Connecting to Featherweight TCP Sockets

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# Message Structure

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Part | Length (bytes) | Type | Description | Example | Example (hex) |
| Message Length | 8 | U64 | Length of message minus these 8 bytes  Can be used to retrieve the rest of the message | 87 | 0000 0000 0000 0057 |
| Header Length | 4 | U32 | Length of header string | 9 | 0000 0009 |
| Header String | - | String | Message header | my header | 6D79 2068 6561 6465 72 |
| Body Length | 4 | U32 | Length of body string | 11 | 0000 000B |
| Body String | - | String | Message body | hello world | 6865 6C6C 6F20 776F 726C 64 |
| Sender Identity Length | 4 | U32 | Length of sender identity string | 9 | 0000 0009 |
| Sender Identity String | - | String | Name of the sending process | Viewpoint | 5669 6577 706F 696E 74 |
| Reply Address Length | 4 | U32 | Length of reply address string | 19 | 0000 0013 |
| Reply Address String | - | String | Address for replies to be sent (only used by a request socket) | tcp://1.2.3.4:56789 | 7463 703A 2F2F 312E 322E 332E 343A 3536 3738 39 |
| Error Status | 1 | Boolean | 0 = no error or warning  1 = error occurred | True | 01 |
| Error Code | 4 | I32 | Unique code for error/warning  0 = no error | -1 | FFFF FFFF |
| Error Source Length | 4 | U32 | Length of error source string | 14 | 0000 000E |
| Error Source String | - | String | Describes the error and/or source of the error | could not send | 636F 756C 6420 6E6F 7420 7365 6E64 |

Notes:

* All words are big endian
* Error information is generated by the connected application only and will not contain FTW errors

# Request Reply (ReqRep)

# Subscriptions (PubSub)

Subscribers can connect to a publisher socket to listen for one-way, lossy messages coming from a publisher process. PubSub is a 1:N scalability protocol.

## Connecting