

# GCP Specification

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May 15, 2012

## 1 Summary

GCP (Generic Communications Protocol) is intended to send data over a network in a simple, open manner. While it can essentially be used on any type of communications layer, it was specifically designed for serial networks, such as RS232 or RS485, or other networks designed to send a stream of octets. The protocol provides its own error detection, making such a service unnecessary at a lower layer.

### 1.1 Important Notes

- Throughout this document, the terms “byte” and “octet” are used interchangeably.
- All offsets and sizes listed are in octets, unless otherwise specified.
- Values consisting of more than one octet are sent most significant byte first, unless otherwise specified.

## 2 General Packet Format

All data sent over GCP is encoded using the general packet format (see table 1). The format of the *Payload* field varies depending on the type of message.

Offset	Size	Name	Value
0	2	<i>Preamble</i>	0x17, 0x01
2	2	<i>Size</i>	$n$
4	$n$	<i>Payload</i>	the payload data
$n + 4$	2	<i>CRC</i>	CRC of <i>Payload</i> (CRC-16-IBM format)

Table 1: General Packet Format