Image courtesy of SimBILD

NVIDIA® VCA
POWERFUL. FLEXIBLE. SCALABLE.

The NVIDIA Visual Computing Appliance (VCA) is a powerful network appliance for creating photorealistic images of 3D models and scenes. Work with a single NVIDIA VCA, or combine multiple VCAs to interactively design products with noise-free clarity and the realism of physically based global illumination. Make faster, more confident design decisions without interrupting the creative process to render test movies or build physical prototypes, and examine virtual models as if they were real objects.

SYSTEM SPECIFICATIONS

GPUs	8 NVIDIA High-End GPUs
GPU Memory	12 GB per GPU
CPU	Xeon E5 (2.8 GHz)
CUDA Cores	23,040
CPU Cores	20 physical cores, 40 hyper-threaded
System Memory	256 GB
Storage	2TB SSD
Network	2 x 1GigE, 2 x 10GigE (SFP+), 1 x InfiniBand
Installed Software	Linux Cent OS 6.5, VCA Manager Iray 2014.3.4 or newer

YOUR RENDERING WORKFLOW, A LOT FASTER.

Use industry-standard applications with a faster workflow.

Iray is a photorealistic rendering solution licensed to leading software manufacturers like Dassault Systèmes and Autodesk and integrated within tools like Catia and 3ds Max.

The NVIDIA VCA integrates hardware and software to supercharge your rendering workflow. Use your favorite rendering application, connect to your VCA, and enjoy the fastest photorealistic rendering experience possible.

NVIDIA is currently working with all major renderers to support VCA, and V-Ray RT from Chaos Group

GET REAL, FAST

Speed decisions with intuitive photorealism.

The highly reliable NVIDIA VCA is pre-loaded with Iray and features eight of NVIDIA's most powerful GPUs, each with 12 GB of graphics memory, that combine to deliver 23,040 NVIDIA CUDA® cores for unprecedented rendering performance. With both 10GigE and InfiniBand connections, a visual computing cluster of multiple VCAs can be built over time and easily allocated to meet the changing demands of daily workloads.

Iray's physically based rendering works like the world around you – with physical lights and materials that behave as expected and deliver results that rival your best camera. With minimal preparation requirements, your original data is swiftly ready for photorealistic inspection. VCAs turbocharge your results, so you can make critical adjustments or design decisions without producing costly physical prototypes. This saves precious time in bringing products to market, making it the ideal solution for automakers, consumer-product manufacturers, and other design-intensive disciplines.

NOISELESS GLOBAL ILLUMINATION

Replace physical prototypes with interactive realism.

Traditional distributed rendering methods are only efficient for static frames, and struggle as scene properties change. These solutions reward you with fast results when you stop moving, but your interactive experience is grainy or noisy and can keep you from fully understanding your design's behavior.

In contrast, NVIDIA VCAs are so efficient you catch every nuance of light and reflection as you manipulate your scene. While an individual VCA delivers far more rendering power than is practical to have at your desk, combining VCAs will improve your interactive quality until the experience is like walking around a physical model. This is made possible with an exclusive Iray rendering mode of the VCA that keeps the entire visual computing cluster contributing equally as you modify your scene.

In all cases, NVIDIA VCAs can be conveniently located in an IT center and serve their rendering power on demand to individuals or combine for that critical presentation.

ACCELERATE VRAY

Your Vray-RT enabled app just got faster.

The rendering engine of choice for design, broadcast, and visual effects, V-Ray has set the standard for speed, quality, and ease of use. V-Ray RT takes full advantage of the parallel processing capabilities of NVIDIA VCA for unparalleled quality in pre-visualization and final frame rendering. V-Ray RT GPU rendering is included with V-Ray for 3ds Max, V-Ray for Maya, V-Ray for Rhino, and V-Ray for SketchUp.

For more information on the NVIDIA VCA interactive rendering appliance, visit
www.nvidia.com/vca