

Architectural Visualization from the artist's perspective.

Christophe Chevallier

Norm Li Studio

Architectural Visualization
is everywhere.



2018

Kitchens

All brochure prices are maximum prices valid until
15 July 2018 (Prices are subject to any alteration in VAT)







Hamilton supports Waterfront Shores proposal to turn Pier 8 into a 'jewel'



Mayor says plan will transform the concrete slab into something the city can be proud of

Dan Taekema · CBC News · Posted: Jun 06, 2018 4:16 PM ET | Last Updated: June 6



City staff are supporting a proposal from the Waterfront Shores Corporation to build hundreds of condominium units, retail and walkable public space on Pier 8. (Waterfront Shores Corporation)

[3 comments](#)

An ambitious plan to turn the concrete slab that currently makes up most of Hamilton's Pier 8 into a residential area bristling with condominiums where "all streets lead to the water" has been selected by councillors.

TIMBER RISING

Wood buildings are not only the Pacific Northwest heritage—they're also its greener, taller future.

Written by BRIAN LIBBY



Set to open Fall 2018, Katerra's 150,000-square-foot Catalyst building in Spokane, Washington, will be the state's first office building constructed out of environmentally friendly cross-laminated timber. Eastern Washington University will be the building's primary tenant.

CONSTRUCTION DISRUPTION

Written by STACY KENDALL

MODULAR AND PREFAB CONSTRUCTION HAS COME A LONG WAY, BUT EVEN THE MOST CUTTING-EDGE COMPANIES IN THE INDUSTRY STILL HAVE AN "AIR" PROBLEM.

Preassembled factory-made structures have large volumes of air inside them, and thus transporting them from factory to site is clunky, and limited to the size of the truck or railcar that can carry them. Clearing the air, as it were, is one part of what three-year-old technology company Katerra hopes to do in its remaking of the often wasteful construction industry.

The Menlo Park, California-based firm, whose cofounder, Michael Marks, was interim CEO of Tesla for a time in 2007, has thrown its hat into the disruptor ring with an \$865 million

worlds this past February. Katerra, unlike consumer-facing companies such as Uber and Airbnb, has set its sights on the more mundane but lucrative market of developers and construction companies. If Katerra can fully scale up its model—which compresses the multiple steps inherent to most construction projects by owning its supply chain and production processes from start to finish—the company stands to become the ultimate global construction machine.

With vertically integrated teams, the crux of Katerra's innovation is its control of design, engineering, supply chain, offsite manufacturing, and its LEGO-like crate assembly

Renderings of Katerra Architects' new First Tech Federal Credit Union headquarters in Hillsboro, Oregon, show how exterior paneling of varying widths and heights can be deployed to subvert the volume of a large CLT building. From a distance, double-height panels disguise the number of floors and minimize the structure's size to make its five stories look like only four. »



Why is it everywhere?

- Our world is growing and changing everyday
 - Our cities change
 - Our interior design tastes change
 - Our daily living is always evolving

- ArchViz is the medium to tell stories about
 - A future community
 - A future space to work in
 - A future place to live in

What type of application?

Who creates architectural visualizations?

What is our approach?

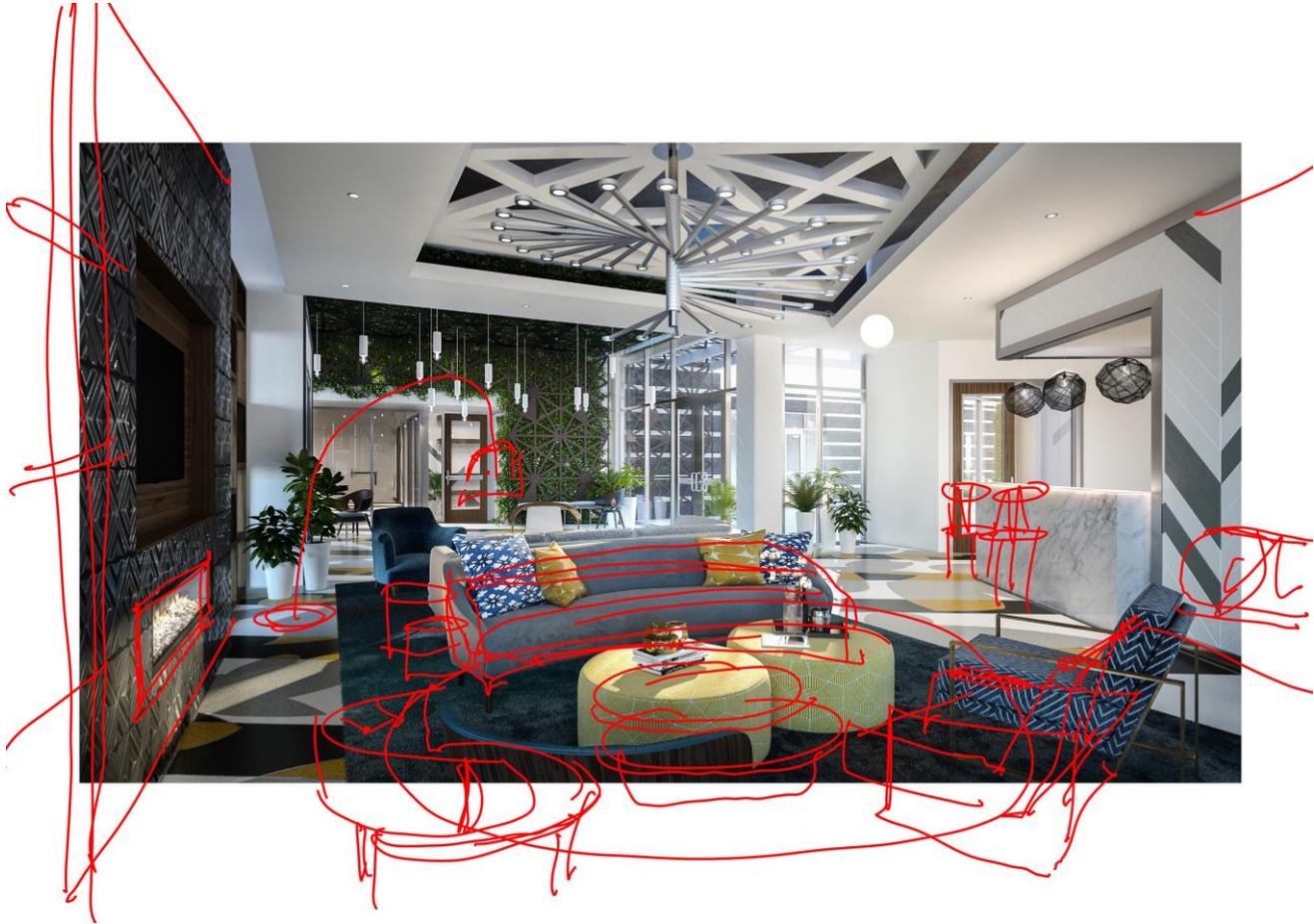
What is important to us?

Types of Applications

Design Review

End user: Architects, interior designers, Clients





Architectural Competitions

End user: Jury, investors, public





Urban Planning

End User: City planners, Government, Public



Marketing

End User: Public



NL



NL



NL

ArchViz is more than just still images:

1. Animations
2. Interactive experiences
3. Virtual reality
4. Augmented reality
5. Web

Who creates architectural visualizations?

Who creates architectural visualizations?



Students

Team Size: 1-3

Type of application:

Design review

Software: Revit, Rhino,
Sketchup

Resources:



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Architects

Team Size: 1

Type of application:

Design review, Client
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Resources:



Freelancers

Team Size: 1

Type of application:

Client presentation,
Urban planning,
Marketing

Software: 3DS Max +
Sketchup

Resources:



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Software: 3DS Max +
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Resources:



In house
rendering
team

Team Size: 1-10

Type of application:

Design review, Client
presentation, Urban
planning, Marketing,
Animations

Software: Sketchup, 3DS
Max

Resources:



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Team Size: 1

Type of application:

Design review, Client presentation, Urban planning, *Marketing*

Software: Revit, Rhino, Sketchup

Resources:



Freelancers

Team Size: 1

Type of application:

Client presentation, Urban planning, Marketing

Software: 3DS Max + Sketchup

Resources:



In house rendering team

Team Size: 1-10

Type of application:

Design review, Client presentation, Urban planning, Marketing, *Animations*

Software: Sketchup, 3DS Max

Resources:



Visualization Studio

Team Size: 5-50+

Type of application:

Client presentations, Urban planning, Marketing, Animations, Interactive, VR, etc.

Software: 3DS Max

Resources:



All are different but all have things in common:

1. Always have tight timelines
2. ArchViz artists come from:
 - Formal education in architecture or design
 - Self-taught
3. Great artistic sense but lack formal technical training
4. Passion for ArchViz

Who are we?

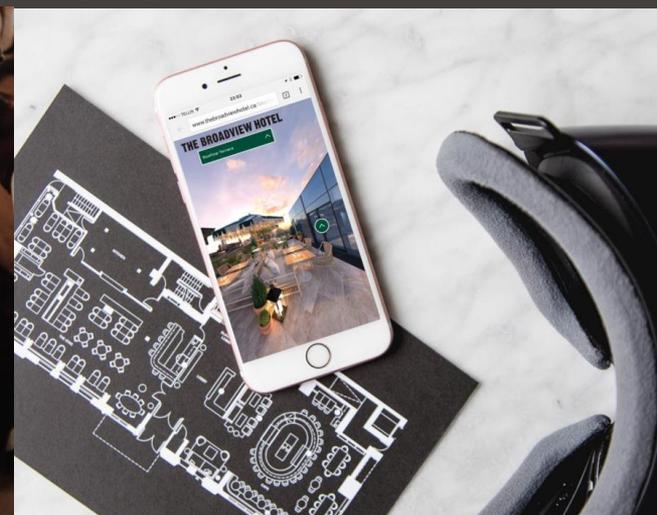


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Process is Key

Our Typical Workflow: Week #1 — Image plan

NORM LI

Siggraph / Presentation

15 January 2016



CAMERA



INSPIRATION IMAGE

INTERIOR BEDROOM

Detail shot of the bed side table with the walk in cabinet beyond. We chose to show this space in the evening to make it inviting with blue cold light inside but warm lights inside.



Send to client for approval

Our Typical Workflow: Week #2 — First Iteration

Client's comments

Add materials
Add details
Refine lighting
Refine mood



Send to client for approval

Our Typical Workflow: Week #3 — Second Iteration

Client's comments

Refine accessories
Refine materials



Send to client for approval

Our Typical Workflow: Week #4 — Final Image

Client's comments |



Deliver final image

Software



MAX



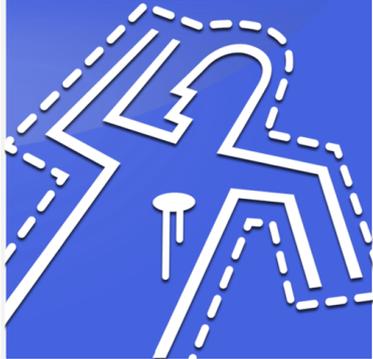
v-ray



corona



phoenix



Custom
Scripts



UNREAL
ENGINE

What's important to us, the artists?

What's important to us as arch viz users?

Robust solutions.

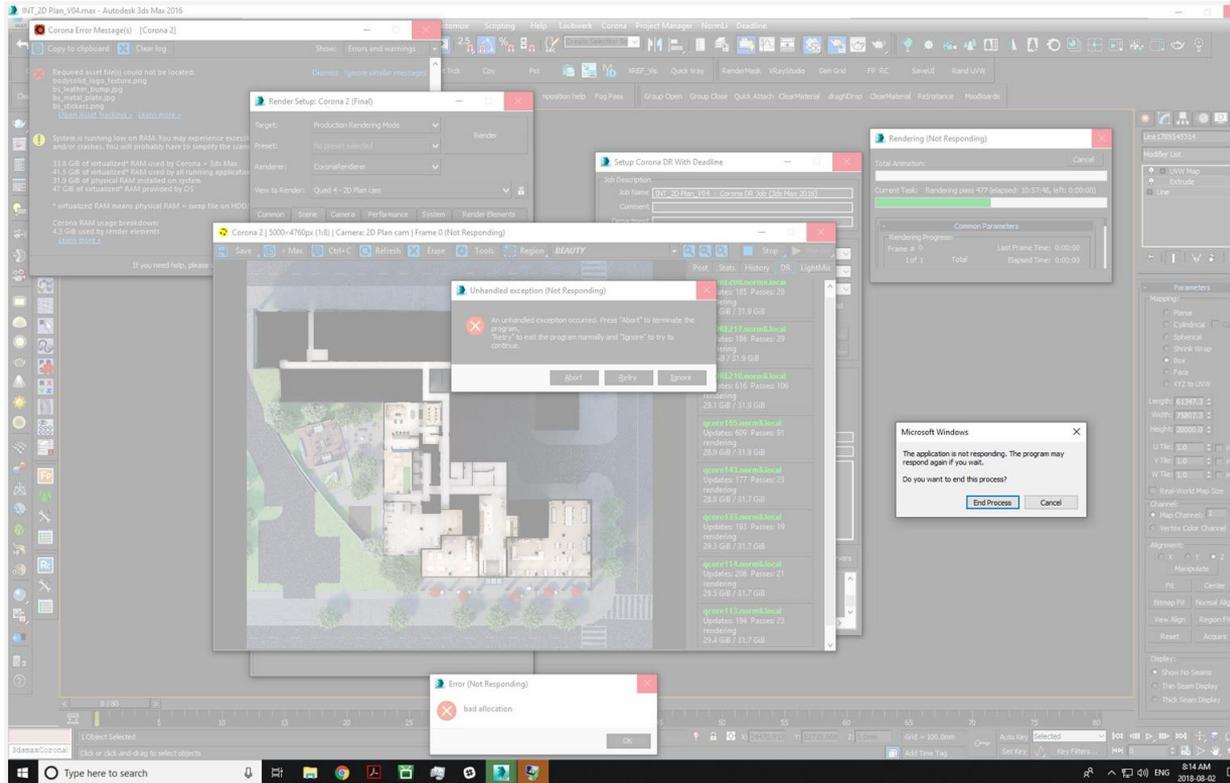
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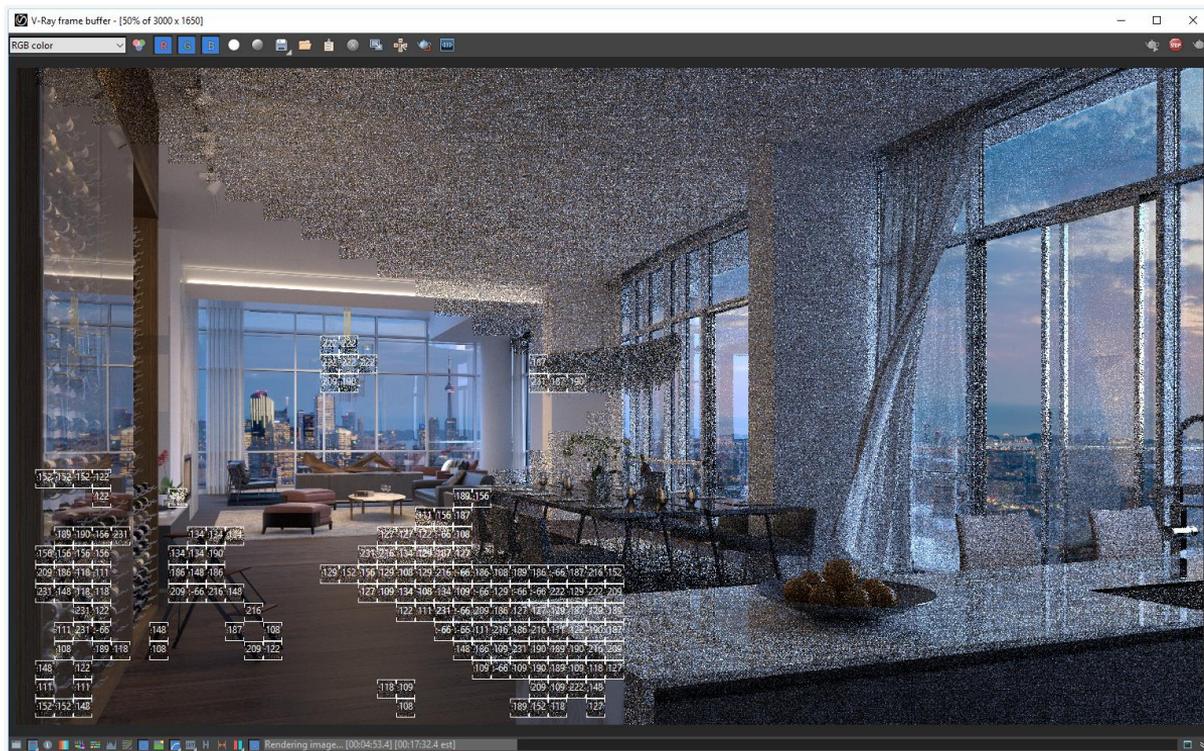
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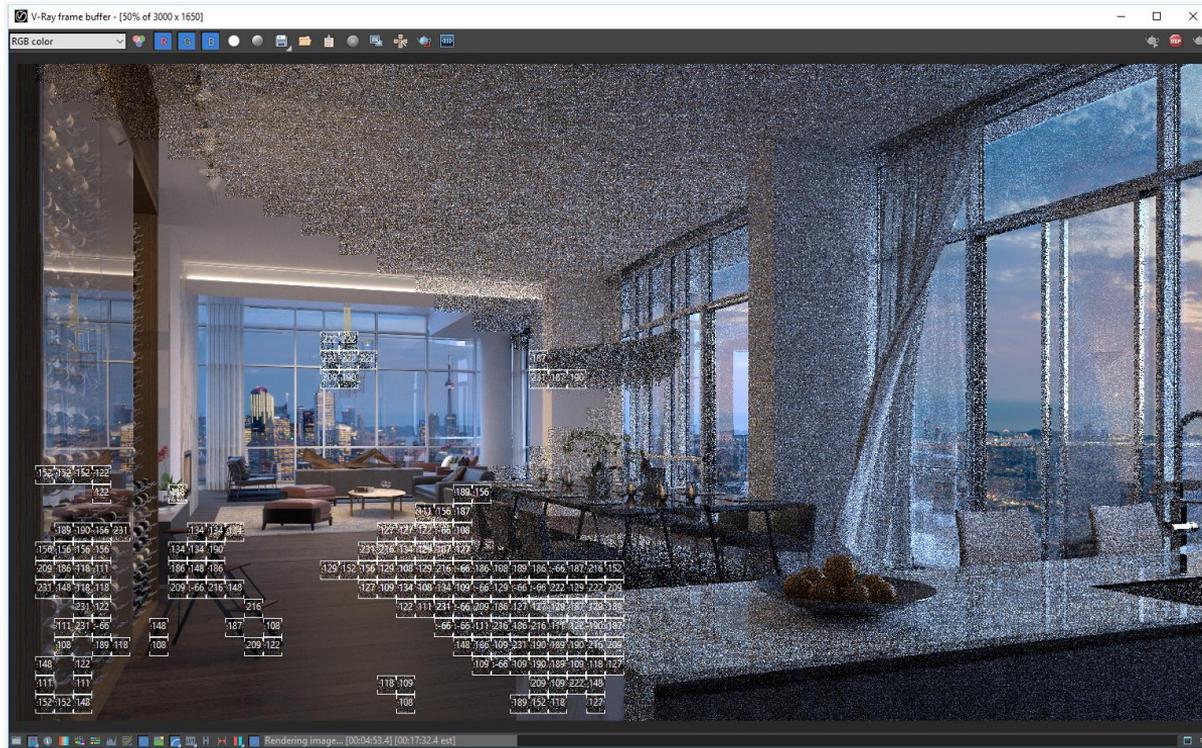
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Render speed.

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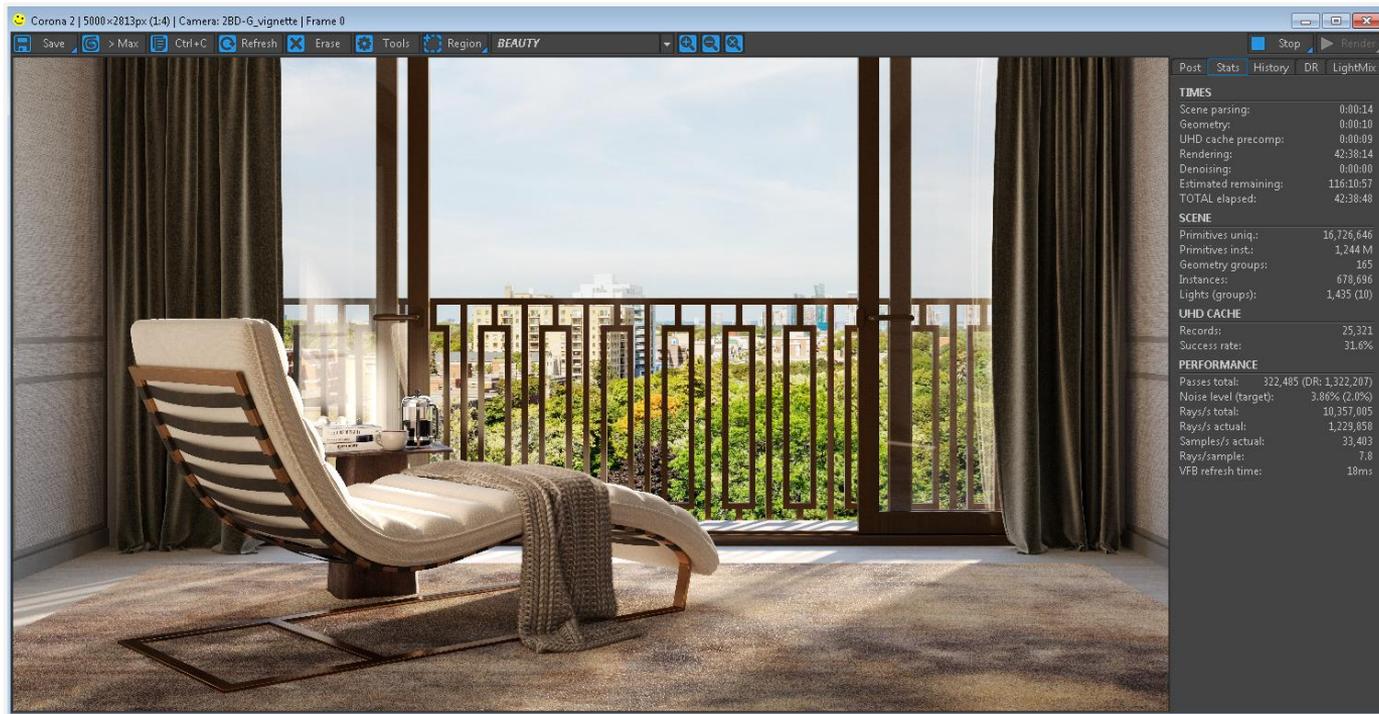
5k images, 10 render nodes

1-4 hours in Vray
2-6 hours in Corona

1-3 Hours per frame for
HDTV animations

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Render speed.



What's important to us as arch viz users? Render speed.

Corona 2 | 5000x2813px (1:4) | Camera: 2BD-G_vignette | Frame 0

Save | Stop | Render

TIMES

Scene parsing:	0:00:14
Geometry:	0:00:10
UHD cache precomp:	0:00:09
Rendering:	42:38:14
Denoising:	0:00:00
Estimated remaining:	116:10:57
TOTAL elapsed:	42:38:48

Post | Stats | History | DR | LightMix

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SCENE

Primitives uniq:	16,726,646
Primitives inst:	1,244 M
Geometry groups:	165
Instances:	678,696
Lights (groups):	1,435 (10)

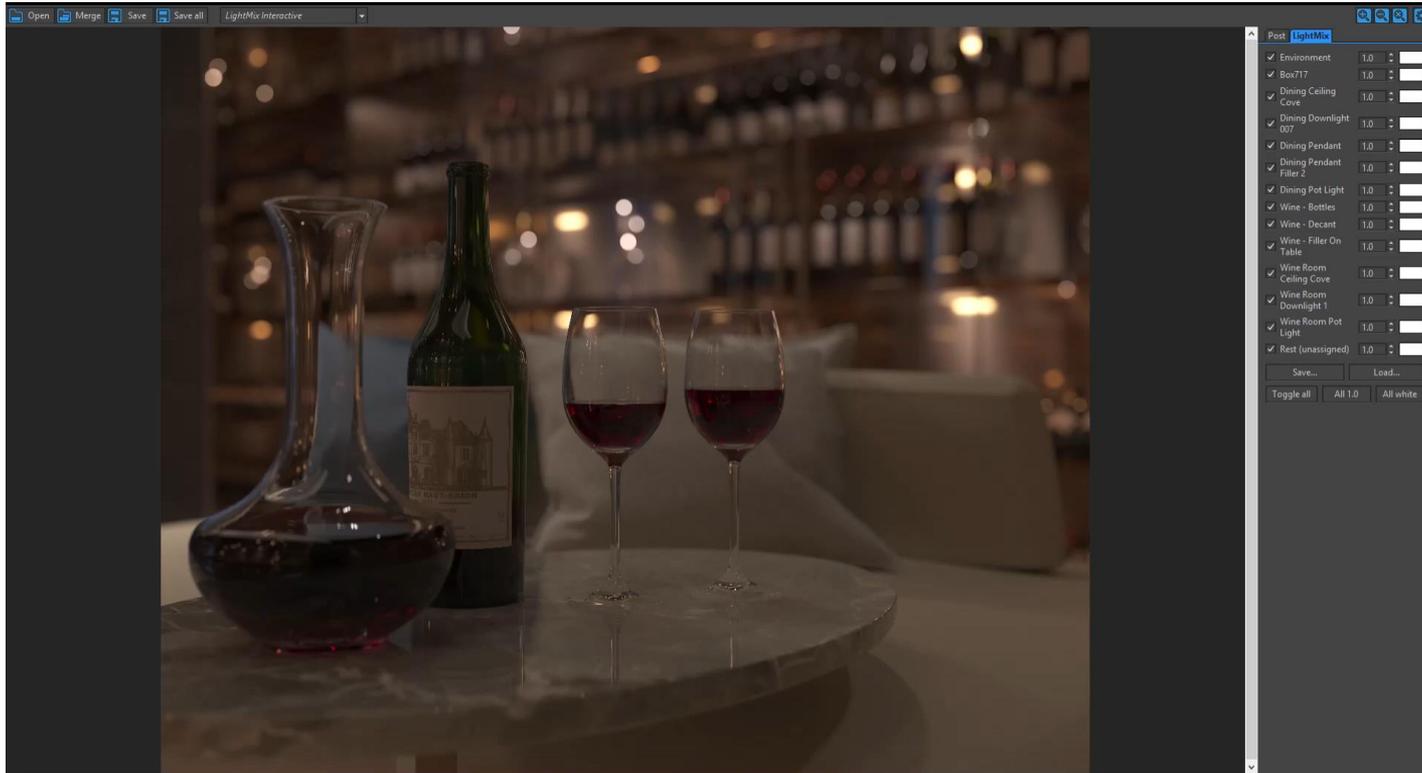
UHD CACHE

Records:	25,321
Success rate:	31.6%

PERFORMANCE

Passes total:	322,485 (DR: 1,222,207)
Noise level (target):	3.08% (2.0%)
Rays/s total:	10,257,005
Rays/s actual:	1,229,858
Samples/s actual:	33,403
Rays/sample:	7.8
VFB refresh time:	18ms

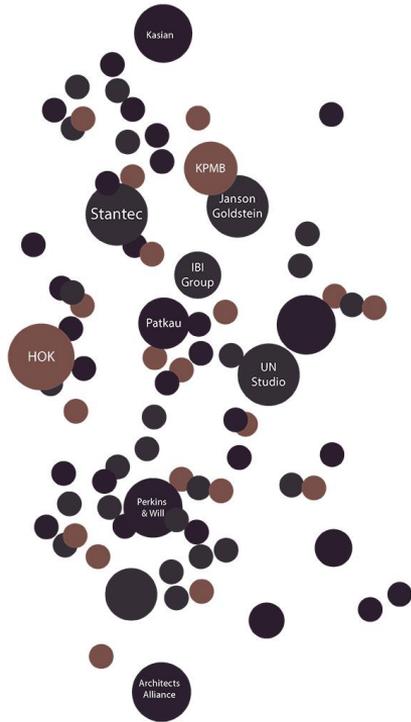
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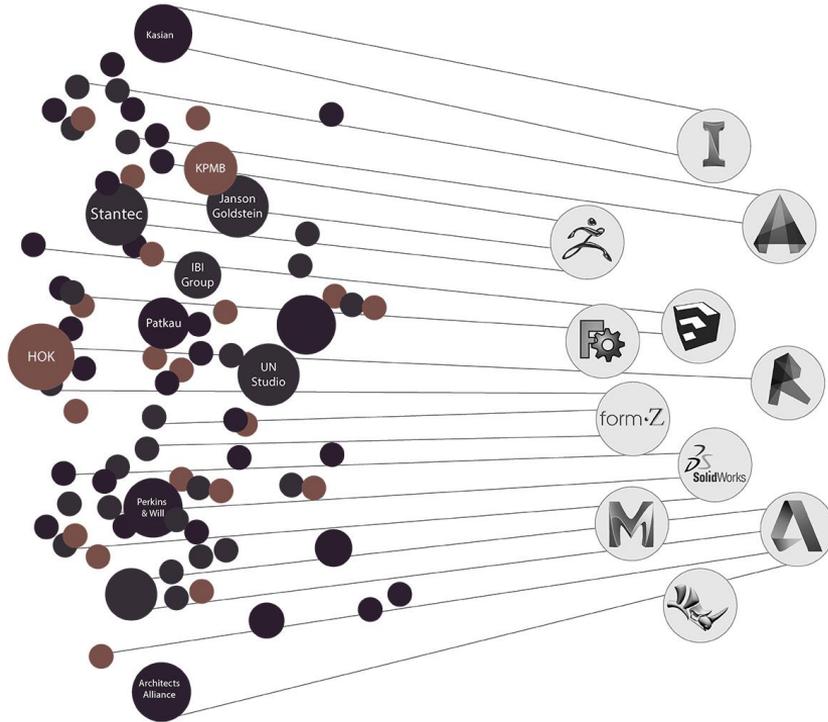
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Software compatibility.

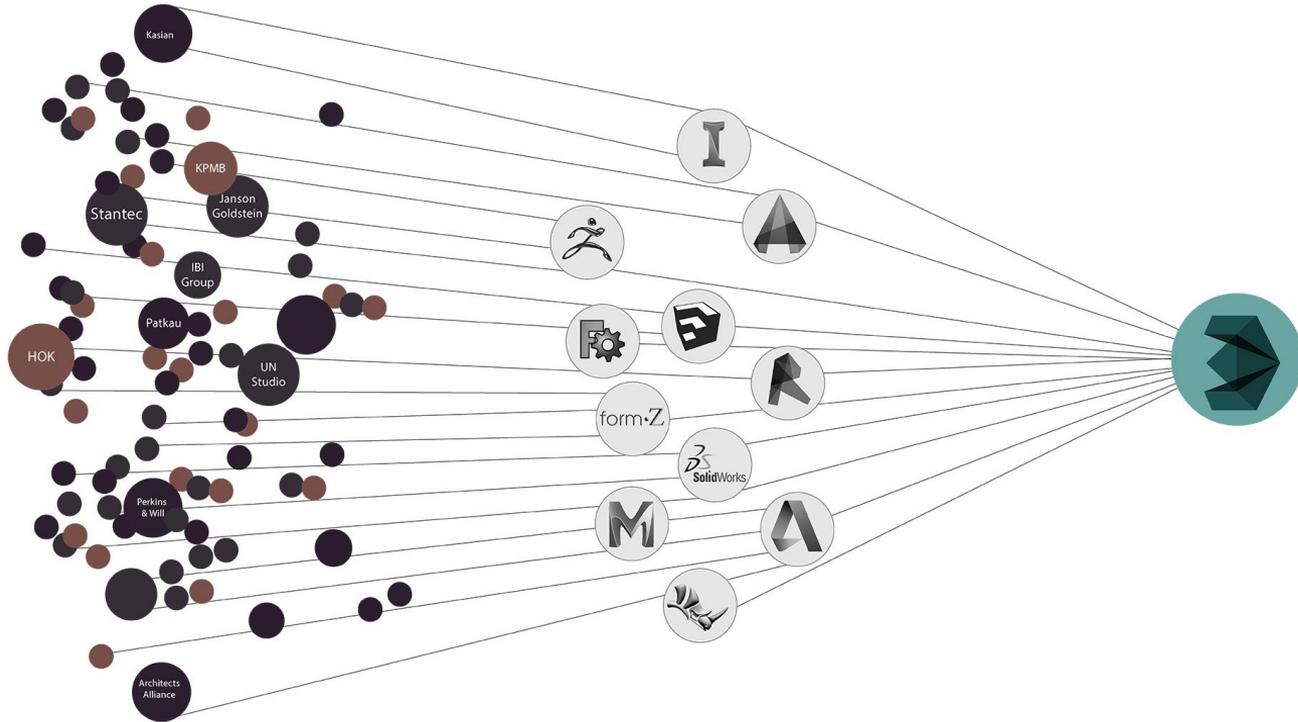
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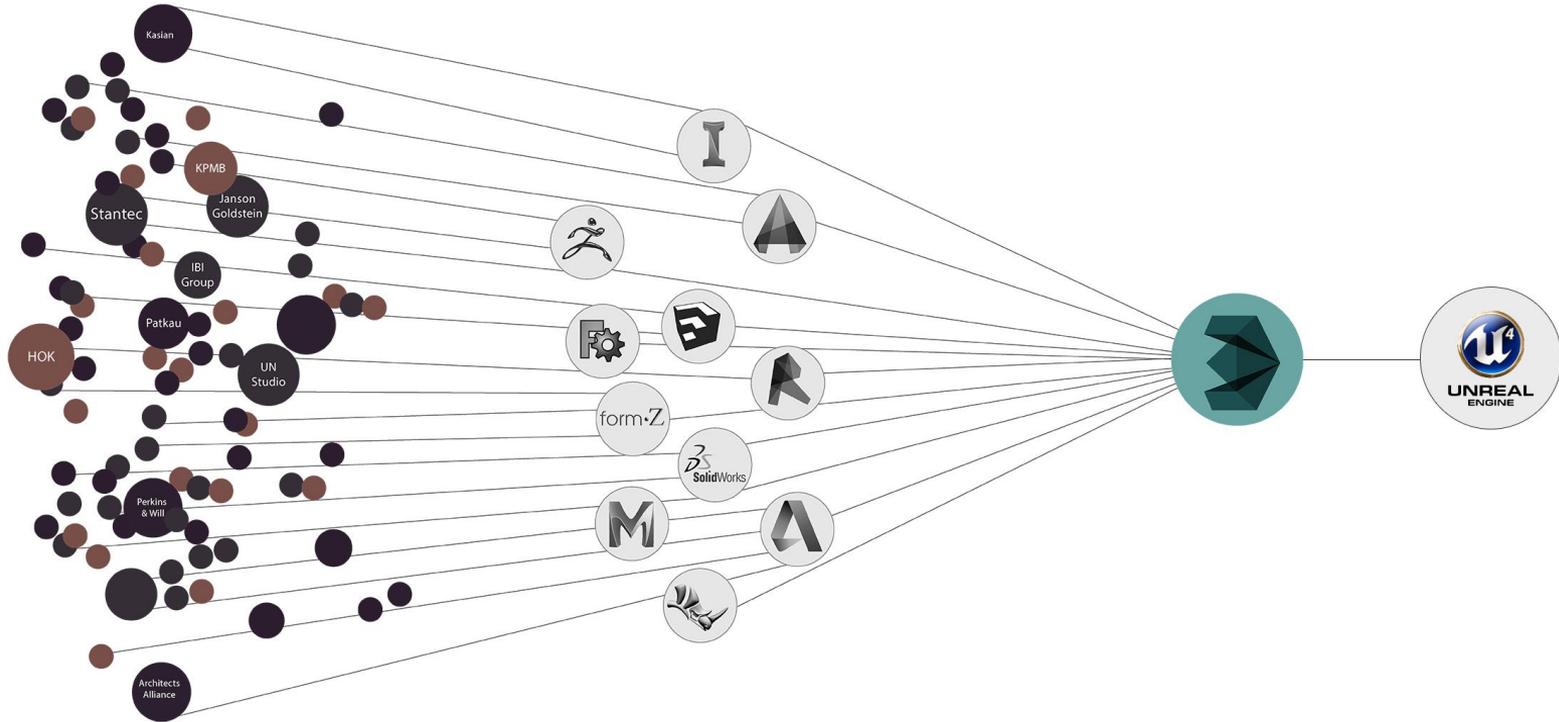
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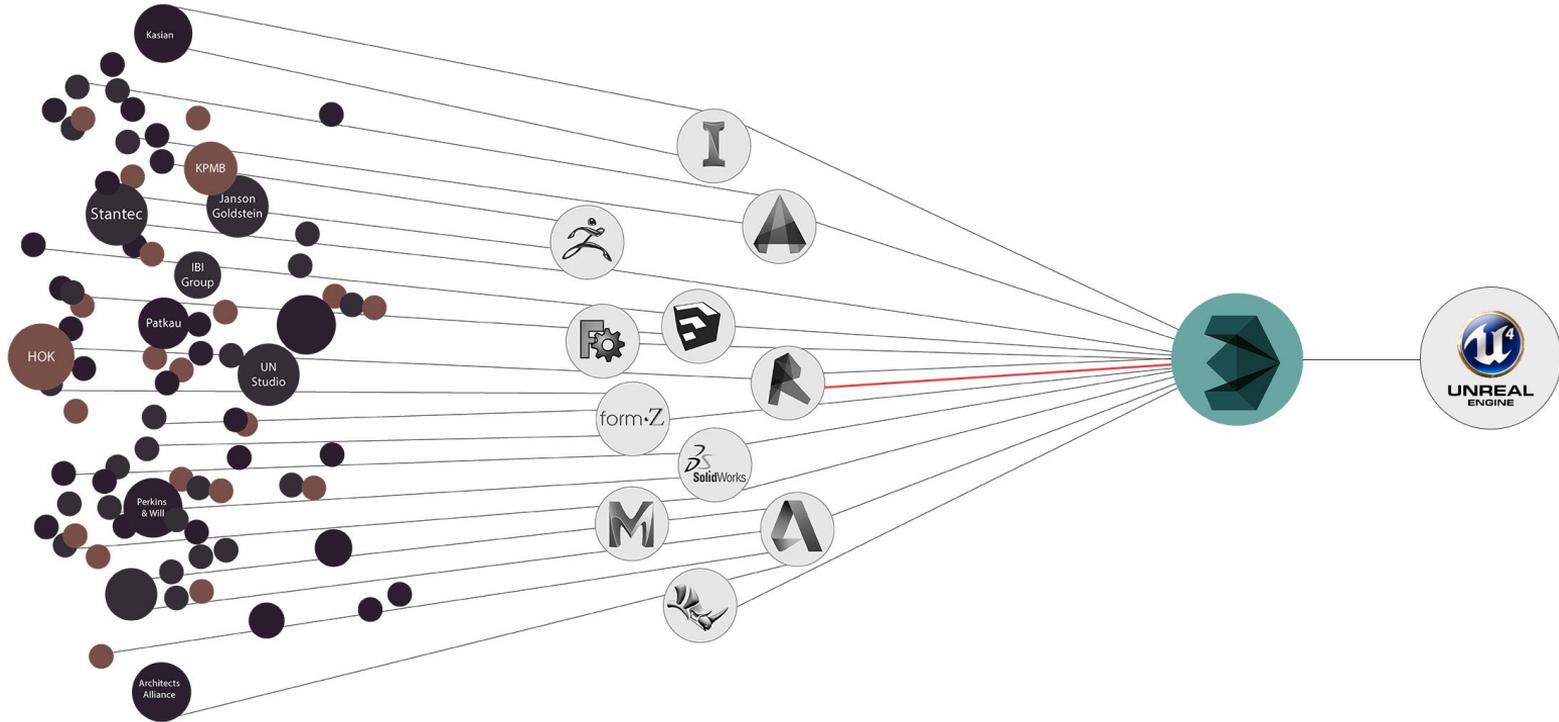
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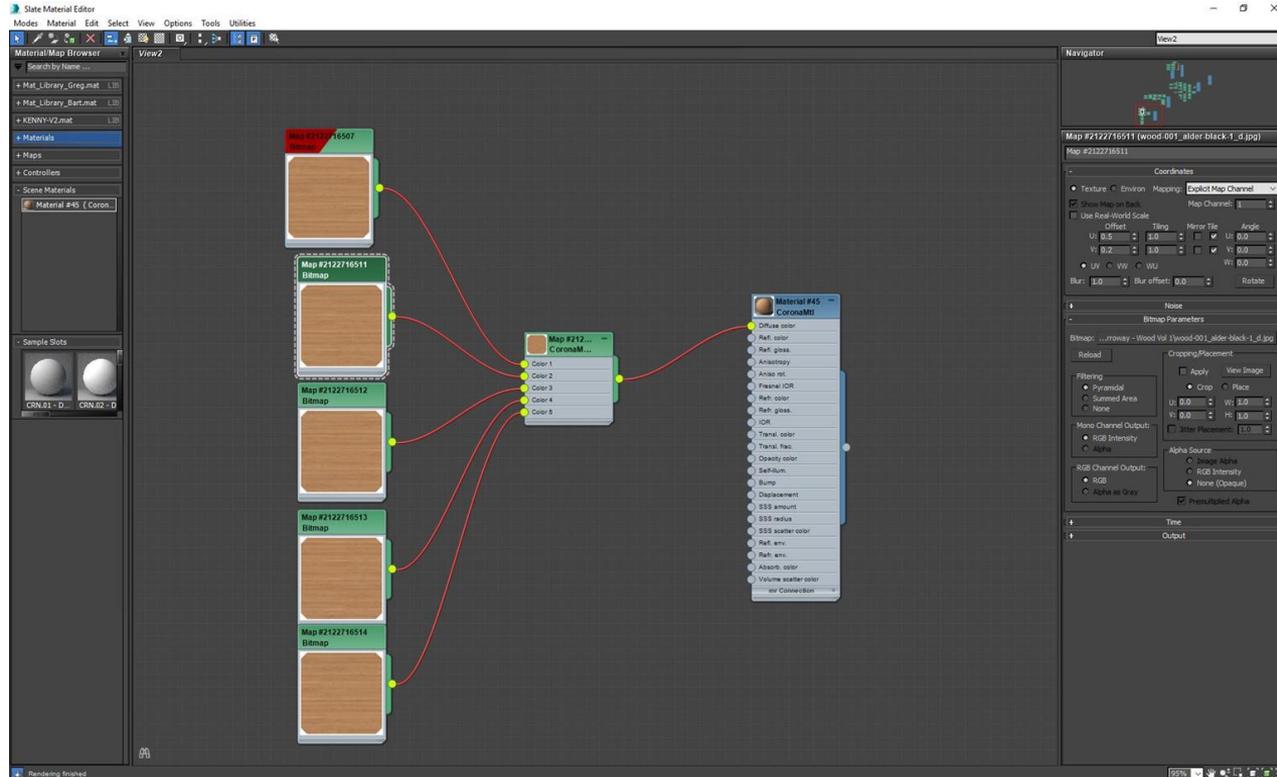
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Solutions that answer our specific needs.

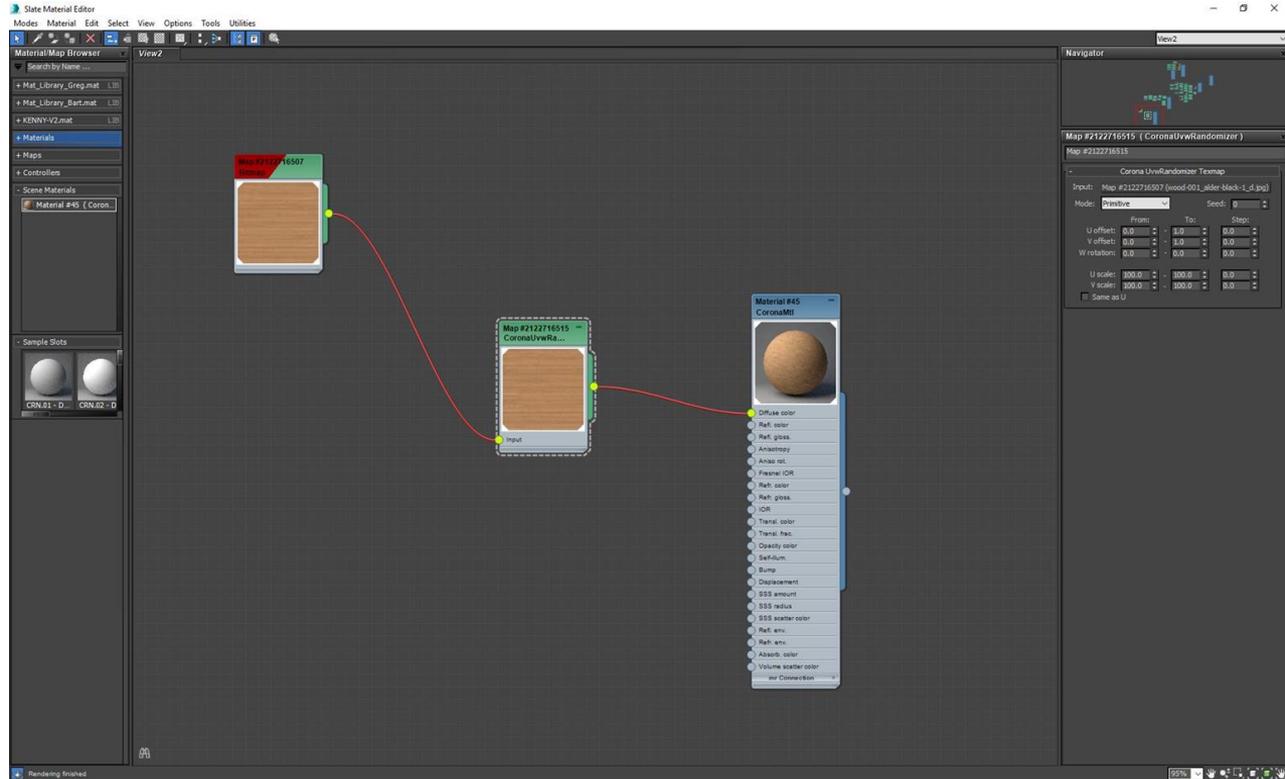
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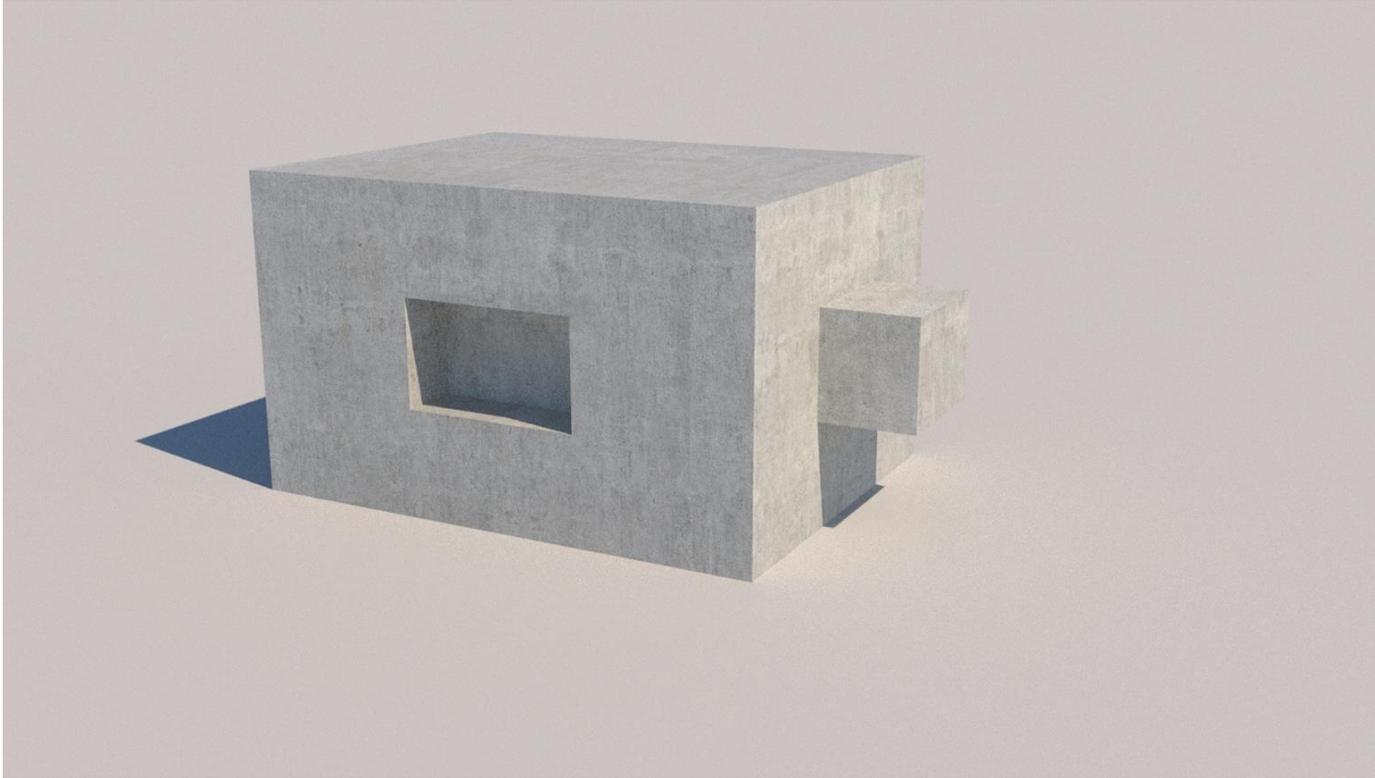
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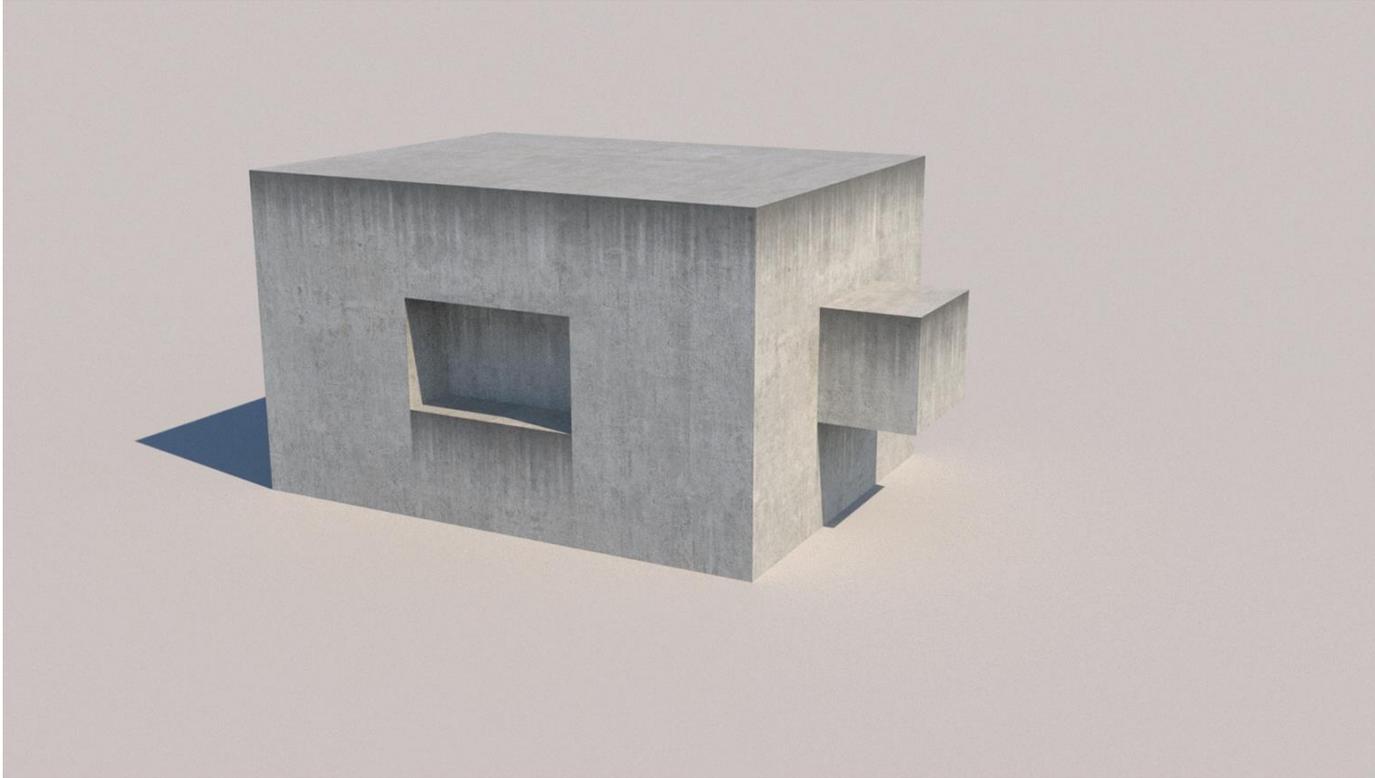
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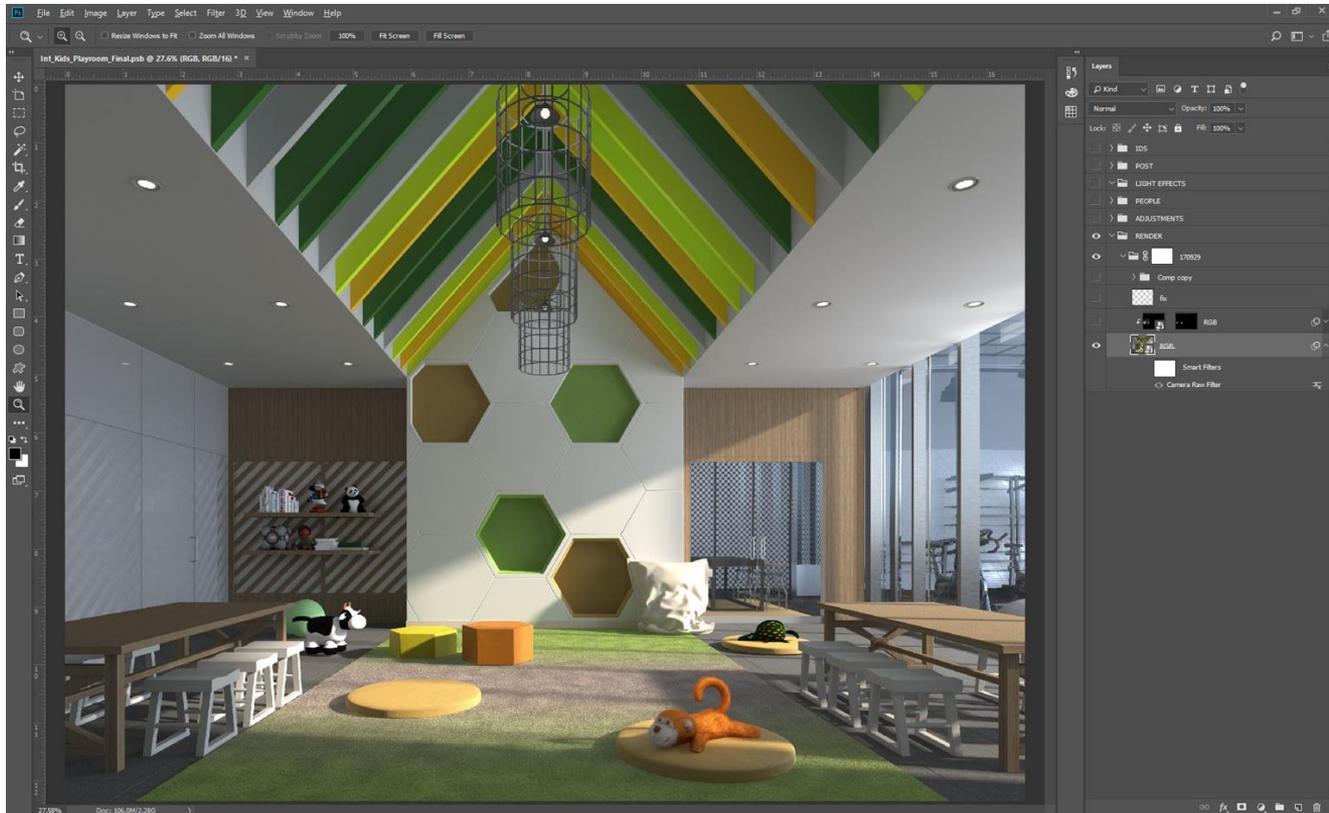
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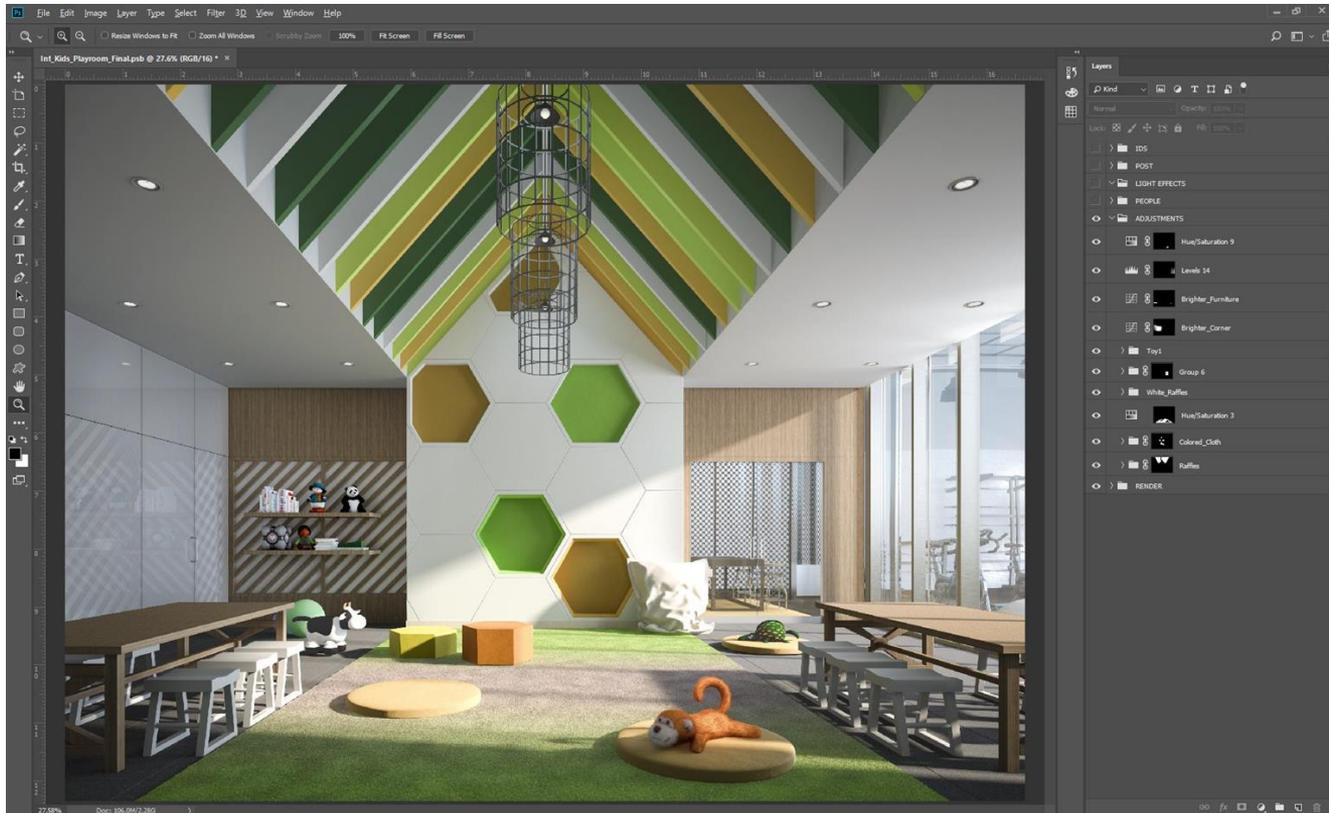
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In-engine post production.

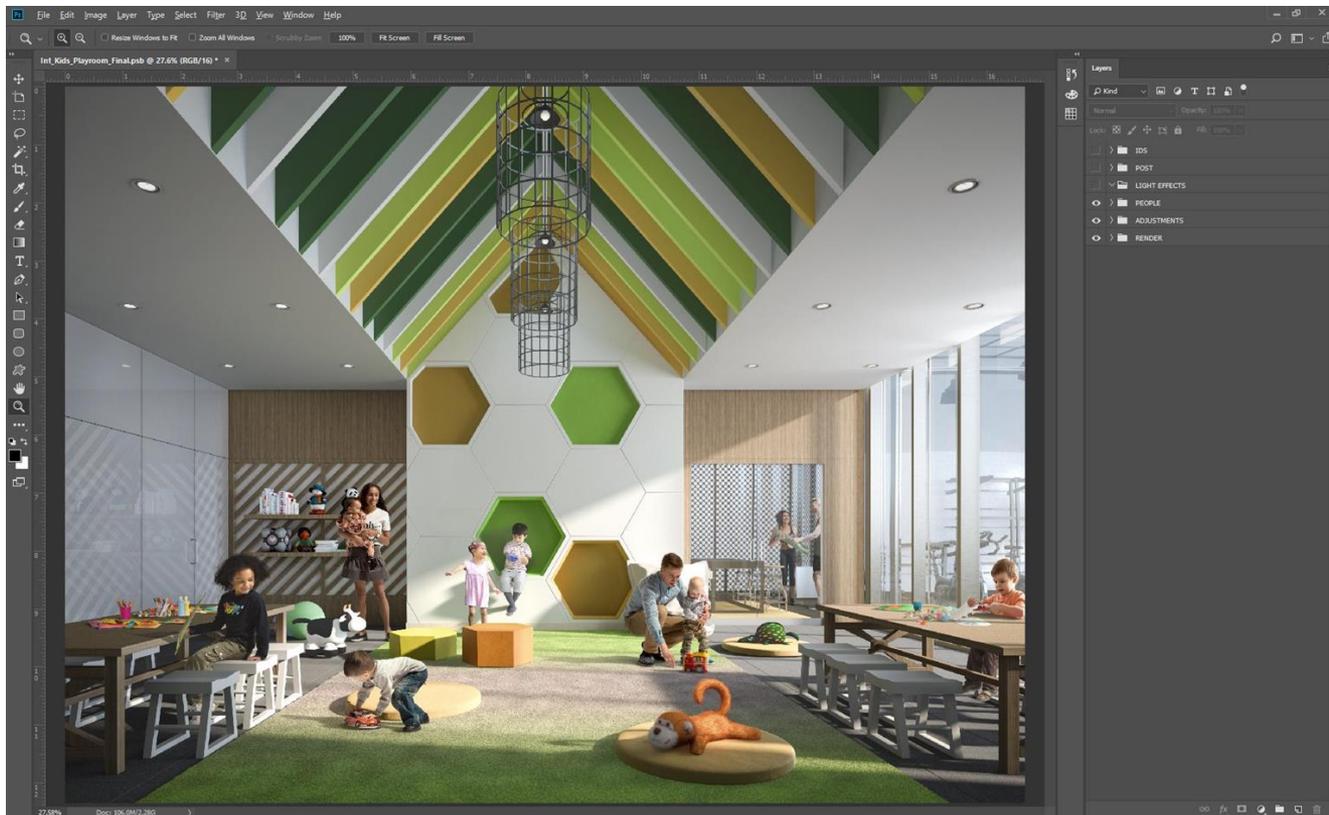
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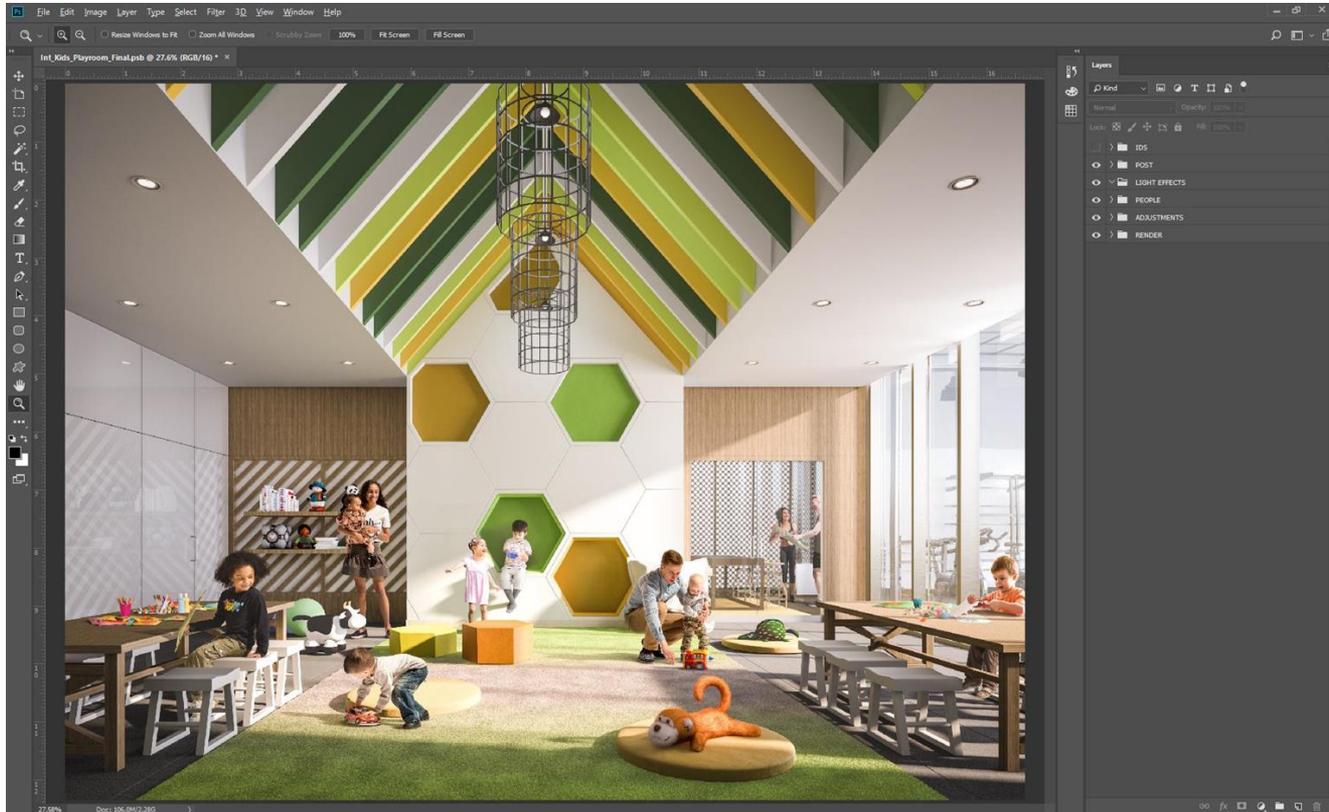
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What's important to us as arch viz users?
In-engine post production.



What's important to us as arch viz users?

Creatively use software
to produce captivating imagery
with narrative, mood, and purpose.

Conclusion

Passionate about the art form.

Nerdy about technological possibilities.

Excited to innovate on new platforms and expend ArchViz content.

Challenge to create more complex work within tight timelines.

ArchViz is everywhere.

Bright future for the industry as demand and expectations of quality continue to grow.

Looking forward to new technologies that will empower us to tell more stories about unbuilt places and spaces.