

# LOGIC FACTORY

## CHEAT SHEET

### FILE HANDLING

#### LOADING

To load a file, select the Load File button in the right-hand corner, which will prompt you to select a JSON file from your system.

#### SAVING

To save a file, select the Save File button in the right-hand corner, which will prompt you for a filename, then downloads as a JSON file.

### OBJECTS IN WORLD

#### LIBRARIES

A library can be selected in the top-right corner, which defines the set of objects that can exist in the world at one time. You can select an object from the TYPE dropdown box and a set the colour for a Geometry object from the COLOUR dropdown box, then click 'Add Object' to add it to the world.

#### MANIPULATING OBJECTS

Manipulate objects by using the following buttons: 'Bigger', 'Smaller', 'Copy' and 'Remove'. You can dynamically change the Name variable of an object using the NAME textbox. All these manipulations can be used as fields in expressions.

### EXPRESSIONS

#### WRITING

Use the logic buttons to write your expressions, hover over the buttons to see tooltips & shortcuts. Write expressions about objects you've added to the world

#### FIELDS

The fields that objects have include: type, width & height or radius, size, x, y, colour and name. The colours are: red, green, blue, orange, yellow, purple, brown, black and white.

#### ADDING

To add an expression to the expression list, click 'Add Expression'. To delete, click 'Clear Expression'.

#### EVALUATING

To evaluate an expression to true or false, click Go!

#### EXAMPLE

$\exists x, y \bullet x.size > y.size \wedge x.type \neq y.type$

"There exists object x and y such that x's size is greater than y's size and x's type does not equal y's type"