MORETP

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1. OVERVIEW

moretp is a simple text protocol that allows embedding of binary data.

The TCP byte stream is divided into packets. A packet is a line terminated by '\n' followed by an optional binary part, representing a list of strings. When decoding a packet, lines are processed to remove leading and trailing whitespace and all other whitespace sequences are normalized to a single space. After this processing, each line corresponds uniquely to a sequence of non-empty, non-whitespace-containing words.

If any word in a line begins with "<", the rest of the word is passed to strtoul(3) to get a byte count. The total of these byte counts is the length of the binary part of the packet. To complete decoding of the packet, each word beginning with "<" is replaced by the corresponding bytes in the packet's binary part. Then the resulting word list is the decoded packet.

To encode a moretp packet, start with a list of a strings. An empty list corresponds to the packet containing a single newline. If none of the strings contain any whitespace or begin with "<", then the packet is the list joined by spaces and terminated by a newline. If any string contains whitespace or begins with "<", replace it with "<" followed by its length prior to the joining, and append the original string to the final packet. Or, do this for every string whether or not it contains whitespace.

Example 1. A moretp encoder in perl.

```
sub moretpenc {
  join(' ', map /\s/ || /^</ ? '<' . length : $_, @_) .
  "\n" .
  join('', grep /\s/ || /^</, @_)
}
```

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