

Comprehensive 3D CG Software  
that supports BIM/CIM

# Shade3D

English / Chinese  
version released  
**Ver. 24**

Japan-made  
3DCG Software

Market Share

# NO.1

Researched by Fuji Chimera  
Research Institute, Inc  
(Aug. 31, 2020)

All-in-one 3D CG software made in Japan that can do everything  
from modeling and rendering to animation and 3D printing



**Basic**



**Standard**



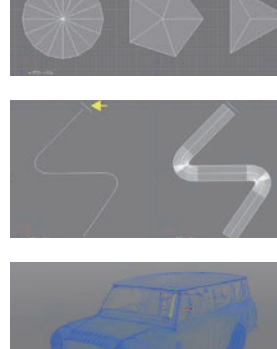
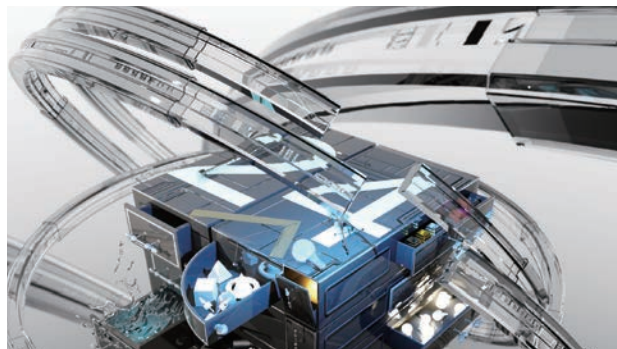
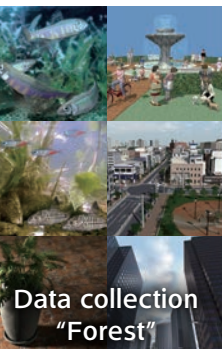
**Professional**

For a variety of usages: Interior / exterior  
perspectives, Interior design, Product design

Photorealistic depiction and  
precise modeling by CAD function

Create 3D models for  
animation and 3D printing

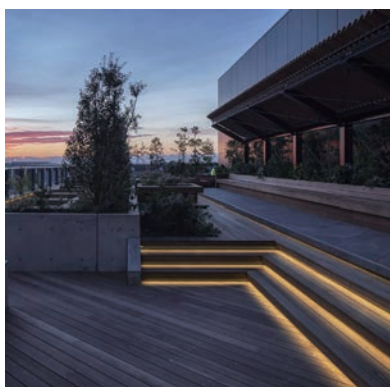
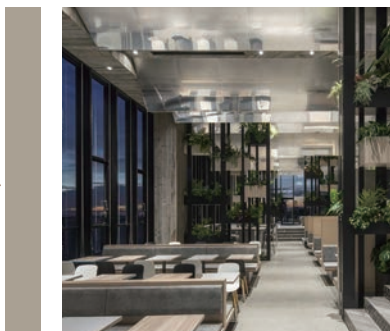
High quality CG expression by  
rendering function



3D models and texture  
to create simulation data

## CG Input Support Service

Supports VR/CG data  
creation in general





# Shade3D

Shade3D is a comprehensive 3D CG software developed in Japan with a wide spectrum of features from high-precision modeling, rendering, and animation to multi-functional layout workspace, camera, and light source, and many more features required for high-precision architectural perspectives modeling, interior design, and product design. Certified as the software recommended for the Certification of CAD engineer Grade-1 (Japan).

Available in 3 grades for many different applications

## Basic

To know 3DCG

## Standard

Create 3DCG with quality for presentation

## Professional

Fully compatible with 3DCAD

## Main Features

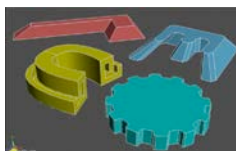
**S** : standard **P** : professional **METAVERSE** : Metaverse function

### Modeling / Editing

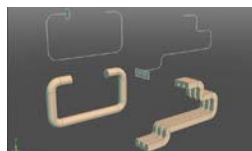
Supports curved surface modeling, NURBS based modeling **P**, polygon modeling, and swept surface. Zoom, rotation, shear, move, and size setting. A dedicated tool (polygon mesh) for vertex, edge line, and surface. Real-time Boolean operation, floating-type fillet, surface chamfering tool, shape arrangement by assembly, and measurement of surface area, volume, and center of gravity. Supports the standard bone.



NURBS modeling **P**



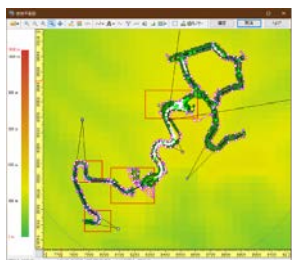
Closing Free-form Surfaces



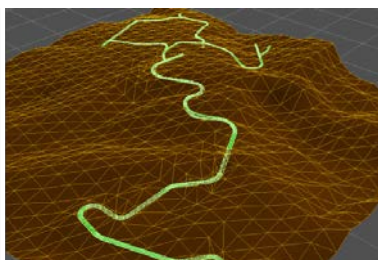
Swept surface

### Input/Output road alignment to LandXML **P**

Corresponds to LandXML input/output of road alignment. Road alignment information and terrain data (polygon mesh) can be imported from UC-win/Road through LandXML, and horizontal alignment information of road alignment can be exported from Shade3D to LandXML.



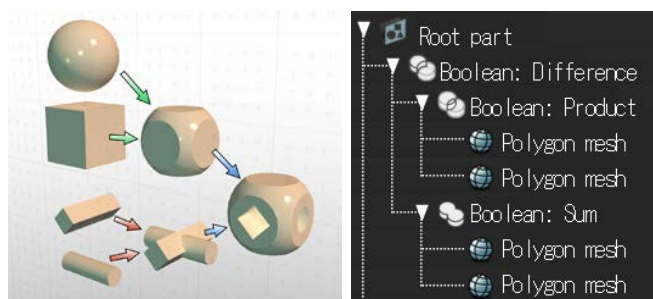
LandXML



The shape imported and colored in Shade3D

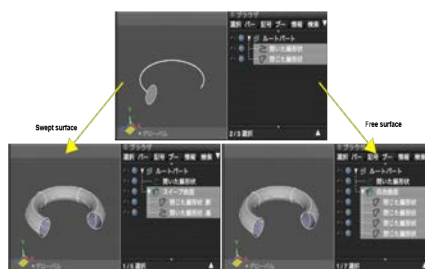
### Polygon mesh in Boolean operation part **P**

Real-time reflection of hierarchical parts assembly allows quick adjustment of positions and modification of the original shape. Modeling by combining basic shapes and trial-and-error and redoing in the final process of 3D printing such as integration can also be done efficiently.



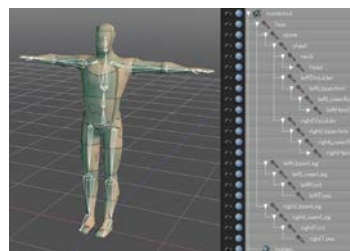
Types of shapes to be generated by the Sweep tool can be selected

The types of shape created by "Sweep" can now be selected between "Swept Surface" and "Curved Surface"



### Standard bone **METAVERSE** **NEW**

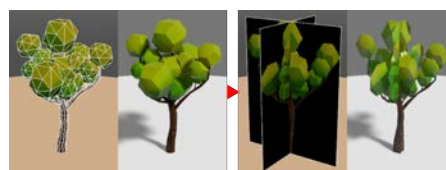
Support the creation of highly compatible joint structures by adding restrictions to conventional bones.



Human body structure made with standard bone

### Box model converter **P** **METAVERSE** **NEW**

It converts near-landscape high polygon models into billboard and box models for far-landscape to quickly create light models for the metaverse.



Plane model



Box model

### Polygon Reduction **METAVERSE** **NEW**

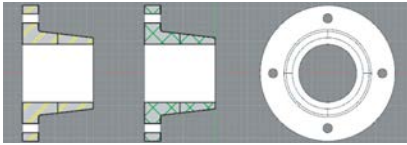
Added the function to turn on/off "Triangulate" and "Use UV Boundary"



(from the left) Original, Triangulate: On, Triangulate: Off

## 2D drawing

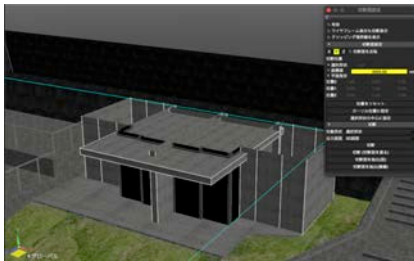
Supports creation and display of independent views for 2D drawings. Multiple 2D drawings can be created and displayed within parts. "Drawing" display mode has also been supported from the Ver.22.



"Drawing" display mode

## Cutting

Supports the cutting position with numerical input of coordinates.

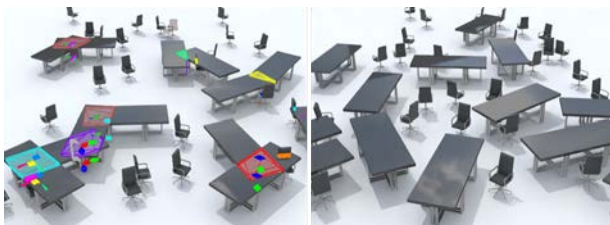


## Layout function

Split View on the right displays views from 4 different camera angles: Top View, Front View, Perspective View, and Side View. Drafting hidden lines can also be displayed from Ver.22.

### Collision avoidance in surface replicator

In the surface replicator, it is possible to arrange objects without overlaying. It is useful for avoiding unnatural overlaying when arranging objects randomly.



Arrangement so far

Collision avoidance

## Camera function

META  
VERSE

The same settings as those of real camera such as zoom, pan, dolly, angle of view, tilt. Possible to be reflected to animation

## Rendering

Expresses atmosphere by using ray tracing, path tracing, and global illumination photon mapping. Physically Based Rendering (PBR, rendering method that uses bidirectional reflectance distribution function and rendering equation to accurately render the flow of light and materials in the real world) approach is used to take rendering to the next level.



**HDR Display**\*OS, GPU, and monitor supporting HDR display are required

HDR (High Dynamic Range). (Real-time display of drawings, rendering image display) High-brightness image can be edited and previewed in real time.



### Global illumination

Light coming directly from its source but also light rays from the same source that are reflected by other surfaces generate a natural atmosphere



Path tracing + Photon mapping **S P**

### Light source

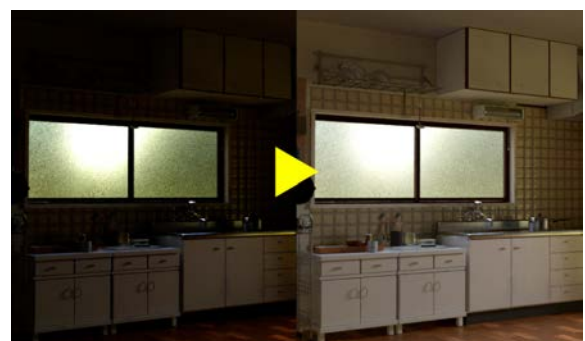
META  
VERSE

Spotlight, surface light source, line light source, parallel light source, point light source, ambient light, light distribution by IES data, infinite light source such as sunshine. Sunshine simulation (animation) by setting date, latitude, and longitude.



### Linear workflow

Color management method that treats colors in the linear color space so that all image materials in work in progress can be displayed same as that in the real world. It contributes to an increase in work efficiency at every stage of 3D CG creation or digital compositing to produce photorealistic results.





## GPU ray tracing P

GPU Ray tracing enables high-speed and high-quality image generation by performing ray tracing on the GPU, unlike the conventional real-time rendering using the CPU.



## AI Denoiser S P

Equipped with a noise reduction library developed by Intel, and is capable of efficiently removing high-frequency noise through AI-based deep learning filter. High quality, noise-free results can be easily obtained in a short time without the need for complicated settings. Greatly effective for Global Illumination Path Tracing (without Irradiance Caching), shadow softness of light sources, Area Light, Linear Light, and roughness of surface materials.

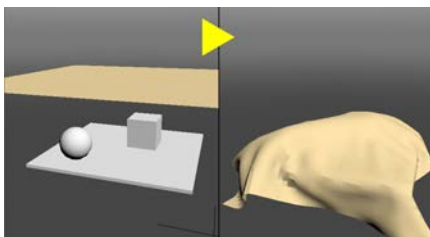


## Animation function METAVERSE

A variety functions including shifting by joint, rotation, zoom in & out, camera work, move along path, organic deformation by skin, BVH import, walkthrough. These movement and deformation functions can also be used as modeling functions.

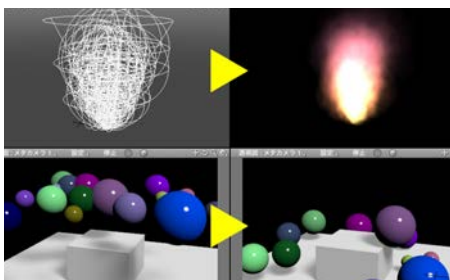
### Physical assistant

You can set things such as moving and stopping for each shape, and perform simple physical simulation such as free fall, landing, covering with cloth.



### Particle physics

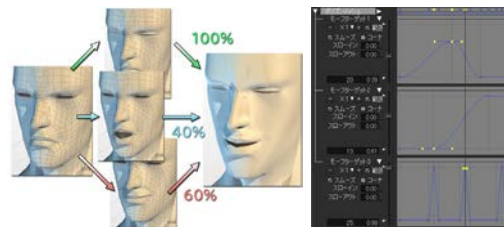
It visualizes movements that have undergone physical calculation processing such as flames, bubbles, smoke, tornadoes, smoke movement due to air flow, billboard scattering, and collision between shapes.



### Morph target

Deformation and merge of polygon mesh by morph target is now supported. Multiple facial expressions can be created for a single facial model, and each can be composited by percentage. This improves the expression of character

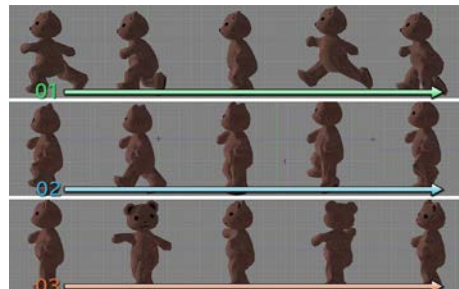
animation such as creation of motions which are difficult with skin deformation.



### Multi-timeline

A series of multiple motions can be set up in a single scene.

Motions such as 'walk', 'run', etc. can be held together in one scene file.



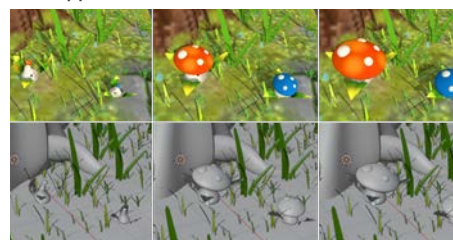
### Enhanced glTF input/output for animation P

METAVERSE

It uses the settings of "Transparency", "IOR", "Specular", "Emissive", "Sheen", "Clear coat" in the PBR material, and "Smooth" and "Tiling" in the texture mapping. "KTX2 format" images can be used for texture. "Standard bone" and "Legacy bone" can be selected when importing.

### glTF Converter function enhanced

Input/output of Morph Target's animation settings, linear movement, scaling, animation settings for equal scaling of joint, ability to export animation step-by-step are now supported.



### FBX Converter function enhanced

Morph Target's animation settings can now be imported/exported. "Blender" has been added to a choice of pre-set exporters.



## Surface material METAVERSE

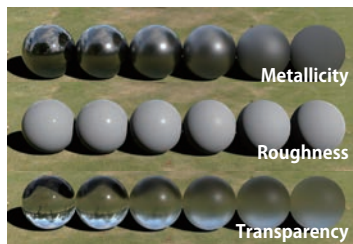
Materials such as basic colors set by parameters and texture, reflection, transparency, refraction index, texture wrapping, projection, and UV mapping, texture of cloud and transparent texture like ivory can be set and edited to multiple shapes at once, and can be reused for other scenes.



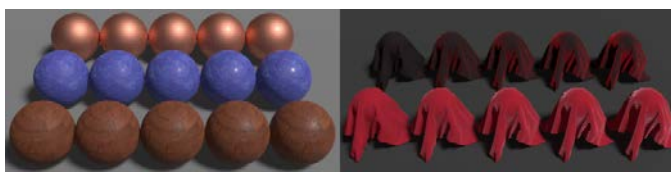
## PBR material **P** **NEW**

PBR materials are physics-based calculations and require fewer parameters than Shade3D materials. Shade3D materials and PBR materials can be set per geometry and can be mixed in a scene.

In addition to parameters for defining Roughness and Metalness that express the real world texture of objects, rendering function that uses "Principled BRDF" described by Disney as a guideline has been added.



Various expressions such as basic colors, reflection, transparency, projection, UV mapping, transparent texture like iory.



Clear coat

Sheen

## File import/export

Input/output to/from the main file formats used in 3DCG.

### Supported import/export files

For file import/export, it is possible to handle 3D data such as IGES, glTF, STEP, COLLADA, Wavefront OBJ, Epix, DXF, FBX, and STL, vector data such as AI and EPSF, images such as PSD, JPG, and PNG, video and sound data including MP4, AVI, MOV, WAV and AIFF, and BVH motion data.

### Linkage with Adobe products

Shade3D data can be output in Adobe Illustrator format **S** **P** and used as vector data. It is also possible to import Adobe Illustrator data in Shade3D to create 3D models.

Also, image data of which each light source is rendered in Shade3D can be imported into Adobe Photoshop to efficiently adjust the color and brightness of light sources.



### IFC data import (Optional) **P**

Reads IFC (Industry Foundation Classes) files that define the representation of building elements such as doors, windows, walls, etc., and displays this information.



### SketchUp Import/Export

Supports the import/export of SketchUp used in the newest version of SketchUp. Import/Export **P**

Formats used in "SketchUp 2021" and newer versions are supported.

## 3D printing

Create shapes for 3D printing and perform necessary error checks.

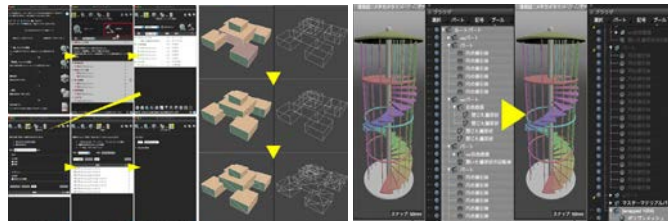
The program corresponds to STL file and OBJ file supported by many 3D printers, and data can be exchanged smoothly with 3D printers.

### 3D printing assistant

Semi-automatically checks and corrects Shade3D scenes or external 3D data for items that are necessary to satisfy the conditions for a shape to be output for 3D printing, whether it has no holes, enough thickness, unified face normals to the outside, and is made of a single polygon mesh.

### Wrapping mesh

Create a single holeless manifold that wraps multiple shapes together in a skin while keeping the surface textures. It is possible to create a shape that supports 3D printing even from a combination of complicated shapes that are usually difficult to integrate.

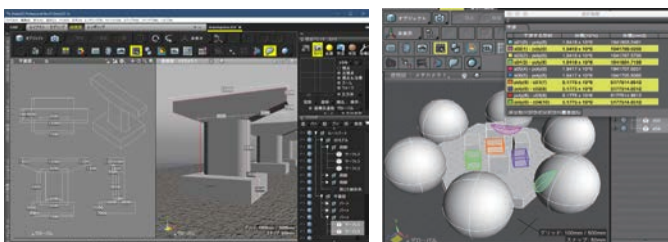


Semi-auto check and modification

Modeling for 3D printing

## 3DCAD function **P**

Supports the plan view creation. Compatible with thick, non-perforated surfaces, primitive shapes, free-form surfaces, extruded bodies, revolved bodies, polygon meshes, and interference check for NURBS shapes.



## Linkage with UC-win/Road **P**

Models can be exported in 3ds, FBX, and COLLADA format and used in UC-win/Road. It is possible to edit models on the Shade3D 3D space.

\* Supported only on Windows



### Certification of Space Designer **P**



It corresponds to an examination that evaluates and certifies experts in CG interior perspective.

### Certification of CAD engineer Grade-1

Certified as the software recommended for the Certification of CAD engineer Grade-1 that is one of the largest 3D CAD test in Japan established in 2003.





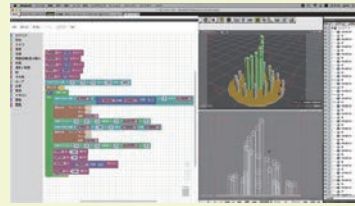
# Expanded Functions (Option)

## Block UI Programming Tool

Optional price: USD100

A tool that allows you to assemble programming by combining "instruction blocks" and "output blocks" using the mouse.

- Two types of interface are now available: For industrial use and for programming education. **NEW**
- With the business interface, you can create programs that can be used for business by accessing the details of each function.
- The educational interface includes only the carefully selected functions that are easy for elementary and junior high school students to use. The category names have been changed to reflect programming learning. **NEW**



## BIM/CIM Design Check Tool

Optional price: USD400

Allows you to input and output files in the IFC (Industry Foundation Classes) format, which is an international standard in the building and construction industry. IFC files define the specifications for the systematic representation of all the elements that make up a building, and it is possible to display and edit the information with this tool.

**IFC input, linkage with 3D bar arrangement CAD, design check information**

Supports reading of design verification information files attached as external references to IFC files output by 3D Reinforcement CAD. The information assigned during design can now be viewed in Shade3D, improving the efficiency of the design verification process.

**Corresponds to the MLIT's BIM/CIM guideline (March 2023)** **NEW**

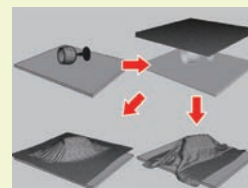


## Shade3D SDK

Price: USD800

A plugin SDK for developing functions by using C++ language. You can create high-performance additional functions that are tightly integrated with Shade3D from simple solutions to advanced features.

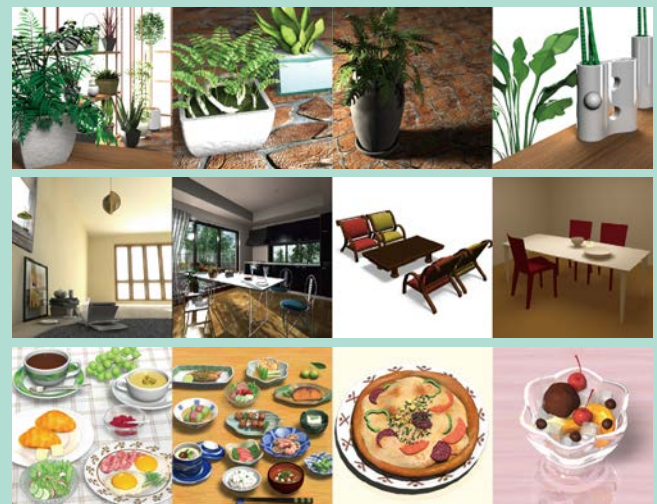
Example of a function created with the plugin



## Collection of Shade3D Practical Data Forest Series

Price: 180

Users who contract subscription service for Shade3D Standard or Professional can use some model data for free.



## CG input support service

This is a service that FORUM8 undertake the creation of 3D models, 3D printers, and animation data.

Staff who are knowledgeable in Shade3D functions will create high-level 3D data even with a small amount of information such as illustrations, diagrams, pictures etc.

### ■Exterior image

Reference price USD3,000  
Reference order 10 business days  
Number of polygons About 600,000



Angkor Wat

### ■Character / Interior image

Reference price USD4,000  
Reference order 15 business days  
Number of polygons About 260,000



Wellington Marae

### ■Others

**Character**  
(including motion)  
Price USD2,100



**Interior**  
Price  
USD250

# User Report

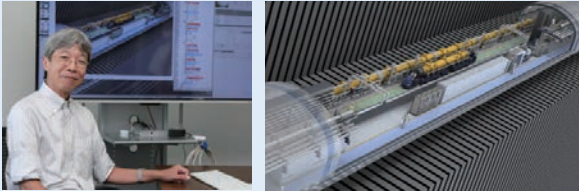
Go check Shade3D user reports in Up&Coming!



## Mr. Mamoru Horiuchi a.k.a. "Rey.Hori"



Taking advantages of the free surface modeling and the cooperation with data in various formats. Continuing to expand his business field from products design to SF and ILC since he started to use the Shade 25 years ago.



(Up&Coming '20 Fall issue)

## DXA Co., Ltd

CEO/ Producer, Mr. Seiji Okuyama



Making full use of their expertise in the TV industry, DXA has utilized Shade3D to create high quality CG content for medical dramas, documentaries, commercials, and more.



(Up&Coming '21 Summer issue)

## OKINO Builders Co., Ltd

Representative Director, Mr. Okino



Aiming to pass on the traditional beauty and techniques unique to Japan through the architecture of shrines and temples. Promoting "T&I Modeling", the conversion of shrine and temple architecture to 3D by using Shade3D



(Up&Coming '21 Fall issue)

## KAMITOPEN Architecture-Design Office Co., Ltd.

CEO and President, Mr. Masahiro Yoshida



Centered on commercial architecture, he is solving lots of his clients' problems through designing. Shade3D is used to create CG perspectives to express lively and bright spaces.

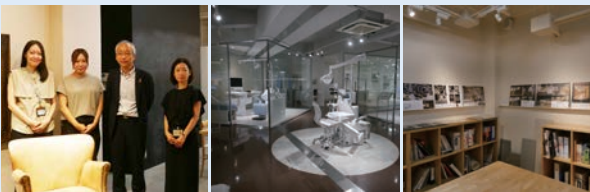


(Up&Coming '22 Spring issue)

## TAKARA SPACE DESIGN CORP.



Propose "space for beauty and health" including barbershops, beauty salons, and medical clinics. Shade3D is used in all aspects of presentation, design, and construction image confirmation.



(Up&Coming '22 Fall issue)

## 6-dimension

Mr. Koji Kikunaga, Representative Director



Produces various 3D perspectives such as store and house interior, exhibition booth, events, etc. by using Shade3D. Ease of use and various expressions help to create event perspectives that "convey excitement".



(Up&Coming '23 New Year issue)

## MuuN

CEO Mr. Hideki Torita



Having used Shade3D for many years for visualization and verification in various product development. Introduced UC-win/Road to effectively test and promote understanding of the new mobility concept 'TTS'.

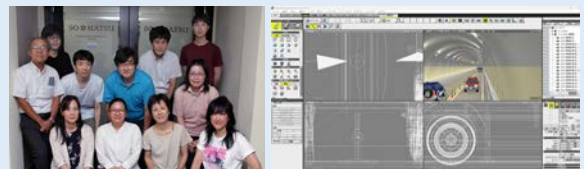


(Up&Coming '23 Summer issue)

## Sohatsu Systems Laboratory Inc. Development Department



Reproduces realistic smoke movement based on FDS for tunnel fire hazard training. Express the road tunnel space and moving vehicles with Shade3D and integrate it with the movement of smoke.



(Up&Coming '23 Fall issue)



File formats supported	Basic	Standard	Professional
Adobe Illustrator AI output	-	○	○
Adobe Illustrator AI	-	-	○
3-sides drawing can all be exported simultaneously	-	-	○
IGES input/output (Supports NURBS based modeling)	-	-	○
STEP input/output	-	-	○
DXF 3-sides drawing can all be exported simultaneously	-	-	○
Photoshop(PSD) output	-	○	○
FBX input/output	○	○	○
2D・3D DXF input/output	○	○	○
Wavefront OBJ(OBJ) input/output	○	○	○
STL input/output	○	○	○
Adobe Flash SWF(Toon Renderer) output	-	-	○
Adobe Illustrator AI(Toon Renderer) output	-	-	○
MPO output	○	○	○
SketchUp input	○	○	○
HDR/OpenEXR/PPM input/output	○	○	○
COLLADA input	-	-	○
COLLADA output	○	○	○
PoserFusion 2(ppz, pzz input)	○	○	○
BVH motion file input	-	○	○
EPix output	-	-	○
3ds max(3DS) input/output	-	-	○
JPEG/BMP/TARGA/TIFF/PNG/GIF input/output	○	○	○
WAV/AU/AIF/AIFF input/output	○	○	○
AVI (Win/Mac) / MOV (Mac) / MP4 (Win/Mac) input/output	○	○	○

## Product price

Subscribers can always get free upgrades to the latest versions. As our subscription service is based on an annual contract, you can manage your budget more easily.

Product name	1st year (product price)	Subsequent years (annual cost of subscription service)
Shade3D Basic Ver.24	USD198	USD79
Shade3D Standard Ver.24	USD480	USD192
Shade3D Professional Ver.24	USD980	USD392

## Option price

Product name	Price	Academy price
Block UI programming tool	USD100	USD80
BIM/CIM Design Check Tool (Professional only)	USD400	USD320
Shade3D SDK	USD800	USD640

## Rental license

Short term licenses available at a low price

Product name	Price
Shade3D Professional Rental license (2 month)	USD499
Shade3D Professional Rental license (3 month)	USD588
Shade3D Professional Rental license (6 month)	USD725

## Floating license

After web activation, anyone can use the products on any PC anywhere in the world

Product name	Price
Shade3D Professional Floating license (2 month)	USD842
Shade3D Professional Floating license (3 month)	USD999
Shade3D Professional Floating license (6 month)	USD1,234

Function comparison chart		Basic	Standard	Professional
Modeling	Sweep surface upper side setting / "Surface" setting of linear shape and circle	○	○	○
	Polygon modeling / Curved surface modeling	○	○	○
	NURBS modeling / The assembly, Interference, and Measurement of a NURBS surface	-	-	○
	NURBS Boolean operations (floating type)	-	-	○
	Voxelization Mesh / Polygon Reduction / Mesh editing tool	○	○	○
	Boolean Modeling / Primitives / Line Offset / Mirroring / Bevel Vertex / Bevel Edge / Merge / Bridge	○	○	○
	Supports 3D Annotations	-	-	○
Rendering	Maximum rendering size (pixels)	2K	4K	8K and more
	Global Lighting: Radiosity	○	○	○
	Global Lighting: Radiosity Pro	-	-	○
	Stereoscopic rendering (Panorama VR Rendering)	○	○	○
	Multipass rendering / Glow effector / Illumination Adjustment / Rendering history	-	○	○
	Number of ShadeGrid network rendering servers	1	1	No limit
	Linear workflow	○	○	○
	Ability to preset rendering resolution has been enhanced	○	○	○
	GPU ray tracing	-	-	○
AI denoiser (Intel(R) Open Image Denoise)	-	○	○	
UI	Dark mode support for Windows 10, macOS Mojave	○	○	○
Metaverse	Polygon reduction	○	○	○
	Humanoid bone / Standard bone	○	○	○
	Box model converter	-	-	○
	Flat expansion / UV replacement	-	○	○
	UV map editing / direct/indirect lighting / light map / normal mapping	○	○	○
	Material parameter: Volume (Volume rendering)	-	○	○
	Material parameter: Subsurface scattering	-	-	○
	PBR material	-	-	○
	Linear movement / rotation / scaling / uniform scaling / deformation animation using ball joints	○	○	○
	Animation setting using inverse kinematics	-	○	○
	Motion effect	-	○	○
	Addition of walk camera	○	○	○
	Physical sky / Volume light	-	○	○
	Shadow softness in ray tracing / distributed light source (IES data)	-	-	○

Hardware requirement			
	Windows	Mac OS (Intel processor)	Mac OS (Apple silicon)
OS	Windows 10/11 (64bit only)	Big Sur 11/Monterey 12/Ventura 13	
CPU	Intel® Core™ 2 Duo, AMD Athlon 64 X2 or newer *SSE3 is mandatory	Intel® Core™ 2 Duo or greater	Apple M1 or greater
Memory	4GB or greater (8GB or greater is recommended.)		
HDD	At least 5GB of free space (20GB or greater is recommended.)		
Monitor	1024x768 pixel or greater (1280x1024 pixel or greater is recommended.), 24 bit color or more is required.		
PC model	PC with specifications matching that of hardware and OS specified in the table		
		iMac (2015 or newer) iMac Pro (2017 or newer) Mac mini (2018 or newer) Mac Pro (2019 or newer) MacBook (2016 or newer) MacBook Pro (2016 or newer) MacBook Air (2018 or newer)	iMac (M1, 2021 or newer) MacBook Air (M1, 2020 or newer) MacBook Pro (M1, 2020 or newer) Mac mini (M1, 2020 or newer)
Video card	<ul style="list-style-type: none"> <li>Required graphics card: <ul style="list-style-type: none"> <li>○Graphics cards corresponding to DirectX 12</li> </ul> </li> <li>Recommended graphics card: <ul style="list-style-type: none"> <li>○NVIDIA® GeForce® 1000 series or greater</li> <li>○AMD Radeon™ RX 400 series or greater</li> <li>○Intel® UHD Graphics 600 series or greater</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Required graphics card: <ul style="list-style-type: none"> <li>○Graphics cards equipped on required models</li> </ul> </li> <li>Recommended graphics card: <ul style="list-style-type: none"> <li>○Graphics cards equipped on recommended models</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Required graphics card: <ul style="list-style-type: none"> <li>○Graphics cards equipped on required models</li> </ul> </li> </ul>
HDR display	Monitor corresponding to HDR10 (DisplayHDR600 or greater is recommended) Video card: ○NVIDIA® GeForce® 1000 series or greater ○AMD Radeon™ RX 400 series or greater	Monitor corresponding to HDR10 (DisplayHDR600 or greater is recommended) Hardware satisfying recommended models macOS Catalina 10.15.4 or newer	Monitor corresponding to HDR10 (DisplayHDR600 or greater is recommended) Hardware satisfying required models
Others	Internet connection is required.		

## FORUM8 Co., Ltd.



ISO27001/27017 ISMS

ISO22301 BCMS

ISO9001 QMS

ISO14001 EMS



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