# **History of Changes**

# **Table of contents**

1 Version 1.2 (@date@)	2
2 Version 1.1 (06/06/2004)	
3 Version 1.0fix2 (10/11/2002)	
4 Version 1.0fix1 (08/08/2002)	
5 Version 1.0 (07/03/2002)	
J V C151011 1.0 (07/05/2002)	• • •

**RSS** 

(changes.rss)

#### 1. Version 1.2 (@date@)

- Added Modbus/BIN (new serial flavor) implementation and documentation. (wimpi)
- Added support for build depending on gnu.io and RXTXcomm.jar. (wimpi)
- Added facade/ModbusSerialMaster and associated test driver cmd/SerialFacadeTest to simplify implementing modbus serial masters. (jdcharlton)
- Added new factory method to BitVector that allows to pass a bit count. Added method to allow forcing the bit count of the BitVector instance within the limit of the byte[] store for the bits. (wimpi)
- Updated source and build script to allow dual build for normal and embedded systems. Certain API was not supported for SNAP/Tini like API's and thus needs to be avoided as long as it is not a mayor inconvenience. (wimpi)
- Refactored ModbusSerialTransport and subclasses and converted to abstract base class.
   Modified SerialConnection to set the CommPort member of ModbusSerialTransport
   which calls the prepareStreams abstract method for subclasses. Cleaned up and refactored
   RS-485 echo processing, and timeout handling. Implemented retry in
   ModbusSerialTransaction execute method. (jdcharlton)
- Refactored BitVector to ensure it works properly and is less confusing to use. The default start index (i.e. 0) will now ALWAYS refer to the LSB (rightmost bit); setStartLSB() has been removed, instead toggleAccess(), isMSBAccess() and isLSBAccess()have been added; toString() will now ALWAYS have the MSB as the leftmost and the LSB as the rightmost bit in each byte, no matter what access type has been set. This seems to be much less confusing during debugging; (wimpi)
- Refactored WriteMultipleRegisters to accept a BitVector in constructor and added a setter. The bitcount is now exclusively handled through the associated BitVector instance. (wimpi)
- Changed ModbusCoupler Singleton to static initialization and removed factory methods and its uses throughout the code (cmd package). (wimpi)
- InputRegister and Register instances in the default function messages will now be created using the factory instance obtained from the ModbusCoupler singleton. (wimpi)
- Refactored all facades to have equal and more Java like signatures for the default master function methods. The number of returned elements is ruled by the slave response, except in the case of the function for reading multiple coils and input discretes (the bitcount is forced to the number requested, as it is not contained in the slave response). (wimpi)
- Fixed problem reported as Bug #981328 "ClassCastException in ModbusTCPMaster.readInputRegisters()". (wimpi) Thanks to Markus Kuespert. Fixes 981328

#### History of Changes

(http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=981328)

- Fixed problem reported as Bug #981328 "ClassCastException in ModbusTCPMaster.readInputRegisters()". (wimpi) Thanks to Markus Kuespert. Fixes 981328 (http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=981328)
- Fixed problem reported as Bug #981332 "TCPMasterConnection: connect() and close() may throw NPE". Also udpated other connection with some basic assertions. (wimpi) Thanks to Markus Kuespert. Fixes 981332 (http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=981332)
- Fixed problem with the ASCIIInputStream read() causing troubles with invalid messages. (wimpi) Thanks to Matthew Lohbihler. Fixes <a href="mailto:990579">990579</a> (http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=990579)
- Fixed problem with the ModbusASCIITransport readResponse() (removed nonsense Unit ID check). (wimpi) Thanks to Matthew Lohbihler. Fixes <u>990586</u> (http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=990586)
- Fixed problems with the ModbusASCIIITransport LRC byte indexing in readResponse()
  and readRequest(). (wimpi) Thanks to Matthew Lohbihler. Fixes <a href="990590">990590</a>
  (http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=990590)
- Fixed problems with SerialParameters and changed everything to LOWERCASE.
   String.equalsIgnoreCase(String) is not supported in some Java 1 Implementations (like SNAP). (wimpi) Thanks to Matthew Lohbihler, Dieter Wimberger. Fixes <a href="mailto:990578">990578</a>
   (http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=990578)
- Corrected reference to point to jamod CVS in documentation menu. (wimpi)
- Fixed problem reported as bug #1025400 "CRC byte ordering in RTU mode incorrect". Note that the CRC calculation has been moved to the ModbusUtil and is also used for the ModbusBINTransport. (wimpi) Thanks to Shane Harrison. Fixes 1025400 (http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=1025400)
- Fixed problem with stream inheritance for all serial input and output streams. (wimpi) Thanks to John Charlton.
- Fixes to various places in the code where the BitVector is used. (wimpi)

#### 2. Version 1.1 (06/06/2004)

- Converted and updated documentation to XML and forrest based generation. (wimpi)
- Added Modbus/RTU Implementation (Master) (jdcharlton)
- Added Modbus Serial Echo support (RS485) (jdcharlton)
- Updated BitVector to support starting index from LSB or MSB (wimpi)
- Reduced overhead and enhanced speed by changing the way message I/O is handled (see Transportable, FastByteArray I/O) (wimpi)
- Added missing standard request and response for WRITE MULTIPLE COILS (wimpi)
- Added facades providing Modbus/TCP and Modbus/UDP master functionality (wimpi)
- Added Modbus/UDP Implementation and documentation. (wimpi)
- Updated registers and base functions to handle register content as byte[2]. (wimpi)
- Updated debug messages to be triggered by net.wimpi.modbus.debug property, that can be passed to the VM on startup. (wimpi)
- Updated LRC calculation. (wimpi)

#### 3. Version 1.0fix2 (10/11/2002)

- Updated and added a lot of documentation. (wimpi)
- Fixed Bug #610142 "ReadMultipleRegistersResponse Index" (and duplicate #616218) (wimpi) Fixes 610142

(http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=610142), 616218

 $(http://sourceforge.net/tracker/index.php?func=detail\&group\_id=48413\&atid=452989\&aid=616218)$ 

• Fixed problems reported as Bug #625113 "several bugs with fixes" (wimpi) Thanks to blah blah. Fixes 625113

 $(http://sourceforge.net/tracker/index.php?func=detail\&group\_id=48413\&atid=452989\&aid=625113)$ 

## 4. Version 1.0fix1 (08/08/2002)

- Removed console debug outputs which remained uncommented in the release 1.0 (wimpi)
- Fixed severe Bug #554158 "Transaction retry loop does not break" (wimpi) Fixes <u>554158</u> (http://sourceforge.net/tracker/index.php?func=detail&group\_id=48413&atid=452989&aid=554158)

### 5. Version 1.0 (07/03/2002)

• Initial public release. (wimpi)