AYDP Communications Protocol

In contribution to
Autonomous Yacht Development Project

Tim Brocklehurst

January 25, 2015

Contents

Chapter 1

Introduction

Chapter Text

1.1   Section Title

Hello World [2]

1.1.1   SubSection Title

Hello World [3]

Some more blah

SubSubSection Title

Limit for nested sections [1]

Chapter 2

Message Construction

An AYDP message is constructed from three basic components; a header, a data section, and a checksum. The checksum at the end of each sentence is a single byte which is the XOR of all of the bytes in the sentence (excluding itself). This checksum byte is only intended to allow the recipient to ensure that the message is complete, not to re-build any missing data.

Figure 2.1: Basic protocol layout

The header is 27 bytes long and contains the message type and length as shown in table 2.1.

Byte	Content	Data Type	Length (bytes)
1	Start (0xFF)	uint8	1
2	Message Type	uint8	1
3	Message Length	uint32	4
7	Seconds from epoch	int64	8
19	Milliseconds into current second	int64	8

Table 2.1: Header Contents

2.1   Section Title

Hello World [2]

2.1.1   SubSection Title

Hello World [3]

Some more blah

SubSubSection Title

Limit for nested sections [1]

Chapter 3

Bibliography

[1] Semiconductor National. Lm117/lm317a/lm317 3-terminal adjustable regulator. 5, 8

[2] Microelectronics ST. Lm 7800 series fixed positive voltage regulators. 4, 7

[3] Microelectronics ST. Lm7900 series fixed negative voltage regulators. 4, 7