dresden elektronik

deCONZ

Control ZigBee Applications

Applications

- home and building automation
- health care
- node and network deployment
- general monitoring and control
- commissioning
- Over-The-Air-Upgrade

ZigBee®
Control your world

deCONZ

ZigBee is a technology which offers a comfortable solution to a wide range of low-power, low-cost wireless sensor network applications. Some popular application profiles are Home Automation, Smart Energy and Health Care, beside them and other public profiles ZigBee PRO provides the possibility to easily develop special purpose applications.

In many stages of a product development process it is necessary to interact with the devices in order to verify their correct operation. To achieve this in an efficient way often extra PC tools are built around the related application first for the developer and later for deployment, for operation and for maintenance. The control application de-CONZ from dresden elektronik is a powerful graphical tool addressing all those stages. It provides comprehensive monitoring, control and commissioning capabilities based on the ZigBee PRO specification. The application core is kept completely generic and is therefore not limited to a specific application profile. All ZigBee application specifics like devices, profiles and clusters are described in a XML file. Based on this information, the deCONZ application can generate a full functional graphical user interface for each device and any application.

Everything starting from the simple node to the full network and service discovery including an extensive book keeping of discovered nodes and applications as well as parsing and generating binary messages is handled automatically in the background. The user can interact with each node based on the information found in the XML description. To incorporate new devices, new profiles and new commands, this XML description can easily be extended with both ZigBee Cluster Library (ZCL) based profiles and plain ZigBee PRO based profiles. Binding nodes is as simple as selecting the desired clusters and execute the Bind command.

There are two versions of the deCONZ application, a free version with limited features that is available now and a professional version which will be available in 2012.

Features	Free Version	PRO Version 2012
max. nodes in GUI	5	unlimited
automatic network discovery	x	x
create / delete bindings	x	x
join as coordinator	x	x
join as router		x
free configurable end points	1	3
Security		
standard security support	x	x
high security support	-	x
ZigBee Profiles and Clusters		
ZCL cluster support	x	x
ZCL attribute reporting	-	x
Non-ZCL cluster support	x	x
Definition of own ZigBee Profiles		
ZCL profile and cluster	x	x
Non-ZCL profile and cluster	x	x
Remote Access		
GUI / API mode	-	x
Over-The-Air-Update (OTAU)		
OTAU acc. to ZigBee standard	-	x
remote OTAU support	-	x

Platform support currently available for: deRFnode/deRFmega128-22X0X

Platform support soon available for: deRFusb-13E00, deRFusb-23E00, deRFnode/deRFarm7-25X0X, deRFnode/deRFarm7-15X0X, deRFnode/deRFarm7-25X0X, deRFnode/deRFarm7-15X0X

Key Features

- comfortable full functional graphical user interface
- for monitoring, reporting, control and commissioning
- based on ZigBee PRO specification
- generic application core
- editable XML file for ZCL and vendor profiles
- easily extendable
- Ethernet based remote access

Benefits

- easy and intuitive to use
- ZigBee complexities are hidden by the generic application core
- automatic node, network and application discovery
- add new profiles without programming
- graphical user interface for cluster commands and attributes
- graphical user interface for easy commissioning

Contact

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