



Erasmus+

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04 - Handbook for VR WAMA 3D Virtual Learning Environment (Short)

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1 THE VR WAMA 3D VIRTUAL WORLD: HOW DOES IT WORK?

1.1.1 Account Creation

You can create an avatar account (Firstname, Lastname, Password) here:

<http://vrworld.sch.gr:9020/wifi/user/account/>

In the language field, you can select one of the available languages.

VRWAMA Virtual World
Improve the Efficiency and the Attractiveness of Environmental Engineering and Waste Management Training with Game Based Virtual Reality

VRWAMA

Create new account

First Name: (*)

Last Name: (*)

Email:

Password: (*)

Retype password: (*)

Language:

- English
- Greek
- Italian
- Romanian
- Slovak

create

Main menu

- HOME
- CREATE ACCOUNT

Login

FIRST NAME

LAST NAME

login

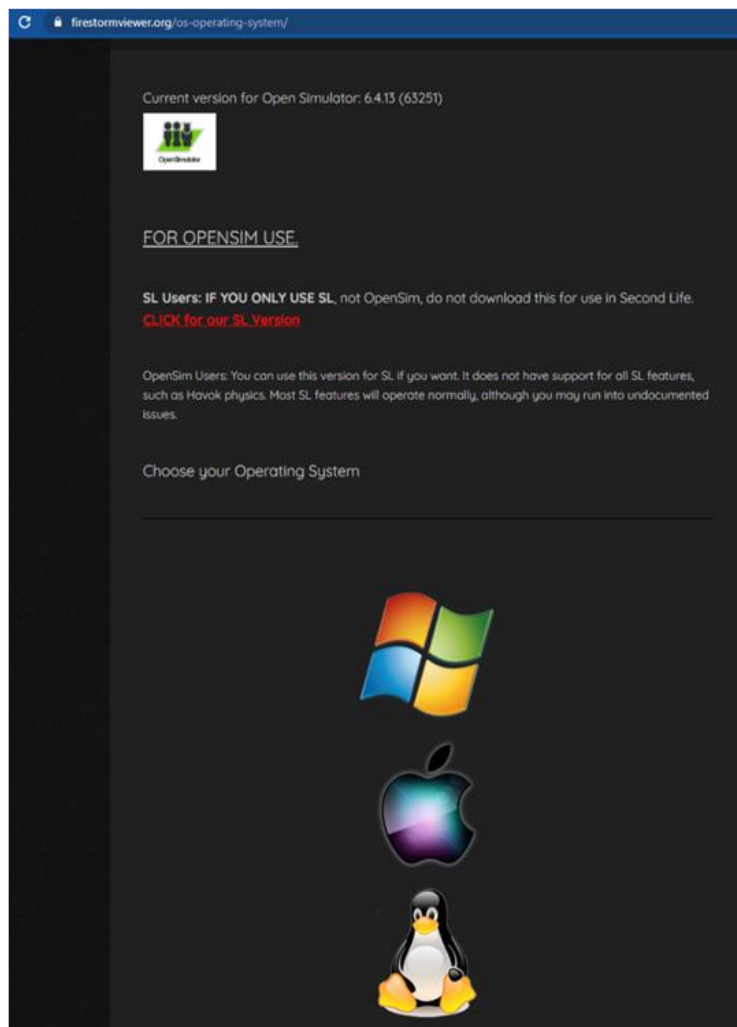
forgot password

VRWAMA

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1.1.2 Installation and Initial Configuration

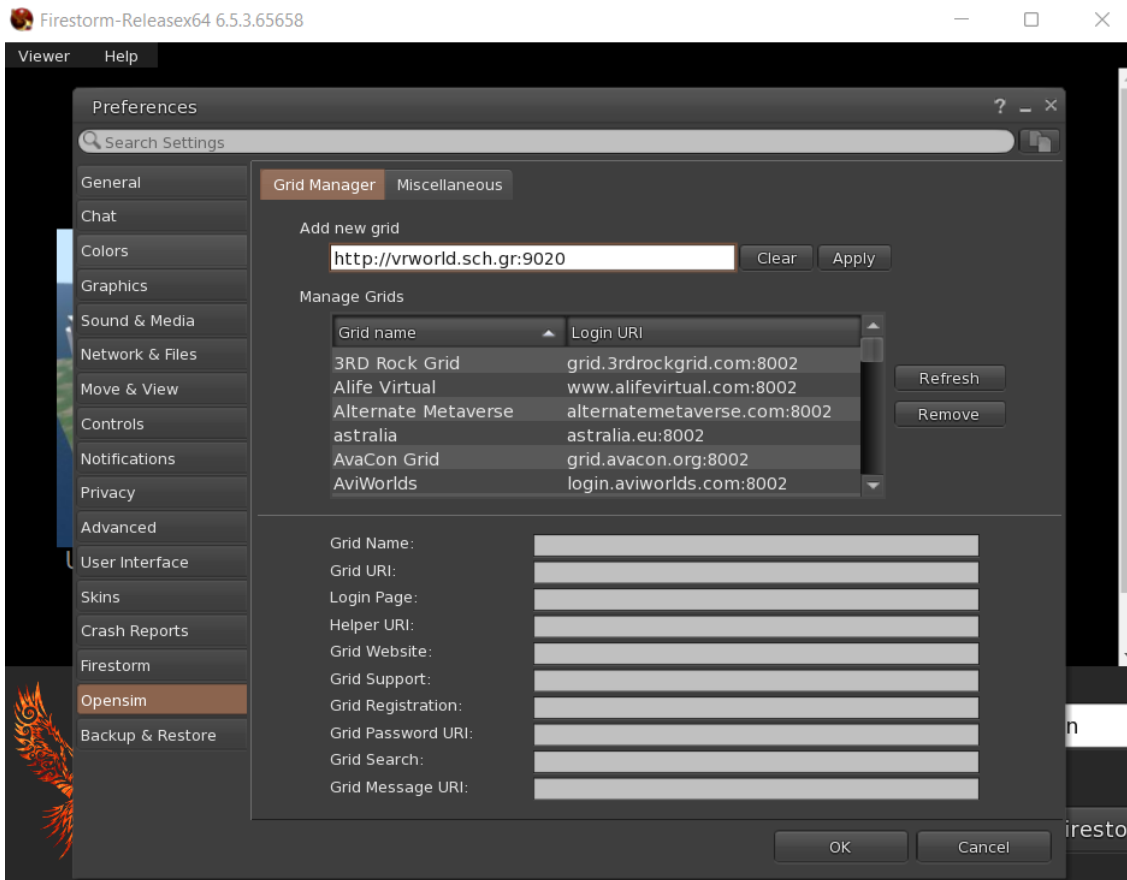
To connect to the 3D World with that avatar you need 3D Viewer Software such as Firestorm or Kokua. We recommend using Firestorm. You can download the version for OpenSim here: <https://www.firestormviewer.org/os-operating-system/>
Select your Operating System and download the suitable version.



Once you have downloaded, installed, and opened Firestorm, you need to add the VRWAMA 3D World in the list of available destinations (you only do this before connecting for the first time):

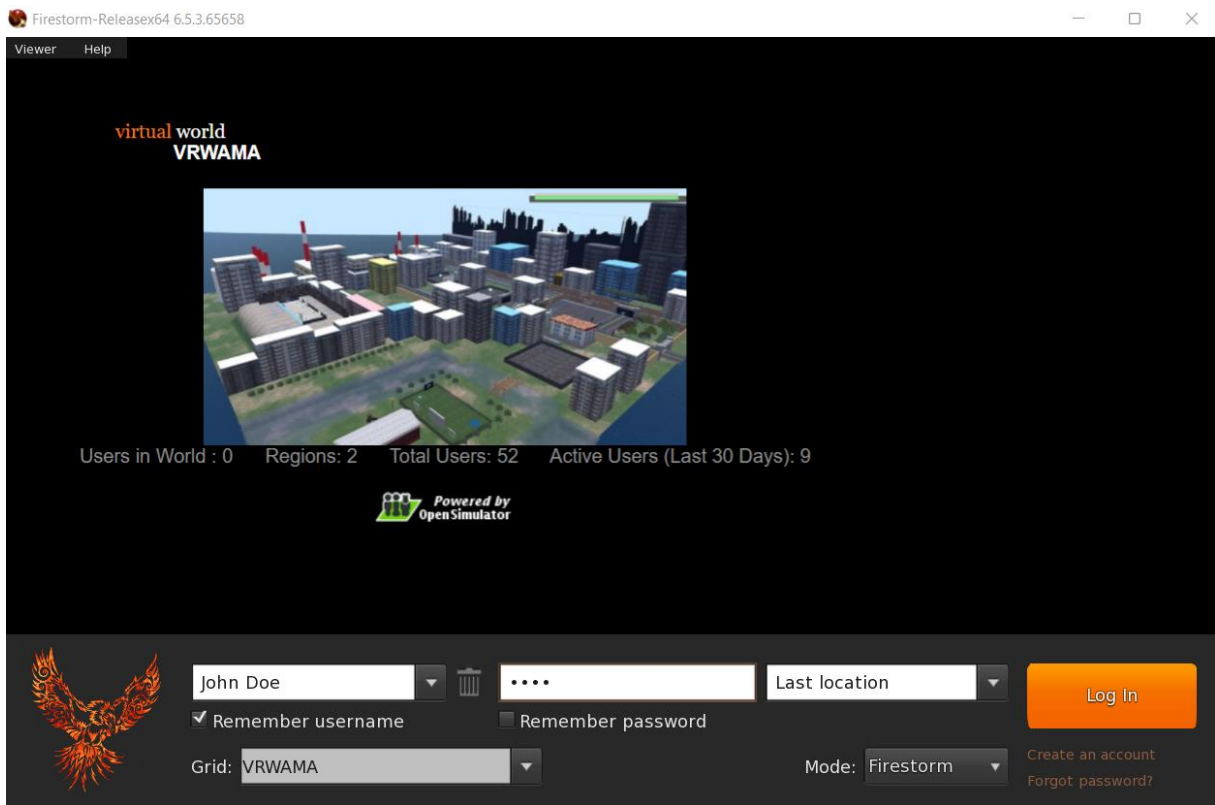
1. Viewer -> Preferences -> OpenSim

2. Add new grid: **http://vrworld.sch.gr:9020/** then click 'Apply' and 'OK'



1.2 Connecting to the 3D World

Use your username "Firstname Lastname" and password and select the "VRWAMA" grid from the drop-down menu. Click 'Log In' to enter.



After a connection is made you will be inside the virtual world with your avatar.



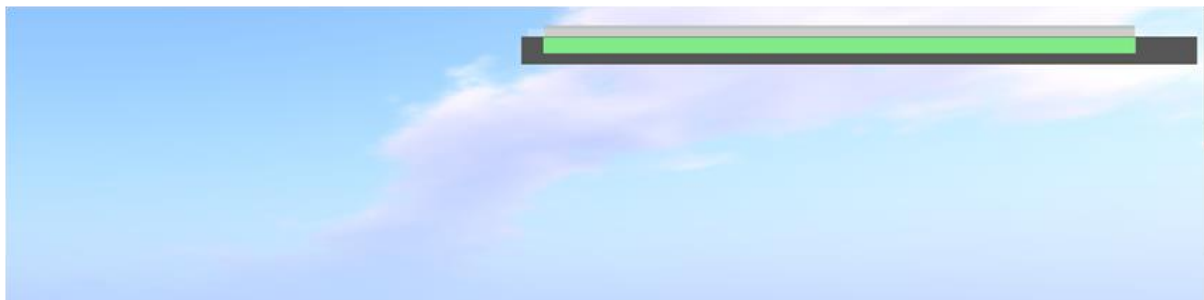
1.2.1 Basic Game Concepts

The instructions panel near you, will give you the necessary information to navigate through the World and take part in the learning activities.

There are instructions about how you can move around with your avatar, control the camera, adapt your avatar's appearance and communicate with other users of the 3D World through text messages or animations/gestures of your avatar.

The HUD object is a window that will appear on the top right of your screen during the learning activities, displaying information and dialogue options.

Check the top right part of your screen and you should see a bar like the one on the next image:

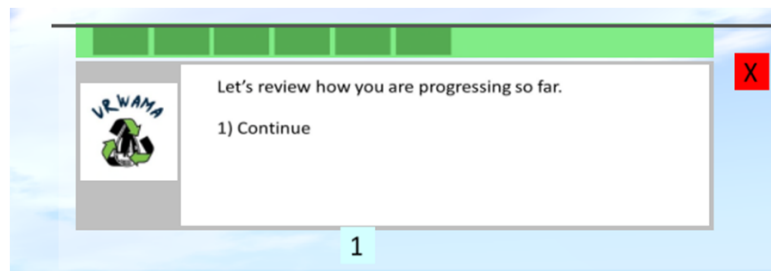


When a message needs to be displayed, the HUD Object will expand, and you can use the numbered buttons below to select an answer:



Click the red button on the right, to minimize the HUD object at any time.

The HUD object also displays your progress through the game. As you successfully complete activities, you collect points. These points are reflected on the green bar on top.



By clicking on the green bar, you also receive a message with the exact number of points you have collected. The maximum score is 200.



There are six different areas in the VRWAMA game.

There are light blue boxes in these areas that indicate activities. Click on them to read instructions about what you have to do.



The activity boxes are numbered, and it is advised to visit them in that order.

The last activity of an area may teleport you to the next area. Otherwise, you can click the corresponding, rotating portal, when you complete all the activities to directly teleport to the next area.



2 SCENARIOS

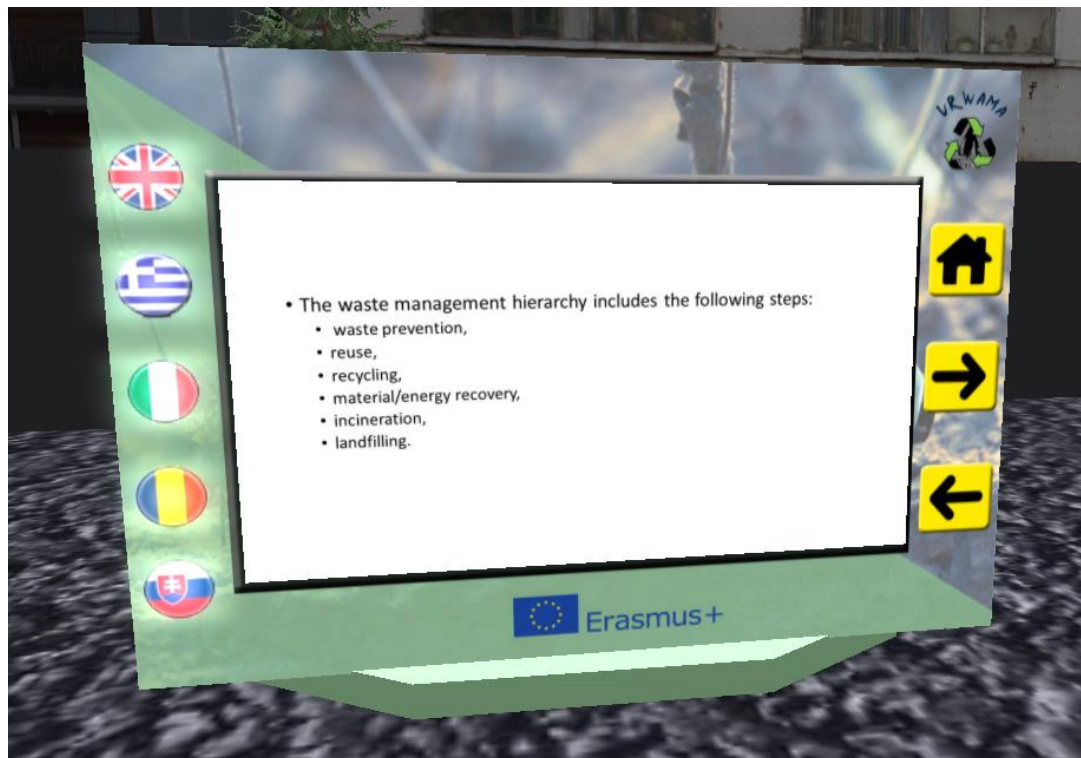
At the beginning of most scenarios, there is a blue colored circle on the ground to help you locate it. It is also the place where you are teleported when you complete the previous scenario.



Each scenario takes place in a separate area, where you should find several numbered boxes that correspond to learning activities. It is advised that you take these activities in this specific order. Just click on one of the boxes and you will receive instructions on your HUD.



The presentation panel is the main way of providing theory material to the users. It contains buttons that allow users to navigate the slides of the presentation and buttons that change the selected language.

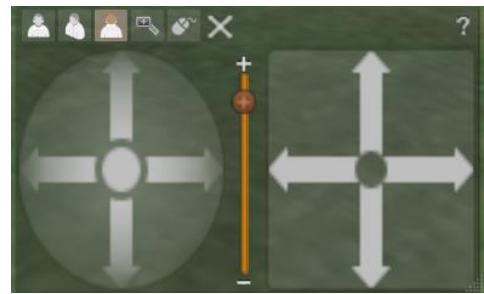
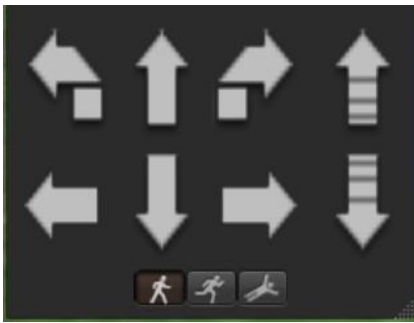


2.1 3D VIEWER CONTROLS

The following are general information about the capabilities of Opensim, through the 3D Viewer Software Firestorm:

2.1.1 Movement and camera control

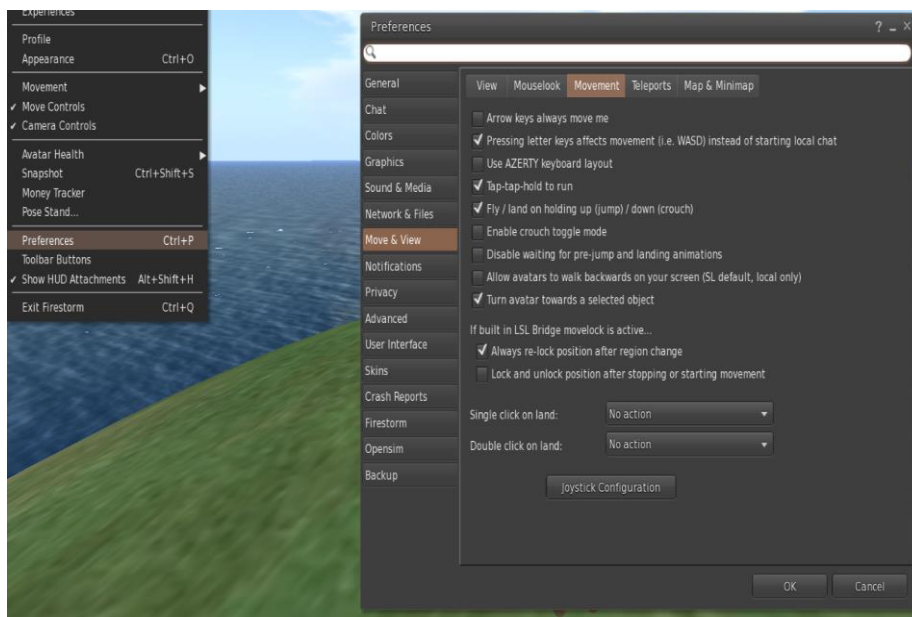
One way to move the avatar and control the camera is using two small windows offered by the ED Viewer, that contain all the necessary buttons.



If these windows do not appear, you can enable them from the top menu:

- **Avatar > Move Control**
- **Avatar > Camera Control**

This is not an easy way, so we suggest using the keyboard controls. For movement you can use the arrow keys or the WASD keys. For WASD to work correctly, you have to enable it from the Preferences options:



You can use F to Begin Fly mode:

- You can use E to go Higher
- You can use C to go Lower

MOVEMENT CONTROLS	
Key	Function
A or Left	Turn left
Shift-A or Shift-Left	Move left
C or PgDown	Crouch / Fly down
D or Right	Turn right
Shift-D or Shift-Right	Move right
E or PgUp	Jump/Fly up
F or Home	Fly on/off
S or Down	Walk backward
W or Up	Walk forward
Space	While moving, press Space for slow motion (WASD must be enabled)

Useful keyboard moving controls

CAMERA CONTROLS	
Key	Function
Alt-up/down arrow	Zoom camera
Alt-left/right arrow	Rotate camera left/right
Alt-Ctrl-up/down arrow	Rotate camera up/down
Alt-Ctrl-Shift-arrows	Pan camera

2.1.2 Navigation

There are two kind of maps you can use for navigation:

World > Minimap

- It shows a small map where you can Identify your location and it updates according to Avatar movement
- It acts as a compass
- You can use this map to **teleport** to another point by Double Clicking required location

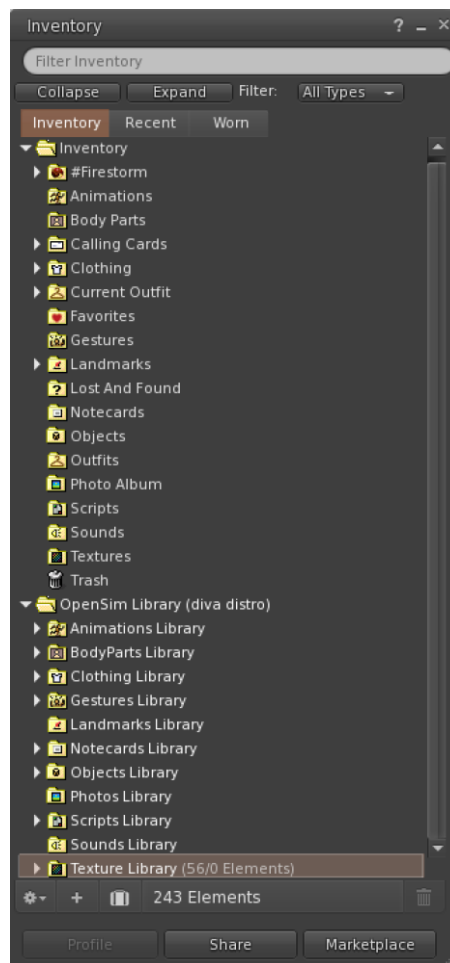
World > World Map

- Larger overview of the region with filtering feature
- You can zoom in/out to find more regions nearby

2.1.3 Inventory

Each avatar has an inventory of files organized by file type:

- **Avatar > Inventory (Ctrl + I)**



You can create files for your avatar's appearance (BodyParts and Clothing folders), you can find or create text files with notes (Notecards folder) or find Objects that you have received from the activities (Objects folder).

2.1.4 Adjusting your appearance

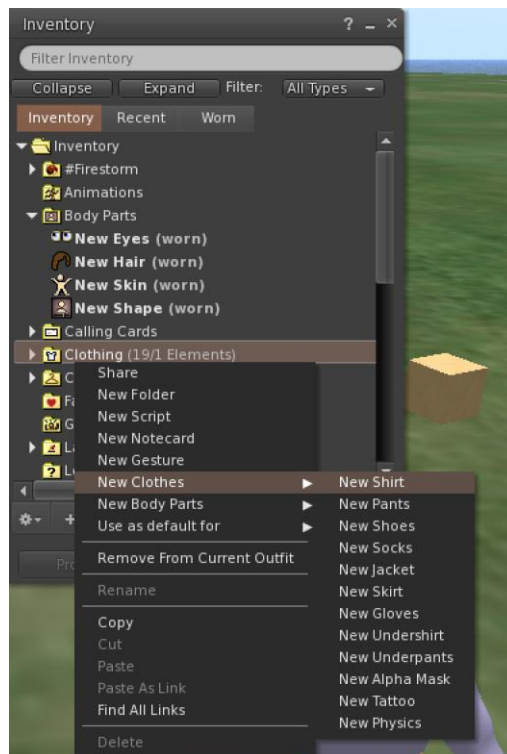
For customizing your body, 4 types of objects need to be created/edited:

- Eyes - double click on it for replacing current
- Skin - double click on it for replacing current
- Shape - double click on it for replacing current
- Hair - double click on it for replacing current



You can further customize outfit by **right click on your avatar > appearance > edit outfit**

You can create custom clothes, by creating clothe files in your Inventory and double clicking them. **Inventory > Clothing > (right click) new clothes > choose type of outfit.**

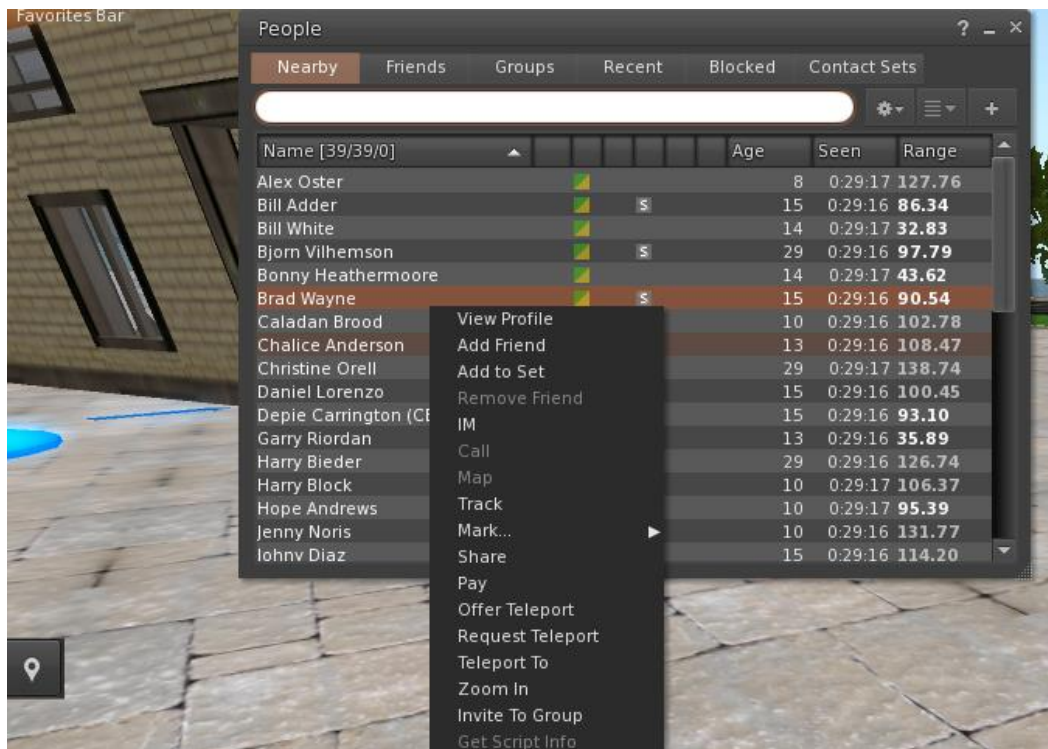


Then right click and select edit to adjust the appearance of each cloth item as you desire.



2.1.5 Communication

You Can add other user avatars as friends to easily find them and be able to teleport to them. From the Viewer's navigation bar, select **Comm -> People**, to open a window that display a list with all nearby users. Right click on one of the users and you get the option to view their Profile, add them as a friend, send a private instant message (IM), request that you teleport to them(Request Teleport) or that they teleport to you (Offer Teleport), and to create a distinct marker on his place to easily find him (Track).

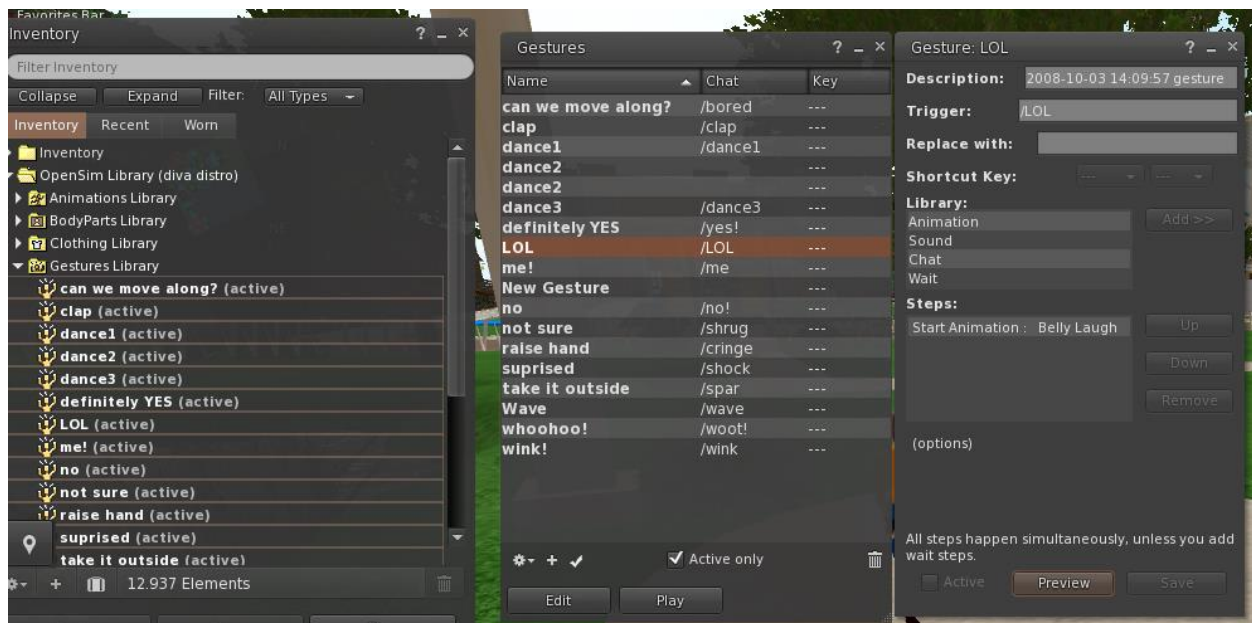


If you have already added some user as a friend, you can find them in the 'Friends' tab, even if they are not online at the moment. You can send them a private message and they will be able to see it as soon as they log in the virtual world.

You can open the chat window (**Comm -> Chat**) to view and participate in conversations. The default '**Nearby Chat**' displays all discussions that happen near your avatar. There is also a shortcut for righting quick messages that nearby avatars will receive by using the chat bar on the bottom left of your screen.

You can configure and use Gestures to be used with chat. Gestures are animations performed by your avatar to indicate or emphasize your attitude or your emotions. You can associate specific Gestures with specific words, so when you include them in your chat messages, your Avatar will perform the animations.

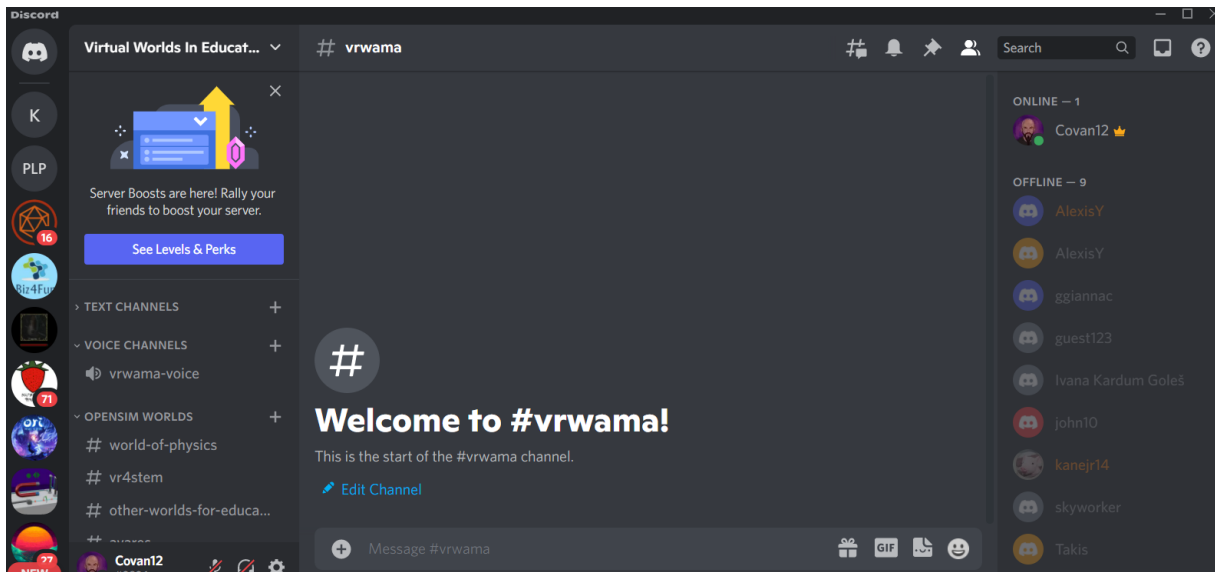
First, open your Inventory (**Avatar -> Inventory**) and locate the "**Gestures Library**" folder, under "Opensim Library". There are several gesture files in that folder, and you can right click and select "Activate" the ones you want your avatar to be able to perform.



Then open the Gestures Window (**Comm -> Gestures**) and you will see the Gestures you have activated. Double click on one of the Gestures and you will see your avatar performing the animation. Select a Gesture and click the “**Edit**” button to view the details. There is a Trigger field that shows the command to use in chat to perform the Gesture. For example, you can write **/LOL** in the chat menu to make your avatar perform a laughing animation.

You can use the groups window (**Comm -> Groups**) to join or create a Group with other users to communicate with.

Communication with voice with other users in the virtual world is not possible directly from the 3D Viewer. However, we have prepared a voice channel in a Discord server, where users can join and participate in conversations while they are connected to the 3D World. <https://discord.gg/KQbh5gAk>



3 ADDITIONAL RESOURCES

Moving and Camera Control: http://wiki.phoenixviewer.com/fs_movement_and_camera

All Keyboard Shortcuts: http://wiki.phoenixviewer.com/keyboard_shortcuts

Chat: http://wiki.phoenixviewer.com/fs_chat

Inventory: http://wiki.phoenixviewer.com/my_inventory_tab

Editing Outfits: http://wiki.phoenixviewer.com/my_outfits_tab

Editing Shapes and Other Body Parts: http://wiki.phoenixviewer.com/fs_edit_body_part

Gestures: http://wiki.phoenixviewer.com/fs_gestures