

This is a start on a specification of a language for virtual reality. I hope that other people will expand on this and turn it into a complete language specification, listing all of the common objects and interactions with them. The idea is to provide a framework from which a virtual reality browser can be developed, that interprets the language and creates an interactive 3D world from it.

First Draft: 2011 May 22, Jevan Pipitone

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Start Time 5:00:00

// for system hr:min:sec<p>

Actions

5:00:00 person1 run at speed 5 to bed(1)

// takes shortest path to object bed1

// run, walk, hop

// hop on left foot

// hop on right foot

// speed 1-9, 9 is fastest

Definitions

[plainColour]: red, blue, green, orange, brown // etc

Objects

// specifies objects and their initial positions

person1 {

hair: orange, short

// hair is any of [plainColour], short, long; defaults to short, brown

beard: moustache // moustache, none (defaults to none)

height: medium // tall, medium, short (defaults to medium)

body: average // slim, average, overweight (defaults to average)

start position: P(Bedroom:B1)

R(0) // rotation clockwise in degrees about centre back

// R(0) is object facing most natural direction & sitting on

// most natural or default side e.g. a bed at R(0) faces with end closer

// to bottom of screen

}

Bed(1) {

Blankets: blue, blue, yellow // [plainColour] or mickeymouse

// blankets: bottom first, top last

Size: single // double, queen, king, king single

Material: wood // metal

Colour: black // [plainColour]

Start-position: P(Bedroom:Y10-D10)

}

Wardrobe {

Start-position: P(Bedroom:A1-A20) R(0)

Number of doors: 3

Door(3): mirror outside // or inside

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}
Coathanger(1) {
    Start-position: attach to wardrobe:door(3):handle
}
Shirt {
    Start-position: Bedroom:on coathanger(1) method hung
    // or "on bed(1)" (implies on top of topmost blanket if any)
    // or "on chair(1):seat", or "on chair(1):back"
}
Tablecloth {
    Start-position: Bedroom:on table method draped // or "on keyboard"
    // "method folded" or "method scrumpled"
}
// coordinates for Start-position are presently defined as from A1-Z26. Before the
// coordinate is the name of the room eg bedroom, bathroom, loungeRoom.
// Objects such as bathroom mirrors are automatically mounted with some
// height, its position on the wall left/right/middle is specifiable.
// can have multiple objects in the one coordinate, these will be
// rendered as existing side by side to each other or nearby.
Bedroom:Wall(1) {
    Window(1): {
        span 90% // what percentage of the room width it takes up
        Align centre // or right, or left
        Curtains: {
            Colour green // [plainColour]
            Pattern: wavylines // or solid
        }
    }
}
Bedroom:wall(2) {
    Door(1): {
        align right
        Type swinging // or sliding
        Start-position: bedroom:A26
    }
}
Bathroom:wall(2) {
    Mirror: span 50% align left
}
shower {
    Start-position: bathroom:A1
    Screen: nearest bathroom:wall(1)
    Curtain: nearest bathroom:wall(2)
    // shower is always in a corner of bathroom, shares 2 walls tiled
}
roofConditioningUnit {
    heater:no
    fan:yes
    heatLights: 4 // number, or no
    light: yes
}

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start-position: on bathroom:ceiling // or bathroom:wall(1), bathroom:wall(2),  
// bathroom:wall(3), or bathroom:wall(4)  
Near bathroom:wall(1):door(1) // or wall(1):door(2) or centred  
// or near wall(1)

}