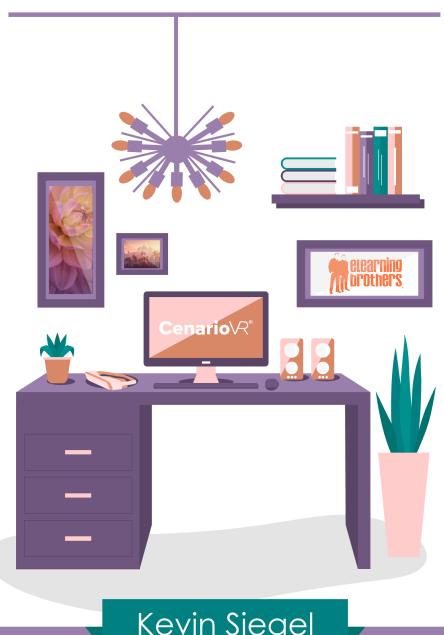
rCONLOGIC PRESS

CenarioVR: The Essentials



Kevin Siegel



020422 124 9781944607852 (Perfect Bound Book) 9781944607869 (eBook)

Notice: Although IconLogic makes every effort to ensure the accuracy and quality of these materials, all material is provided without any warranty.

Copyright: 2022 by IconLogic, Inc. This document, or any part thereof, may not be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, storage in an information retrieval system, or otherwise, without the prior written permission of IconLogic.

Trademarks: IconLogic, Inc., and the IconLogic logo are registered trademarks of IconLogic. All companies and product names are trademarks or registered trademarks of their respective companies. They are used in this book in an editorial fashion only. No use of any trade name is intended to convey endorsement or other affiliation with IconLogic books.

CenarioVR: The Essentials

Kevin Siegel



Contents



About This Book	
The Author	v
IconLogic	V
Book Conventions	
Confidence Checks	
Hardware and Software Requirements	
CenarioVR Scenarios and Asset Files	
How Software Updates Affect This Book	
Contacting IconLogic	
Preface	
Getting Started with Virtual Reality Training	2
VR Cameras	
Filming in 360	
The Roller-Coaster Effect vs. Teleporting	
Camera Positioning	
Stitching	
Module 1: Scenarios and Scenes	
The CenarioVR Interface	
Guided Activity 1: Import a Project into CenarioVR	
Guided Activity 2: Explore the CenarioVR Interface	
Preview Confidence Check	
New Projects	
Guided Activity 3: Create a New Scenario and Add Scenes	
Guided Activity 4: Manage Scenarios and Scenes	
New Scenarios and Scenes Confidence Check	10
Module 2: Hotspots Info Cards and Images	
Module 2: Hotspots, Info Cards, and Images Hotspots	22
Hotspots	
Hotspots	22
Hotspots	22
Hotspots	22 23
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action	
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images	
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image	
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image. Initial Views	22 23 25 26 26 28 28
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card. Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View	22 25 26 26 26 28 28
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots	22 25 26 26 28 28 29 29
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot	22 25 26 26 28 28 29 29 30
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action	22 25 26 26 28 28 29 30 30
Hotspots Guided Activity 5: Import a Project. Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards. Guided Activity 8: Add an Info Card. Images. Guided Activity 9: Add an Image. Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots. Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot.	22 25 26 26 28 28 29 29 30 30 31 32
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action	22 25 26 26 28 28 29 29 30 30 31 32
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot Hotspots Confidence Check	22 25 26 26 28 28 29 29 30 30 31 32
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot Hotspots Confidence Check Module 3: Audio, Groups, and Conditional Actions	22 25 26 26 26 28 29 30 30 31 32 33
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot Hotspots Confidence Check Module 3: Audio, Groups, and Conditional Actions Audio	22 25 26 26 28 28 29 30 30 30 33 34
Hotspots Guided Activity 5: Import a Project. Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images. Guided Activity 9: Add an Image. Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots. Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot Hotspots Confidence Check Module 3: Audio, Groups, and Conditional Actions Audio Guided Activity 14: Add Audio to a Scene	22 25 26 26 28 28 29 30 30 30 32 34
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images. Guided Activity 9: Add an Image. Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots. Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot Hotspots Confidence Check Module 3: Audio, Groups, and Conditional Actions Audio Guided Activity 14: Add Audio to a Scene Audio Confidence Check	22 25 26 26 28 28 29 29 30 30 30 31 34 40 40
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot Hotspots Confidence Check Module 3: Audio, Groups, and Conditional Actions Audio Guided Activity 14: Add Audio to a Scene Audio Confidence Check Guided Activity 15: Attach Audio to an Object	22 25 26 26 26 28 28 29 30 30 32 33 34 40 40
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot Hotspots Confidence Check Module 3: Audio, Groups, and Conditional Actions Audio Guided Activity 14: Add Audio to a Scene Audio Confidence Check Guided Activity 15: Attach Audio to an Object Guided Activity 16: Control Object Visibility	22 25 26 26 28 28 29 30 30 31 32 33 40 40 42 43 45
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot Hotspots Confidence Check Module 3: Audio, Groups, and Conditional Actions Audio Guided Activity 14: Add Audio to a Scene Audio Confidence Check Guided Activity 15: Attach Audio to an Object Guided Activity 16: Control Object Visibility Object Visibility Confidence Check	22 25 26 26 28 28 29 30 30 31 32 33 40 40 41 42 43 45
Hotspots Guided Activity 5: Import a Project Guided Activity 6: Add a Hotspot Guided Activity 7: Add a Hotspot Action Info Cards Guided Activity 8: Add an Info Card Images Guided Activity 9: Add an Image Initial Views Guided Activity 10: Set the Initial View Image and Transparent Hotspots Guided Activity 11: Add an Image Hotspot Guided Activity 12: Edit a Hotspot Action Guided Activity 13: Add a Transparent Hotspot Hotspots Confidence Check Module 3: Audio, Groups, and Conditional Actions Audio Guided Activity 14: Add Audio to a Scene Audio Confidence Check Guided Activity 15: Attach Audio to an Object Guided Activity 16: Control Object Visibility	22 25 26 26 28 28 29 30 30 31 32 33 40 40 41 42 42 43 45 46 48
Hotspots	22 25 26 26 28 28 29 30 30 31 32 40 40 41 42 42 45 46 48

Conditional Actions	53
Guided Activity 19: Create IF/AND Conditions	53
Guided Activity 20: Create IF/OR Conditions	55
Conditional Actions Confidence Check	
Module 4: Layers, Drag and Drop, and Timed Events	
Layers	62
Guided Activity 21: Create a Layer	
Drag and Drop	
Guided Activity 22: Make an Object a Drop Spot	
Guided Activity 23: Make an Object a Drag Item	
Drag and Drop Confidence Check	
Guided Activity 24: Add a "Reset" Action	69
Timed Events	
Guided Activity 25: Insert an Action Object	
Guided Activity 26: Add Timed Events	
Timed Actions Confidence Check	
Motion Paths	
Guided Activity 27: Create and Edit a Motion Path	
,	
Module 5: Quizzes and Variables	
Quizzes	80
Guided Activity 28: Add a Quiz Question	
Guided Activity 29: Set Up Quiz Question Feedback	
Quiz Question Confidence Check	
Variables	
Guided Activity 30: Use a Variable to Display Quiz Results	
Conditional Actions Confidence Check	
Guided Activity 31: Create Custom Variables	
Guided Activity 32: Add a "Modify Variable" Action	
Custom Variables Confidence Check	97
Module 6: Publishing	
Scenario Settings	100
Guided Activity 33: Edit Scenario Settings	
Publishing	
Guided Activity 34: Publish as HTML5	
SCORM	
Guided Activity 35: Publish as SCORM	





Notes



About This Book

This Section Contains Information About:

- The Author, page vi
- IconLogic, page vi
- Book Conventions, page vii
- Confidence Checks, page vii
- Hardware and Software Requirements, page viii
- CenarioVR Scenarios and Asset Files, page viii
- How Software Updates Affect This Book, page x
- Contacting IconLogic, page x



The Author

Kevin Siegel is a Certified Technical Trainer (CTT), Certified Master Trainer (CMT), and Certified Online Training Professional (COTP). Kevin served in the U.S. Coast Guard, where he was twice decorated with the Coast Guard's Achievement Medal. He also received the coveted Alex Haley Award for writing and photojournalism.

Kevin has spent decades as a technical communicator, face-to-face and virtual trainer, eLearning developer, publisher, and keynote speaker. Kevin has written hundreds of books for adult learners. Some of his best-selling titles include "Adobe Captivate: The Essentials," "Articulate Storyline: The Essentials," and "TechSmith Camtasia: The Essentials."



IconLogic

Founded by Kevin in 1992, IconLogic is a training, development, and publishing company offering services to clients across the globe.

As a **training** company, IconLogic has directly trained tens of thousands of professionals both on-site and online on dozens of applications. Our training clients include some of the largest companies in the world including Adobe Systems, Inc., Urogen Pharma, Agilent Technologies, Sanofi Pasteur, Kelsey-Seybold Clinic, FAA, Office Pro, Adventist Health Systems, AGA, AAA, Wells Fargo, VA.gov, American Express, Lockheed Martin, General Mills, Grange Insurance, General Dynamics Electric Boat, Michigan.gov, Freddie Mac, Fannie Mae, ADP, ADT, Federal Reserve Bank of Richmond, Walmart, Kroger, Duke Energy, USCG, USMC, Canadian Blood, PSA, Department of Homeland Security, and the Department of Defense.

As a **development** company, IconLogic has produced eLearning and technical documentation for Duke Energy, World Bank, Heineken, EVERFI, Bank of America, Fresenius Kabi, Wells Fargo, Federal Express, Fannie Mae, American Express, Microsoft, Department of For-Hire Vehicles, DC Child and Family Services Agency, DCORM, Canadian Blood Services, Cancer.org, MLB, Archrock, NEEF, CHUBB Limited, Canadian Natural Resources, and Hagerty Insurance.

As a **publishing** company, IconLogic has published hundreds of critically acclaimed books and created technical documents for both print and digital publication. Some of our most popular titles over the years include books on HTML, Virtual Reality, Dreamweaver, QuarkXPress, PageMaker, InDesign, Word, Excel, Access, Publisher, RoboHelp, RoboDemo, iSpring Suite, Presenter, Storyline, Captivate, Camtasia, and PowerPoint.

You can learn more about IconLogic's varied services at www.iconlogic.com.

Book Conventions

In our experience, people learn best by doing, not just by watching or listening. With this concept in mind, instructors and authors with years of experience training adult learners have created lconLogic books. IconLogic books typically contain a minimal amount of text and are loaded with hands-on activities, screen captures, and confidence checks to reinforce newly acquired skills. This book is divided into modules. Because each module builds on lessons taught in a previous module, it is recommended that you complete each module in succession.

Lesson Key

Instructions for you to follow look like this:
☐ choose File > Open
If you are expected to type anything or if something is important, it is set in bold type like this: 1 type 9 into the text field
If you are expected to press a key on your keyboard, the instruction looks like this: □ press [shift]

Confidence Checks

As you work through this book, you will come across the Confidence Check image at the right. Throughout each module, you are guided through handson, step-by-step activities. To help ensure that you are grasping the content, Confidence Checks encourage you to complete a process or steps on your own—without step-by-step guidance. Because some of the book's activities build on completed Confidence Checks, you should complete each of the activities and Confidence Checks in order.







Hardware and Software Requirements

To complete the lessons presented in this book, you will need a modern computer (laptop or desktop) and a license to CenarioVR. While a license to CenarioVR is not included with this book, the eLearning Brothers offer a free trial version available through the following website: https://hub.elearningbrothers.com/cenariovr-trial.

Note that the trial version of CenarioVR has some restrictions. For instance, you can only have a few scenarios in your account at any one time. Each scenario is limited to five scenes. And you cannot export scenarios nor publish them.

You will need to download this book's project assets (data files) that have been created specifically to support this book. (See the "CenarioVR Scenarios and Asset Files" section below.)

Also, you will be working with audio during some of the activities. You will either need a headset or speakers.

CenarioVR Scenarios and Asset Files

You are probably chomping at the bit, ready to dive into CenarioVR and begin working through this book. As you will learn as you move through the activities, all that you need initially to create VR training on your own is CenarioVR, this book, and a little imagination. However, you will also need 360 degree images, standard images, audio files, and some CenarioVR projects.

If you have not used CenarioVR, and this book assumes that you have not, I do not believe that you should not have to learn how to use CenarioVR on the fly as you create your own projects. Learning by discovery is not necessarily a bad thing, but it will take, and possibly waste, a lot of time. I have a better idea. You provide the computer and CenarioVR, and I will provide you with all of the project files and supporting assets that you need (such as images and audio files).

During the following activity, you will download those assets—data files—from the lconLogic website.

Download the Book's Data Files/Project Assets

1.	Download the	e student	data files	necessary	to comple	ete the	lessons ir	n this	book.

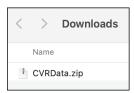
- ☐ start a web browser and visit the following web address: https://www.iconlogic.com/data.html
- □ select your platform (CenarioVR works on both the Windows and Mac operating systems)
- ☐ click the link for CenarioVR: The Essentials



2. If prompted, save the file to your computer. Make note of the location of the file download for step 4 below.

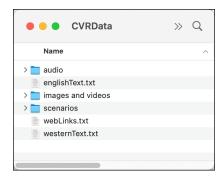
Note: Depending upon your platform and browser, the download may begin automatically and the zipped file downloaded to your Downloads folder.

- 3. After the file fully downloads, close your web browser.
- 4. Extract the data files.
 - ☐ find the **CVRData.zip** file you just downloaded to your computer



☐ **PC users**: right-click the downloaded file and unzip/extract it to your desktop (or other preferred location); **Mac users**: double-click the zipped file to extract it, then move the CVRData folder to your desktop

There should be an unzipped **CVRData** folder on your computer. As you move through the lessons in this book, you will be working with these files.







How Software Updates Affect This Book

I expect CenarioVR to get updated from time to time as new features are added. Software updates can result in a misalignment of the activities in this book and what you see while using the tool. If something on your screen does not match what I show in this book, please email me at **ksiegel@iconlogic.com** and let me know the issue. If necessary, I will update this book and/or the book's assets.

Contacting IconLogic

Web: www.iconlogic.com

Email Kevin: ksiegel@iconlogic.com **Phone:** 410.956.4949, ext 711



Rank Your Skills

Before starting this book, complete the skills assessment on the next page.

Skills Assessment

How This Assessment Works

Ten course objectives for *CenarioVR: The Essentials* are listed below. **Before starting the book**, review each objective and rank your skills using the scale next to each objective. A rank of ① means **No Confidence** in the skill. A rank of ⑤ means **Total Confidence**. After you've completed this assessment, work through the entire book. **After finishing the book**, review each objective and rank your skills now that you've completed the book. Most people see dramatic improvements in the second assessment after completing the lessons in this book.

Be	fore-Class Skills Assessment					
1.	I can add scenes to a scenario.	1	2	3	4	(5)
2.	I can add hotspots to a scene.	1	2	3	4	(5)
3.	I can create a motion path.	1	2	3	4	(5)
4.	I can publish as HTML5.	1	2	3	4	(5)
5.	I can publish a SCORM-compliant package.	1	2	3	4	(5)
6.	I can create a drag and drop interaction.	1	2	3	4	(5)
7.	I can create a quiz.	1	2	3	4	(5)
8.	I can create a conditional action.	1	2	3	4	(5)
9.	I can create a layer.	1	2	3	4	(5)
10.	I can use an action to control audio.	1	2	3	4	(5)
Aft	er-Class Skills Assessment					
1.	I can add scenes to a scenario.	1	2	3	4	(5)
2.	I can add hotspots to a scene.	1	2	3	4	(5)
3.	I can create a motion path.	1	2	3	4	(5)
4.	I can publish as HTML5.	1	2	3	4	(5)
5.	I can publish a SCORM-compliant package.	1	2	3	4	(5)
6.	I can create a drag and drop interaction.	1	2	3	4	(5)
	- can be called a many amount of many and a	_	•	•		
7.	I can create a quiz.	1	2	3	4	(5)
	-				44	(S) (S)
7.	I can create a quiz.	1	2	3		



Preface

In This Module You Will Learn About:

- Getting Started with Virtual Reality Training, page 2
- VR Cameras, page 3
- The Roller-Coaster Effect vs. Teleporting, page 5
- Camera Positioning, page 5
- Stitching, page 6



Getting Started with Virtual Reality Training

Many people think that creating virtual reality (VR) training is expensive, time-consuming, and technically challenging. In reality, creating VR has never been easier and less expensive than today. To get started as a VR training developer, all that you need is a solid lesson plan (instructional design), VR images or videos, voiceover audio files, and a VR development tool.

CenarioVR serves the role of VR development tool. And you'll learn how to use CenarioVR to create VR training using existing assets as you work through the activities in this book. I'll be providing all of the VR images, audio files, and other assets so you can focus entirely on using the CenarioVR.

Once you have completed the lessons in this book, it is not a stretch of the imagination to assume that you will want to create your own VR projects. At that point, you are going to find yourself in need of something that can capture the VR pictures and videos.

According to **John Blackmon**, eLearning Brothers CTO and creator of CenarioVR, VR assets are equirectangular images and videos. The word equirectangular sounds strange, but you've likely come across equirectangular shapes before. For example, a flat map of the mostly-round Earth is equirectangular. The map resolves into a single point at the top and bottom of the globe.

John said that "VR images are, in reality, just simple JPEG files and VR videos are MP4s. Both are common file formats that can be edited with common editing tools such as Adobe Photoshop."

The first image below is an example of an equirectangular JPEG image. As you look toward the edges of the image, notice that the details get distorted. When the image is wrapped around a sphere, which is what happens after the image is imported into a development tool like CenarioVR, much of the distortion is eliminated. In the second image, you can see the picture after it is added to a scene in CenarioVR and an initial view has been set.





VR Cameras

What kind of camera do you need to create VR images and videos? Believe it or not, just about any standard 360 camera you can find at Best Buy or online at websites like amazon.com will work. The cameras are surprisingly inexpensive. For example, I recently purchased the Insta360 One X2 with a touchscreen, tripod, and loads of extras for less than \$500. My first VR camera was the Insta360 Nano, and it cost less than \$100. In the image below, the Insta360 One X2 is shown in the lower right-hand corner.



The GoProMax, pictured in the image above at the top right, is currently John's favorite because it's waterproof and he likes its software. However, John is quick to point out that "technology is moving very fast and my recommendation could change at any time."

John has written an awesome article that compares images taken with different VR cameras. You can review the article by scanning the QR code below with your phone.







Filming in 360

Filming with a 360 camera is similar to filming with your phone, dedicated camera, or video camera. However, there are things you need to take into account when creating 360 videos.

Unlike filming with regular cameras, everything in the viewfinder of a 360 camera—objects directly in front, behind, under and above the camera—is being filmed.

When filming, find a hiding spot for yourself. Check out the image below. Can you find me?



In the image above, I'm hiding against the hay bales in the far stall. Kiki the cat appears to be walking toward the hay. In reality, she is curious about what I'm doing in my hiding place and is coming to investigate. I tried to scare Kiki away, but failed. I could have used Photoshop to remove her from the image, but I didn't have the heart.

It did edit parts of the original image. I noticed that part of my boot was visible. And while I didn't remove Kiki from the final image, I attempted to remove all evidence of my boot. Sadly, my Photoshop skills are not the best. If it was possible for you to zoom closer to the image you would see that I made a bit of a mess of the post between the two stalls. (Isn't it a bummer that you cannot zoom closer to the image?)

There are two morals to my Kiki/Photoshop/hiding place story. First, scout out an appropriate hiding space in advance *and* give yourself enough time to get to your hiding place *before* the camera takes the shot. Alternatively, rather than dealing with a hiding place, you can intentionally include yourself in the shot by becoming one of the "actors," especially if you're filming a scene with a crowd of people.

The second moral of the story is that most 360 cameras come with a companion phone application that allows you to control the camera remotely. The camera used to take the image above didn't have this feature. On that first camera, pressing and holding the power button activated a five-second delay feature. I then had five seconds to run and hide. That's not an ideal situation, especially if the hiding space is narrow, you're wearing boots, and there's a curious cat. So when shopping for your 360 camera, I'd investigate the companion software and see if it has features such as remote on/off, timer delay, and robust editing features.

The Roller-Coaster Effect vs. Teleporting

When you create a 360 video that allows the learner to glide through a scene or ride a roller-coaster, the effect seems cool at first—and it is. However, because of the possible and quite sudden shifts and herky-jerk movements, the roller-coaster effect could make some of your learners nauseous.

Can you imagine the feedback you'll get after someone experiences the roller coaster effect in your VR training?

You: "How was the training, Bart?"

Bart: "It made me sick!"

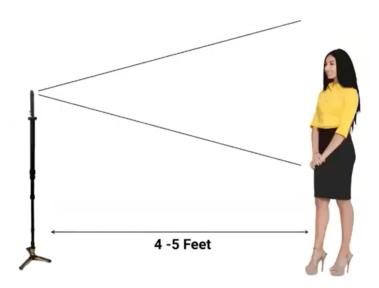
Nice!

Instead of employing the roller-coaster effect, consider elegantly transporting your learner from scene to scene by adding clickable hotspots within a scene. You'll learn how to add hotspots beginning on page 22. They can be added to any scene. When the learner clicks a hotspot, an action can jump the learner from one scene to another. The brain perceives the scene jump as motion. However, the inner ear does not perceive the scene change as motion hence there isn't a chance for an upset stomach.

Camera Positioning

The camera's perspective is going to end up being the learner's perspective. You should position the camera approximately four to five feet from the main subject. This distance gives the subject priority without getting too close.

The camera should be at eye level or just slightly above. It should be comfortable for the VR learner to look straight ahead, or even just slightly up. You do not want the camera set too high or too low because that leads to a floating feeling (if too high) or a pet's eye view (if too low) when you're trying to achieve total immersion for the learner.







Stitching

VR 360 cameras have two lenses that each take up to a 210-degree semicircle image or video similar to what is shown below.

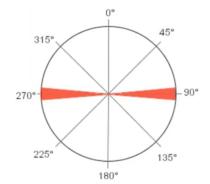


The VR cameras come with software that automatically puts the two pieces together based on complex matching algorithms. This process is known as **stitching**.

The quality of the stitching varies dependent upon the camera and the software.

From a practical standpoint, you don't want the learner to focus on the stitched areas—that's typically the 90 and 270 degree point from the front of the camera as shown at the right—because these areas are not as sharp as the rest of the image or video.

In the first image below, the stitching area is highlighted. The stitched portion of the image is not as sharp as the rest of the image. Is it terrible? No. But the difference is noticeable to the learner. The second image below was taken with a



smartphone. The phone required several pictures to create the 360 image instead of the two needed by dedicated VR cameras. The extra pictures required extra stitches. And thanks to some poor stitching, the post appears split into two. Fixing the problem will require significant work in an editor like Photoshop.





Now that you've learned a little bit about VR essentials and what it will take to create your own assets, it's time to roll up the sleeves and dive into CenarioVR.



Module 1: Scenarios and Scenes

In This Module You Will Learn About:

- The CenarioVR Interface, page 8
- New Projects, page 13

And You Will Learn To:

- Import a Project into CenarioVR, page 8
- Explore the CenarioVR Interface, page 10
- Create a New Scenario and Add Scenes, page 13
- Manage Scenarios and Scenes, page 15



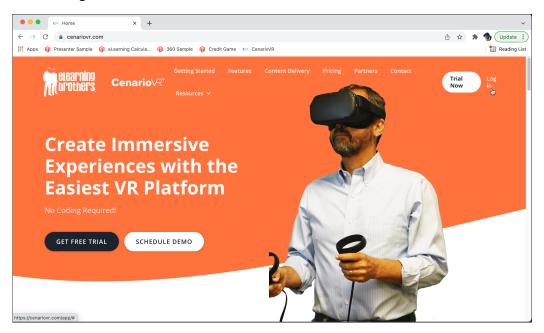
The CenarioVR Interface

CenarioVR projects begin with scenarios, a collection of scenes that can contain objects such as text, images, hotspots, and more. You can create an unlimited number of scenarios, each containing an unlimited numbers of scenes.

During the activities that follow, you'll access CenarioVR, create a new scenario, add scenes, images, and hotspots.

Guided Activity 1: Import a Project into CenarioVR

- 1. Access CenarioVR.
 - ☐ using a web browser, go to www.cenariovr.com
 - ☐ click **Login**

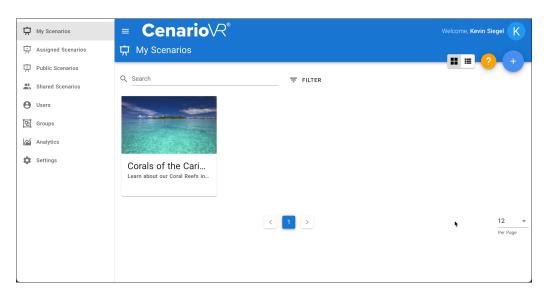


While you can use CenarioVR on desktop computers, laptops, tablets, or smartphones, I found the development experience best on a desktop or laptop. The screenshots shown in this book were taken on my MacBook Pro. Because the CenarioVR interface is responsive, your screen may look different from what is shown in this book.

☐ login to CenarioVR using your email address and password (note that if you do not have a CenarioVR account, a free trial is available)



If this is your first time accessing CenarioVR, you'll see a sample scenario in the My Scenarios area. There is a menu at the left including such options as Assigned Scenarios, Analytics, and application Settings.

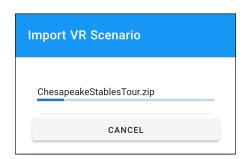


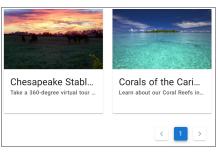
- 2. Import a completed project CenarioVR.
 - from the upper-right of the screen, use your mouse and hover above the **plus sign**
 - ☐ click Import Scenario



- ☐ click the **Upload** icon and, from the **CVRData** folder, open the **scenarios** folder
- ☐ open ChesapeakeStablesTour.zip

The project is imported and appears in the My Scenarios area. Because CenarioVR is a cloud-based application, your project is saved automatically to the CenarioVR servers as you work. You'll learn how to export CenarioVR projects to your computer later. Exporting is a great way to ensure you always have a backup of your project and its assets saved locally.



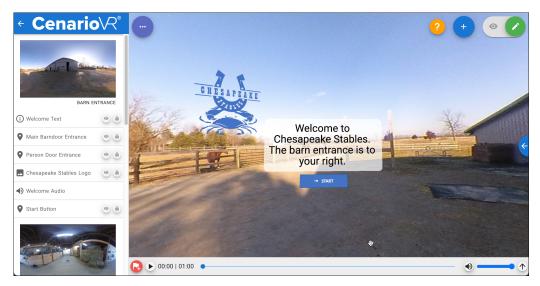






Guided Activity 2: Explore the Cenario VR Interface

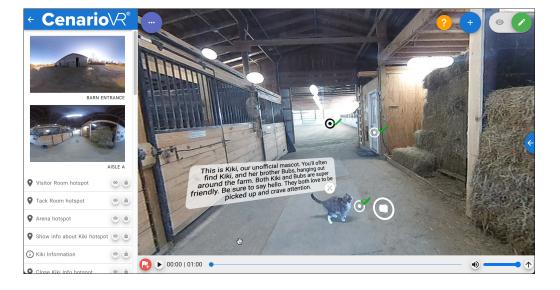
- 1. Open a Scenario.
 - from the **My Scenarios** area, double-click the **Chesapeake Stables** scenario that you just imported



At the left is the Scene list. Each scene is represented by a thumbnail image. Each scene contains multiple objects listed beneath the thumbnail image. The first scene, named **Barn Entrance**, is open. At the right is the editor which is where you'll do most of your CenarioVR development work.

- 2. Switch between scenes.
 - from **Scene** list, click the second thumbnail image

You can only work in one scene at a time. As the Aisle A scene opens, the Barn Entrance scene closes automatically. The editor window changes to display the second scene and the list of Aisle A scene assets appears beneath the scene's thumbnail image.



3. Explore a scene.

from the Scene list, select the Barn Entrance scene

The scene contains a 360-degree image, the barn's logo, text, a start button, and two hotspots allowing for entry into the barn.

drag the editor window right

The editor window contains a 360-degree image so you can drag up, down, left, right... all directions. As you drag right, you'll come across two hotspots positioned over the two barn doors. You'll learn how to add these kinds of assets soon.



4. Preview the project.

☐ at the upper right of the window, click the **Preview Mode** icon (the eyeball)



While in Preview mode, the development tools disappear. You're seeing the scene as it would appear to your end-users. You can hear the scene's voiceover audio and the hotspots are now clickable.

5. Return to Edit mode.

at the upper right of the window, click the **Pencil** icon to exit Preview mode



The development tools reappear.



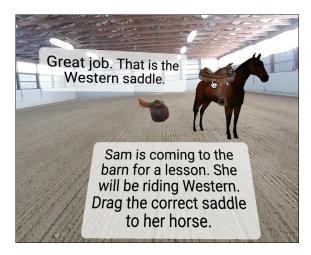


Preview Confidence Check

- 1. Return to Preview mode.
- 2. Click the **Start** button and notice that you are automatically panned right so you can see the two hotspots.
- 3. Click either hotspot to enter the barn.
- 4. Spend a few moments exploring the finished project.

In particular, notice the interactive elements in the Aisle A Tack Room (including a quiz), the link to a YouTube video in Aisle A, and the drag and drop interaction in the Arena.





As you move through the lessons in this book, you'll learn how to create this project from scratch.

- 5. Close the preview.
- 6. Close the scenario by clicking the CenarioVR logo.



7. At the top right of the window, click the **two view icons** to switch between **List View** and **Grid View**.

The view you choose is a personal preference and does not affect the functionality of CenarioVR. The bulk of the screenshots in this book use List View.



New Projects

Creating new projects—scenarios—in CenarioVR is as simple as clicking the plus sign in the upper right of the editor. Of course, prior to creating a new project, you'll need your 360 images and/or videos, scene images, and audio files. You don't have to worry about any of those assets as you use this book. I have provided everything you need amongst the data files that you downloaded in the About This Book section (see page viii). CenarioVR also comes with an impressive array of images, icons, and other assets you can use in your projects.

Guided Activity 3: Create a New Scenario and Add Scenes

- 1. Create a new scenario.
 - from the upper-right of the editor, click the **plus sign**

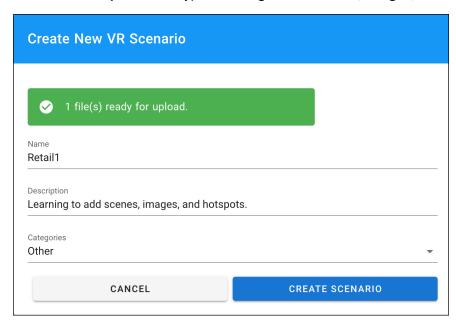


The Create New VR Scenario screen opens.

from the Drop file here or click to upload area, click the upload icon



- ☐ from the CVRData folder, open images and videos
- open Retail1.jpg
- in the **Description** area, type **Learning to add scenes, images, and hotspots**.



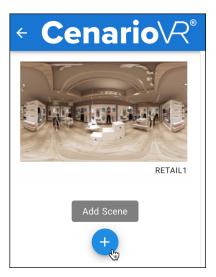
☐ click the **Create Scenario** button

And just like that, you've created your first virtual reality project. On the **Scenes** list, notice there's a single scene (named RETAIL1 after the image you selected).



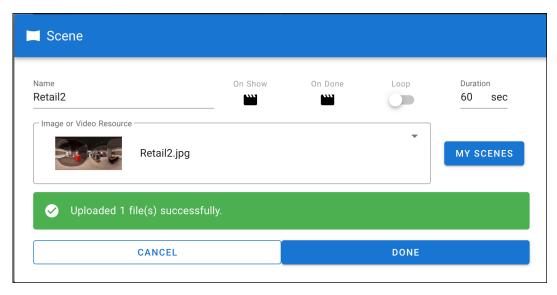


- 2. Add a new scene.
 - from beneath the **RETAIL1** scene, click **Add Scene** icon



The Scene window opens.

- from the Drop file here or click to upload area, click the upload icon
- ☐ from the CVRData folder, open images and videos
- open Retail2.jpg



☐ click the **Done** button

Your scenario now contains two scenes: RETAIL1 and RETAIL2.

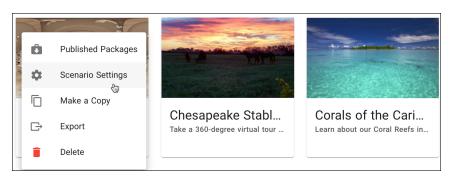
3. Click the CenarioVR logo to close the scenario and return to the My Scenarios screen.

Guided Activity 4: Manage Scenarios and Scenes

- 1. Edit a Scenario's name and description.
 - from the My Scenarios screen, point to the **Retail1 thumbnail** and click the **menu** (the three dots) in the upper right corner of the thumbnail



☐ click Scenario Settings



- ☐ change the name of the scenario to Mall of the Universe
- ☐ change the Description to 2,000 stores and one million square feet of awesomeness!



from the upper right of the Scenario Settings, click Save







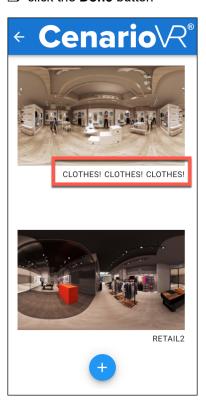
- 2. Edit Scene names.
 - on the My Scenarios screen, double-click **Mall of the Universe** to open the scenario
 - from the Scenes list, click the first scene (RETAIL1)
 - from the top of the thumbnail image, click the **Pencil** icon

The Scene Properties open.

☐ change the Name to Clothes! Clothes!

Name Clothes! Clothes! Clothes!

☐ click the **Done** button

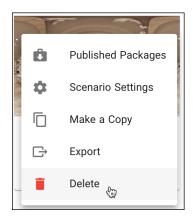


- from the **Scenes** list, click the second scene (RETAIL2)
- from the top of the thumbnail image, click the **Pencil** icon

The Scene Properties reopen.

- ☐ change the Name to YoungN Hip
- click the **Done** button

- 3. Delete a Scenario.
 - ☐ click the **CenarioVR logo** to return to My Scenarios
 - click the menu for the Mall of the Universe scenario



☐ click **Delete**

Because you cannot recover a deleted scenario, you are required to confirm the deletion.

Are you sure? Are you sure that you want to permanently delete this scenario? NO YES

☐ click Yes







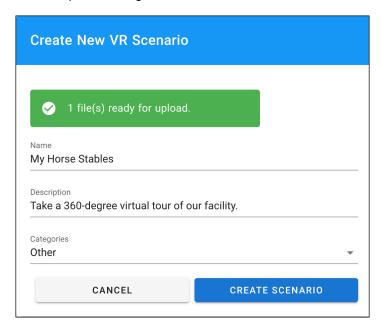
New Scenarios and Scenes Confidence Check

 Create a New scenario named My Horse Stables with the following Description: Take a 360-degree virtual tour of our facility.





2. From **CVRData > images and videos**, upload **BarnEntrance.jpg** and finish creating the scenario per the image shown below.



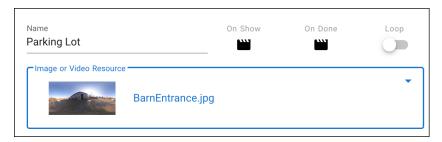
3. Make a slight edit to the scene's name by adding a space between the words **Barn** and **Entrance**.



Note: You are limited to the number of scenes you can add to CenarioVR if you're using the trial. If you are unable to add scenes as instructed below, add as many as you can.

- Add a new scene named Aisle A that uses the AisleA.jpg.
- 5. Add a new scene named Tack Room that uses the TackRoom.jpg.
- 6. Add a new scene named **Visitor Room** that uses the **VisitorRoom.jpg**.

- 7. Add a new scene named Indoor Arena that uses the Arena.jpg.
- 8. Add a new scene named Aisle B that uses the AisleB.jpg.
- 9. Add a new scene named Parking Lot that also uses the BarnEntrance.jpg.

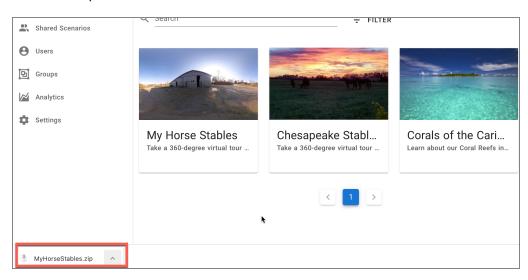


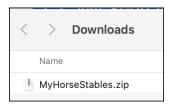
10. Return to the My Scenarios screen.

Note: You cannot export scenarios nor publish them with the CenarioVR trial. If you are using the trial, review the next step but it's unlikely that you will be able to complete it.

11. Click the menu for My Horse Stables and choose **Export**.

The exported project and its assets are zipped and saved to your computer (typically to the Downloads folder). This zipped project can be re-imported into CenarioVR or used as a local backup.







CenarioVR: The Essentials Notes



Remove from layer, 62 Reset, 69 Reset a scene, 93 Roller coaster Effect, 5

S

Scenario Name, 100 Scenario Preloader, 101 Scenario Settings, 15, 94, 100 Scenario Settings and Publish, 100, 103, 105 Scenario Thumbnail, 100 Scenario Thumbnail area, 101 Scenario Thumbnail image, 101 Scenario, Export, 19 Scenarios and Scenes, Manage, 15 Scene Direction, 35 Scene Properties, 16 Scenes, 30 Scored, 103, 105 SCORM, 100, 105 SCORM 1.2/2004, 103 Semicircle images, 6

Set Initial, 29 Set Initial View icon, 29 Set Variable Value, 95 Settings, 9 Size, 26 Software Requirements, viii Stitching, 6 Switch between scenes, 10

T

Teleporting, 5 Text Style, 26 Thumbnail images, 10 Timed event, 72 Timed event, remove, 75 Timed Events, 72 Training, vi, 107 Transparent, 33 Transparent Hotspots, 33

U

Upload, 9, 22 Upload icon, 30

V Variables Add, 94 Creating, 94 Quiz Results, 89 Reference in an Info Card, 90 Variables and Completion area, 95 Virtual Reality Training, Getting Started, 2 VR cameras, 3

Web Links, 33 WebXR runtime, 103

X

xAPI, 103

VR users, 59

Zipped project, 19