**Nomenclature**

SCRIPT: multiple commands
COMMAND: a series (one line) of words
WORD: a text string separated by a space: value, operator, variable, pre
VALUE: a number
OPERATOR: a function, may need value(s) as argument(s), may return value
VARIABLE: named memory storage
PRE: condition/rule that applies to rest of the command: del, prob, if, s

**Parameters**

Parameters are like variables, but tied to functionality of the software or hardware. CV & TR are arrays and require an index argument. IN and PARAM provide CV and physical input into a script. Their state can be read with the listed parameters. Reading and writing is similar to variables—assignment happens when the parameter is leftmost in the command (and requires an additional argument: the value to take).

| TR A-D | set TR value (0-1)          |
| TR.TIME A-D | time for TR.PULSE          |
| CV 1-4  | CV target value            |
| CV.SLEW 1-4  | CV slew time in ms (how long to reach the target) |
| CV.SET 1-4 | set CV value directly, ignoring slew time |
| CV.OFF 1-4 | CV offset (added to CV value at final stage) |
| IN     | get value of IN jack (0-16383) |
| PARAM  | get value of PARAM knob (0-16383) |
| M      | metro time (ms). M script executes at this interval |
| M.ACT  | [0/1] enable/disble metro |
| M.RESET | hard reset metro count without triggering |
| TIME   | timer value. counts up in ms. |
| TIME.ACT | [0/1] enable/disble timer counting |
| SCENE  | read/recall scene          |

**Variables**

X, Y, Z  general purpose
T  typically used for time values, but also general
A-D  assigned 1-4 by default (for TR labeling), reassignable

**Special variables**

I  overwritten by the L (loop) PRE, but can be general.
O  auto-increments on each read.
DRUNK  changes by -1, 0, or 1 upon each read, saving state.
Q  implements a queue or shift register.

Q.N  sets the read position.
Q.AVG  will return the average of the entire queue

NB: Set Q.AVG to set the entire queue to the specified value.

**Data and Tables**

Working range is signed 16 bit: -32768 to 32767
Built-in constant tables for easy note and voltage conversion:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>0-127 equal temp semi (negatives accepted as well)</td>
</tr>
<tr>
<td>V</td>
<td>0-10 volt lookup (0V to 10V)</td>
</tr>
<tr>
<td>VV</td>
<td>0-1000 volt lookup with decimal precision (0.00V to 10.00V)</td>
</tr>
</tbody>
</table>

**Operators**

Operators take a variable number of parameters (including none) and typically return one value.

| RAND a | generate random number 0-(a) |
| RRAND a b | generate random number from (a) to (b) |
| TOSS   | return random: 0 or 1 |
| AVG a b | return average of two arguments (a) and (b) |
| MIN/MAX a b | choose lesser/greater of two inputs (a) and (b) |
| ADD/SUB/MUL a b | arithmetic |
| DIV/MOD a b | arithmetic |
| EQ/NE/GT/LT a b | logic: equals, not equals, greater than, less than |
| EZ/NZ a | logic: equals zero, not zero |
| RSH/LSH a b | shift (a) by (b), like MUL/DIV by powers of two |
| LIM a b c | clamp to a defined range: (a) input (b) min (c) max |
| WRAP a b c | wrapped range defining: (a) input (b) min (c) max |
| QT a b | round (a) to closest multiple of (b): quantize |

**Special case operators**

These act only the hardware and don't return a value.

| TR.TOG a | toggle TR (a) |
| TR.PULSE a | pulse TR (a) using TR.TIME as an interval |

NB: TR.PULSE inverts the current state of the TR output, so if the trigger is high with the pulse arrives, it will be an inverted pulse.

**Modified commands: PRE**

A PRE is a short command that modifies the remainder of a command. A PRE needs a separator (colon) to indicate the command it will act upon.

| PROB a : .. | potential to execute with (a) probability [0-100] |
| DEL a : .. | delay (postpone) command by (a) ms |
| DEL.CLR | kill all delays |
S : ..
S.CLR
S.ALL
S.POP
S.L
IF a : ..
ELIF a : ..
ELSE ..
L a b : ...

Patterns

P a
P a b
P:N a
P:N a b
P:N a b c
PINS a b
PRM a
PPUSH a
POP

Remote

White Whale

II WW.PRESET
II WW.POS
II WW.SYNC
II WW.START
II WW.END
II WW.MODE
II WW.PATTERN
II WW.QPATTERN
II WW.MUTE1
II WW.MUTE2
II WW.MUTE3
II WW.MUTE4
II WW.MUTEA
II WW.MUTEB

Meadowphysics

II MP:PRESET
II MP:PRESET
II MPSYNC
II MP:MUTE
II MP:UNMUTE
II MP:FREEZE
II MP:UNFREEZE

Earthsea

II ES.PRESET
II ES.MODE
II ES.CLOCK
II ES.RESET
II ES.PATTERN
II ES.TRAN
II ES.STOP
II ES.TRIPLE
II ES.MAGIC

monome teletype
algorithmic ecosystem
http://monome.org/docs/modular