HYPERMAPS

Hypermaps are maps that can be adapted and linked to different formats of map such as orthophotos, reliefs or even vector maps.

What stands for hypermap?

Land allows the user to work simultaneously with several maps arranged in layers. So by applying a zoom to the upper layer, it will provide the map in a lower layer, and so on. The variation will depend on the applied zoom, so Land will display each map without need to activate or deactivate opened maps. Maps wich consist of several stacked maps is what stands for hypermap concept.

Working simultaneously with different maps is an obvious advantage because in case a map starts to pixelate the user will be able to automatically apply for another map with more resolution on a smaller scale, or replaced by a topographical or orthophotography map.

Figure 1

.IMP file

In our example we will create an hypermap which will include 1:50.000-map of Ripollès zone, 1:25.000-map of Puigmal and Vall de Núria map (orthophoto). The relief map of our area will be also included so that we can work with hypermaps using the 3D viewer.

Adjust the maps so that when the maximum resolution map of 1:50.000 is being exceed, another map will be displayed automatically: 1:25.000 map. When 1:25.000 resolution is exceed again, an orthophoto
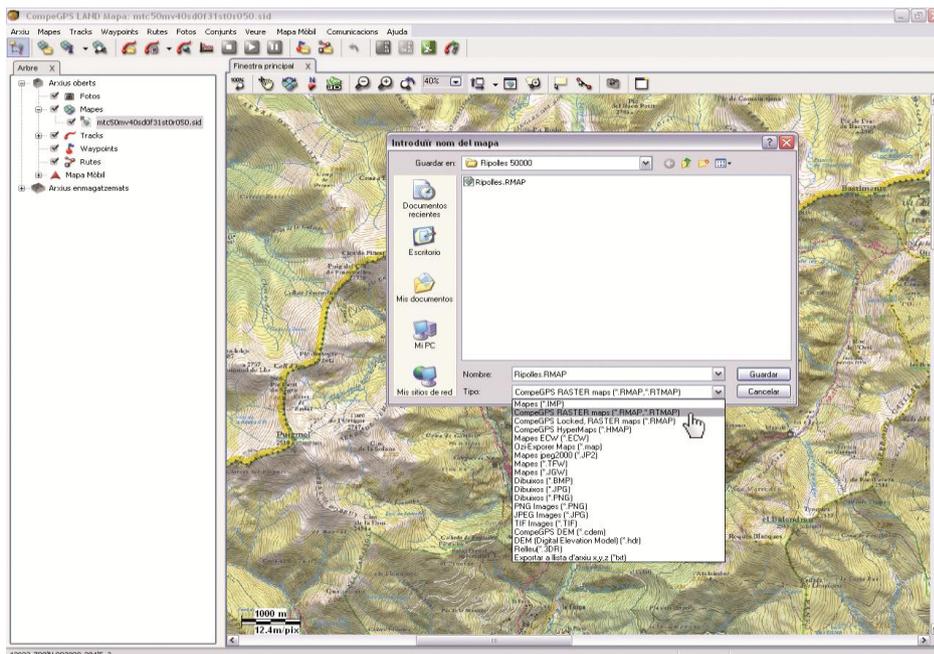
finally appears. This structure provides an extraordinary advantage for users which need to revise the route, waypoints or tracks at different levels of scales.

The first thing you need is a rasterized map (converted to CompeGPS' raster system). In order to do that, we only have to start Land and open the map, and then click right mouse button.

From the menu which appears we have to choose **Save map as...** At the new window choose a name for the new file, save the location and save the file type, in this case we choose the option **CompeGPS RASTER**

map (Figure 1). At the same folder where we saved the new raster map file we will place the relief map of our area.

All that remains now is to create the .IMP file. To do this we must open a new text file at the same folder where you just saved all maps. We can also open a new text file if you go to 'Start' menu and choose **Notepad** software. Then write the following text (Figure 2):

CompeGPS MAP File

<Header>
Version=1
Projection=0,UTM,31,N,
Coordinates=1
Datum=EUROPEAN 1950
</Header>
<HiperMapLayers>
<HLayer File="nom ortofoto.RMAP"

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visible="1" MinZoomLevel="0"
MaxZoomLevel="1.5"/>
<HLayer File="nom mapa1.RMAP"
visible="1" MinZoomLevel="1.5"
MaxZoomLevel="5"/>
<HLayer File=" nom mapa2.RMAP"
visible="1" MinZoomLevel="5"
MaxZoomLevel="9999"/>
<HLayer File="nom mapa relleu.hgt"
visible="1" MinZoomLevel="5"
MaxZoomLevel="9999"/>
</HiperMapLayers>
```


Figure 2

It is very important to write in the **Projection=0,UTM,31,N**, the values of the map projection. At MaxZoomLevel and minZoomLevel sections we will fix the zoom level in which the exchange of maps will be applied. Specific amounts refer to the meters per pixel in which the zoom in/zoom out will be done. Save this file, and change the extension of it from .TXT to .IMP. so we can open it by using CompeGPS Land.

These hypermaps are compatible with GPS Aventura, Sportiva, Sportiva+ and Delta. They provide great flexibility and convenience during navigation in areas where the user might have to zoom in the map in order to locate details that are totally undetectable at larger scales. By turning on and off the maps manually it would be a major waste of time while using the technique of hypermaps you only need to increase or decrease the zoom size.
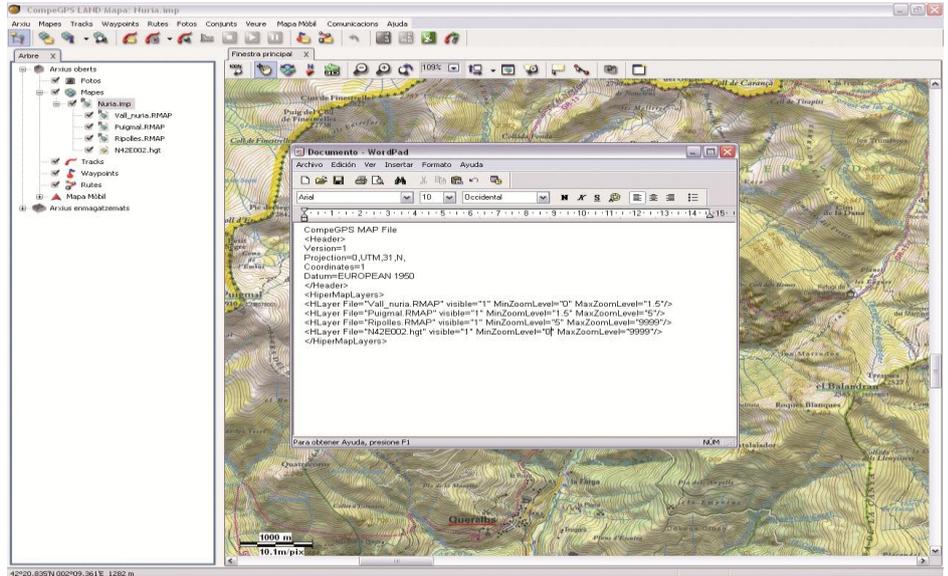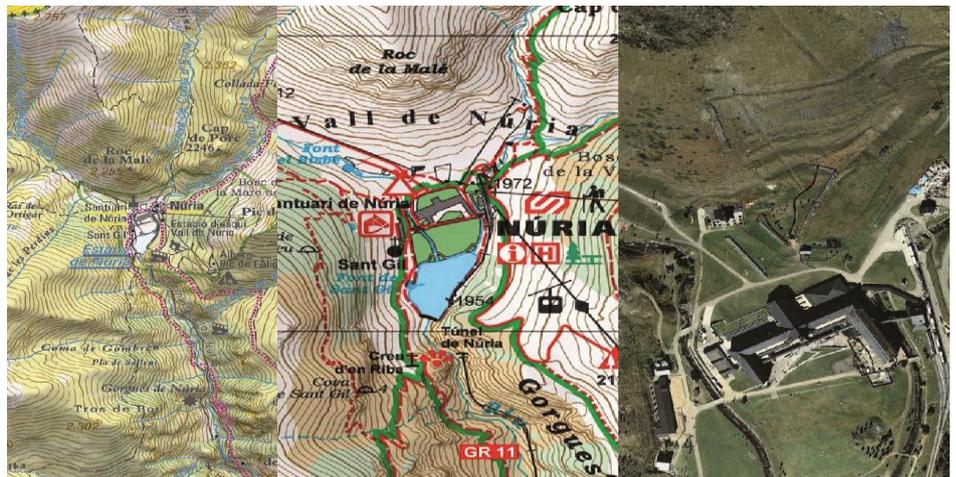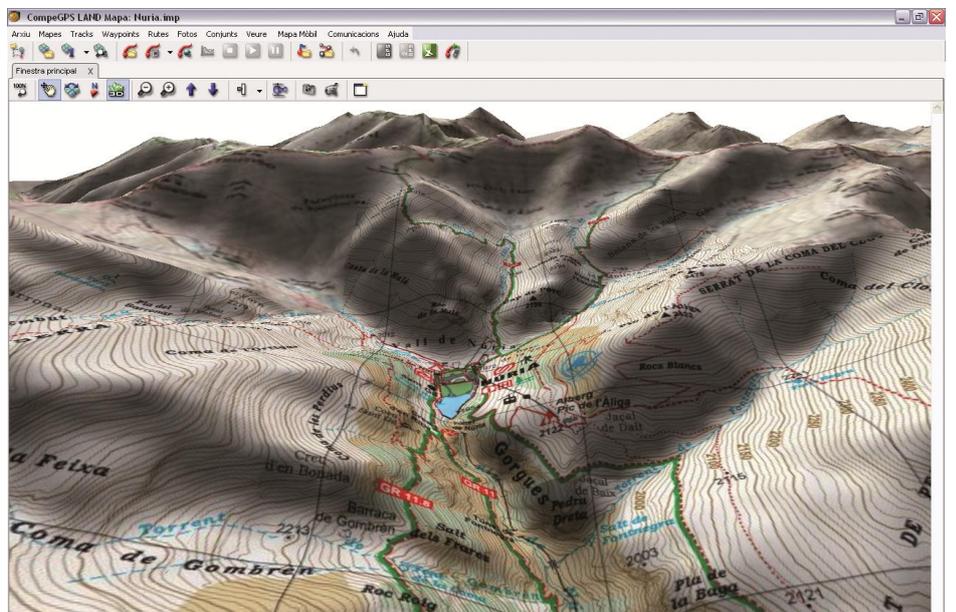

Figure 3

Figure 4