

3D Laser Scanning System - Scan 3D II

Patented Design
 Patent No.: 200520054113.6
 200520054112.1



Frontier Advanced Technology Ltd.

創機科技有限公司

20X Faster than
 Traditional Laser Scanners

German Advanced Technology

Product Characteristic:

- Adopt German High Resolution and High Speed Laser Sensors and Laser Optical Components
- Adopt German Imported Slides
- Adopt Japanese High Quality Close-Loop Controller and Motors
- Patented Technology, Patented No. (200520054113.6), (200520054112.1)
- Support Multi-Language Control Interface (English, Chinese Traditional and Chinese Simplified)

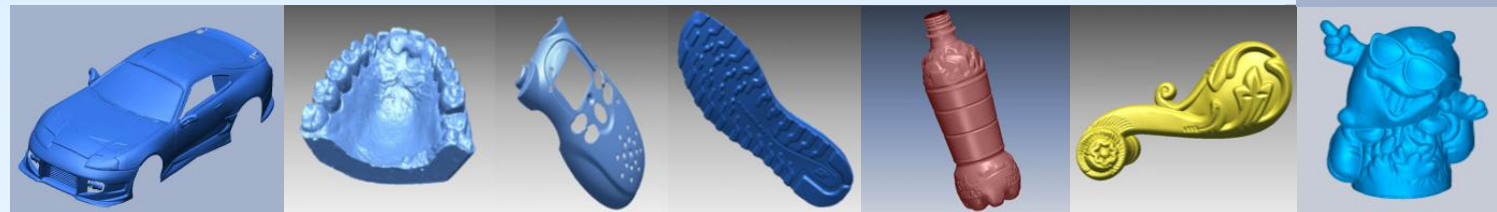
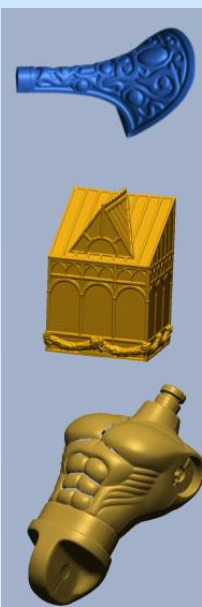
Optional Accessory: Color and Texture Scanning Module



Scan 3D II Vantage



Scan 3D II Vantage Specifications				
Model	Vantage E	Vantage V	Vantage HS+	Vantage HS
Dimension	40 cm(L) x 47 cm(W) x 77 cm(H)			
Scan Volume	φ 240 x 300 (Z) mm ³	φ 160 x 300 (Z) mm ³	φ 220 x 300 (Z) mm ³	φ 160 x 300 (Z) mm ³
Rotation/ Movable Range	Rotary Axis A (auto) : 360° Movable Axis Z (auto) : 300mm Rotary Axis B (manual) : 30° Movable Axis X (manual) : 80mm			
Laser Type	Class II laser, 670nm, Visible red spectrum			
Linear Repeatability	+/- 0.01mm / 0.028 Deg			
Linear Accuracy	+/- 0.01mm / 0.028 Deg			
Standard Deviation	<120μm	<80μm	<50μm	<30μm
Laser Length	76mm	58mm	70mm	56mm
Scan Speed	23,040 pts/sec		30,720 pts/sec	
Optical Measurement Min Pt Dist.	0.12mm (u) 0.27mm (v)	0.09mm (u) 0.17mm (v)	0.08mm (u) 0.15mm (v)	0.05mm (u) 0.10mm (v)
Scan Software	Scan 3D Pro (English & Chinese Interface)			
Output Format	IGES, DXF, ASCII Point Cloud Format, OBJ, STL Triangulated Surface Format, FCS, VRML			
Operating Voltage	110V / 220V A.C., 50Hz			



Scan 3D II Vantage

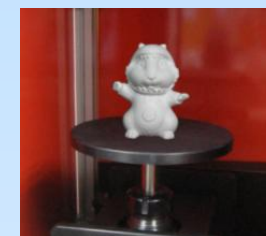


Speed up
 Product Development Process
 Increase Competitiveness

Advantages:

- Shorten Product Development Period
- Enhance the Product Design Quality
- Support Rapid Prototypes Fabrication
- Direct CNC Toolpath Generation
- Support CAID System in Design Modification

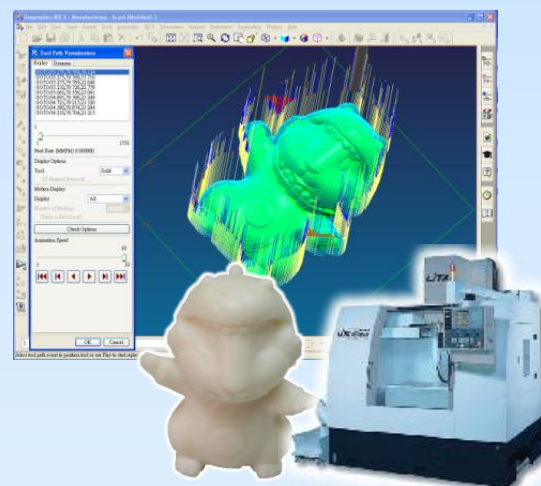
Multi-Angle Scanning



Automatic Alignment and Merging



Direct CNC Toolpath Generation

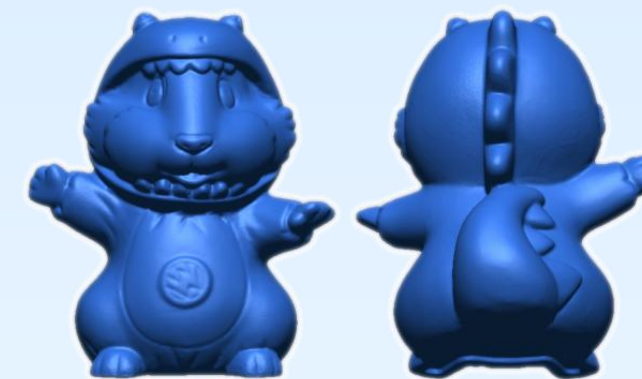


Work Flow of
 3D Laser Scanning
 &
 Rapid Product Development

Rapid Product Development

3D Computerized STL Model

Building Rapid Prototypes



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*Remark: Product specifications, pictures and materials are only for reference, we reserve the right to make changes without notice.

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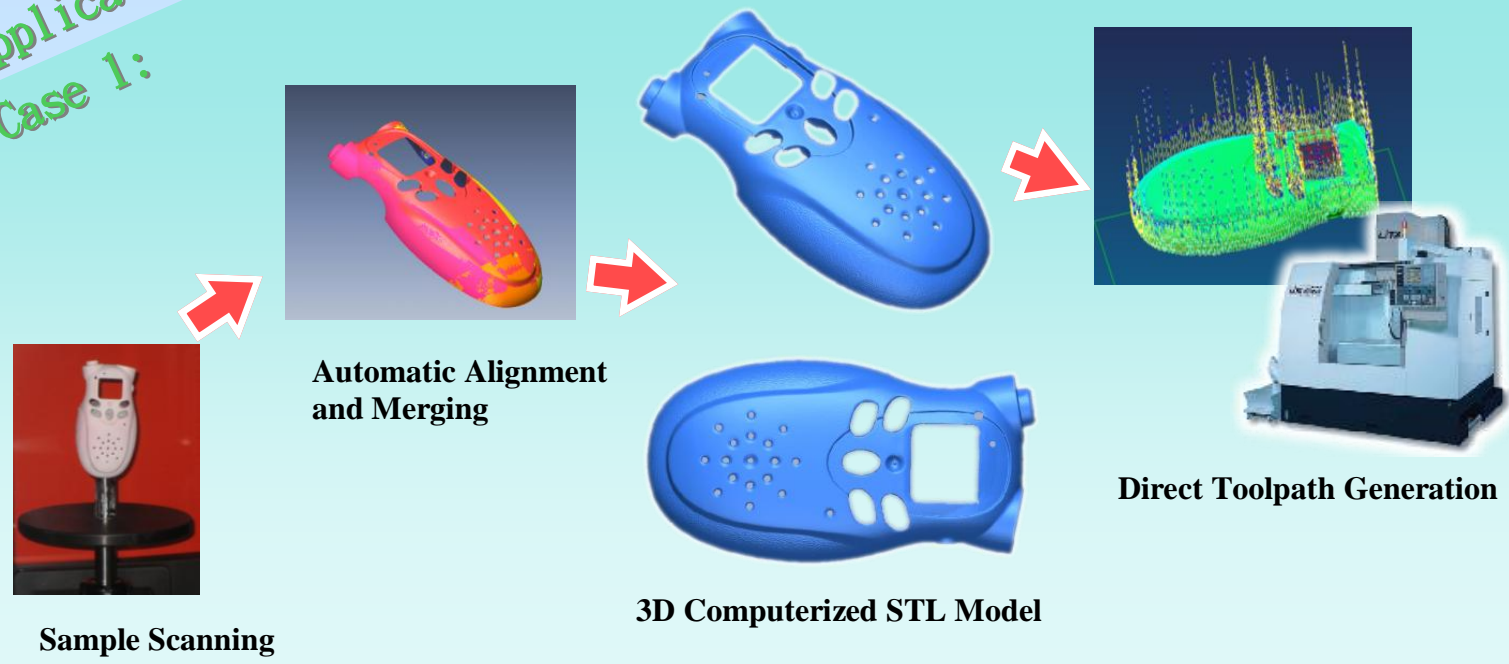
3D Laser Scanning System - Scan 3D II

Scan 3D is an integrated laser scanning system that utilizes the latest advanced German optical measurement and numerical control positioning technology and components. Scan 3D can rapidly capture the 3D geometric shape data of a sample, e.g. scanning a spectacle in 20 minutes. User can make use of the Rapid Prototype fabrication with a RP machine with no further 3D Modeling required. The captured data can also assist product redesign and 3D Modeling for production.

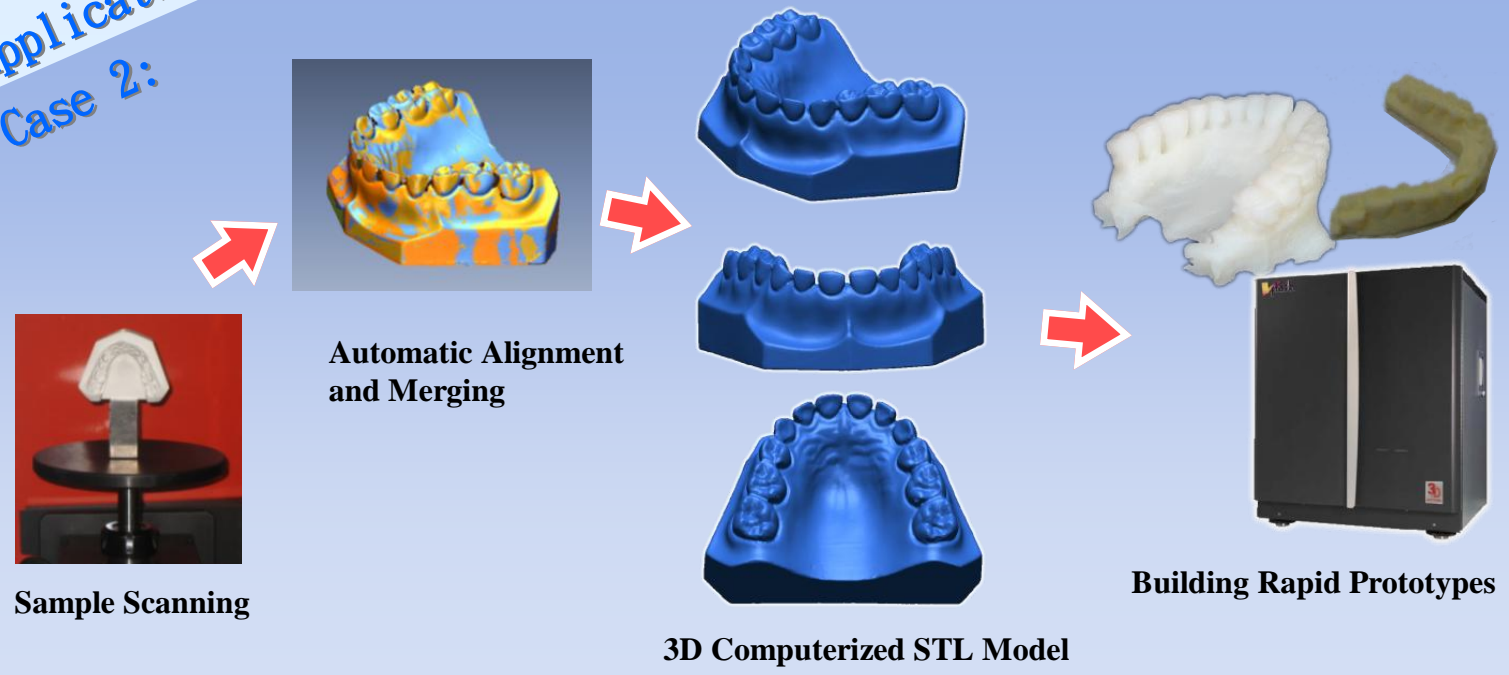


- High Speed Scanning
- Support Direct CNC Machining
- 40 Times Faster than Traditional XYZ 3D Scanners
- Output STL File format For RP Fabrication

Application Case 1:



Application Case 2:

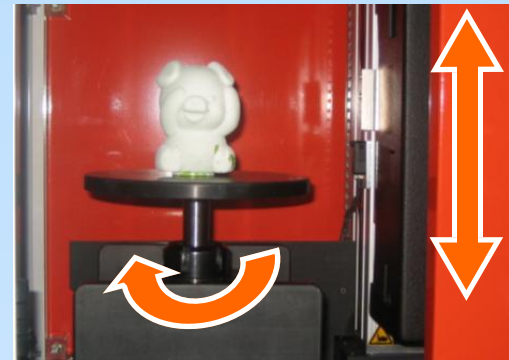


Product Features

1 Minute High Speed 3D Scanning

- Instant 3D Scanning. (e.g. Scanning of toy surface takes only 1 minute)
- 40X Faster than Similar Type of 3D Scanners in China & Taiwan
- Direct CNC Toolpath Generation
- Output STL File Format for RP Fabrication
- Support Multi Export Format, including IGES, DXF, STL, OBJ, XYZ
- Compatible with CAD/ CAM software (e.g. Master CAM, UG, Pro-E and SolidWorks, etc)

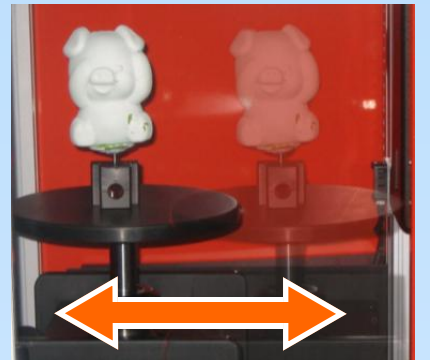
Special Designs



Auto-Rotatory Axis (A) & Auto-Moving Axis (Z)

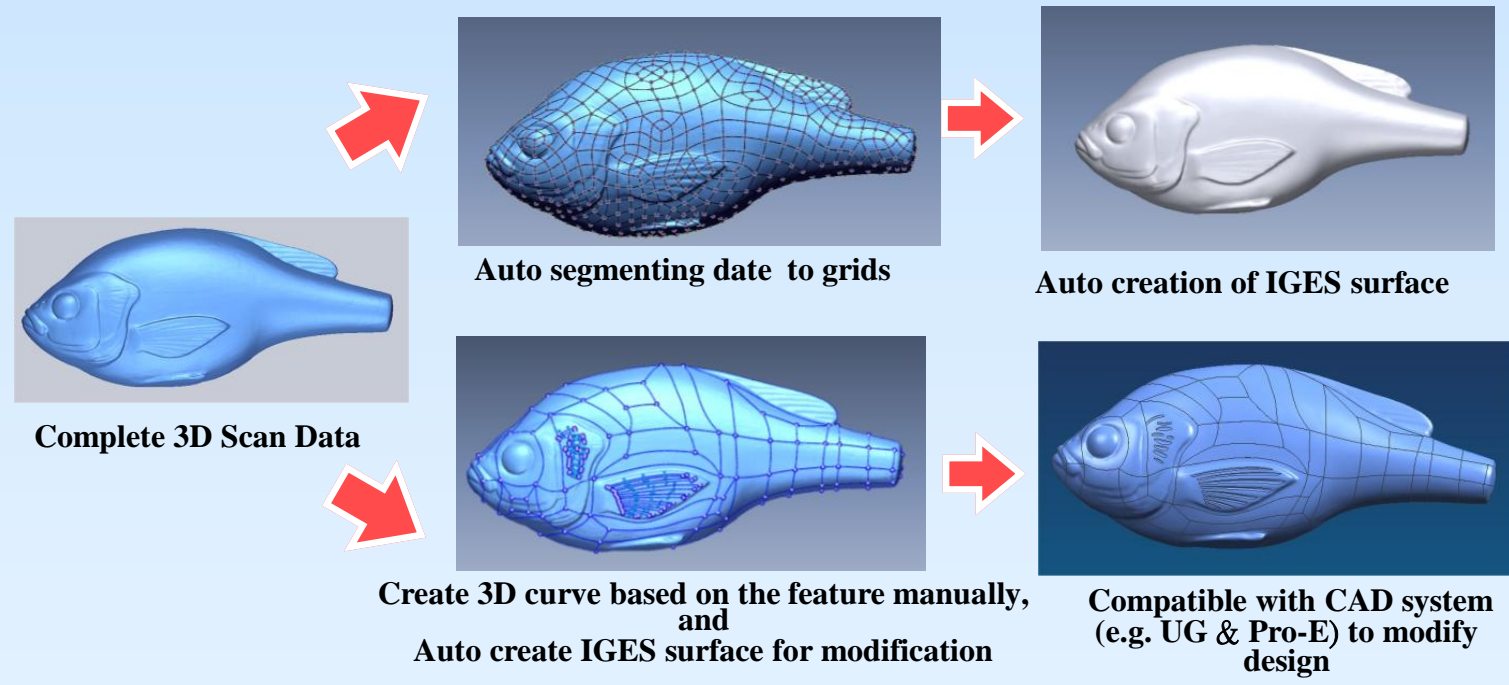


Adjustable Rotatory axis to turn different scan angle

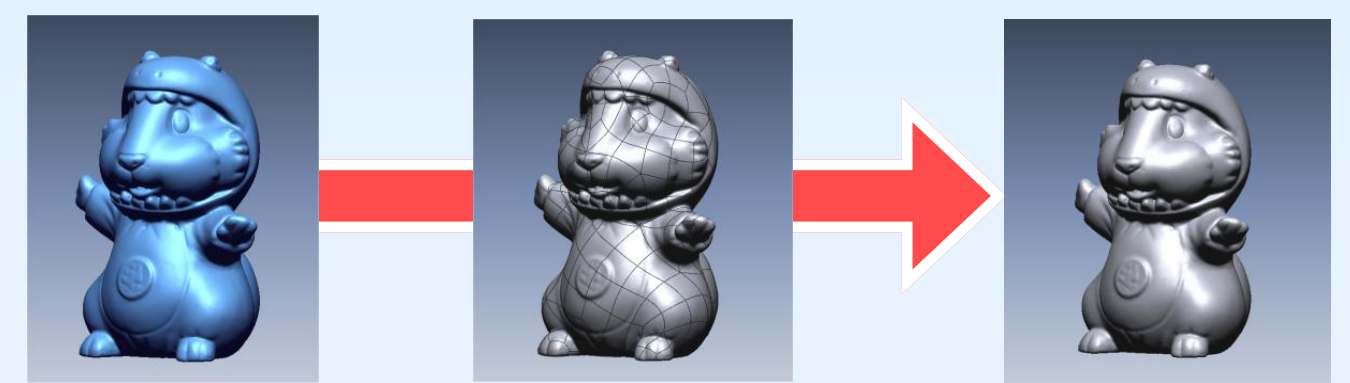


Movable Scan Platform to fit different product size & enhance laser focusing

Support Quick IGES Surface Creation



Flow of Auto Surfacing



Auto grid creation on the scan data to generate IGES surface