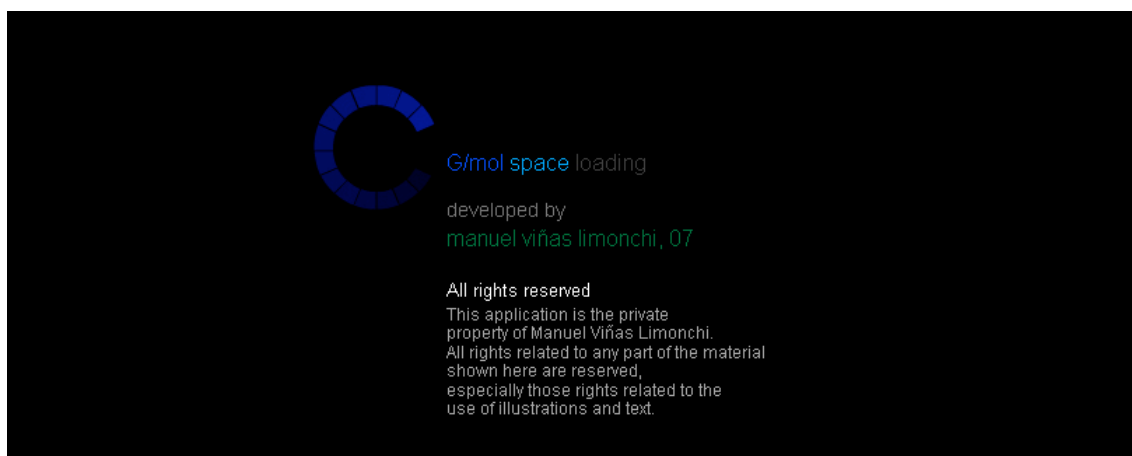




## G/MOL SPACE PROJECT BETA 1

MANUEL VIÑAS LIMONCHI, 2007  
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## THE IDEA

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### > First decades of the mid 20th Century

At that time, the objects were modelled and visualized on the computer screen using "simple" lineal structures formed by a single colour. Scientific disciplines like biology appealed to computing representation methods in order to solve calculations related to the continuous mutation of the graphic compositions characteristic of their analysis models.

Ivan Sutherland (Lincoln Laboratory, MIT) developed the precursory system of the current procedures CAD, the Sketchpad in 1963. GUI, a graphic user interfaz, is able to accurately express the morphology of the represented object and its different parts; arising thus what today we know as "Object-Oriented Programming".

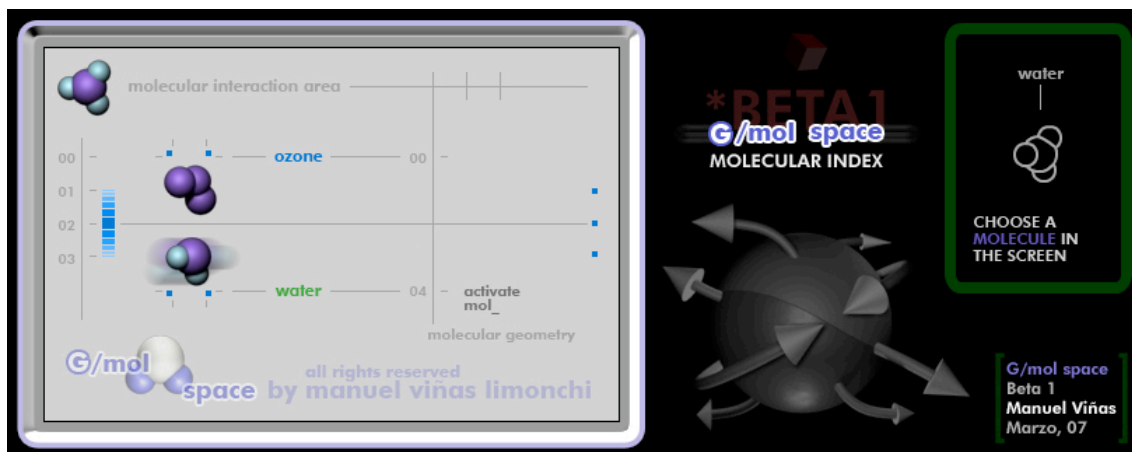
Nevertheless, the computing technique should notably advance in order to get, on the one hand, better results to graphically represent the most realistic side of what we can see and/or imagine, and on the other, voluntarily interact with its material components, thus creating an argument that only a discipline belonging of technological knowledge could make effective: Virtual Reality.

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> 2007

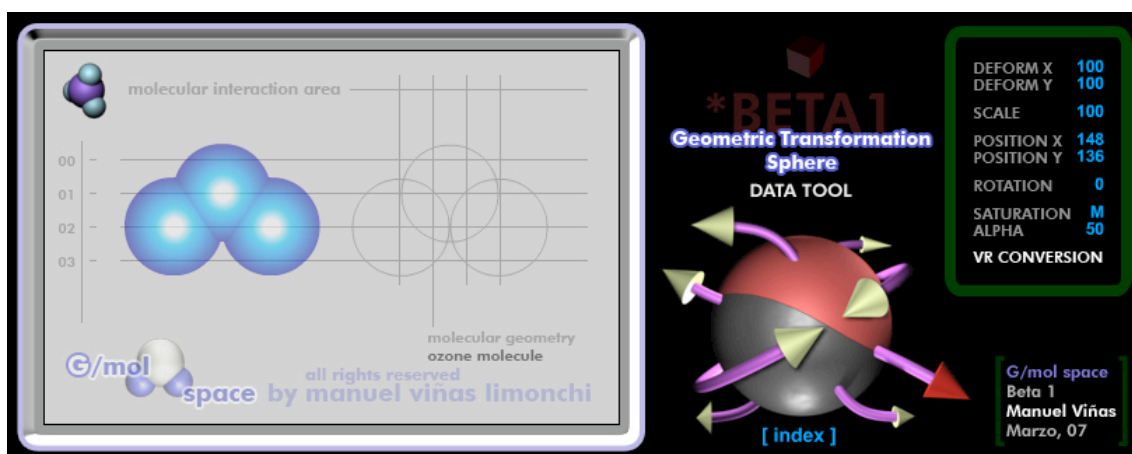
The G/mol Space experimental project brings us nearer to Virtual Reality, and takes the morphology of the molecular shapes as initial reference... those structures revealed decades ago as the visual and interactive genesis of graphic computing.

G/mol Space is a non profit-making investigation project. With it, its author, Manuel Viñas Limonchi, opens an experimental space within graphic computing and Virtual Reality... a place where researchers and professionals can expose their opinions and knowledge on the analyzed matter.



## G/MOL SPACE Beta 1

Although the digital application inserted here (the graphic interface located at the top) is an small initial beta, some of the essential concepts of certain 3D type interventions appear in this application. Thus, the space, the user-machine interaction and the stereoscopic visualization related to the three-dimensional model become G/mol Space's main objective.



## USING THE INTERFACE

In order to begin working with the shape in the graphic interface it is necessary to know the necessary tool.

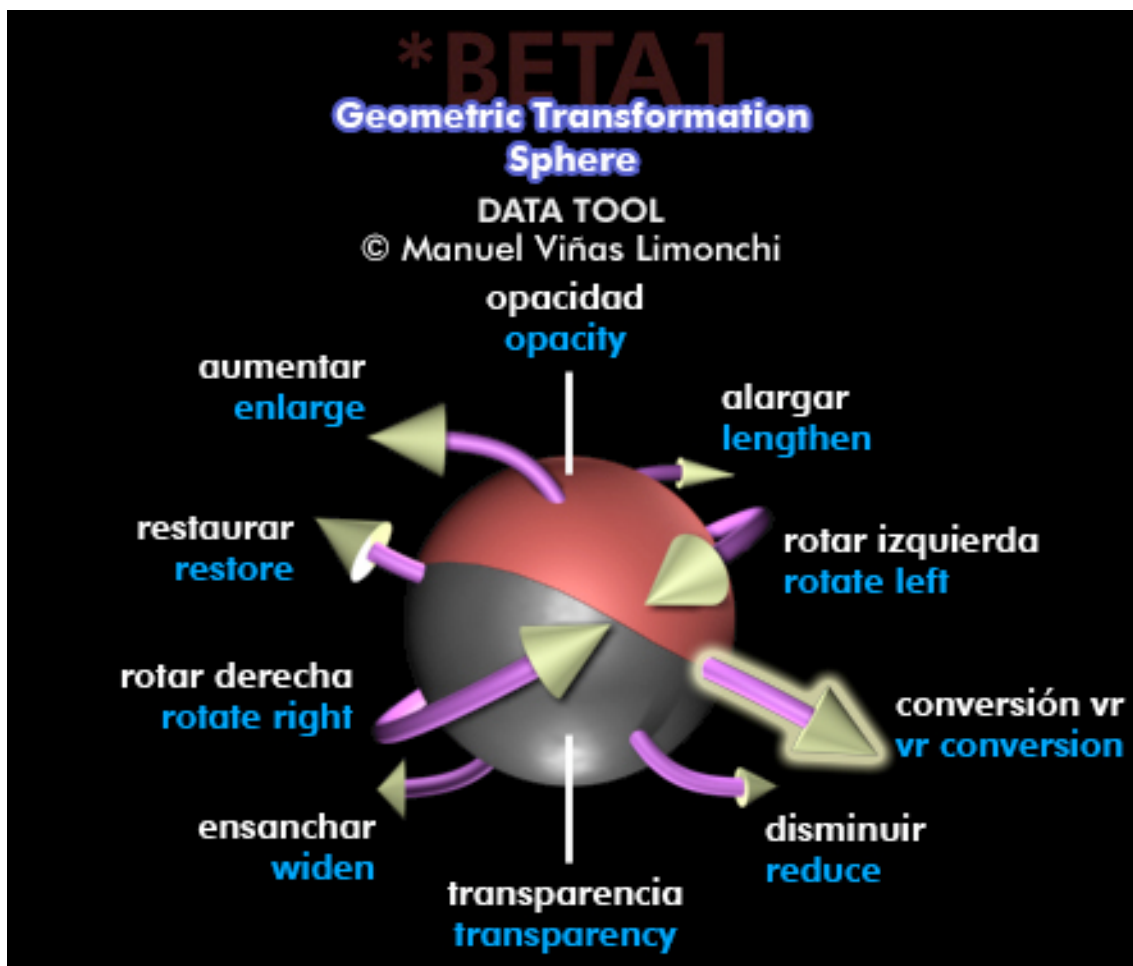
First, we must (1) to select -in the index screen- the necessary molecule (ozone or water) to manipulate within our particular morphological, spacial and visual research.

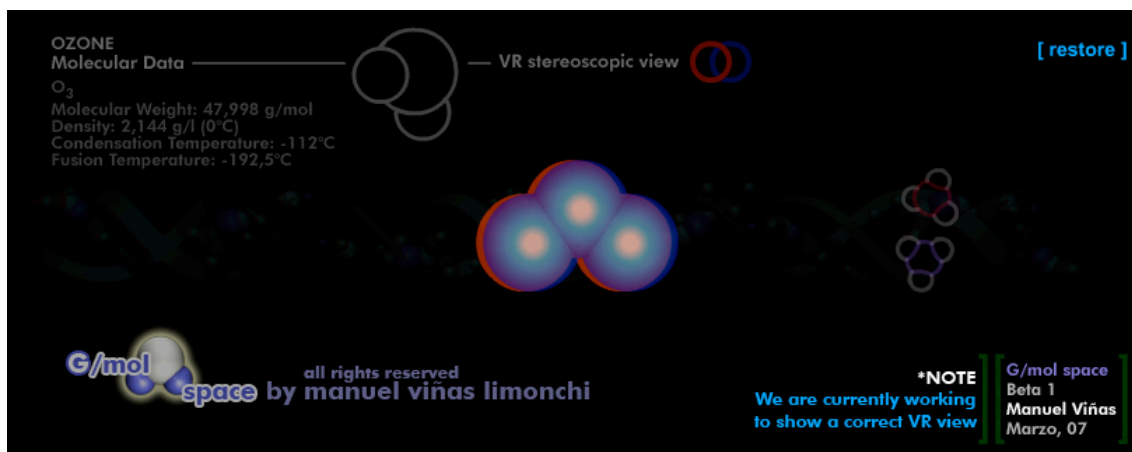
Afterwards, in order to make spacial changes, you will be able (2) to move the selected molecule by pressing and dragging it with the mouse inside the "molecular interaction area", situated on the left-hand screen.

You can also (3) apply different geometrical transformations to the molecular structure (this data is shown on the screen located on the right-hand side of the interface). This is done using a device named GTS (Geometric Transformation Sphere). GTS tool can be use only when it's colored. The different actions that must be carried out using this device are shown in the following illustration.

(4) Once the desired modifications have been applied, it is possible to transform the molecule's visual appearance into a stereoscopic image by pressing "vr conversion". I am currently working on showing a correct VR image by changing its stereoscopic, parallel and chromatic characteristics.

(5) To return to the main index, press "restore".





## COLLABORATION

Given that this is an experimental project that will progressively evolve, any contribution or comment will be useful and appreciated.