This guide contains a quick overview of some of the most important end-user features of Open Wonderland. For more information, refer to the tutorial, "Learning the Basics of Open Wonderland." http://145.20.132.42:8080/

**Navigation**
Use the arrow keys on your keyboard to move your avatar forward, backward, right and left. The mouse scroll wheel zooms your camera in and out. For more navigation help, select "Navigation Reference" from the Help menu.

The navigation help window is interactive so that you may click on the controls in the window to move your avatar.

**Avatars**
By default, you are given a "cartoon" avatar. To change your avatar, select "Configure Avatar" from the Edit menu.

To change to a different cartoon avatar, select the avatar name and click "Use." To create an avatar that can walk and gesture, click on "New..."

The "Configure Avatar" window will open, allowing you to select your avatar’s gender and various other hair and clothing options.

Click "Use" for others to see your new avatar.

**Audio**
Select "Audio Volume" from the Window menu to open the audio controls.

Use the sliders to raise or lower your microphone and headset volume. Your microphone is set at an appropriate level when there's just a bit of red showing in the volume meter and the name above your avatar’s head consistently turns red when you speak.

Clicking on the microphone icon will toggle you on and off mute. The open square bracket key ( [ ) is also a short cut for turning mute on and off. Notice the square brackets around the avatar's name in the Users List. This indicates that an avatar’s microphone is muted.

If your audio sounds choppy, it’s possible that you do not have enough bandwidth to support Wonderland’s high-fidelity audio.

You can lower your audio quality by selecting Tools --> Audio --> Audio Quality --> Low. If your audio is still "breaking up," try "Minimum." This should be a last resort because you will lose the spatial audio effect if you reduce your audio quality to the lowest setting.

**Gestures**
Select "Gestures" from the Windows menu.

**Placemarks**
Placemarks are like bookmarks in a web browser. Select the name of a Placemark in the Placemarks menu to navigate to that location.

**Text Chat All**
When Wonderland launches, you will see a "Text Chat All" window open in the lower left corner.
Click on a gesture button to gesture. Moving or turning your avatar will end the gesture. To collapse the gesture controls for easy access, minimize the Gestures window.

1. **Inserting Objects**

   There are multiple ways to insert content into a Wonderland world. One way is to select "Object" from the Insert menu.

   ![Insert Object Window]

   This displays a window with all the 2D and 3D applications currently installed on your server.

2. **Drag and Drop**

   You can drag and drop images directly from a web browser window into the Wonderland window.

   ![Drag and Drop Image]

   Be sure the image you have selected is a .png, .jpg, or .gif file.

3. **Type on the bottom line to enter a message for all logged in users to see.**

   ![Message Entry]

4. **New objects always appear in front of your avatar, so position your avatar approximately where you want the object to appear.**

   ![Insert Object into Avatar]

5. **Select an item, such as the Cone of Silence, from the Insert Object window and click "Insert." The object will appear in front of you.**

   ![Insert Cone of Silence]

6. **Tips**

   **How to Find 3D Models**

   Many free 3D models are available in the [Google 3D Warehouse](https://sketchup.google.com/warehouse/).

   **Ensuring Good Audio Quality**

   Using a headset in Wonderland is essential. Open speakers will introduce echo into the world. To minimize background noise, it is also helpful to keep your avatar on mute when you are not actively speaking. Use the open square bracket "[" key to turn mute on and off.

   **Unsticking your Avatar**

   If you can't move your avatar, you may be too close to a 3D model. Try turning before you walk. If that doesn't work, select "Avatar Collision Response Enabled" from the Tools menu to turn off collision.