The Microcosm OBJECT Message Packet:

How it is built:

byte	Value	Purpose	
+0	'Z'	(sync)	\
+1		Hammed CRC	|
+2		''	|
+3		''	\ Standard Packet Header
+4		''	/ all msgs use this design
+5		TX sequence #	|
+6		RX sequence #	|
+7	0x20	data type	/
+8	'M'	Microcosm ID byte	
+9		Sequence/Continuation byte	
+10 *		Object # (noid)	
+11 *		Request #	
+12 - 127 *		Parameters	

* = All messages are encoded starting at byte 10, so these offsets refer to AFTER decoding (as both the OBJECT # and the REQUEST # could be forbidden values).

The encoding scheme used is:
When a forbidden character needs to be sent, send an ESCAPE, exclusive-or the character with $55 and send it. The forbidden characters are: $0d,$0e,ESCAPE,$8d,$8e,$ff. ESCAPE here means $5d.
AGAIN, encoding/decoding starts at byte +10.

BYTE +8: Microcosm ID Byte

This byte will ALWAYS remain constant for Microcosm OBJECT messages. Of course, Qlink messages like 'LO' (log-off) will put the appropriate value here. 'M' is the current working Microcosm ID byte, if this is already being used by another application, plsease assign us a character.

BYTE +9: Sequence/Continuation Byte

This byte supplies 2 pieces of information, what Microcosm message number this is & 'is there more to follow?'. It looks like this:

01c0xxxx

Where:

xxxx	is the Sequence Number 0-15 (wraps around)
c	is the 'continued' flag bit. 1 = more coming

Resulting codes are printable Ascii:

@ABCDEFGHIJKLMNO	for 'not continued'
'abcdefghijklmno	for 'continued'

There is a SPECIAL Sequence/Continuation value: 'Z' (or 'z' for continued)

'Z' is used for the 'Phantom Request'. If the host needs to send an OBJECT message to a user, and the user has not issued a request. The seq/cont byte will be 'Z' (an avatar talking to the user is a good example).

BYTE +10: Object Number *

This is the NOID (see document ’Looi’). Range 0-255. Encoded.

BYTE +11: Request Number *

Range 0-255. 0-127 for general messages. 128-255 for object specific. Encoded.

BYTES +12 up: Parameters/Data *

Encoded. Object knows what to do with these.