The Spherical Projection Interface (SPIN) is a ball in which a person can walk, with projections from outside showing virtual spaces. The freedom to move in all directions and the capacity to navigate simply by walking enable a complete, intuitive and body-based immersion in virtual spaces. The applications developed by Time's Up are generated by the bodily functions of the visitors. Every journey in SPIN is thus a unique and very personal experience.
The segments of the sphere are constructed from a special plastic. The segments are attached to one another to form a three meter diameter sphere supported by the base. A removable pole cap is the entrance. The large ball lies on nine smaller balls, which themselves are mounted for freedom of rotation. In the base there is a brake ring and sensors to detect the motion of the ball.

The base is steel and weighs in excess of 500 kg, the ball itself around 270 kg.
Four projectors are mounted around the ball and adjusted, an optional fifth can be used from above. The spherical surface of the ball makes it necessary to distort the projected image in advance. Standard computers are used to generate the virtual worlds. The software developed specially for SPIN by Time's Up distributes the calculations of the projectors over six computers and calculates the distortion in real time. A step in the virtual space of the ball causes an immediate change in the panorama.

Spherical Projection Interface
The visitor enters via steps into the opened sphere. The visitor is in contact with the outside world via a wireless communications device. An assistant from Time's Up closes the ball and releases the brake. In the first moments of the journey the visitor feels the physical borders of the space of the ball. Then the projected images open the horizon. The virtual space draws attention to it and lets the sphere, and with it the physical world, fade out of perception. Intuitive navigation through simple walking allows a complete immersion in the artificial world after a rather short time.

SPHERICAL PROJECTION INTERFACE
The body and its biomechanical properties are not only important in the development of the interface SPIN but also in the virtual worlds we present therein. In the virtual worlds with the title “BODYSPIN” Time's Up undertakes a further step towards breaking down the barriers between human and machine.

*BODYSPIN* uses function values such as breathing, pulse frequency and muscle activity to control the parameters of a virtual world generated for the visitor. Thus one finds oneself in the paradoxical situation of a race against one's own pulse, where the effort of running raises the pulserate, thus making the opponent faster and giving them the advantage. A journey to the core of your physicality!

*SPHERICAL PROJECTION INTERFACE*
BODYSIN

Brain Maze
A labyrinth with complexity that rises and lowers to match the stress level of the visitor. The visitor starts in the middle of the labyrinth, all walls lowered. The goal is the edge of the plain. A stress level is measured and is used to raise and lower walls in the labyrinth. A higher stress level makes escape harder. Stay calm but alert!

SPHERICAL PROJECTION INTERFACE
BODYPIN

Breath Surf
A virtual ocean, with waves generated by the breathing of the test person.
The visitor finds themselves floating in the middle of a sea, the horizon in the distance. With a deep breath a wave is generated, upon which the player can ride towards the beach. The height and speed of the waves is dependent upon the breath of the visitor. Conscious breath control with bodily activity is needed. Reach the Beach!

SPHERICAL PROJECTION INTERFACE
Pulse Race
A race track is extended with every pulse, the goal retreats beat for beat into the distance. The visitor races with their own pulse. A balance between maximal speed and minimal effort must be found in order to keep the pulse rate low enough that the visitor has a chance to catch up. A race with one's own pulse. Chase your heart!
Interfaces from human to machines have been investigated for decades. A phase of excitement followed by the disappointment of realisation. The dream of a bodiless experience, the gnostic upload in a digital world, is attractive in the imagination, but dull in the realisation.

The Spherical Projection Interface is, in factors of concept, function and implementation, the best and most logical human-machine interface in existence.

Actually visiting virtual spaces, with the visitors body within the world, is the goal. This enables a degree of immersion that can only be dreamed of with other interfaces.
The main goal of Time's Up is the composition of experimental situations. With a concentration upon the active involvement of the visitor, Time's Up constructs interdisciplinary media space filling projects. Intuitive interfaces combined with legible applications are developed and constructed in the harbourside laboratories in Linz. The productions speak for themselves:

http://www.timesup.org/productions

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