Tcp**Stereo** for drones

Stereo plotting over orientated photographs

This system allows stereo plotting in CAD platform over aerial photographs with previously defined orientations. It's specially useful for photogrammetric surveys made with drones, and it also can be used by public administrations, mining companies, landslide, hydrology, environment, town planning, etc.

Input Data

Basic input data are the folder with the flight images and the external orientation file, that could be imported from Pix4D or Agisoft Metashape.

It's possible to work with digital and analog pictures. For digital pictures the camera parameters and flight height are automatically obtained from metadata. Analogue pictures require to specify camera and flight data, such as focal distance, main point and average flight and terrain height.

Image Visualization

During project definition, images are converted to pyramidal format in order to optimize display performance. Imagas are organized in models, strips and block.

Models can be viewed in stereoscopic mode with low cost systems based on emitters and active glasses, or systems with two displays, mirror glass and polarized glasses. It also allows display with anaglyph glasses in pseudo-stereo mode (overlapped images) in any computer. You can also print and send these images by email.

The program can work with multiple stereoscopic models, switching automatically from one model to another by following cursor movements through terrain. It is also possible to know the real coordinates of the terrain and the height, measure 2D and 3D distances, slopes and elevation differences, perimeters and areas.


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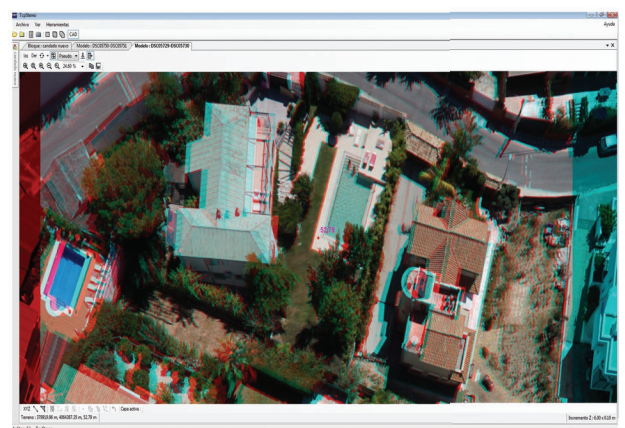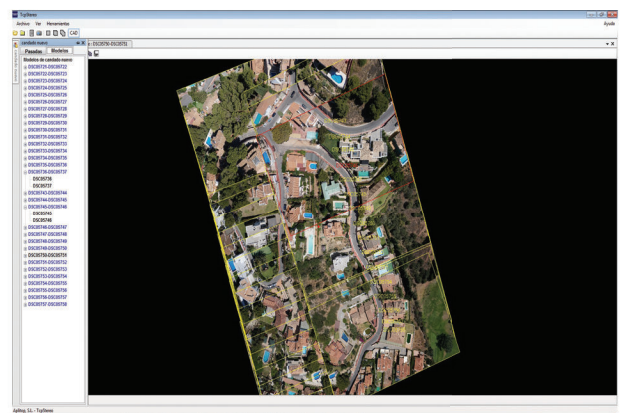
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CAD drawing and editing

TcpStereo can syncronize with different CAD versions, so that a drawing can be loaded and show in stereoscopic mode selected layers, while keeping the center of frame and drawing automatically. Also you can draw points and polylines with constant or variable height in the same coordinate system.

If you also integrates with TcpMDT, the digital terrain model can be generated as well as creating contours, get profiles and cross sections, etc.
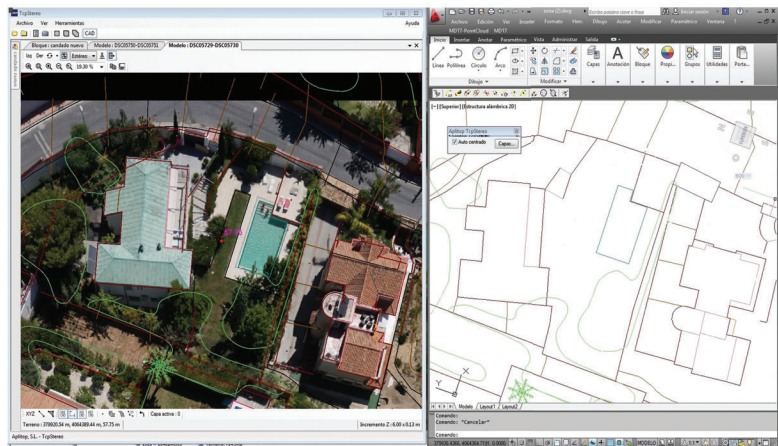
Requirements [1]

Stereoscopic System vision [2]	Anaglyph glasses High frequency 3D stereo monitor with shutter glasses Interlaced stereo monitor with polarized glasses System with two monitors, a crystal mirror and polarized glasses
Graphics Card	For anaglyph stereo: - Any mark/model supporting OpenGL 3.0 For other stereo viewing systems: - NVIDIA Quadro FX Chipset or better. Dedicated memory 1Gb
Memory	Minimum Phisical memory 2Gb
Processor	Dual-core 2 Ghz or better
Others Peripherals	Mouse with pointer
Operating System	Windows 7, 8, 8.1, 10 in 32 and 64 bits
CAD (optional)	AutoCAD versions 2009 to 2021 BrisCAD versions 12 to 21 ZWCAD 2019 and 2021

[1] This information is purely orientative. We recommend you consult the requirements sections on our website www.aplitop.com

[2] We recommend using NVidia Quadro graphics card with 3-pin mini din stereo sync output together with Volfoni RF emitter (AcivHub RFOne or RF50) and Volfoni EDGE (RF or VR) shutter glasses.

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