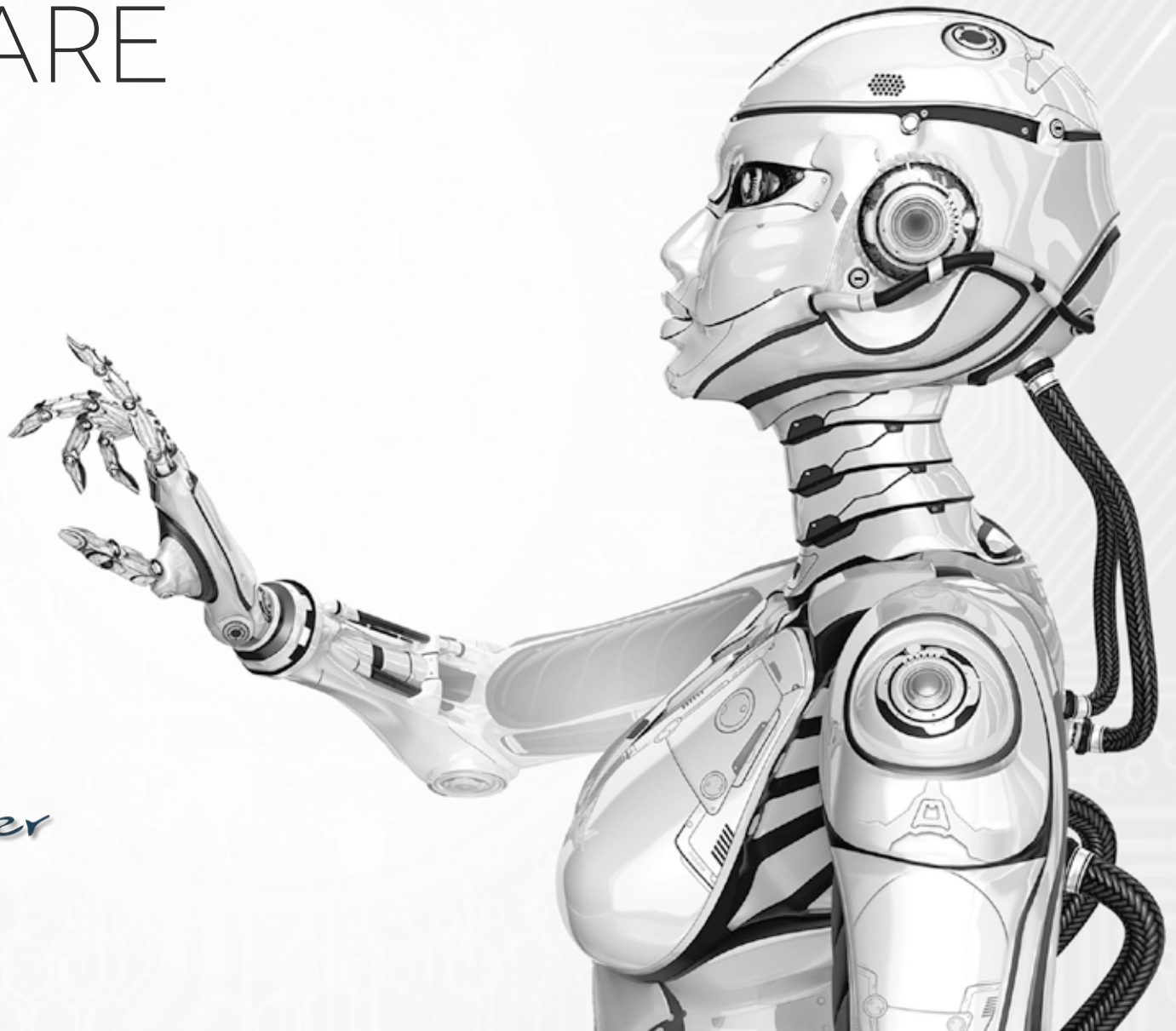


REAL TIME RENDERING SOFTWARE





VERY HIGH END IMAGES

PRODUCE HIGH QUALITY IMAGES IN
MINIMAL TIME : A HUGE CHALLENGE IN
THE LAST DECADE

HARNESS THE FULL POWER OF YOUR
COMPUTER AND RENDER YOUR MODEL
SWIFTLY

INTUITIVE INTERFACE

ERGONOMICALLY DESIGNED TO INTERACT
WITH HUMANS :

EVERY CONTROL AT YOUR FINGER TIPS
JUST 6 TABS THAT DO THE JOB !

PHYSICAL EXPERIENCE

PHYSICAL LIGHT AND MATERIALS YIELD IMMEDIATE VISUAL FEEDBACK AND STUNNING IMAGERY :

ALL OF US CAN NOW CREATE THE MOST COMPLEX SCENES

EASY TO OPERATE

STOP USING COMPLEX APPLICATIONS TO GET HIGH END RESULTS

DISCOVER HOW TO PRODUCE PHOTOREALISTIC IMAGES WITHOUT THE NEED TO DEFINE AN ENDLESS SEQUENCE OF PARAMETERS

** None of the images in this brochure have been Photoshopped*





FULLY COMPATIBLE SOFTWARE

ALL IN ONE SOLUTION

USE AS A STANDALONE APPLICATION AND/OR A PLUGIN WITH A HUGE VARIETY OF APPLICATIONS (DCAD VECTOR SPACE, REVIT, SKETCHUP, 3DS MAX, RHINOCEROS, CINEMA 4D, VECTORWORKS, SOLIDWORKS, CATIA, ARC+)

EDIT SCENE WITHOUT ANY LOSS

AUTOMATIC CONVERSION OF ALL RENDERING SETTINGS (MATERIALS, SCENES, LIGHT ETC..)



3DS MAX



creo parametric
Design Software. Unlock Potential.



AUTODESK REVIT



RhinoCeros



SOLID EDGE



MULTIPLE FILE FORMAT IMPORT/EXPORT

WORK ACROSS SYSTEMS

SUPPORTS MULTIPLE FILE FORMATS SUCH AS *.PTF *.SKP *.3DM *.3DS *.FBX *.DAE
*.BLEND *.IFC *.OBJ*.DXF *.XML *.MI *.STEP AP 204 -214 AND MORE !

* the above logos are registered trade marks ** DCAD render is power by 3DCeltic.com



COLLADA





MATERIALS

READY TO USE MATERIALS

ACCESS TO A COMPLETE LIBRARY OF PHYSICAL MATERIALS
SUPPORT OF *.MDL AND *.AFX MATERIAL FILE FORMAT
AUTOMATIC GENERATION OF SURFACE RELIEF "BUMP/NORMAL MAP"
AND ROUGHNESS FROM TEXTURE IMAGES

MORE ACCURATE AND NATURAL LOOKING RESULT

WITH PHYSICALLY BASED MATERIALS, WE DISPLAY WHAT LIGHT DOES
AND NOT WHAT WE THINK IT SHOULD DO
MATERIAL VALUES CAN BE LESS COMPLEX AND INTERDEPENDENT,
RESULTING IN A MORE INTUITIVE INTERFACE



LIGHTING

PHYSICALLY GENERATED GLOBAL ILLUMINATION
FAST PREVIEW IN FIRST FEW ITERATIONS
SKY & SUN PROPERTIES AUTOMATICALLY DEFINED BY
LOCATION/ORIENTATION /TIME AND DATE
EMISSIVE & PHOTOMETRIC MATERIALS

FULL RANGE OF ARTIFICIAL LIGHTS

EASY TO PLACE THANKS TO 2D NAVIGATION PANEL
LIGHT GROUP MANAGEMENT FOR FAST EDITING
MANUFACTURERS LIGHT PROFILE IMPORT (*.IES)
FOR INTERIOR & EXTERIOR

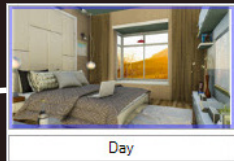


SCENES CREATION

WHAT'S A SCENE ?

A SCENE IS A PROJECT PHOTO AT A SPECIFIC TIME. THUS EACH SCENE STORES LIGHTING, BACKGROUND AND CAMERA SETTINGS. ALLOWS YOU TO CREATE, WITHIN A PROJECT, SEVERAL SCENES WITH DIFFERENT CONFIGURATIONS AND SETTINGS

CREATING AS MANY FILES AS REPRESENTATIONS OF ONE MODEL CAN BE CUMBERSOME
TAKE ADVANTAGE OF THE NEW SCENE CONCEPT THAT ALLOWS YOU TO CREATE MULTIPLE SCENES OF ONE MODEL WITHIN THE SAME FILE





COMPATIBLE APPLICATION

DEFINE SUN POSITION, NUMBER OF SCENES AND MATERIALS MAPPING IN SKETCHUP AND SEE YOUR SCENE FULL CONVERTED IN DCAD RENDER OR START FROM SCRATCH IN DCAD RENDER !
NO LOSS OF DATA DURING PARAMETERS CONVERSION, YOU HAVE THE CHOICE, YOU ARE FREE !

OBJECT MANAGEMENT

ALLOWS YOU TO ADD ALREADY MAPPED OBJECTS TO YOUR SCENE AND DEFINE THE LEVEL OF DETAIL NEEDED WHILST IMPORTING THEM
OBJECTS CAN BE FREELY ROTATED AND SCALED
ABILITY TO SHOW OR HIDE ANY GEOMETRY



IMAGE CALCULATION

3 RENDERING MODES: PHOTOREALISTIC, INTERACTIVE AND REALTIME

DIFFERENT PHYSICALLY BASED AND PHOTOREALISTIC IMAGERY WITH
DIFFERENT PERFORMANCE CHARACTERISTICS
SEAMLESS USER EXPERIENCE
AMBIENT OCCLUSION LEVEL APPROXIMATION



SAVING PRODUCTION TIME

SIMPLY CHOOSE A RENDERING STYLE (HIDDEN LINE, MATERIALS AND
XRAY MODES)
GET ACCESS TO THE MAIN PRODUCTION SETTINGS (TONE MAPPER,
TRANSPARENCY ON/OFF)
REALISTIC RESULTS DISPLAYED IN THE FIRST FEW ITERATIONS
FAST PREVIEW CAN HELP YOU MODIFY BEFORE APPLYING FULL RENDER



COMPUTER USAGE

THE REAL TIME PRODUCTION HAS BEEN DEVELOPED TO FULLY EXPLOIT THE POWER OF YOUR COMPUTER (CGPU)
FAST QUADRO OR GTX NVIDIA CARDS ARE IDEAL FOR BOOSTING THE RENDERING PERFORMANCE OF . THE APPLICATION ENABLES YOU TO ALLOCATE DIFFERENT PROCESSING POWER TO EACH THREAD THUS MANAGING MULTIPLE SESSIONS SIMULTANEOUSLY

MAXIMIZES THE PARALLEL COMPUTING POWER OF NVIDIA GPU CORES (CUDA BASED TECHNOLOGY) ENABLING EFFICIENT SCALABILITY FOR BOTH STANDALONE COMPUTERS AND NETWORKS
ADDING GPU CORES CAN PROVIDE NEAR LINEAR PERFORMANCE IMPROVEMENT

Feature	Description	Benefit
Geometry File type supported	DCAD Vector Space .PTF, Rhino Model .3dm, SketchUp Model .skp, Filmbox .fbx, Collada .dae, Blender 3D .blend, 3ds Max .3ds, 3ds Max .ase, Wavefront Object .obj, AP203/214 .stp .step, BIM Industry Foundation Classes (IFC/Step) .ifc, XGL .xgl, XGL .zgl, Stanford Polygon Library .ply, LightWave .lwo, LightWave Scene .lws, Modo .lwo, Stereolithography .stl, DirectX X .x, AC3D .ac, Milkshape 3D .ms3d, TrueSpace .cob, TrueSpace .scn, Biovision BVH .bvh, CharacterStudio Motion .csm, Irrlicht Mesh .irrmesh, Irrlicht Scene .irr, Quake I .mdl, Quake II .md2, Quake III Mesh .md3, Quake III Map/BSP .pk3, Return to Castle Wolfenstein .mdc, Doom 3 .md5, Valve Model .smd, Valve Model .vta, Starcraft II M3 .m3, Unreal .3d, BlitzBasic 3D .b3d, Quick3D .q3d, Quick3D .q3s, Neutral File Format .nff, Sense8 WorldToolKit .nff, Object File Format .off, PovRAY Raw .raw, Terragen Terrain .ter, 3D GameStudio (3DGS) .mdl, 3D GameStudio (3DGS) Terrain .hmp, Izware Nendo .ndo	Interoperable scene without loss data conversion.
Image formats	Support for the most commonly used image formats for input and output; Jpg, BMP, Tiff, PNG	Simply use the most common image file formats without explicit conversion.
Interactive type Render	Interactive rendering is a mode that uses advanced approximation algorithms to mimic realism while minimizing unwanted noise - maximizing performance during interaction. Full support for Soft shadows in Real time.	Fast interaction with the scene with a minimum of disturbing rendering artefacts
Physic type Render	Physic is a high-performance, global illumination rendering mode that generates photorealistic imagery by simulating the physical behaviour of light interaction with surfaces and volumes. Physic balances ease of use with the highest achievable quality for photorealistic final frame output. Images are progressively refined to provide the full global illumination including caustics, sun studies and luminance distributions	Predictable and physically based immediate visual feedback results in stunning imagery for architecture, engineering and design to marketing and advertising visual effects.
SSAO shadows for Interactive render	Interactive offers faster ways to calculate shadows on screen space ambient occlusion	Huge performance gain for interactive rendering with noise free shadowing
Physical sun and sky	Interactive sun and sky system based on physical models, geographic position, date and time, weather type.	Simple way to add realistic daylight to exterior and interior scenes.
IBL (Image Based Lighting)	Linear, high-dynamic-range images participate in lighting the scene.	Simple lighting setup based on real-world environment captures
Artificial Light	Support for conventional light types, with physically-plausible approximation for: IES photometric (predefined open angle parametric and from industry market), Distant, Point, Volumetric Cylinder photometric, Volumetric Sphere photometric, Area disk photometric, Area rectangle photometric, simple spot, Area disk spot, Area rectangle spot.	Advanced area lights produce a more realistic result.
Indirect Light Mode	Interactive supports indirect light bounces	Simulates indirect light interactively
Emitting Light Material	Any 2D surfaces or 3D objects can contribute to the lighting of the scene with predefined power or photometric IES profile.	Realistic, physically-based lighting model which produces desirable effects, such as soft shadows; simple and natural to setup.
Advanced Yare Materials	Ready material with few parameters physically based to simulate any kind of material with the maximum of realism.	Easy to use no compromise in quality.
Subsurface scattering	Simulation of material interactions that occur below the surface.	Sub-surface scattering is essential to realistically rendering certain types of material, such as wax, marble, and translucent plastics
Material MDL support	Support of NVIDIA Material Definition Language in all render modes	Power and compatibility with many modern applications and materials interoperability.
Alias Materials	Alias material can be used to map imported materials by template maintaining the properties of original material.	Ready scene to render.
AXF Measured materials	X-Rite digital material representations, most notably measured materials from BTF scanning technology. We support currently the base profile with its Spatially Varying BRDF representations. These representations use a material model and a set of textures to control the input parameters of those material models	Design with real world and predictable materials

Feature	Description	Benefit
Decals	Decals are elements that allows you to place items, such as stickers and labels, on objects in the scene.	Simulation of label and sticker scene elements
Global Illumination	Accurate full global simulation of direct and indirect lighting	Easy to accomplish high end photo-real and natural-looking images. No parameters needed.
Image Background	Image as background image in Screen space	
Dome and ground plane	The environment map will be projected automatically onto a procedural dome and ground plane.	
Environment Control	Rotate the environment dome with interactive lighting updates	Full control over your HDR and environment within your scene
Complete scene management	A ready-to-use scene that contains multi scene, each scene has multi camera, background, Natural lights, frame, quality settings, Artificial light configuration in order to manage several scenes and cameras in one file in a yare way.	Simplicity and powerful capabilities.
Depth-of-field	Efficient implementation of depth-of-field, optimized for each rendering mode. Simple widget control intuitive and productive.	Depth-of-field is crucial in mimicking the behaviour of a real-world camera.
Caustics sampler	Rendering algorithms which can simulate very complex light paths, such as those which create caustics.	Sharp caustics as well as subtle details in the indirect lighting contribute tremendously to the photorealism of a rendered image
Indoor sampler	Sampler using Metropolis light transport techniques	Indoor scenes will converge much faster.
Render buffer support in Interactive	Images up 8,000x8,000 pixels for the output of buffers which store various image information: Final Image / Diffuse layer / Specular layer / Glossy layer / Emission layer / Alpha layer / Depth layer / Normal layer / Texture_coordinates layer / Material_id layer / Object_id layer / Irradiance layer / Ambient Occlusion layer	Provides more flexibility to manipulate the rendered image in post process compositing.
Render buffer support in Physic	Images up 8,000x8,000 pixels for the output of buffers which store various image information: Final Image / Diffuse layer / Specular layer / Glossy layer / Emission layer / Alpha layer / Depth layer / Normal layer / Texture_coordinates layer / Material_id layer / Object_id layer / Irradiance layer	Provides more flexibility to manipulate the rendered image in post process compositing.
LPe - Light path expressions	Separation of different types of light paths into different frame buffers	Allows different types of light contribution (e.g. specular, diffuse, indirect) to be manipulated independently in post process and compositing.
Yare User Interface	Full integration of simply User Interface to manage 2D cameras, Sun, Sky Background, Artificial lights, Materials, Object management, 3D pick interactive, all parameters in the ribbon, no additional dialogs are hidden.	Easy to use, no User Guide needed.

PRODUCT	Render type	Max Size image	Formats	Image	LPe	MDL	ARTIFICIAL LIGHTS	EMITTING MATERIALS
Interactive Lite	Interactive	1980 x 1080	SKP / DXF	Final (Full Image)	NO	NO	16	NO
Physic Lite	Interactive and Physic	1980 x 1080	SKP / DXF	Final (Full Image)	NO	NO	No Limits	YES
Interactive Full	Interactive	8000 x 8000	al lin List	All buffers	YES	YES	16	NO
Physic Full	Interactive and Physic	8000 x 8000	al lin List	All buffers	YES	YES	No Limits	YES

RENDER FOR



EXTERIOR



INTERIOR



AUTOMOTIVE



OBJECT DESIGN

Email: info@virtuallab.it
www.virtuallab.it

A PHYSICAL RENDERING
EXPERIENCE