**The Matrice Interpreter**

The interpreter is the piece of software that reads the Matrice byte code and performs the relevant action.

Each byte represents one instruction, which is an action performed by the interpreter.

The instructions are:

|  |  |  |  |
| --- | --- | --- | --- |
| **Byte** | **Name** | **Parameters** | **Description** |
| 0x00 | init | size | Initialises the array to the given size |
| 0x10 | left |  | Moves the index to the left (-1) |
| 0x11 | right |  | Moves the index to the right (+1) |
| 0x20 | write |  | Writes the memory to the current index |
| 0x21 | read |  | Puts the value in the current index into memory |
| 0x30 | put | num | Put the given num into memory |
| 0x40 | info |  | Prints the array info to the system terminal |
| 0x50 | add |  | Add the value from the current index to memory, and store in memory |
| 0x51 | neg |  | Multiply the memory by -1 |
| 0x60 | ifnull |  | Perform the next action only if the memory is null (zero) |
| 0x61 | ifpos |  | Perform the next action only if the memory is positive (not including 0) |