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Create, Enhance and Present: Practical VR/AR Presentations, Solved

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Learning Objectives

- **Learning Objective 1:** Understand the value of digital technologies like AR and VR for engaging clients in the design workflow
- **Learning Objective 2:** Understand the value of creating VR and AR projects for every client: reducing meeting time, improving client communication
- **Learning Objective 3:** Learn the easiest way to integrate VR and AR into your practice through a simple Create, Enhance and Present model
- **Learning Objective 4:** Learn how VR & AR deliverables can be created in less time than traditional presentations while generating better output

Description

Virtual and Augmented Reality create wow moments for your clients that differentiate your practice. But until now they've required a significant investment of time and infrastructure to create. Join Yulio as we demonstrate how we've cleared the hurdles to build the best way to create, enhance and present VR and AR to your clients. Yulio has addressed the end-to-end challenges of VR: generate VR files directly from Revit in minutes, enhance those projects with ancillary information right inside your project, and present the project on mobile headsets for in-person or remote meetings. Live demos and practical case studies demonstrate budget and time-friendly ways to create the VR and AR your clients are increasingly asking for into your practice. Hear how clients find success with our turnkey digital reality pipeline and how you can use the power of immersive storytelling on all your projects.

Speaker(s)



Ian Hall

Chief Product Officer, Yulio Technologies Inc

Ian has built his career helping businesses take advantage of disruptive emerging technologies. An early innovator in cloud-based imaging, he led product strategy for a startup later acquired by Adobe. As CPO at Yulio, Ian brings his decades of engineering and human centric design experience to lead the development of AR/VR technologies set to disrupt how businesses sell ideas and products.

Dana Warren

Client Success Manager, Yulio Technologies

As Yulio's specialist in client success, Dana has helped our clients create, enhance and present VR and AR in a simple way that fits their practices' workflow. Dana has been instrumental in sharing the magic of Yulio since 2016, and most recently at Cisco Live in Las Vegas. She is an architect by training and brings a unique, practical focus to our digital technologies that help our clients get the most from their presentations.



Learning Objective 1:

Understand the value of digital technologies like AR and VR for engaging clients in the design workflow

Most architects have seen the power of VR - the way it immerses their clients in a 'wow' moment and tells a design story more completely than models and 2D plans or renderings. To get there, they have gone through some IT and Design hurdles to initiate headsets, take them to their clients, show off a scene that was time-consuming to render, and get to the moment where they succeeded in surprising and delighting their clients. And they have said to themselves "well, we can't do that every day - special projects only". Until now.

The "I'm Just Not Seeing It" Problem

- Our customers all have one common challenge – the need to see a space or product that has yet to be built with enough clarity to make decisions, and sign off
- As design professionals, all of you can probably picture exactly what it feels like to stand in a space or hold a product based on nothing but a set of blueprints, but that's not the case for the average person.
- VR bridges that gap
- VR is immersive enough to show your client what's possible and earn their agreement

The Right VR Solution should help your firm:

- Share your design story in a way that sells your ideas
- Let your team create high-quality client deliverables with less training and time
- Remove the pain points that help you create, enhance and present projects

Learning Objective 2:

Understand the value of creating VR and AR projects for every client: reducing meeting time, improving client communication

- VR and AR are digital tools, but their value is to help you present an immersive design story, and ultimately sell your ideas to clients who have a better sense of your vision.
- Clients are increasingly accustomed to 'try before you buy' experiences in their consumer lives and may unconsciously bring this to design review
- Digital Reality shows clients your vision, saves you time in meetings, and results in faster decision-making and fewer change orders.
- It can help you catch costly mistakes before they happen and set you apart both in your use of technology and your willingness to create the kind of great client communication that builds trust.
- VR tells a story of that which doesn't yet exist
- AR lets you experience something in your own space
- Your chosen VR or AR solution should help you do more, faster

Getting to Practical VR

- Until now there have been small, complexifying factors that get in the way of the benefits of practical VR for architectural practice.
- These may include design overhead, with expensive infrastructure, training, and computing power.
- When you have your project ready, getting it into the hands of your clients can be immensely challenging. You may need IT to get involved to set up headsets or travel with your gear to your client's office
- Yulio's rendering agnostic platform lets your design team focus on hyper realistic visualizations that push the envelope when called for, but it is also recognizes that architects are under huge pressure to do more with less.
- This approach makes it cost effective for practically anyone trained in Revit to create compelling VR content at every stage of the project lifecycle.

Learning Objective 3:

Learn the easiest way to integrate VR and AR into your practice through a simple Create, Enhance and Present model

We've been tackling these barriers to practical VR for a few years, and over lots of beta testing with our early adopter clients, the pattern for making VR practical to use in all client projects has become clear. You need to clear the hurdles across 3 key phases: Creating, Enhancing, and Presenting.

Yulio has worked to clear the friction across 3 key areas for VR and AR:

Creating VR and AR Content

Current State

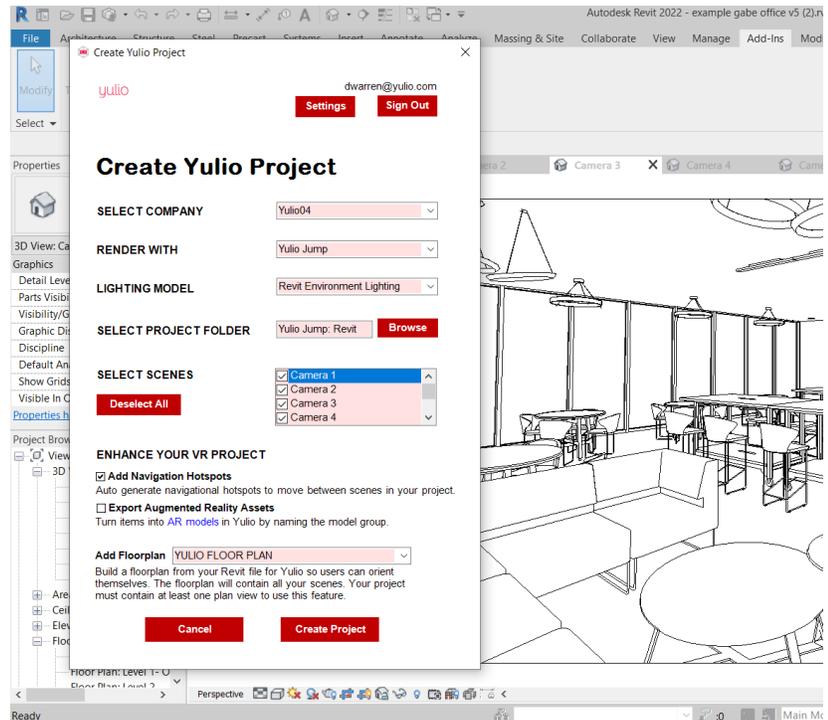
- It's been possible to create VR content from Revit for years, but up until now the workflow has been clunky.
- You needed a third-party renderer to create VR compatible scenes, which then needed to publish to a VR engine of some kind, then enhance for viewability, then package for presentation.
- While this works, its time consuming and tends to require a high degree of expertise.
- To make VR more practical and get to that strong ROI, we needed to make that entire process simpler, starting with creation.
- We've brought our cloud-based renderer technology to Revit making it possible to publish create VR and AR in minutes

Yulio Tip:

VR direct from Revit with a few clicks

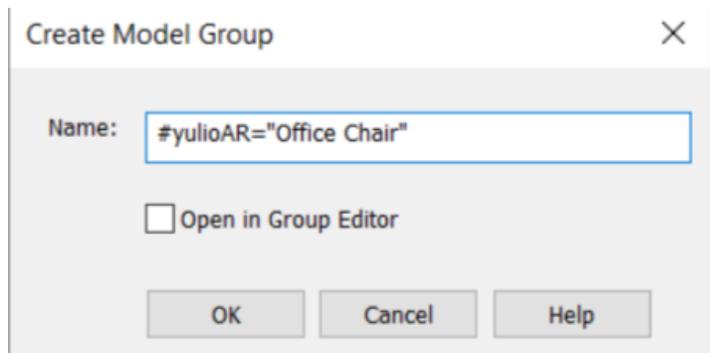
Using Yulio Jump for Revit

- From within your Revit project, you only need to do a few things
- You need to set up at least one 3D view although more cameras covering the space are possible (see navigate section below)
- Open the Yulio plugin – smart defaults are applied
- Choose VR rendering or traditional 2D scene Rendering
- Choose Lighting Model
- Choose where to save your project
- Select cameras
- Choose enhancements – adding in navigation hotspots and AR models
- Select floorplan
- Tap Create – Yulio takes it from there!
- Client and headset ready output is ready to go in a few clicks

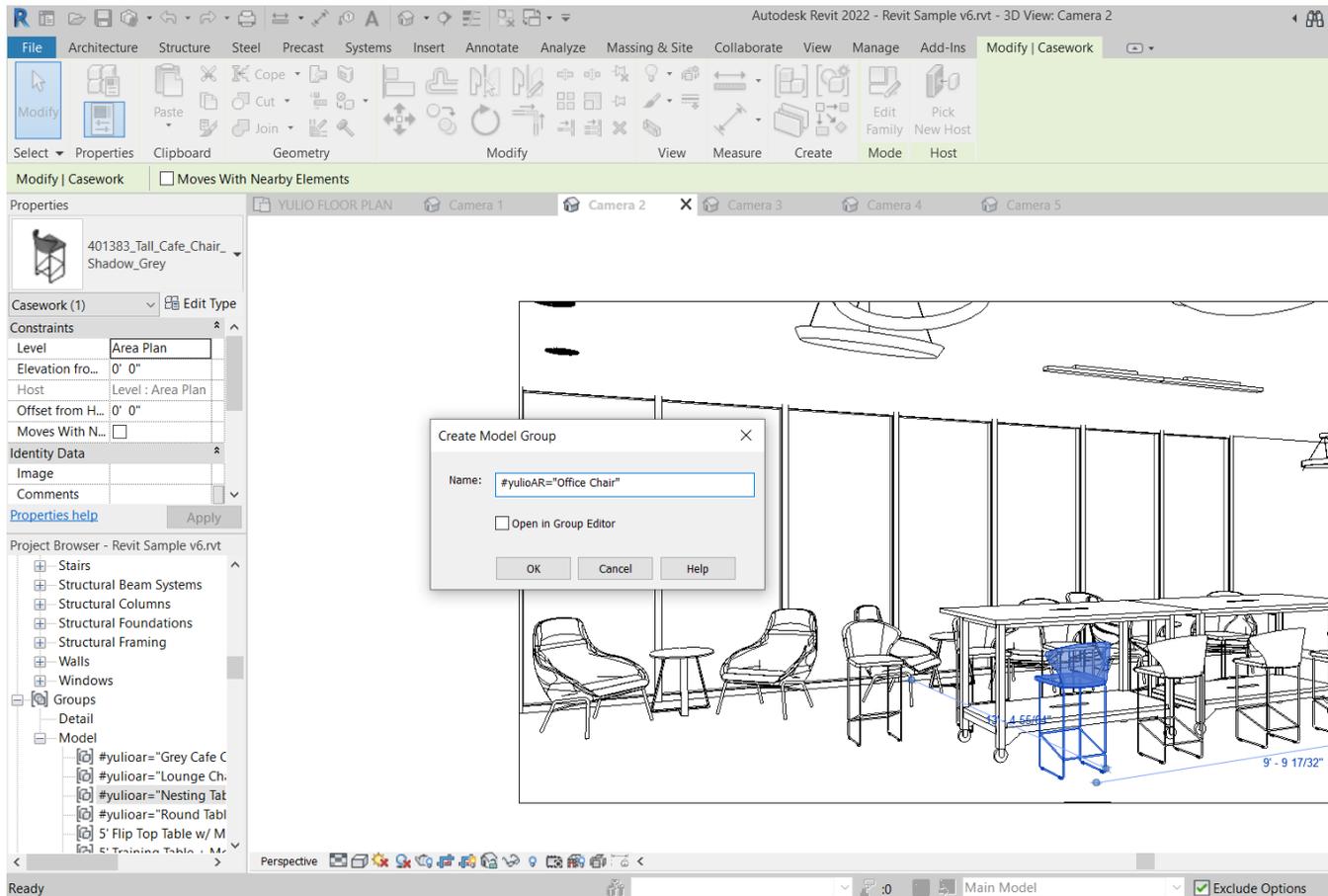


Tagging Objects for AR

- Our fully automated AR publishing feature turns any Revit item into AR with a simple tag
- Add tag, name the object and save



Yulio Tip:
AR direct from
Revit with
simple tagging



Your Completed VR Project

- Depending on project complexity the rendering can take minutes to tens of minutes
- After a short pre-processing step, you can continue to use Revit while Yulio creates your VR project – you will receive an email when your project is complete containing a live link to your project

From: Yulio <support@yulio.com>
 Sent: Monday, August 22, 2022 10:09 AM
 To: Dana Warren <dwarren@yulio.com>
 Subject: Your Yulio VR Project Revit Sample (2022-08-22 09:55:41) is Ready - 2022-08-22 14:08:55

YULIO^{VR}

Your Yulio VR Project Revit Sample (2022-08-22 09:55:41) is ready.

We finished rendering this Project on 2022-08-22 at 14:08:55. Click the button below to see your finished Project!

[VIEW IN YULIO](#)

- Output is a high quality raytraced rendering that takes advantage of native PBR Revit Lighting and materials



Auto Generated Floorplan Navigation

Yulio also helps you remove the need to stitch your render together and delivers a complete, navigable project directly from the tools you use. Your scenes are linked by automatically generated navigation hotspots, and a floorplan created for your project.

- In VR projects, you want to maintain narrative control and flow so that clients don't wander into a wall
- Position your cameras to tell the story and Yulio takes care of creating human centered navigation
- Your cameras will be turned into navigational hotspots to move around the scene
- Yulio's proprietary algorithm connects your scenes together with hotspots to create a natural, walkable space when you select navigation hotspots in the Yulio Plugin

- If you have setup a floorplan in Revit, Yulio will automatically bring it into the VR project and perfectly position and orient navigation hotspots for you, no need to manually upload and calibrate floorplans anymore
- You can move around in non-linear fashion by choosing map points from the floorplan in the project

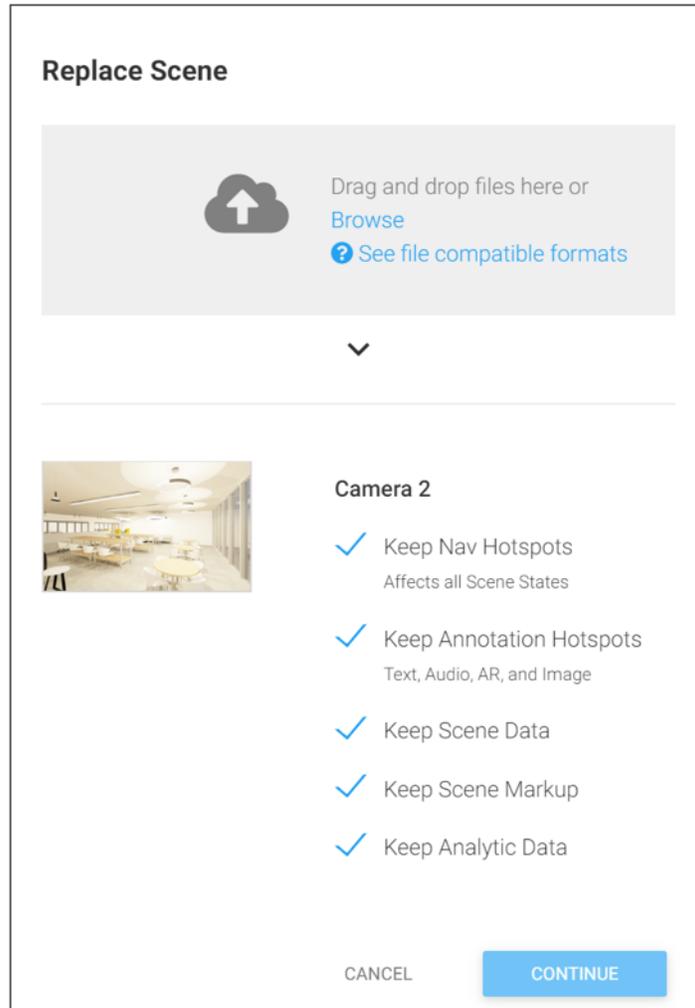


Yulio Tip:
Floorplan hotspots are automatically generated and allow viewers to navigate anywhere of interest

Swapping Renders

- If you wish to create a scene from renderings made outside Yulio, you can still use Yulio to create a VR presentation
- We built this pipeline from the ground up to be compatible with most popular third-party rendering options
- You can use Yulio to quickly create the project, and then simply swap in alternative renders for one or more cameras views
- You can maintain navigation hotspots and other presentation mechanics or other features and simply swap the scene

Yulio Tip:
Swap renders to use Yulio's simple presentation tools with any project



- This renderer agnostic approach lets anyone with Revit training quickly create compelling VR, while also allowing experienced designers to continue to use specialized rendering tools when the project calls for it.

Augmented Reality

AR allows clients to bring any element from your design that you've tagged as an AR hotspot into the real world. It combines the best of VR and AR. While VR is great at completely immersing you, AR is great at taking elements to envision in the real world to understand their scale and integration into their surroundings. Combining them for powerful storytelling brings your presentation to the next level.

- 1.73B AR users are expected by 2024
- Exploding in popularity and for our industry because it allows you to present something in a client's target space
- You don't have to render a whole environment to show something in context – bring the item to the space
- In your live Yulio project, items you tagged as AR in the creation step will have an AR hotspot
- Tapping on this in browser will generate a QR code that can be scanned by your client or team, or if you are on a mobile device, tapping the hotspot will automatically go to the AR item
- Place the object, move around, re-position, walk around and more

Yulio Tip:
Intuitive AR
interactions
make clients
comfortable
using the tool



- Intuitive drag and drop allows your client to use this experience on any mobile device
- We also have an in-headset experience that lets you walk around the object in a natural, intuitive way with a full six degrees of freedom, you can even use the built-in cameras for a mixed reality view.

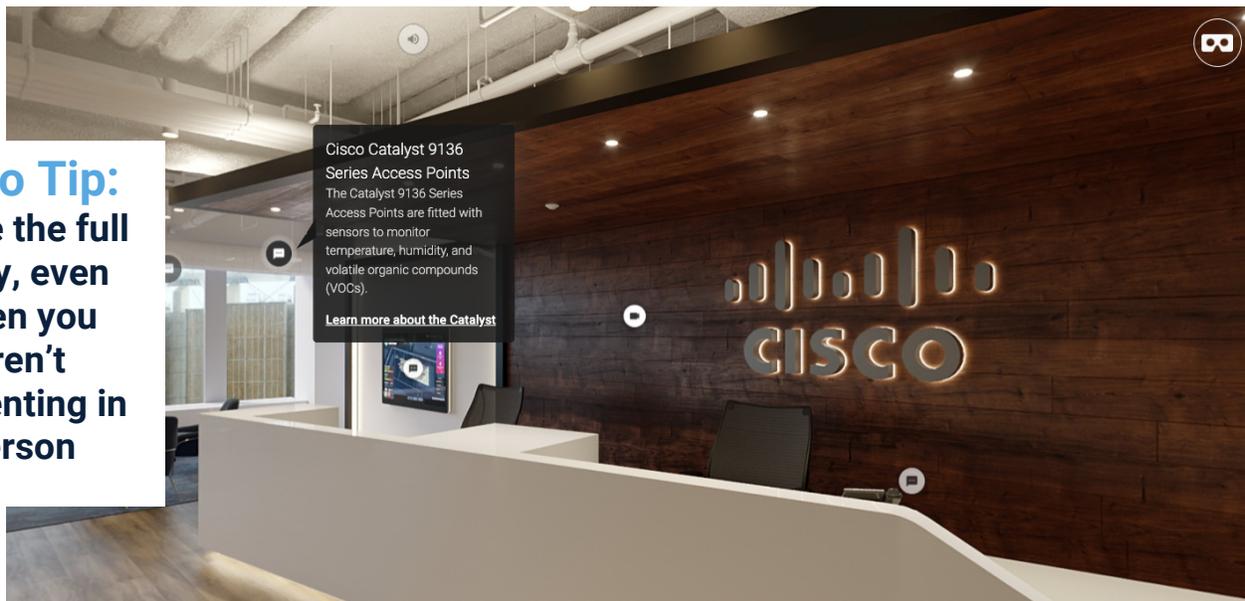
Enhancing Your VR Project

Your rendered project is the biggest part of your story - but a VR solution that allows you to enhance that story with relevant assets gives you the chance to enrich your narrative.

It can also be an opportunity to provide relevant project details or commentary in situ. Using ancillary assets that you already have like product images, video clips or audio that explain your design can help you create a single client deliverable with all the information in one place.

- Yulio's menu of enhancements can be used any time you create VR, whether for in-person presentations, for use on your website or more – but perhaps they are most useful when you won't be present to guide your client through your design
- You still want to maintain storytelling control, so you can use a wide range of annotations to guide viewers through your work
- You can add audio or video narratives, ambient sound tracks, contextual images and text, even links to external resources.
- These hotspots are triggered by gazing in the headset, or clicking in browser mode

Yulio Tip:
Share the full story, even when you aren't presenting in person

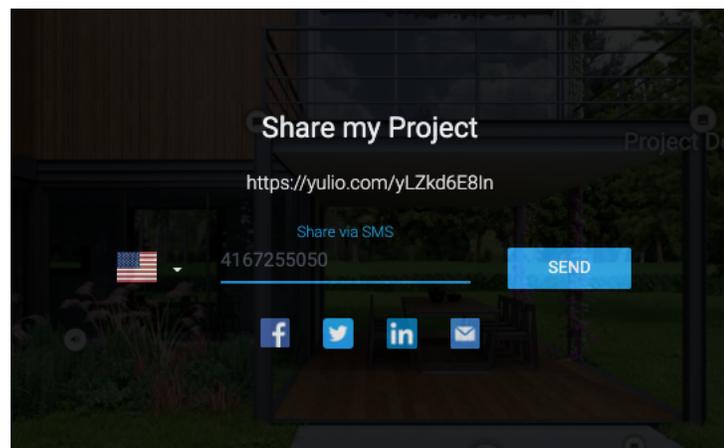


- The value here is that everything appears in the context of the VR project and users don't have to leave the visual to see more information. They don't need to pop into and out of VR to understand your full design story

Presenting Your VR Project

Yulio solutions allow you to present on any browser-enabled device, and for fully immersive experience, on many user-friendly headsets, including the Meta Quest 2, a current best-in-class headset available for a few hundred dollars.

- Presenting in VR has historically been challenging
- This is especially true because about 80% of client reviews are done remotely
- Any solution you choose needs to work in person and remotely
- You can always share a Yulio project through a URL which you can send on text or email, share on social media or embed on your website



Yulio Tip:
If your client is comfortable with a URL, they can use Yulio to view

Yulio Collaborate

Your VR presentation software should allow clients to explore the scene themselves while you 'look over their shoulder' or can let you guide clients through it. And because the last thing you want is to lose the magic of your design in technology, it needs to have a very low learning curve for clients to navigate once they're in the headset.

- You'll get greater ROI when you show your work in a headset
- Choose the project you want to share and open Collaborate
- You can join on desktop, mobile or headset and Yulio will create a shared experience for all viewers



- Yulio is fully compatible with the Quest 2
- You can follow your client and see what they are seeing in real time
- You'll get full context from your client's comments and know exactly what they were looking at
- Take control back from a client to spotlight or re-focus attention at any time

Learning Objective 4:

Learn how VR & AR deliverables can be created in less time than traditional presentations while generating better output

One of the most valuable outcomes of presenting in VR for your design team is the specific feedback that is so well contextualized - you get the opportunity to know exactly what your clients were looking at when they made comments that might otherwise feel vague like "it feels too cramped" or "is it dark in this area?" etc.

Yulio Markup

- Create a markup layer on any project – use 'pen' to live circle or add text comments to capture real-time feedback
- Client can see that their feedback is collected in real time, in 3D and their field of view
- Feedback is saved in the project and maintained as part of the data set so you can share it with your design team

- Then turn the markup layer on or off to continue your unobstructed presentation



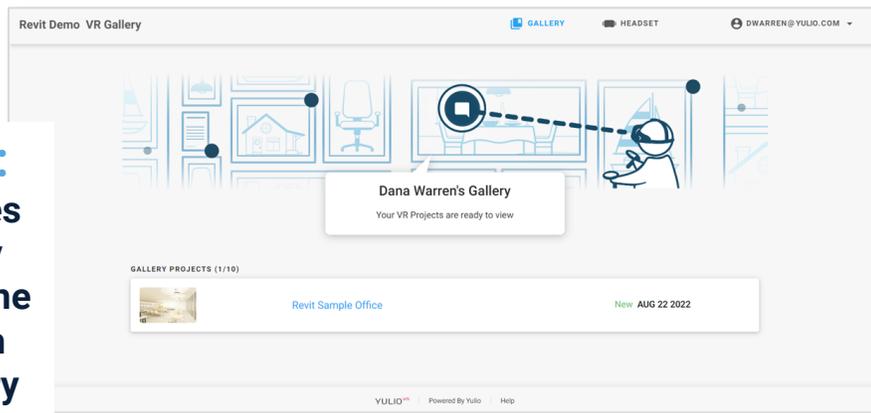
Yulio has focussed on this presentation method from the perspective of both your client, making it easy to join and use, but also from your perspective making it simple to share VR on a headset, capture feedback and maintain control of the story

Yulio Client Gallery

Client Galleries were designed to be the simplest way for Yulio users to store and share their projects with their clients. By setting up an exclusive gallery for their client, users can make it much easier for their client to access all projects related to their project.

- There are times when you need to present a series of design and design iterations over the course of larger projects
- To help you manage this, we created the Yulio Client Gallery
- Think of this as your client's personal VR portal

Yulio Tip:
Send updates
effortlessly
throughout the
project with
Client Gallery



- As you create VR content, you simply add it to your client's gallery and it will be instantly and securely available to them to view on desktop, phone or connected headset
- You control the content – you can add, remove, or update VR projects, and they will immediately be visible to your client through their private Gallery
- We have customers who love this feature because it lets them send out inexpensive Quest 2 headset as part of RFP responses.
- When you're trying to win the project, you can share portfolio work and early ideation
- When you've won the job, you can transition to sharing project designs from earliest concept to shovel ready
- With Client Gallery, all your client needs to do is keep the headset charged up and Yulio takes care of the rest
- Best of all, you can create as many Client Galleries as you want, for free

Next Steps

When you choose a VR solution, you aren't choosing technology - you're choosing a workflow to help you win clients through storytelling and emotional engagement, and a way to distinguish your practice from competitors. You need it to generate positive ROI fast, and be productive for your team - and not a burden on time and infrastructure. The power of VR to disrupt architectural presentations is all inside its ability to show us a vision of something that doesn't yet exist.

Yulio takes all of the authoring and presentation mechanics and IT friction and makes it all go away so you can get to that joyful client moment faster.

Check it out for at <http://www.yulio.com/pricing> where you can sign up for a free 30-day trial.

We can't wait to see what you'll create!

Useful Links:

Yulio blog: <https://blog.yulio.com/>

Project Showcase: <https://www.yulio.com/vr-showcase/>

Contact Sales: jhumphries@kisp.com



<https://www.facebook.com/yulioVR/>



<https://www.youtube.com/yuliovr>



<https://www.linkedin.com/company/yulio-technologies-inc/>



<https://twitter.com/yuliovr>