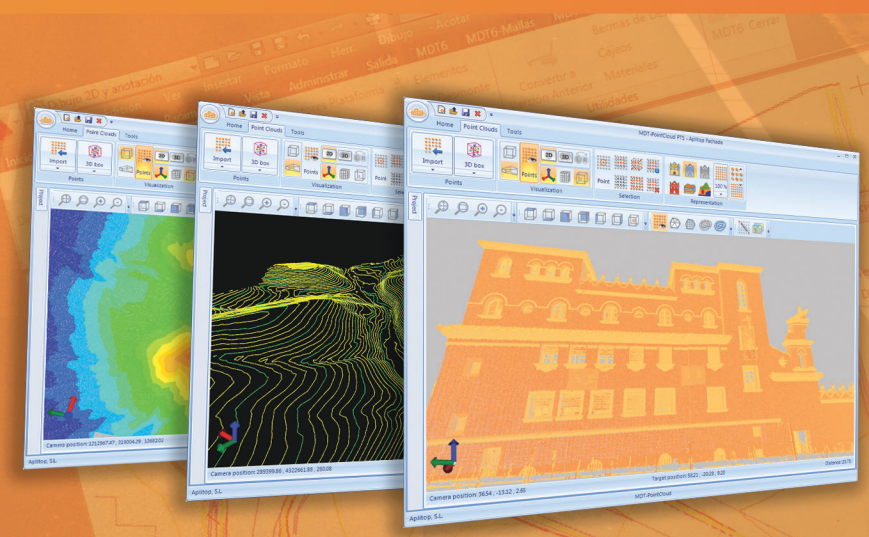
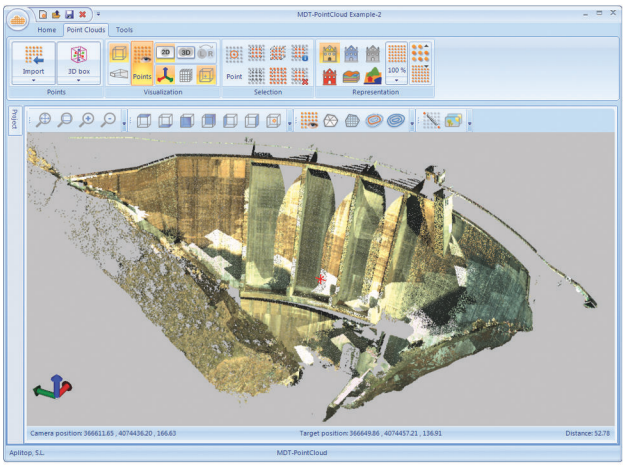
TcpMDT PointCloud

MDT module for managing Point Clouds

This application enables the users to view and process point clouds created by LIDAR technology or conventional scanners. The software generates profiles and cross sections, in addition to surfaces, meshes and contours.



Point Clouds



It is possible to manage millions of points imported from files in common formats: generic scanner files and LIDAR standard format files.

The application allows the users to import several point clouds separately or import them to a single file, with all information stored in each point.

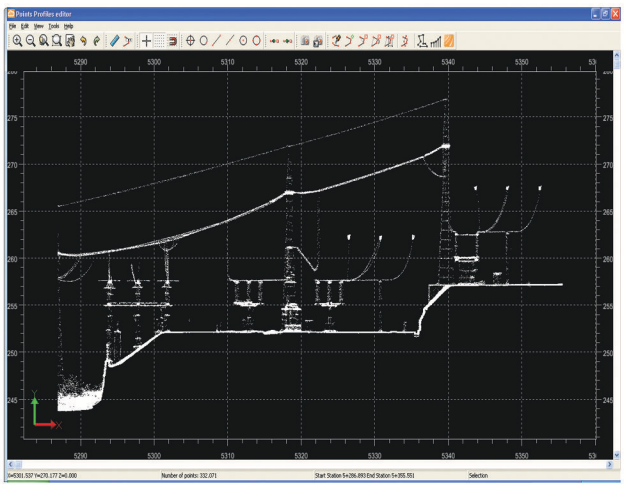
Points Visualization

Visualization can be set up in orthographic or perspective mode, and it has tools for zooming, panning and changing viewpoints , etc.

Points can be viewed in natural colour, intensity or category. The amount percentage of points to be displayed and the pixel size of the points can be controlled. The point cloud can also be viewed in stereoscopic mode with active and passive systems.

On opening a drawing with TcpMDT, the users can control the visibility of every layer.

Profiles

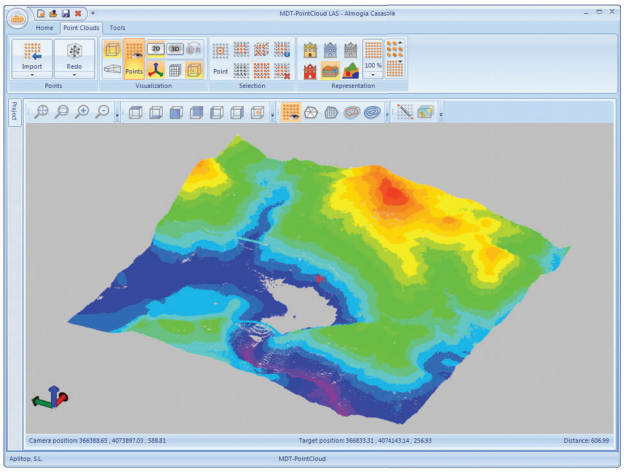


The quick profile option enables the users to get an immediate view on the profile which is on a reference plane and generated from a polyline drawn on the screen. By executing the command, MDT presents profile by generating an image consisting of the projection of points selected within a distance, with real coordinates and size, which allows the user to draw it in the viewer or on the CAD.

aplitop
Surveying and
Civil Engineering Solutions

TcpMDT PointCloud

More accurate results can be obtained by drawing alignments or importing them from TcpMDT. Profiles and cross sections are created by alignments and can be drawn manually or directly on the CAD.



Digital Terrain Model

The software features several options for selecting the points to be processed. Thus, points can be filtered in accordance with their position or category, and the boundary can be delimited by a rectangle or 3D box.

Once the points are selected, the digital model can be created. The result can be viewed on the point cloud and also be stored as a surface or mesh.

Once the terrain has been defined, contours can be drawn over the point cloud as well.

Filtered Point Clouds

The application lets the user to create new point clouds from the selected points or from all the currently visible points (neither hidden nor filtered by scan or category). Also, it allows to set the color of the points of the new point cloud based on the pixels of a set of georeferenced images (orthophotos).

Requirements (1)

Formats	Generic: text (TXT,XYZ), ArcView (ASC) Scaner Point Cloud: Leica (PTS,PTX), Faro (FLS), ASTM E57 (E57), Polygon File Format (PLY) LIDAR Point Cloud (LAS) TcpMDT: points (PUN), mesh (MLL,MDE), surfaces (SUP), vertical alignments (EJE,RAS)
CAD	AutoCAD versions 2007 to 2017 BricsCAD Pro/Platinum versions 12 to 16 ZWCAD Professional/Enterprise versions 2012+, 2014+, 2015+ and Classic
MDT	6.5 or higher
Operating System	Windows XP, Vista, 7, 8,8.1, 10 in 32 and 64 bits
Peripherals	Mouse with 3 buttons + wheel or pointer CD-ROM reader
Graphics Card	1024x768 pixels, compatible with OpenGL For Stereo: Active/Pasive Stereo System Recommended chipset: NVIDIA QUADRO FX or higher, 512 Mb
Hard Disk	4 Gb of free disk space
Memory	Minimum 3Gb
Processor	Dual-core 2 Ghz or better

(1) This information is purely indicative. Check the specifications given by manufacturers and the TcpMdt Point Cloud requirements section in our website www.aplitop.com.

Some images courtesy of AeroLaser

www.aplitop.com
Surveying and Civil Engineering Solutions
Sumatra, 9 29190 Málaga (Spain)
+34 952 43 97 71 info@aplitop.com

aplitop
Surveying and
Civil Engineering Solutions