 - CC2400
- MAC
 - CSMA-MPS
 - S-MAC
 - ZigBee
- Routing
 - EADV
- App
 - Simple
 - CSMA-MPS
 - EADV
 - ZigBee

- Sajjad Ahmad Madani, Stefan Mahlke and Johann Glaser; **A Step towards Standardization of Wireless Sensor Networks: A layered protocol architecture perspective**; 2007
- Sajjad Ahmad Madani, Stefan Mahlke and Johann Glaser; **CLAMP: Cross Layer Management plane for low power wireless sensor networks**; 2007
- **PAWiS Interface Specification**