

Archiving a Museum with an Interactive Exhibit

An Interactive Qualifying Project

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Hönnunarsafn Íslands Virtual Reality Exhibit User Manual



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VR Prototype Exhibit User Manual

This manual outlines the process our team used to develop the VR Exhibit Prototype. It describes the step-by-step process of using the Ricoh Theta V, the 360 camera we used to take the pictures in the prototype. It also describes how to upload pictures to the Oculus Go, use the Momento360 account, generate QR codes for picture galleries, and how to set up the headset itself. This manual was given to the Hönnunarsafn Íslands Museum of Design and Applied art so that museum staff can follow the process we used and continue developing the VR exhibit prototype.

Using the Ricoh Theta V

The Ricoh Theta V is the 360 camera we used to take all of our pictures. We recommended that the museum purchase one of their own. After they have done so, they can follow these steps to take 360 photographs that can then be added to the VR exhibit prototype.

1. Download the RICOH THETA app on a smartphone
2. Turn on the Theta (a blue light will turn on) and then hold the wireless button until the wireless symbol begins flashing on the front of the camera
3. Connect your phone to the camera's WIFI (Network name should be "THETA....") using the serial number on the bottom of the camera (Do not include the YL at the beginning)
4. Open the Theta App and tap the Theta logo button in the bottom right
5. On the "Select access point" screen, select the theta from the list of cameras
6. Once the preview of the camera's view appears you may now use your phone to control the camera
7. To take a picture, press the white circle button at the bottom of the screen
8. To change settings, tap the bottom right button that defaults to "Auto" and select "Manual", this will allow you to adjust shutter speed, iso, and white balance.
9. To transfer photos, connect the camera to your computer with a USB to Micro-USB cable
10. Navigate to the RICOH Theta on file explorer (This PC -> RICOH THETA V)
11. Open the "Fixed storage" folder, then the "DCIM" folder, and finally the "100RICOH" folder
12. Pictures may then be selected and copied (Ctrl + C) and then pasted (Ctrl + V) to the location of your choice on your computer

Uploading to the Oculus Go

The Oculus Go is a standalone VR headset that operates without the use of a mobile phone. It comes with a simple controller and internal software and storage. We uploaded the 360 photos we took to the headset so that they could be viewed in VR. The following are the steps we took to upload pictures.


1. Connect the Oculus Go to a computer with the provided USB to Micro-USB cable
2. Turn on the Oculus Go and use the controller to select "Allow" when asked if you would like to "Allow access to data" on the Oculus Go

3. Note that photos will be ordered in REVERSE alphabetical order in Oculus 360 Viewer. Therefore, we recommend a naming scheme based on letters with the first picture being the last alphabetically. Ex: Photo 1 would be named Z, Photo 2 would be named Y, Photo 3 would be named X...
4. Locate the pictures you wish to transfer from your computer in the file explorer, select all of the pictures and copy (Ctrl + C)
5. Navigate to the Oculus Go on file explorer (This PC -> VR-Headset)
6. Open the "Internal Shared Storage" folder then the "Pictures" folder
7. Paste the pictures (Ctrl + V)

Uploading to the Momento360 Account


Momento360 is a 360 photograph hosting website that allows for the creation of custom collections of photographs that can be made private and accessible only by a link.

We created both a gmail account and Momento360 account for the museum that they can use to host their pictures. We gave them the username and password for these accounts in a private document.

1. Open <https://www.momento360.com/>
2. Login
3. Select "My Media" at the top of the webpage and then click the "Upload Files" button on the right side of the screen
4. In the popup, select all of the pictures to be uploaded and then click "Open"
5. Once the files are uploaded, click "Collections" at the top of the webpage
6. Click "Create New" to start a new collection
7. Fill out the collection name and description (optional)
8. Click "Create"
9. Click the "Add 360s" button under the newly created collection
10. Select all pictures to add to the collection, then click the  dropdown and select "Add to: (collection name)"
11. To add more 360s later, simply navigate to the collection and use the "Add 360s" button

Setting up QR codes

QR codes are used to allow easy access to the links for Momento360 collections created in the previous section. Scanning the QR codes created in this section will open to the collection used, offering an easy way to make these collections accessible only to people in the museum.

1. Open <https://www.momento360.com/>
2. Login
3. Select "Collections" at the top of the webpage
4. Click on the name of the collection that you wish to create a QR code for
5. Click the share dropdown  and select "Share or Embed Link..."
6. Click the "Copy" button
7. Open <https://www.qr-code-generator.com/>
8. Paste (Ctrl + V) the link into the textbox and the QR code will automatically generate

9. Click the “Download JPG” and allow a few seconds for the image to download
10. The image will download in a few seconds
11. This image will be the QR code that can then be posted or printed to then be scanned, linking directly to the collection selected in step 4

Headset Setup

This section details the daily setup to prepare the Oculus Go for use by guests throughout the day.

1. Put on the Oculus Go and hold the controller
2. Press and hold the power button (on top of the Oculus Go) until the Oculus logo appears on screen
3. Once the home screen is displayed, select “Library” from the toolbar on the bottom
4. Select the “Oculus 360 Photos” app
5. On the left side, select the “My Photos” tab
6. Select the “A to Z” tab at the top
7. Select the first photo
8. The headset is now ready to be used by the visitors