Pointcloud_Program_Manual

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1. **Running the Program as a Service**
   a. **Creating a Systemd Service**

   To run the program as a service for the first time (already done), and to see the display on startup:

   i. Create a new systemd service file:
   sudo nano /etc/systemd/system/kiosk.service

   ii. Add the following content to the file:
   [Unit]
   Description=Kiosk Service
   After=network.target

   [Service]
   User=pi
   Environment="DISPLAY=:0"
   WorkingDirectory=/home/pi/3dview
   ExecStart=/usr/bin/python3 /home/pi/3dview/your_script_name.py
   Restart=always
   RestartSec=5s

   [Install]
   WantedBy=multi-user.target

   iii. Save the file and exit the editor (Ctrl+X, Y, Enter).

   b. **Enabling and Starting the Service**

   Reload the systemd daemon and enable the service:

```
sudo systemctl daemon-reload
sudo systemctl enable kiosk.service
```

c. Service Commands

In case you cannot see the display on startup, run these commands in sequence:
```
sudo systemctl start kiosk.service
sudo systemctl status kiosk.service

sudo systemctl stop kiosk.service
sudo systemctl restart kiosk.service
```

2. Running the Program Manually

To run the program manually through terminal command
```
sudo systemctl stop kiosk.service
cd 3dView
sudo python kiosk.py
```

3. Software Directory Format
```
/home/pi/3dview
|--- 3dview
|--- app.py
|--- templates
|    |--- pcl_view_json.html
|    |--- voxel_pcl_viewer.html
|--- static
|    |--- pointcloud.json
|--- kiosk.py
|--- viz2.py
```