Point Master 5.x

X-Ray CT Image Processing / 3D Measurement
Powerful 3D Software for Reverse Engineering

New! Latest version 5 released!!

- Processing 3D images, point clouds, polygons and CAD data in a single software.
- Seamlessly working multiple functions including healing, surfacing and shape comparison.
- Support new functions including defect detection, thickness evaluation and 3D measurement.

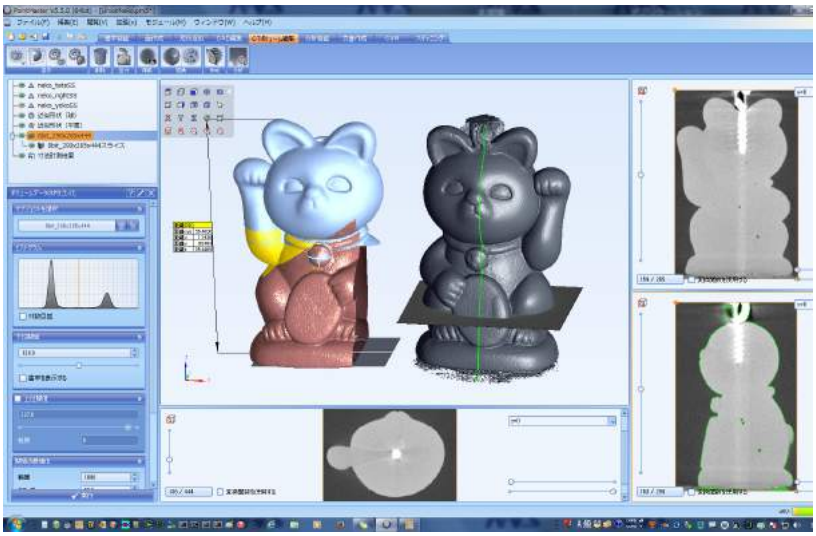
Various functions of PointMaster 5

CAD Link

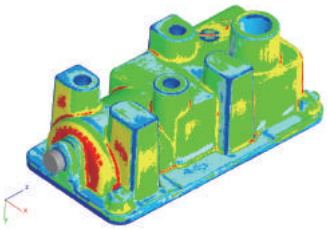
X-ray CT and 3D measurements
measured data → 3D images, polygons (STL), point cloud data
PointMaster 5
surface data → IGES, STEP files
3D CAD software
(SolidWorks, NX I-deas, Pro/ENGINEER, CATIA etc.)

The CAD Link function offers an easy way to use 3D measurements data in various other fields including CAD, CAM and CAE. It allows users to construct surfaces on a polygon data or approximate it to a combination of shapes such as a plate or cylinder, with the resultant data provided as IGES or STEP files to be used in 3D CAD software.

A volume rendering of X-ray CT images of a battery using CT Module

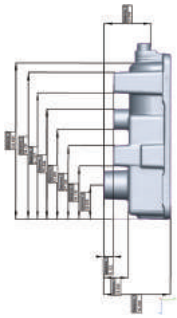


Shape Comparison



Position and align two different data sets for comparison, for example, between CAD data and measured data, or between two measured data sets.

New! 3D Measurement

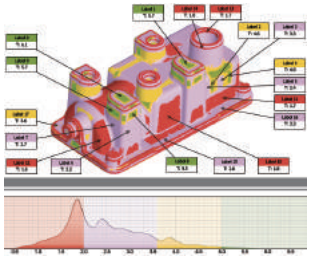


CAD-like 3D measurement based on 3D measurement data.

New! Internal defect detection

Automatically extract defects and particles existing inside the 3D images of casts and resin products. The extracted defects are presented in different colors.

New! Thickness Measurement



Detect the areas of a specified thickness and display them in different colors.Useful in evaluating the shape based on thickness.

Fabricated using a 3D printer

System Requirements

- ◆ Multiprocessors/multi-core processors supported
- ◆ OpenGL 2.0 compatible graphics card with dedicated GPU and VRAM such as NVIDIA Geforce and Quadro series recommended
- ◆ All editions of Windows Vista and Windows 7 supported (64-bit versions)
- ◆ The amount of memory recommended to be several times the data size to be processed.
- ◆ 3 million polygons/20 million point clouds can be loaded per GB memory
- ◆ Data volume of a 3D image stack is calculated in the following way:
  16bit×512×512pixels×512 slices =256MB
  16bit×1024×1024pixels×500 slices=1GB
- ◆ Maximum data size depends on the amount of memory installed.
- ◆ The handling of data whose total size exceeds 1GB requires, large memory (e.g., 8 ~ 32GB).
- ◆ Offer 64-bit version of PointMaster only.

license

- ◆ PointMaster only works when a dongle is connected via a USB port.

Product Lineup

- ◆ Basic functions
  (handling of polygons and point clouds data, reporting)
- ◆ CAD Link
  (surfacing for CAD data generation, shape approximation)
- ◆ CT module
  (visualization and processing of 3D images such as CT images)
- ◆ Shape comparison
  (position and align two 3D objects for comparison)

About reverse engineering

Reverse engineering using 3D data of real objects obtained through X-ray CT devices or 3D scanners has been actively practiced in recent years. Reverse engineering, in a broader definition, is a process of gathering information on product structure by dissembling the products, obserbing their operation, or analyzing software, in order to investigate their production methods, principles of operation, plans (drawing) and source code.Reverse engineering in the manufacturing industry is generally understood as a way to utilize digital measurement data in other technologies such as CAD, CAE and rapid prototyping for various purposes including design, manufacture and inspection.

※ Specification and release time may change without notice.Company and product name are registration of trademark.

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