

Whole Body Color 3D Scanner

Just as Cyberware revolutionized computer graphics by allowing designers, animators, and researchers to work with true human faces, now Cyberware continues with whole human bodies.

In as little as 17 seconds, the Cyberware WB4 Whole Body Color 3D Scanner captures the shape and color of the entire human body. The scanner's rapid acquisition speed freezes motion and makes it easy to scan many subjects or to capture different poses appropriate to the application at hand.

To capture the intricacies of the human body in one pass, the Cyberware Whole Body Color 3D Scanner uses four scanning instruments mounted on two vertical towers. Each tower has a linear ball-bearing rail and servo motor assembly that moves the scanning instrument vertically. A platform structure supports the subject, while a separate frame provides alignment for the towers. With a person standing on the scanner's platform, the scanning instruments start at the person's head and move down to scan the entire body. The system is built to withstand shipping and repeated use without alignment or adjustment.

A primary goal of the WB4 is to acquire an accurate computer model in one pass. The use of multiple instruments improves accuracy on the sides of the body and in difficult-to-reach areas, such as under a person's arms. While the simple anthropometric pose gives the best results, Cyberware designed the WB4 to handle many different poses for a wide range of applications.

The WB4 scans a cylindrical volume 2 meters (79") high with a diameter of 1.2 meters



Animators, anthropologists, and fashion designers can obtain accurate measurements and realistic alternatives to oversimplified or stylized forms with the Cyberware Whole Body Color 3D Scanner.

(47"). These dimensions accommodate the vast majority of the human population. For even larger subjects, software enables the user to combine two or more scans quickly into a complete 3D color model.

Color information in 3D digitizing makes available nearly all the information a graphics application needs to fully describe an object. In addition to enhancing realism in graphic models, color denotes boundaries that are not obvious from shape alone. Color indicates surface texture and reflectance. And by marking an object's surface before digitizing, one can use color to transfer ideas from the object to the graphic model.

Scanner Specifications

WB4 SCANHEAD

FIELD OF VIEW

Depth 120cm (47")

Height 200cm (79")

SAMPLING PITCH

Horizontal (X) 5mm (0.019")

Vertical (Y) Depends upon motion platform speed; 30 samples per second in Y; typically 2mm (0.080")

Depth (Z) 0.5mm (0.019")

SAMPLING SPEED

60,000 points per second, digitized to X, Y, Z, and R, G and B components. Motion System

WB4 MOTION SYSTEM

MOTION RANGE

X 0-200mm (0-79") S e r v o - driven

POWER REQUIREMENTS

Input Voltage Auto-Selecting 90-135VAC/175-264VAC, 47-63Hz. International Voltages and Frequencies Supported

Power, Maximum .. 1500W

SIZE

Width 360cm (144")

Height 292cm (117")

Depth 300cm (120")

Weight 450Kg (992 lbs)

GENERAL

Interface USB

Light Plane Horizontal

Environment Normal office or lab conditions

OUTPUT FORMATS

File Format Converter

Echo CyScan / CySurf

CyScan CyScan

PLY CyScan / CySurf

3D Studio ply23ds

OBJ ply2obj

STL ply2stl

ASCII ply2asc

DXF ply2dxf

DXF (3D FACES) ply2dxf -f

IGES 106 124 ply2iges

VRML ply2wrl

IGES 128 NURBS CySurf

Inventor ply2iv

Additional file format support is available. Contact Cyberware with your specific requirements.

The Cyberware data format is in the public domain, so it is easy to create your own special-purpose translation routines.

The WHOLE BODY COLOR 3D SCANNER BUNDLE includes:

Complete Whole Body motion system, four WB optical heads with RGB texture map capability, USB interface, power supply, cabling, and online manuals. Also includes node-locked CyDir, Decimate, and CyScan scanning software, as well as file format translators. Bundle also includes on-site installation and training, one-year return-to-factory warranty, and technical support and software updates.



2110 Del Monte Avenue
Monterey, CA 93940
Phone: +1.831.657.1450
Fax: +1.831.657.1494
E-Mail: info@cyberware.com
Web: http://www.cyberware.com

Specifications are subject to change without notice. Cyberware and Echo are registered trademarks of Cyberware Laboratory Inc. CySurf, I-Scan and CyScan are trademarks of Cyberware Laboratory Inc. All other trademarks are property of their respective owners.