

How to use the horizon profile
by means of the
Orologi Solari
program

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The azimuth/elevation profile of the horizon can be used in order to:

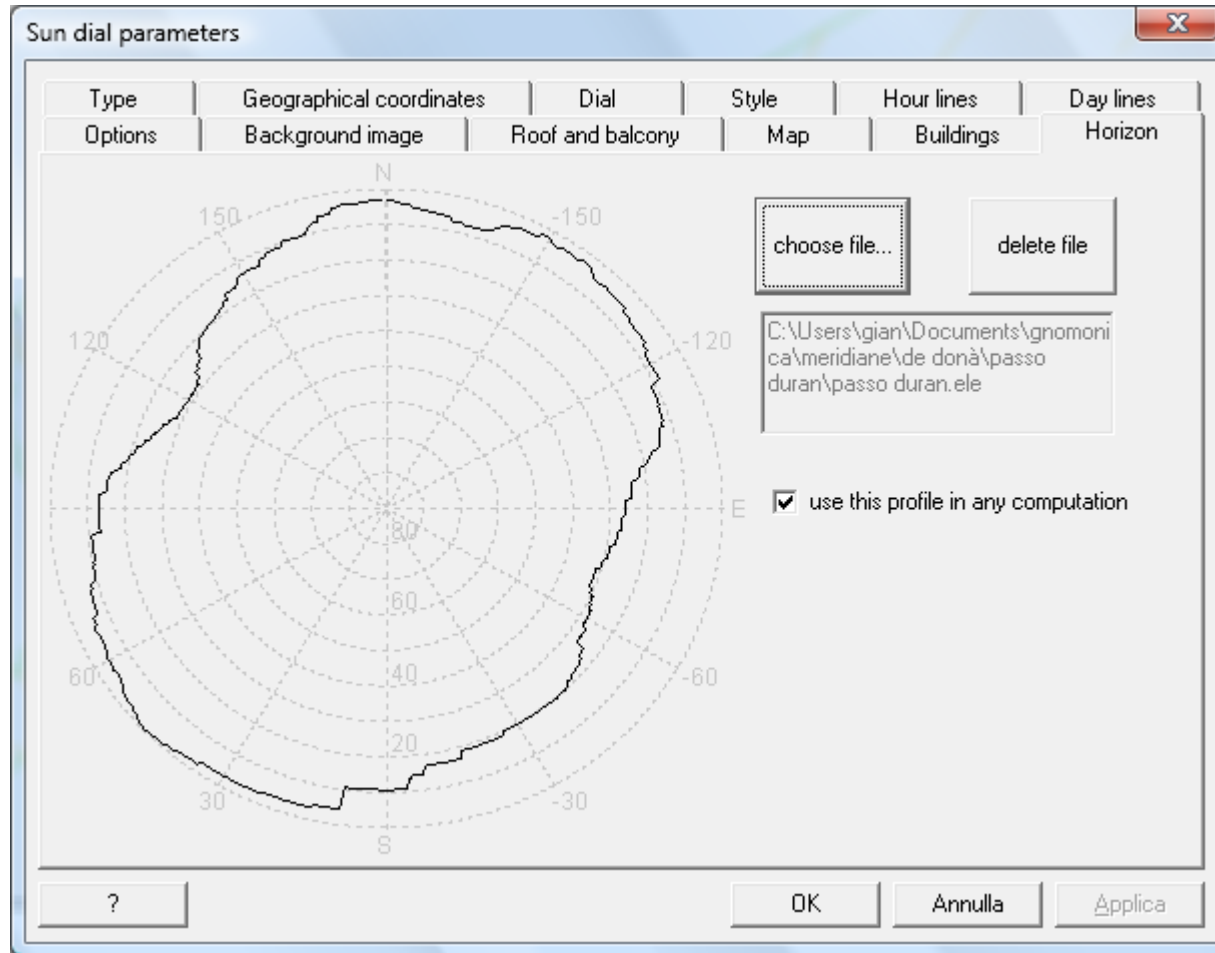
- evaluate the hours of light for the dial
- draw the line of the true horizon
- draw the lines of the hours remaining to sunset

The profile can be computed by Orologi Solari as explained in [“How to compute the horizon profile”](#).

Or it can be measured by means of a theodolite and then, in order to be used by Orologi Solari, it can be written in a .ele file with the format explained in the above document.

With a .ele file containing the horizon profile as seen from the dial place, the features described in the following slides can be obtained.

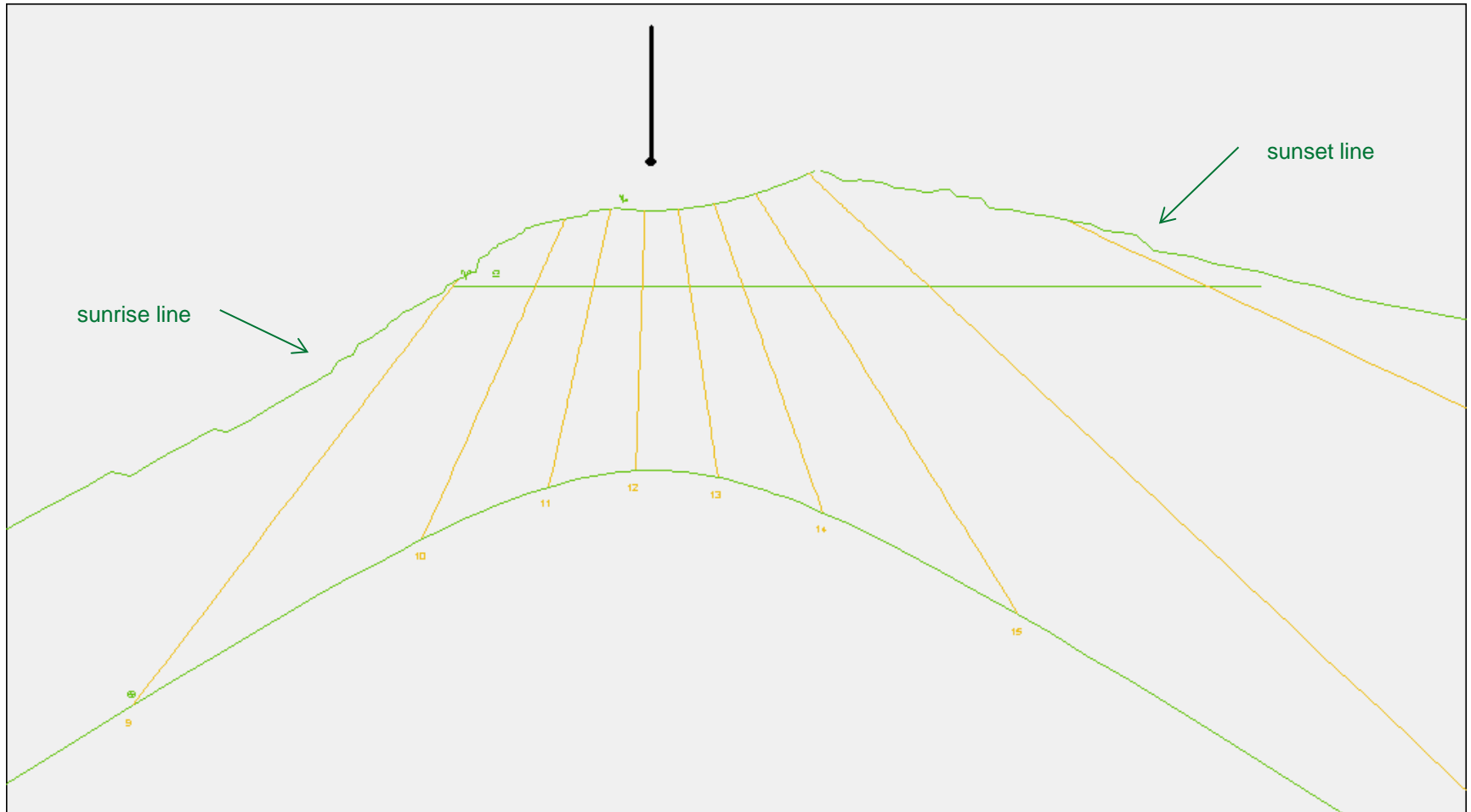
Open Orologi Solari and insert the parameters for your dial. Then select the window “Horizon”.



Click “choose file” and select the .ele file (the program will issue a warning if the dial place and the .ele file coordinates are more than 5 arc seconds apart i.e. about 150 m at the equator). Check the “use this profile in any computation” box.

In a vertical dial the line of the horizon is a horizontal line through the base of the orthostyle. This line corresponds to the position of the sun when its height is zero.

If a .ele file has been defined, the horizon line drawn on the dial will be the profile of the real horizon (remember to check the «hour lines over the horizon only» box in the Options tab).

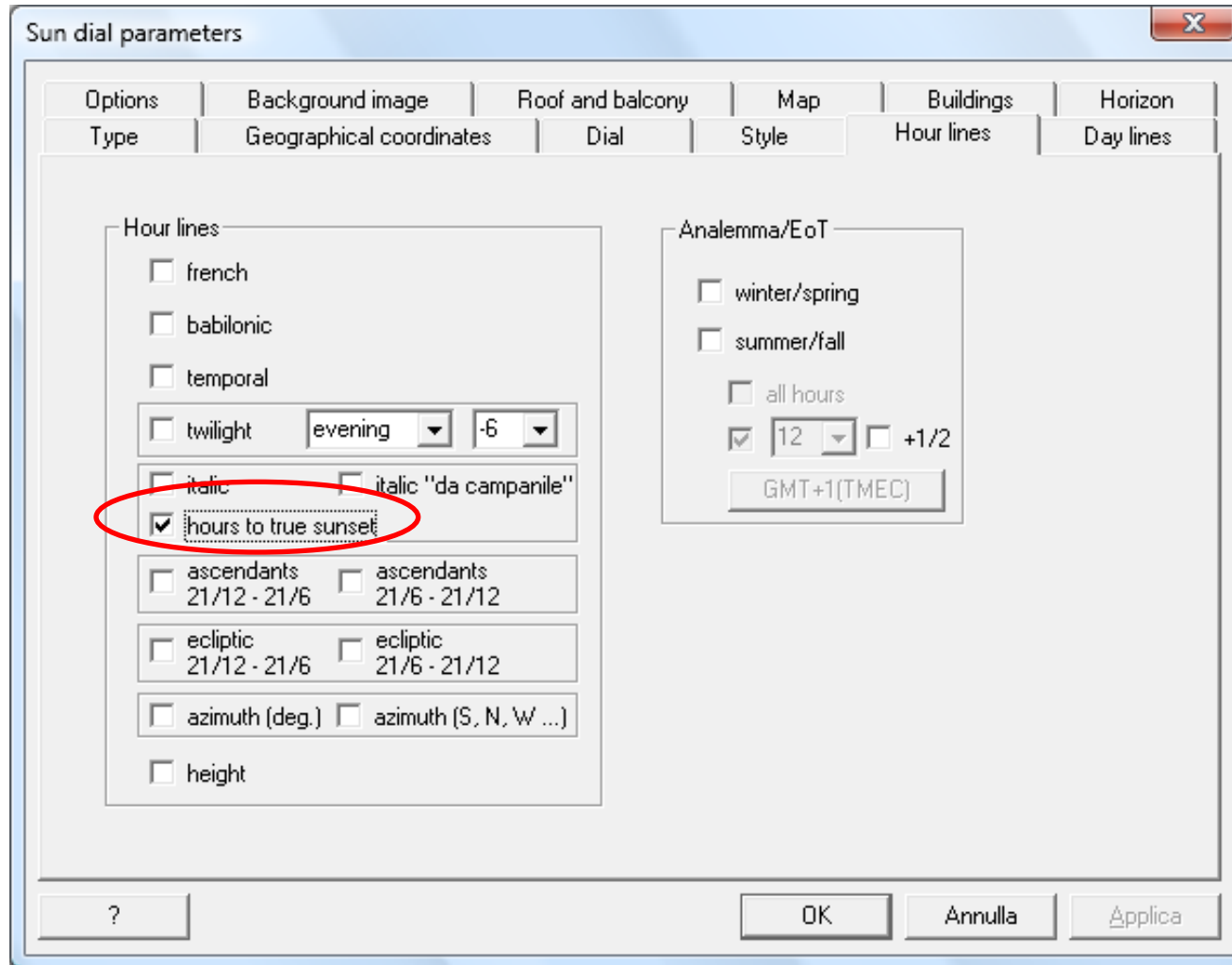


The horizon line in a horizontal dial is usually at an infinite distance from the style.

If a .ele file has been defined, the profile of the real horizon can be drawn on the dial.



One more possibility offered by the program is to compute and draw the lines of the hours remaining to the true sunset (instead of the theoretical sunset as for the italic hour lines).



This is the result obtained for a horizontal dial.

