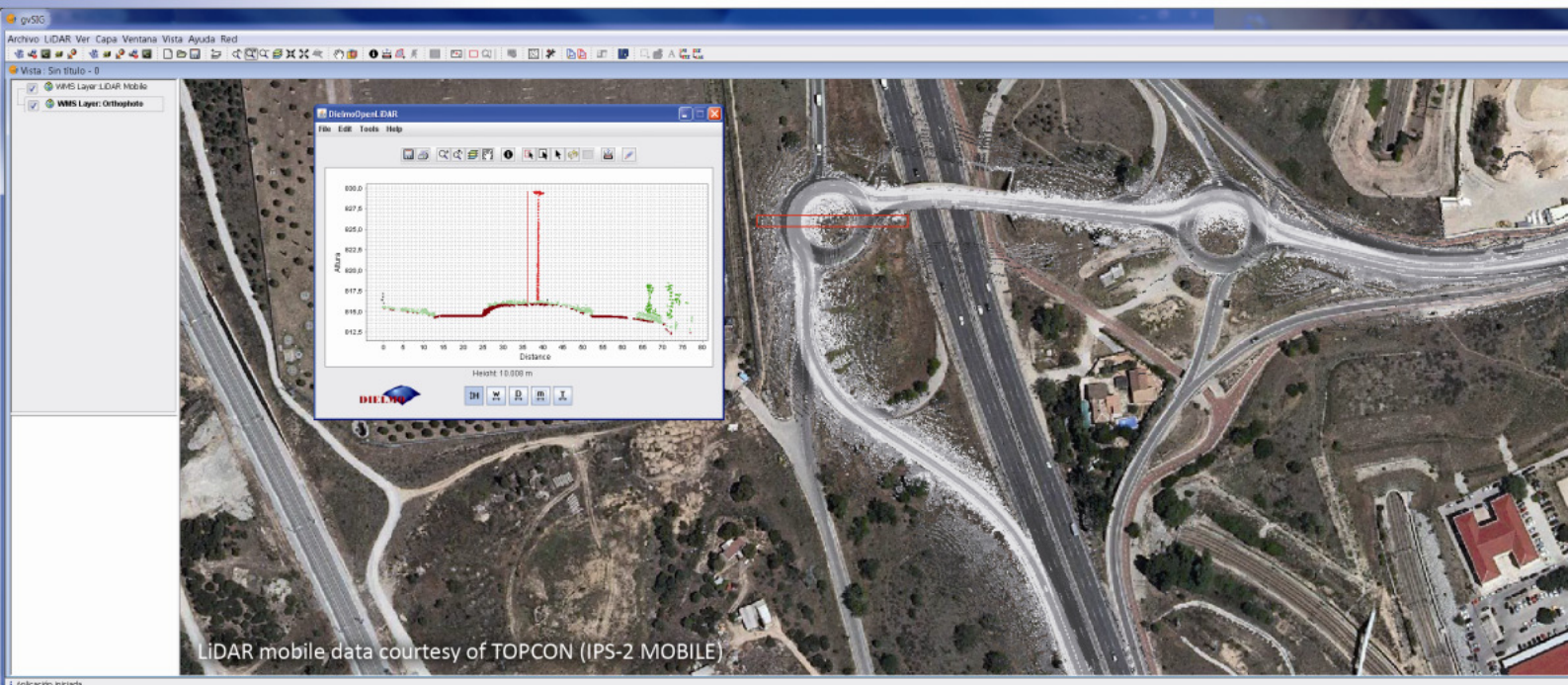


# Dielmo Server Technology

Dielmo 3D has developed a new server technology focused on making the original LiDAR information (irregular point cloud) accessible to everybody, allowing remote access to LiDAR data for visualization, analysis and data distribution, for experts and non expert users at an incredible performance and with no limits.



## Web Map Service (WMS)

Dielmo uses WMS, an OGC standard, that allows the visualization of the original LiDAR point cloud represented with different styles (height, intensity, RGB or classification), with no need of having to distribute the original data.

Our technology allows the visualization of:

- > LiDAR data
- > DTM's
- > Orthophotos

## Original data distribution

Using an HTTP request with the region of interest and the coordinate system, our new web service is able to create a LAS file only with the LiDAR points inside this region that is returned to the user as a link to a compressed file in less than one second.

Our technology allows the distribution of LiDAR data by:

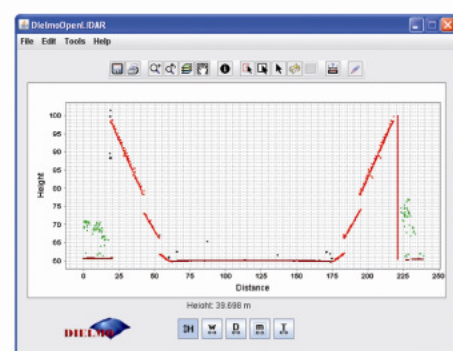
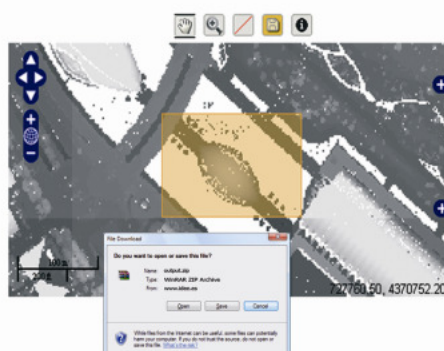
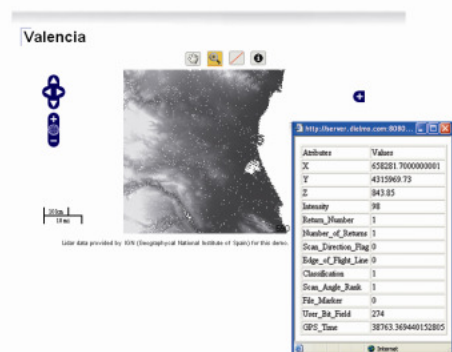
- > Regions
- > Profiles

## Profile client

Our Open source software DielmoOpen LiDAR profile client is an example of the use of our data distribution server. It allows a complete analysis of LiDAR data with export, edition and measurement tools. It can be easily integrated in a web browser or any GIS software.

Our technology allows:

- > Edition
- > Measurement
- > Export





# Dielmo Server Technology

## DielmoWMServer

A Web Map Service (WMS) represents geographic information as a map image following the OGC standards. DielmoWMServer allows the visualization of orthophotos, DEM and LiDAR data over the internet or intranet, and obtains the information associated to any LAS point.

### HIGHLIGHTS

- > Supports orthophotos, DEM and LiDAR data
- > Supports WMS 1.1.1 and 1.3.0 OGC standards
- > Optimized speed for huge volumes of data
- > Server cache to increase the speed
- > Re-projection of coordinates on the fly
- > Different visualization styles for the LiDAR data (height, intensity, classification, RGB)
- > Easily configurable using XML

## DielmoMakeOLX

As LAS format is not ready to do fast searches, DIELMO has developed a new format that preserves the original LiDAR information adding a new spatial index that allows immediate searches independently of the volume of data, and even over the internet.

### HIGHLIGHTS

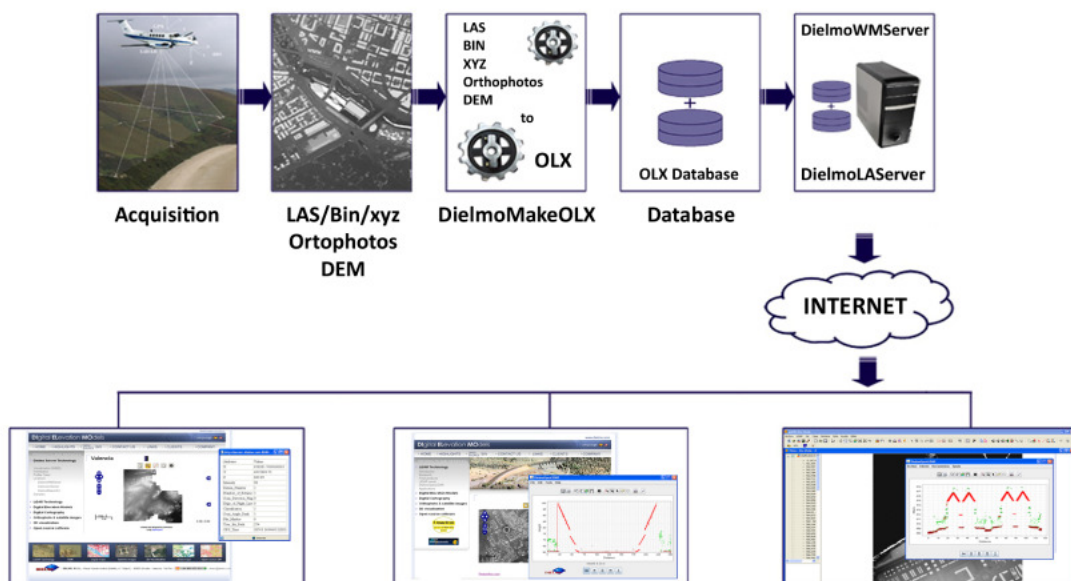
- > Allows immediate searches among immense volumes of data
- > Creates the OLX layers used in DielmoWMServer and DielmoLAServer to load the data
- > Data is ordered and tiled
- > Allows to restore the LAS table of a point for GetFeatureInfo requests
- > Allows to restore data as a standard LAS file

## DielmoLAServer

Allows the downloading of original LiDAR data, in LAS or XYZ format, for its distribution over the internet or intranet. Data is downloaded by a simple HTTP request, that can be easily integrated in any web browser or GIS software.

### HIGHLIGHTS

- > Allows downloading data by region or profile
- > Creates output LAS files on the spot
- > Optimizes downloads by compressing data in a file
- > Re-projects coordinates on the fly
- > Optimized speed for huge volumes of data
- > Can be used from any client
- > Allows the development of different web services for the distribution or the analysis of LiDAR data as our DielmoOpenLiDAR profile client
- > Integration codes available and open



Dielmo Server Technology allows any user to access LiDAR data through any client as web browsers, GIS software or mobile devices at an incredible performance.

