

VRTY Student Handbook

NAME: _____

CLASS: _____



Table of Contents

01	USEFUL WORDS
02	GETTING STARTED
03	CREATING YOUR VR / 360° PROJECTS
04	PLANNING YOUR VR / 360° PROJECTS
05	ADDING SCENES TO STORYBOARDS
06	CONNECTING SCENES TOGETHER
07	AN INTRODUCTION TO MARKERS
08	ADDING INTERACTIONS
10	ENHANCING YOUR MARKER FEATURES
11	PUBLISHING & SHARING
12	EXPERIENCING VR / 360° PROJECTS
16	ADJUSTING FOCUS IN VR
17	VRTY DIGITAL FOCUSING TOOL (DFT)





Useful Words

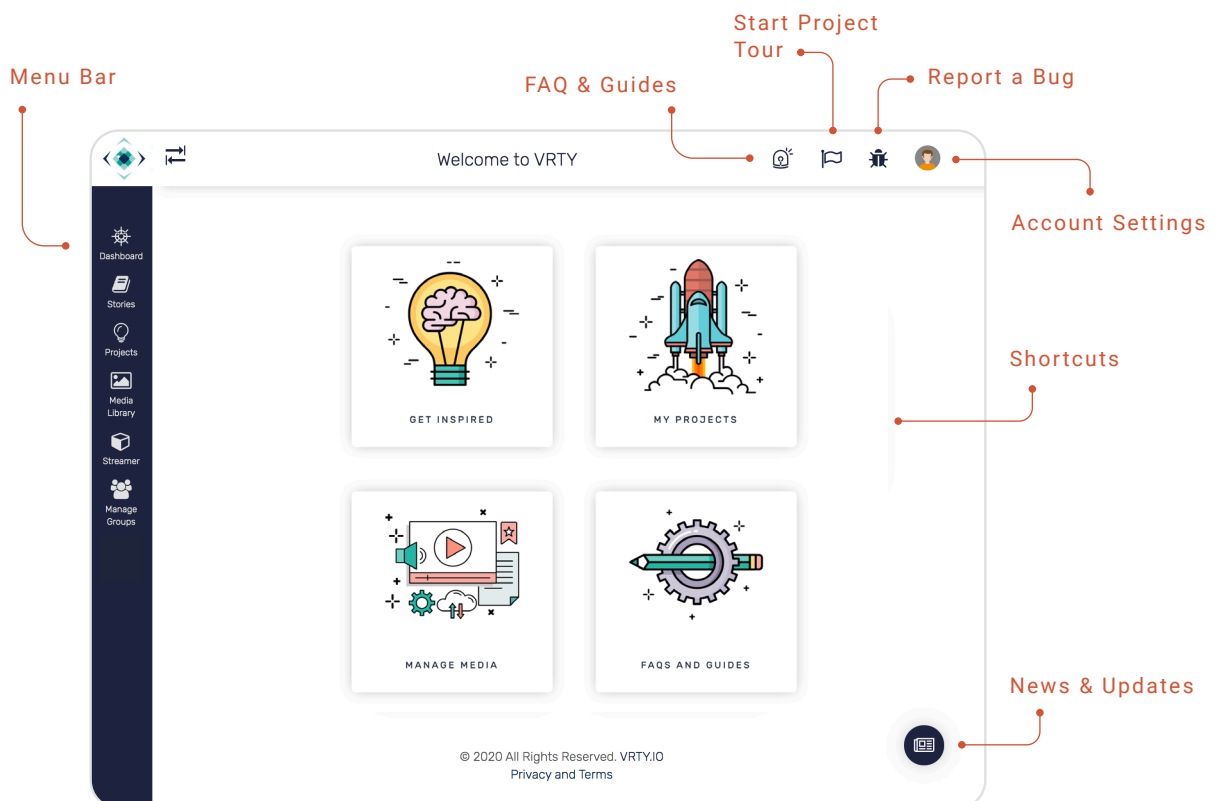
- 1
- 2
- 3
- 4

360° Images & Videos are what VRTY uses to create VR / Interactive 360° experiences. These files are captured in a 360° field of vision using a 360° camera. Viewers can look or scroll all around a **Scene**, but cannot walk around (*Example in page 05*).

Scenes represent a 360° image or video. Think of them as rooms in a house that you can visit and walk through. In the **Storyboard**, it refers to a box that only holds one 360° image or video.

Storyboard is for creators to map out their VR / Interactive 360° project journey (*Example in page 04*).

Virtual Reality (VR) is the use of technology to create a simulated environment. VR places viewers inside an experience wearing a VR headset. Viewers are immersed and able to move and interact with objects. The VR simulation environment can be captured using a 360° camera or even built from scratch.



VRTY Dashboard

Getting Started

1

Welcome to VRTY!

VRTY is an online platform to help you create your own VR / 360° projects!

2

Before we begin, make sure you have prepared these steps below to create your VR project. No shortcuts!

3

For the best user experience, remember to use these browsers:



Safari



Chrome

To view your VR / 360° project, you can use:



VR Headset



Smartphone / Tablet



Computer

4

To create your VR / 360° project, you can use:



Laptop



Desktop



Mouse

5



6

ACTIVITY

To start, you will need an active VRTY account. Your teacher should have created an account for you, or you will receive a registration link to sign up for a VRTY account. Activate your VRTY account from the activation email in your inbox! If you cannot find the email, check for it in the junk folder.

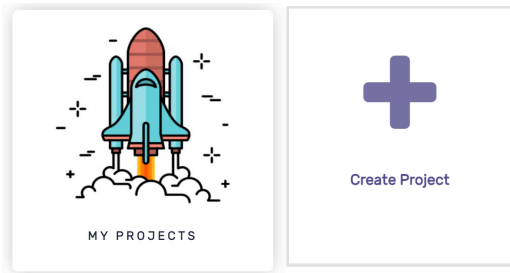
Let's go to the next step!



Creating Your VR / 360° Projects

1

Log in to VRTY (<https://pro.vrty.io>), you will see the VRTY dashboard. Click on **My Projects** and **Create Project**.



2

There is a step-by-step progress bar on each page to show you which stage you are at. First step is to **Create Project**.



3

Fill in your VR / 360° project details.

Project Name *

Project Description

Please Note: only 255 characters allowed.

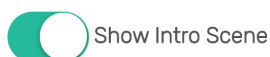
PROJECT LOGO

Drop files or click here to upload

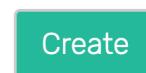
- Name of VR / 360° project
- Project description
- A project logo

4

Show intro scene means that a title screen will display the project's information at the beginning of the experience. There is an option to turn it off.



Click **Create** on the bottom right hand corner.



Off to the next step!

5

Planning Your VR / 360° Projects

In this space, you will be creating a VR / 360° project storyboard!

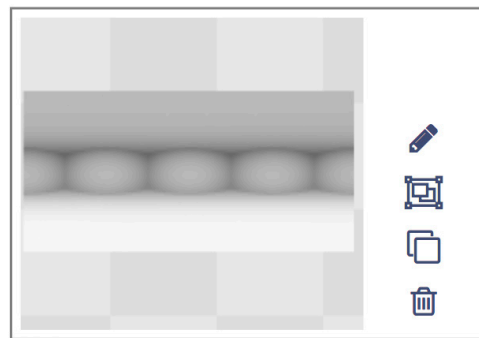
1

You can create all kinds of VR / 360° projects such as multiple direction storylines or just a simple linear storyline.

2

Each box represents a scene in your storyboard. You can only upload one 360° image or video into a scene.

For example: If you want your VR / 360° project to have three scenes, your storyboard will have three boxes.

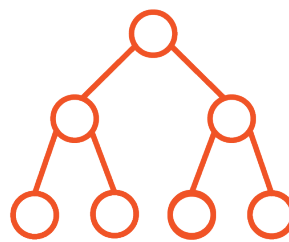


3

ACTIVITY



Create a storyline for your VR project. Design out your storyboard.



Storyboard

4

VRTY provides free 360° scenes from the VRTY Library. Choose 360° scenes from all over the world for your project.

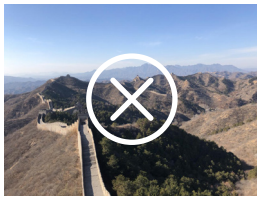
If you have access to a 360° camera, you can capture 360° images or create scenes from SketchUp, a 3D modeling computer software. Then, you can upload them into VRTY.



Adding Scenes to Storyboards

1

A 360° image as a working file is known as an equirectangular image. Imagine if you unravelled a globe or a sphere into a flat rectangular shape. Have a look below at some different types of files.



Normal Image



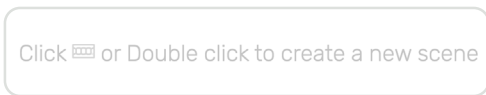
Equirectangular (360°) Image



Paranoma Image
(Photo by: Heikki Holstila, Flickr)

2

Double click on the screen to add a new scene.



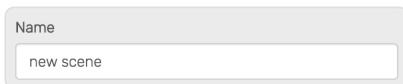
3

Click on the **pencil icon** to add / change your equirectangular image.



4

Name your scene.



5

Choose and only upload one 360° image or video in each scene.



Repeat steps to create more scenes.

6

Connecting Scenes Together

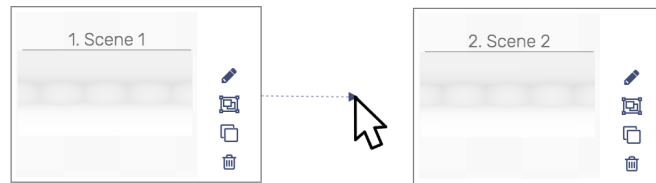
1

Hover the mouse cursor over the grey box of the scene.



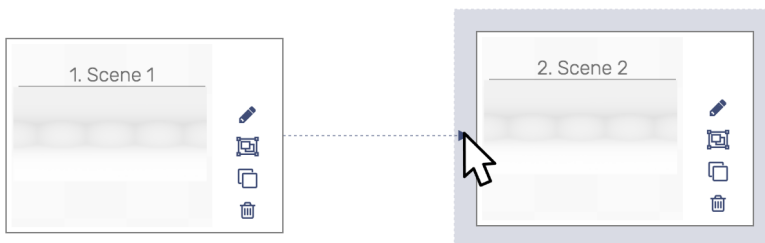
2

Click and drag your mouse to the scene you want to connect. An arrow will appear to link both scenes together.



3

This action will automatically create a **portal marker** in your scene. You can find them in the **Add Interactions** section. Learn about **Add Interactions** in the next page.



4

TIP

VRTY automatically saves your creation progress.

Introduction to Markers

1

Adding interactive markers is where the fun begins!

2

There are two types of markers:



Content Marker

Displays and available to layer image / video / GIF, text and plays audio.



Portal Marker

Transports the viewer from one scene to the next scene.

3

Content Marker

Image/Video



A **Content Marker** can display content in a pop-up box.

- Text
- Image or GIF or video
- Combination of text and media

Learn to add media into an information marker, scan the QR code to watch a short video.



(<https://learn.vrty.io/article/add-image-or-video-in-your-vr-scene/>)

4

Content Marker

Audio/Sound



The **Content Marker** also plays audio when triggered. It supports commonly used audio files (i.e.: mp3) or generates a text-to-speech audio clip.

Learn to add audio clips and use text-to-speech function in the sound marker, scan to watch video.



(<https://learn.vrty.io/article/add-audio-in-your-vr-scene/>)

* Remember to click **generate** for the text-to-speech audio clip every time you make changes.

Adding Interactions

5



Portal Marker

A **Portal Marker** transports the viewer from one scene to another.



6

How to Create Marker

CREATE:

Choose your choice of marker.

Marker Name

Marker Icon

CHOOSE/UPLOAD/GENERATE MARKER ICON

Image/Video Audio/Sound

Upload/Media Lib
 Embed Video

CHOOSE/UPLOAD AN IMAGE OR VIDEO CONTENT

Drop files here/Click to browse

Text Content

Font Family Font Sizes A B / U Line Height

Fill in marker details, upload a marker icon and marker content. Click **Create** when you are done.

- Marker name
- Marker icon
- Marker content
- Text content

7

LOOK OUT!

There are two sections where you can upload images into the marker.

Marker Icon – Face of the marker. Image appears on the scene.

Marker Content – Content of the marker. Image appears inside the content pop-up box.

Marker Icon

CHOOSE/UPLOAD/GENERATE MARKER ICON

Media Content

CHOOSE/UPLOAD AN IMAGE OR VIDEO CONTENT

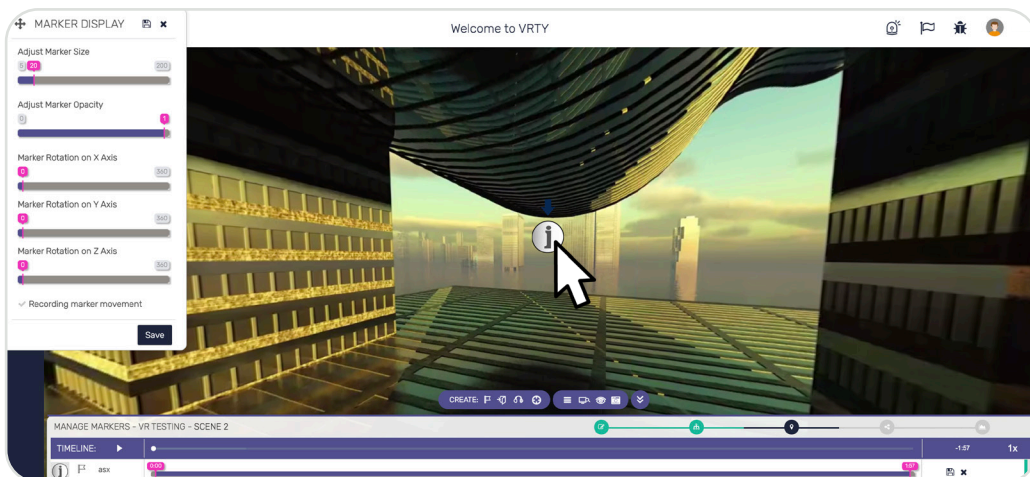
Drop files or click here to upload

Adding Interactions

8

How to Place Marker

Click anywhere on the scene to place the marker. You can change the appearance of the marker in the **Marker Display** on the left (*Learn more on page 10*).



9

How to Edit Marker



Edit Marker Position - Opens up **Marker Display**



Edit Marker Info - Change marker information



Clone Marker - Duplicates your marker

* Remember to click **save** after making each changes.

Enhancing Your Marker Features

1

You can enhance markers with some features. Scan the QR code to watch videos on some 'how-to-use' features. There is also a **Preview** function so you can preview the project before it is published.

2

Change Marker Appearance

You can upload an image / GIF as the marker icon. In the **Marker Display**, you can adjust size, opacity and rotate the marker to look like it is integrated into the scene.



(<https://learn.vrty.io/article/interactive-markers-features/>)

3

Show / Hide Marker at a Specific Time

You can set a marker to appear and disappear at a specific time. This feature encourages viewers to explore throughout the VR / 360° project.



4

Create Moving Marker

You can make a marker move across the scene. Moving markers encourage viewers to turn around and explore, making the experience more engaging.



5

Create Child Marker

A child marker is a marker that only appears after the parent marker has been triggered. This feature is a useful way to ensure your viewers explore all of the markers.



Publishing & Sharing



1

There are four publishing options:

* Click **Publish Project** in the **Publish** page after making every change in the project.



Draft: (Default option) The project is in draft status. Only the creator can preview and make changes in it.



Password Protected: The published project is protected with a password set by the creator. Viewers need to enter the password to experience the project.



Public: Anyone who has the project URL link can experience the project.



2

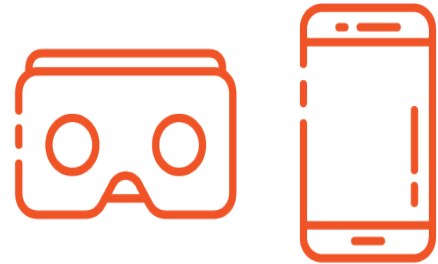
Device Setup



Browser	Safari	Google Chrome
Battery	Fully Charged	
Brightness	Increase brightness to about 75%	
Screen Timeout	At least 5 mins or to the longest scene duration	
Steps to Set Screen Timeout	Settings > Display & Brightness > Auto-lock > Set screen timeout duration	Settings > Display > Screen Timeout > Set screen timeout duration
Volume	Turn on Media Volume	

Table 1: VR Device Setup

Experience a VR / 360° Project



VR HEADSET & SMARTPHONE

1

Remember to set up your smartphone according to the device setup table (*page 11*) for the best VR experience. Note: Clean your phone's screen so it is fingerprint and smudge free.

2

Copy the project link to your smartphone (via SMS, email, or type in URL) or scan the project's QR code using your smartphone's camera or a QR scanner app.

3

Open link on your device in either **Google Chrome** or **Safari** browser.

Place smartphone into a VR headset, align the centre of the screen to the headset lenses midpoint. If you are seeing a blurred image, you can digitally adjust the focus with VRTY's built-in **Digital Focusing Tool (DFT)** (*See page 16-18*).

4

Tap on **Enter VR Mode** and start the VR experience. Viewers can also enter **VR mode** through the **VR headset icon** from the **360° mode**.

5

6

A small dot appears in the centre of the screen. This dot acts as your mouse. Move around, position and hold the dot on a marker to trigger the marker.

7

To close a marker content pop-up box, turn to look away from the marker.



Experience VR / 360° Project



MAGIC WINDOW (GYROSCOPE) ON A SMARTPHONE OR TABLET

1

Copy project link to the device (via SMS, email or type in URL) or scan the project's QR code using the phone's camera or use a QR scanner app.

2

Open the link on your device in either **Google Chrome** or **Safari** browser.



3

To view in 360° gyrosopic mode, tap on **Enter 360° mode** and begin viewing the project in 360° mode.

4

You have to physically move your device around to view the 360° project.

Tap the **gyroscope icon** at the bottom of the screen.



5

6

A small dot will appear in the centre of the screen. This dot will act as your mouse. You have to move around, position and hold the dot on a marker to trigger the marker.

7

To close a marker content pop-up box, turn to move away from the marker.

Experience VR / 360° Project



**SMARTPHONE OR TABLET
(360° TOUCHSCREEN MODE)**

1

Copy the project link to the device (via SMS, email, or type in URL). Open the link on the device in either **Google Chrome** or **Safari** browser.

2

To view in 360° touchscreen mode, tap to choose on **Enter 360° mode** and begin viewing the project in 360° mode.

3

Touch and drag the 360° scene on the devices' screen to explore around.

Once you discover a marker, tap to trigger.



4

5

To close a marker content pop-up box, tap on the X on the top right corner of the box.

Experience VR / 360° Project



DESKTOP OR LAPTOP
(360° MOUSE MODE)

1

Open the project VR/interactive 360° link in either **Google Chrome** or **Safari** browser.

2

Click on **Enter 360° mode** and begin the 360° project experience.



3

Once you discover a marker, left click on the marker to trigger.

Left click and hold onto your mouse to drag the 360° scene to explore around.

4

5

To close a marker content pop-up box, click on the **X** on the top right corner of the box.

Adjusting Focus in VR

1



TIP

When experiencing a VR project, it is important to adjust the focus on the VR headset to have the optimal viewing experience. This is because everyone has their own unique eye distance and focus preference.



2

Some mobile phones VR headsets have manual adjusters which allows viewers to adjust focus for their eyes. The inter-pupillary distance (IPD) is the distance between the pupils and it varies between people. VRTY created an in-built focus adjuster called the Digital Focusing Tool (DFT) for VR cardboard headset users (*Learn how to use it on page 17*).

3



Cardboard headset with no adjuster



Plastic headset with adjuster

VRTY Digital Focusing Tool (DFT)

PERSONALISING YOUR VR VIEWING EXPERIENCE

1

Place your mobile device, with a project loaded, into your VR headset and place up to your eyes.

2

Use the button on your VR headset or use your finger to tap the screen – this will activate the DFT to appear on the screen.

3

The DFT features four arrowheads: top, bottom, left and right of the centre icon.

TIP

Turn to *page 18* to learn how to adjust the Field of Vision and the IPD.

4

Use the dot in the centre of the screen and position it over one of the arrowheads.

5

6

To stop using the DFT, turn to look away and the tool will disappear.

7

Viewers can use the DFT at any time throughout their VR experience.



VRTY Digital Focusing Tool (DFT)

HOW TO ADJUST FIELD OF VISION

1

By moving your head, position the dot over any of the arrows on VRTY logo.

2

Adjust each arrow until you are comfortable with the display. It's a bit like adjusting the focus on a set of binoculars.

3

To stop adjusting, just move the dot away from the arrows.



4

Top: Adjusting Field of Vision (Wider View)

The screen of Field of Vision will zoom out, giving you a wider view of the scene.

Bottom: Adjusting Field of Vision (Narrower View)

The screen of Field of Vision will zoom in, giving you a closer view of the scene.

Right: Adjusting the IPD (Larger Value)

The two halves of the screen will move further apart, which is more suitable for eyes further apart.

Left: Adjusting the IPD (Smaller Value)

The two halves of the screen will move closer together, which is more suitable for eyes closer together.

