



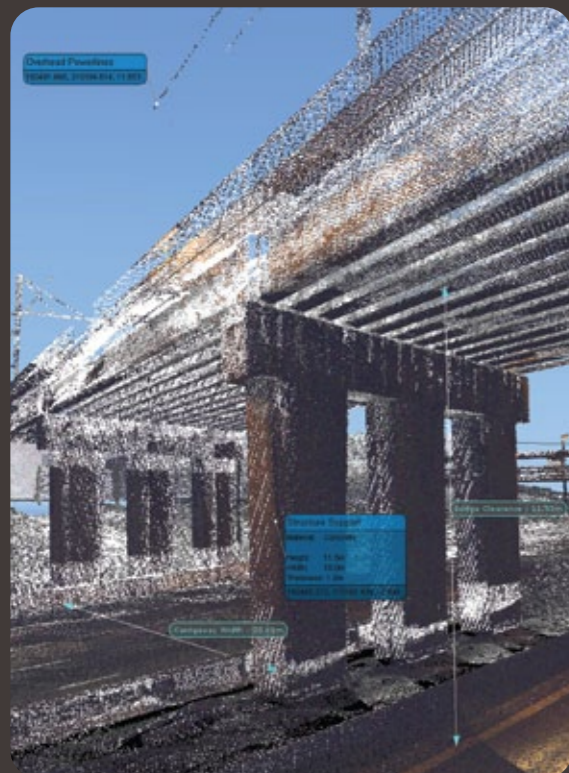
### Product Overview

Pointools Edit™ is the point cloud processing software for selecting, editing, & segmenting the largest point cloud models for reuse in downstream applications.

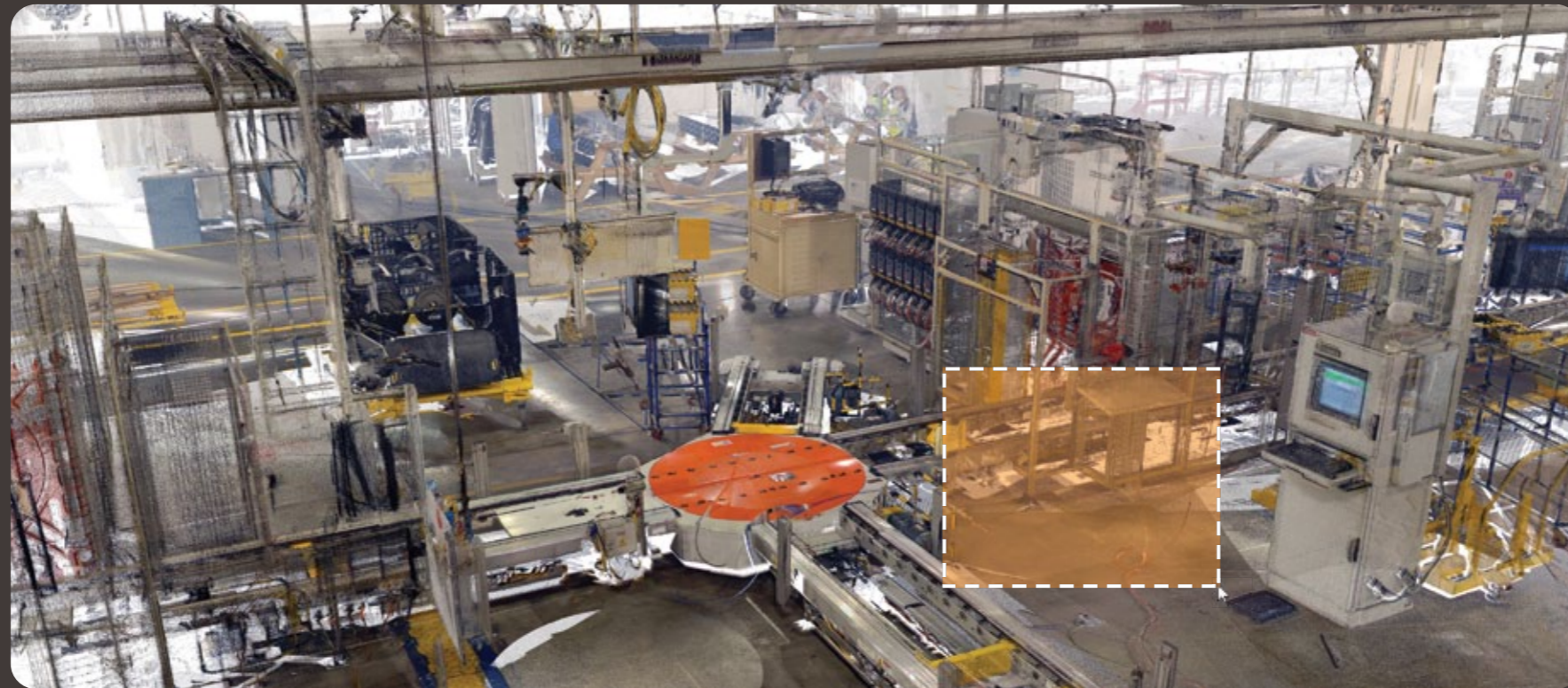
As a flagship product, Pointools Edit is the essential software companion for any Pointools' enabled application. Use Pointools Edit to very quickly select & recolor individual points, segment whole point cloud models, improve point cloud quality, and optimize point cloud performance for reuse inside compatible Bentley, Autodesk, Rhino, and SketchUp applications.



Images courtesy of University College London



Data courtesy of Tecon bvba

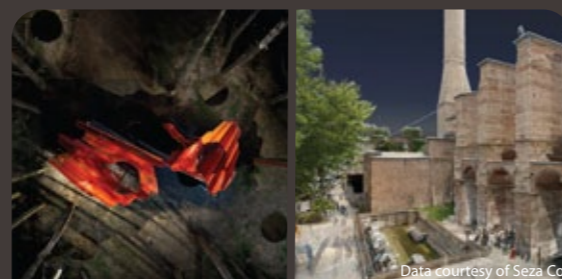


Data courtesy of Ford Motor Company



### Eliminate Time-Consuming Translations

Create Pointools POD models to reuse largest point clouds inside broadest range of applications from Bentley, Autodesk, Rhino, and SketchUp.



Data courtesy of Seza Co.

### Maintain Visual Quality and Accuracy

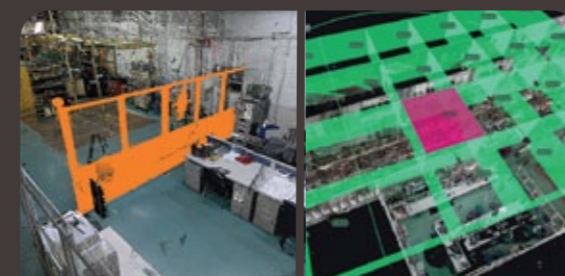
Display billions of points on screen via multi-threaded, high-density, low-decimation point cloud streaming; delivering maximum performance in real-time.

### Product Advantages

- 1 Import all major scan data formats
- 2 Create Pointools POD model for reuse
- 3 Segment and optimise point clouds
- 4 Display billions of points on screen
- 5 Generate images & animations

### Streamline Scan-to-Model Workflows

Import point cloud models from all major scanner manufacturers including: FARO, Topcon, Leica, Optech, Riegl, Trimble, and Z+F.



### Accelerate Point Cloud Performance

Optimize point cloud models by selecting, recoloring, and segmenting points to make them easier to reuse in downstream applications.



Data courtesy of SCCS Ltd

### Increase Value of Scan Data

Generate orthographic and perspective images and produce professional-quality animation; extending the value of point cloud models to all stakeholders.

### Product Specification

#### 3D Model Aggregation

- View point clouds, 3D models, & 2D drawings together

#### Large Point Cloud Support

- Handles large datasets with billions of points
- Manage scene parameters interactively
- Load and unload POD models fast

#### High Performance Graphics

- Multi-threaded for high-performance display
- Uses high-density, low decimation Vortex display engine
- Stream point cloud model display in real time
- Control point cloud density with interactive slider

#### Data Interoperability

- Store points in POD models for broad reuse
- Efficient accuracy based compressed file format
- Create POD models from large range of scanners incl: Faro, TopCon, Leica, Optech, Riegl, Trimble, Z+F
- Supported scan data formats include: Ascii XYZ/TXT, FLS/FWS, LAS, PTX/PTS/PTZ/PTG, IXF, 3DD/RSP/RXP/RDP, CL3, Terrscan BIN, Kubit PTC

#### Application Interoperability

- Integration with 2007 - 2011 Autodesk apps incl: AutoCAD, Civil 3D, Architecture, Map 3D, Land Desktop
- Integration with broad portfolio of Bentley apps incl: MicroStation, OpenPlant, InRoads, RailTrack, GEOPAK, Bentley Map, Navigator
- Integration with Rhino + Google SketchUp

#### Model Shaders

- Shade points by intensity and RGB colour
- Shade points by defining distances from a plane
- Blend all shading settings for maximum impact

#### Georeference Support

- Coordinate point cloud model with real-world location
- Works across all Pointools enabled applications

#### Review Tools

- Sketch on top of view with pen for presentations
- Measurements via point to point or single point
- Annotate project with notes attached to objects
- Output coded measurements and notes to text file

#### Image Generator

- Produce high-resolution ortho & perspective images
- Define rulers and grid lines
- Output scale and datum for accurate reuse

#### Animation Producer

- Easy to use timeline-based animation system
- Animate flight path, objects, lighting, & clip region
- Render as .jpg, .tif, .tga, .avi, or .mov movie file
- Render depth and alpha buffers for compositing
- Anti-aliased rendering & motion-blur for superior quality
- Import/export camera paths to/from 3D design apps

#### Point Editing

- Fast point cloud selection tools including 3D brush
- Select and hide points by regions or colour

#### Point Painting

- Interactively recolor points
- Change colour by hue/saturation or brightness/contrast

#### Point Segmentation

- Layer + grid segmentation + density control
- Export layers or point selection to create new POD model

## About Pointools

The Pointools suite of software leverages the high-performance Pointools POD format for working with the largest point cloud models inside the broadest range of applications. Used by architects, engineers, contractors, and surveyors to work with 3D laser scan data, Pointools software supports multiple workflows including Art & Entertainment, Forensics, GIS & Mapping,

Infrastructure, Manufacturing, and Security & Defence. Pointools offerings include stand-alone applications, CAD software plug-ins, and a third-party development platform for point cloud processing and visualisation; uniquely enabling point cloud model reuse across Bentley, Autodesk, Rhino, and SketchUp applications without time-consuming translation.

Product Portfolio	Pointools Apps	Pointools Plug-ins	Pointools Platform
Capabilities	Pointools Edit™ Pointools View Pro™ POD Creator™	Rhino® AutoCAD® Civil 3D® Architecture® Map 3D® Land Desktop® SketchUp®	MicroStation® OpenPlant® InRoads® Bentley RailTrack® GEOPAK® Bentley Map® Navigator®
3D Model Aggregation	● ● ○	○ ○ ○ ○ ○ ○ ○	● ● ● ● ● ● ●
Large Point Cloud Support	● ● ○	● ● ● ● ● ● ●	● ● ● ● ● ● ●
High Performance Graphics	● ●	● ● ● ● ● ● ●	● ● ● ● ● ● ●
Data Interoperability	● ● ○	○ <sup>1</sup> ○ <sup>1</sup> ○ <sup>1</sup> ○ <sup>1</sup> ○ <sup>1</sup> ○ <sup>1</sup> ○ <sup>1</sup>	● ● ● ● ● ● ●
Application Interoperability	○ <sup>2</sup> ○ <sup>2</sup>	○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○
View Configuration	● ●	○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○
Model Shaders	● ●	● ● ● ● ● ● ●	● ● ● ● ● ● ●
Georeference Support	● ○	○ ○ ● ○ ● ○ ○	● ● ● ● ● ● ●
Productivity Settings	● ○	○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○
Review Tools	● ●	○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ●
Image Generator	● ●	○ ○ ○ ○ ○ ○ ○	● ● ● ● ● ● ●
Animation Producer	● ●	○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup>	○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup> ○ <sup>3</sup>
Geometry Creation		● ● ● ● ● ● ●	
Point Editing	●		
Point Painting	●		
Point Segmentation	●		
Batch Import			● ● ● ● ● ● ●

Pointools reserve the right to change this specification without notice.

1= Requires Pointools POD Creator    2= Interoperates with same Pointools POD model    3= Leverages host application rendering and animation capabilities

