Installation guide for exhibition

This document explains what is required to run the The Space Archivist VR game on exhibitions. The game is designed for up to four players. You must do the following steps for each player separately.

1) What you need

- **Windows 11 PC** with a VR-capable GPU (e.g., NVIDIA GTX 1660 Super / RTX series or AMD equivalent).
- **Meta Quest headset** (Quest 2/Pro/3).
- **High-quality USB-C cable** (USB 3 recommended, 5Gbps+; the official Meta Link Cable or equivalent).
- **Internet** via Ethernet: bandwidth 1Mbps
- The VR Game application. (Guideline for installing the VR game)

2) Install required software

1. **Meta Quest PC App (Windows)**
   - Download and install the Meta Quest desktop app (formerly Oculus app).
   - Sign in with your Meta account.

2. **Runtimes & Redistributables**
   - Ensure the correct **OpenXR runtime** is active (see step 5).

3) Prepare your Quest headset

1. **Enable Link/Air Link**
   - Put on the headset → **Settings** → **System** → **Quest Link**.
2. **Guardian & Passthrough**
   - Set up your boundary to avoid interruptions.
3. **Cable Management(Optional)**
   - Implement cable management to eliminate ground cables and ensure player safety.

4) Connect the headset to the PC (USB Link), (Recommended)
If you prefer wireless, you can use Air Link instead of USB(follow Step 10)

1. Plug the **USB-C cable** into the PC and the Quest.
2. Inside the headset, **allow data access** and **allow USB debugging** if prompted.
3. In the headset, choose **Enable Quest Link** (you'll see the PC VR environment).

5) Set the correct OpenXR runtime

Your custom app will target either **OpenXR (recommended)**

- In the **Meta Quest desktop app** → **Settings** → **Beta (or General)** → **Set Meta as Active OpenXR Runtime** (wording may vary).
  This ensures your app talks directly to the Meta runtime.

6) Allow unknown sources (important)

- In the **Meta Quest PC app** → **Settings** → **General** → **Unknown Sources: ON**.

7) Launch your custom PCVR app

1. Put on Quest and **enter Link**.
2. Simply **double-click your app's `.exe`** from Windows Explorer.

8) Performance & quality tuning (for low-end VR-supported PCs)

- **Bitrate/encode**: Meta PC app → **Devices** → **Graphics Preferences** → adjust **Encode Resolution Width/Bitrate**.
- **Refresh rate & render resolution**: Same menu—pick a refresh rate your GPU can sustain (72/80/90/120Hz depending on headset) and tune render resolution (don't max it on mid-range GPUs).
- **ASW (motion smoothing)**: Toggle in the Meta app or via tools like Oculus Debug Tool.
- **Windows Game Mode**: Turn on. Close heavy background apps.
- **NVIDIA Control Panel**: Set **Prefer maximum performance** for the app if needed.

9) Common issues & fixes

- **Headset not detected / cannot enable Link**
  - Use a **USB 3** port directly on the motherboard (avoid front panel hubs).
  - Replace the cable or try a different port.
  - Reinstall/repair the Meta Quest PC app.

- **Black screen or app opens on monitor only**
  - Verify **Unknown Sources** is enabled
  - Ensure **OpenXR runtime** matches your build.
  - Close other VR platforms (don't run both runtimes at once unless you intend to).

- **Poor performance or stuttering**
  - Lower **render resolution** and **refresh rate**.
  - Update **GPU drivers**; disable overlays (Discord, GeForce Experience).

○ Check **USB test** in Meta app; try a different port.

- **Audio issues**
    ○ In Windows **Sound settings**, select the **headset audio** device (often "Oculus Virtual Audio Device") or your preferred output.

10) Optional: Air Link (wireless)

○ Strong **Wi-Fi 6/6E router**, PC on **Ethernet**, Quest on **5GHz**.
○ Enable **Air Link** in headset and **Meta desktop app**.
○ Steps 5–9 are otherwise the same.

Tips:

- Allocate a 2x2 meter space per player.
- Players should use headphones if they are in separate rooms, the space is noisy, or they are far apart.
- Network: PCs via Ethernet cable, same wifi network for Headset connection

Guideline for installing the VR game

1) What You Need

- **Application files**: Downloaded from the provided link.
- **Curator Studio generated files**: Stored previously on a USB drive, Cloud storage, or other external storage.
- **Ready computer(s)**: The PC(s) where the VR game will be run and displayed.

2) Download the Application Files

- Download the application files by clicking <u>HERE</u>.

3) Unzip the Files

- Locate the downloaded **.zip** file on your computer.
- Right-click on the file and select **"Extract All"** to unzip the files.
- Choose a preferred folder or location on your computer to store the extracted files.

4) Copy Curator Studio Generated Files

- Find the Curator Studio generated files that you previously stored (on a USB drive,

Cloud storage, etc.).
- Copy the Curator Studio files and paste them into the following directory on the exhibition computer:
  - **C:\Users\[WindowsUser]\AppData\LocalLow\Khora(TRANSMIXR)\The Space Archivists - VR**
  - **Important**: Replace **[WindowsUser]** with the actual username of the computer's logged-in user.

5) Repeat for Every Exhibition Computer

- Repeat Step 5 for every exhibition computer where you want to run the VR game. Ensure the Curator Studio generated files are copied to the correct directory on each system.

6) Launch the VR Game

- Close **"The Space Archivists - VR.exe"** if it was open previously.
- Re-open **"The Space Archivists - VR.exe"** to launch the application and start the VR game.