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Cubix

Usage:

Our language could be used by beginners who want to improve their skills in Rubik's cube solving. It would be translated into x3dom library expressions and after code execution as a result in the browser would appear a 3D 3x3x3 cube and it could animate and present some moves or whole algorithms.

Data types:

Cube, Move, Algo, Num, Setting, Array

Build in functions:

cube.exec(algo, [optional delay in ms]) → cube executes algorithm
cube.exec(move, [optional delay in ms]) → cube executes single move
show → stdout

Type: var_name = value

1)

Cube: cube1 = cube(solved) –> generates 3D solved 3x3x3 cube

Cube: cube2 = cube(mixed) –> generates 3D mixed 3x3x3 cube

Cube: cube3 = cube(Setting s) –> generates 3D 3x3x3 cube with specific setting

etc.

2)

Move: move1 = L

Move: move2 = L2

etc.

Possible values: R, R2, R', r, r2, r', L, L2, L', l, l2, l', F, F2, F', f, f2, f' B, B2, B', b, b2, b', D, D2, D', d, d2, d', U, U2, U', u, u2, u', M, E, S, x, y, z

3)

Algo: algorythm1 = [R, R2, move1, x]

4)

Setting: sett1 = [

Red = {r,r,r,r,r,r,r,r},

Green={g,g,g,g,g,g,g,g},

Blue= {b,b,b,b,b,b,b,b},

Yellow = {y,y,y,y,y,y,y,y},

White={w,w,w,w,w,w,w,w},

Orange={o,o,o,o,o,o,o,o}
]

5)

Array($Algo): arr1 = [algo1, algo2, algo3]

6)

Num: n = 5

“for i”

loop n times : cube1.exec(algo)

loop n times : cube1.exec(move1)

loop n times : cube1.exec(algo) + cube1.exec(move1)

“for each”

loop in arr1 using item : cube1.exec(item)