REF LIFT

$C\,E$ Class I Medical Device

User manual

Distribution mode
Available for direct download at
http://virtualisvr.com/espace-client/
Use under licence

VIRTUALIS

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DESCRIPTION

LIFT is an immersive 3D simulation software based on virtual reality technology, meaning a person can be immersed in a digitally created artificial world. Realistic elevator simulation software used to actively desensitize patients, who must move forward and face their fears.

INDICATIONS

Fear of heights (Acrophobia). Claustrophobia (with wall opacification).

Vestibular treatment with "realistic" vertical scrolling

CONTRAINDICATIONS

Epileptic patients, children under 15 years of age, pregnant women

FOR USE BY

Healthcare professionals: Physiotherapists; Occupational therapists; Neuropsychologists; ENT doctors; Neurologists; PMR doctors (physical medicine and rehabilitation), etc.

Research Centres: CNRS, CHU, INSERM, etc.

WARNINGS AND CAUTIONS

During sessions, stay close to the patient in order to anticipate any loss of balance or discomfort caused by the use of virtual reality.

Define a working area of about 3m² to allow for risk-free movements.

Take a 10 to 15 minute break every 30 minutes of use.

Potential adverse effects are those due to the use of Virtual Reality, namely vomiting, malaise, dizziness, syncope.

The accessories required to use the software may emit radio waves that can interfere with the operation of nearby electronic devices. If you have a pacemaker or other implanted medical device, do not use the product until you have taken advice from your doctor or the manufacturer of your medical device.

⚠ *Any serious incident should be notified in writing to* qualite@virtualisvr.com

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1. GENERAL

1.1. Advice for use

Immersion in Virtual Reality is a powerful tool, especially for stimuli that can-induce sensory conflicts

These stimulations have the potential to cause certain disorders: Vasovagal syncope, epileptic seizures, migraines, etc. (Despite a test phase on more than 2000 patients, similarly to previous generation optokinetics, caution is required).

This type of re-education must be undertaken progressively, especially in Virtual Reality where the stimulation is "powerful".

The contraindications are identical: Mainly epilepsy and migraines.

As postural reactions can be spectacular, it is VERY STRONGLY advised to place patients in a safe environment and to stay close to them throughout the session.

It is also recommended to increase the duration and intensity of the stimulation very gradually, after an initial short session to make sure of patients' tolerance to this type of stimulation.

The treatment of motion sickness is by "habituation", so symptoms felt during transport must be re-created very gradually. It is absolutely essential to interrupt the session when the first symptoms appear, usually "sweating". Accepting that some motivated patients wish to go further would be counter-productive. It is up to the healthcare professional to "dose" the immersion to avoid causing neurovegetative symptoms. This type of symptom may intensify during the hour following the session.

Virtualis declines any liability for any disorders suffered by patients during or after use of its software.

1.2. Hardware and minimum configuration requirements

Hardware required to use the system:

- VR Ready PC
- VR System: HTC VIVE, HTC VIVE Pro or compatible system
- Lighthouse bases (HTC VIVE tracking)
- Thrustmaster T150 Wheel and pedals
- XBOX 360 Controllers
- USB HUB

In order to install and use our virtual reality applications, we recommend a configuration equal to or higher than the system requirements:

2. USE OF PATIENT MANAGEMENT

Once connected to the Patient Management software, you arrive on the home page. It is from this home page that you will be able to start your VR software as well as the other Patient Management functions.

The software can be grouped according to criteria such as "Assessment" or "Re-education" and then by pathology type: Neurology, Balance, Functional or Kinetosis.

CINETO VR software contains the following modules: Lift, Reading (sway referenced), Car Simulation, Sea Simulation and Waves (sway referenced).

You can start or switch from one software to another from the home page by clicking the corresponding "Start" or "Protocols" button.
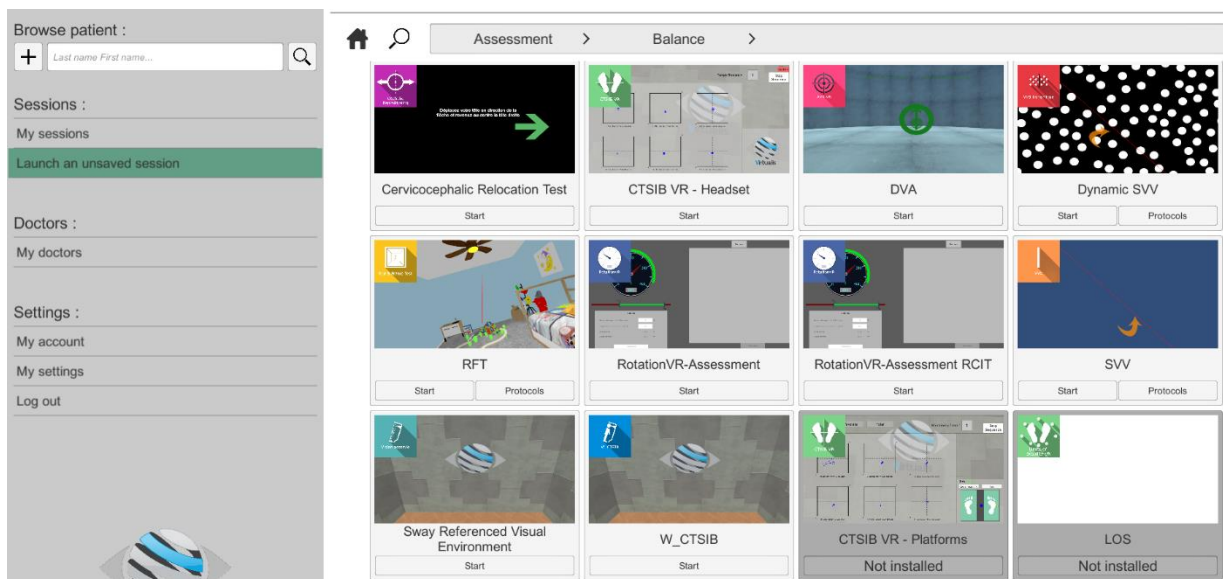

Some software can be started either in **_manual mode_**, by directly clicking the "Start" button, or in **_protocol mode_** by clicking the "Protocols" button.

The *manual mode* allows users to choose the settings for each environment. The *protocol mode* offers several sessions with different difficulty levels to test and gradually accustom patients to the VR environment.
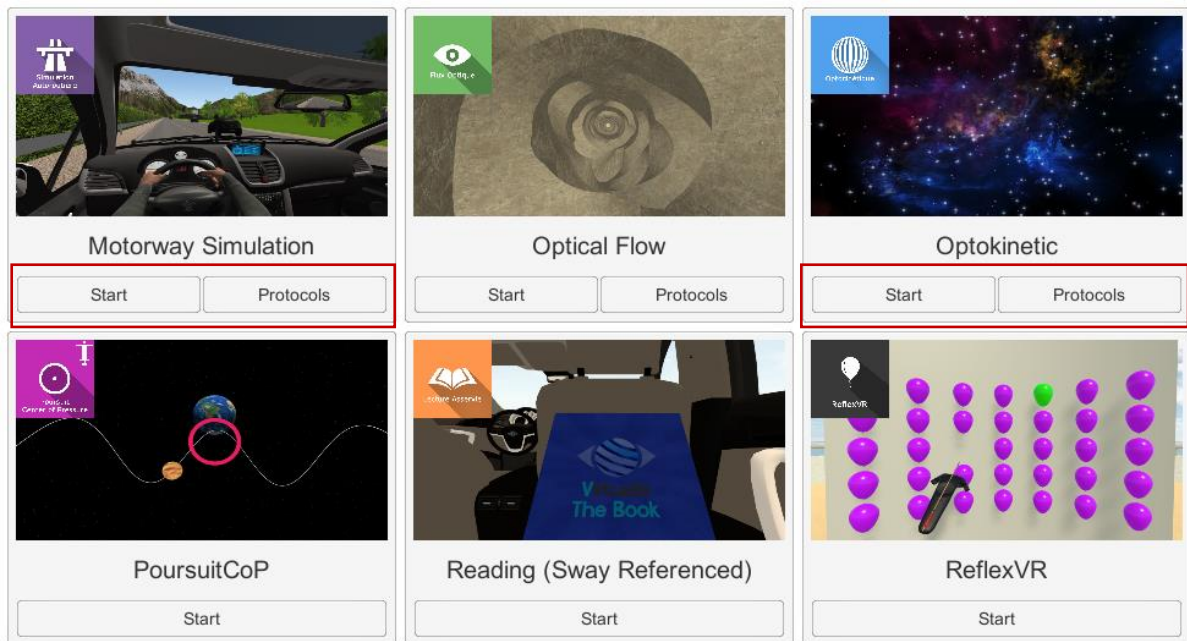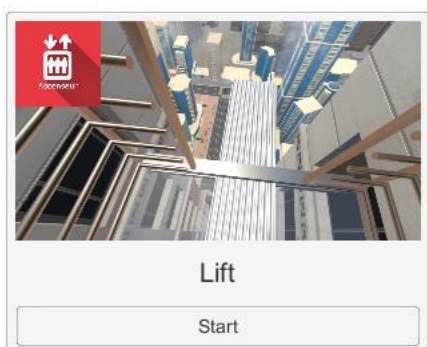

Software that is not part of your subscription package is greyed out. If you want to use it, please contact our sales department.
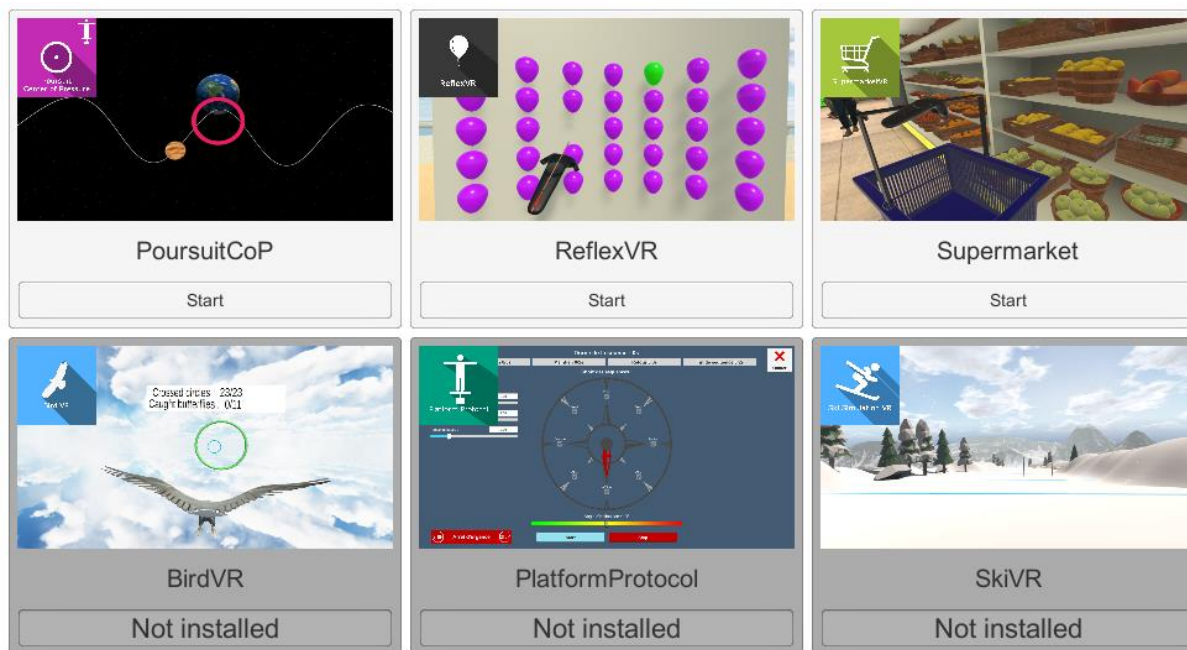
3. LIFT

3.1. Start interface

When starting the software in *manual mode* ("Start" button), the opening is made in a start interface, consisting of a module selection menu on the left, a set up area on the right, and an action area at the bottom right.

Depending on the module selected in the left menu, the set up area shows the various possible settings/information.

The general Patient Management menu can be accessed from the start interface by simply clicking the "Back" button located in the action area, or by pressing the "escape" key on the keyboard.

The module is launched by simply clicking the "Start" button in the action area.
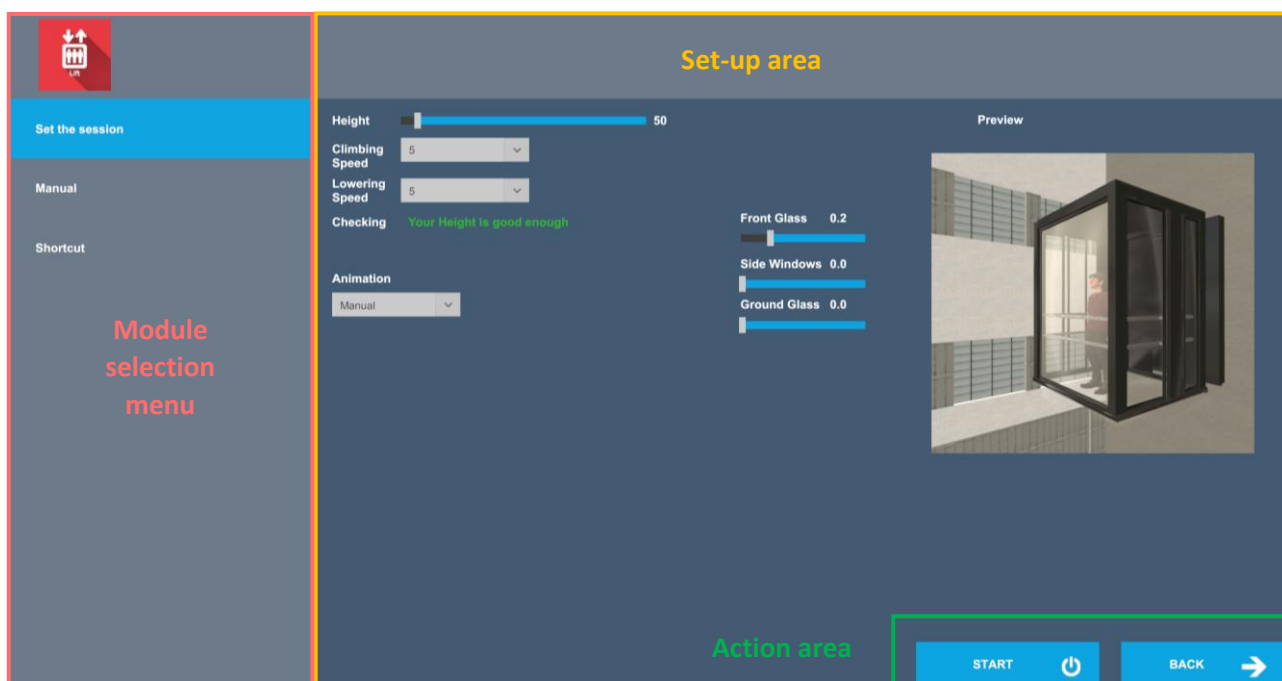
Once this button is pressed, the module starts by taking into account the specified settings. You also have the possibility to modify some settings when the module has been launched, using the mouse.

The Start/Quit buttons allow the environment to be played back or stopped entirely to adapt the experience to the patient's sensations.

Once an environment has been selected, it launches in the headset, and you can see and track what is happening in your patients' headset from the software window.

3.2. Module field of application

Extra-module designed to simulate vertical linear acceleration sensations.

When patients turn 1/4 turn facing the wall, makes it possible to carry out vertical optokinetic stimulations.

Used to very gradually simulate by playing on the transparency of the windows, especially the ground, the height of course, the climbing and lowering speed, the possibility for patients to move forward (interest of the Positional Tracking infrared camera), the duration at "the top" (in Fixed mode) etc.

When lowering speed is high (with sufficient altitude), it is common to feel abdominal sensations when decelerating (normally due to visceral graviceptors).

The repetition of these sensations can be nauseating and thus participate in the desensitization of seasickness (vertical linear oscillating movement).

3.3. Installing the patient

Use in the standing position.

3.4. Session settings

This module has many adjustable options: leave the mouse on the question marks in front of each option to display detailed explanations.

The variable settings for this module are as follows:

Height

The height to be reached by the lift is entirely configurable by direct adjustment of the corresponding cursor using the mouse.

Ascent / descent speed

The lift ascent /descent speed is selected directly from the drop-down menu**.**

Checking

This setting indicates whether the selected lift height and speed values are correct.

Animation

Possibility of choosing a manual or loop animation. In loop mode, the lift automatically moves up and down.

Front / Side / Ground Glass

Lift window opacity can be set by directly adjusting the corresponding cursors using the mouse.
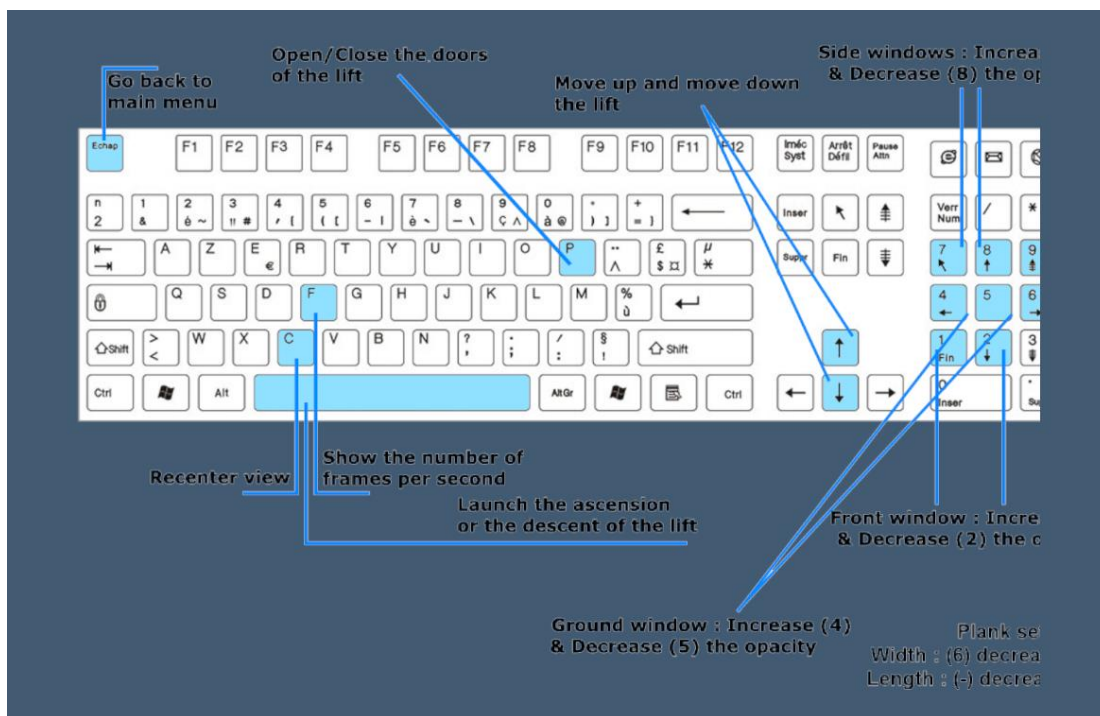
Lift door

Use of the lift with the door open or closed.
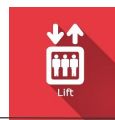
Board length and width

Possibility of adjusting the board size in real time.

3.5. Shortcuts

Keyboard or joystick shortcuts can be accessed in two ways:
- on the "Shortcuts" tab available at the start interface level
- within the module, by clicking on the joystick icon in the top right corner of the screen

3.6. Data processing

Data retrieval and analysis uses the Patient Management software.