Developer’s Guide to Comnet V2

Mario Garcia, Michael Wallace

This is a rough sketch of what is to come for Comnet V2, the next innovation to its predecessor.

* Introduction
* Summary
* Design Goals
* Basic Implementation
  + Basic Architecture
  + Overall layout
  + Useful features
* Basic how to Use
  + Digest Excel, xml, sheets // IN-DEVELOPMENT
  + Useful commands for logger // IN-DEVELOPMENT
  + Setting up connections
    - Communication Protocols
      * UDP
      * TCP // IN-DEVELOPMENT
      * Serial
      * XBee // NEEDS-TESTING
        + WPAN
        + ZigBee
        + Digimesh
    - Set up port
    - Set up address
  + Sending packets
  + Receiving packets
    - Callback handling
      * Return results
  + Error Handling
* Intermediate Communications
  + Loose Coupling Procedures
  + Developing manual message handling
  + Extending Abstract Packet
  + Extending Abstract Queue
  + Linking Everything to one
  + Handling “Orphan” packages
* Advanced Techniques
  + Improving overall performance
  + Advanced Loose Coupling features
    - Declaring custom allocators
      * Extending Allocator
    - Declaring custom data structures
      * Extending data structure interfaces
    - Tuning the Comms engine
    - Advanced Commands for Console log
    - Security Handling,
    - Custom Comparing
    - Custom Serialization
    - APIs for Communication handling
      * Specific sets for each protocol.
      * Defining your own protocols.
  + Future Works
    - Further Polishing
    - Compressing Packets
    - Testing Toolset
    - Publish-Subscribe Model
    - To Be Continued…
  + Conclusion
  + Index
  + Notes