Instructions

Insert the installation CD and run setup.exe. Follow the instructions until set-up is complete. **Astrolabium Screen Saver** should then appear under **Programs** in the **Start** menu. Simply click on the item to run the screen saver. Because it is a screen saver, however, it will disappear as soon as you move the mouse.

In order for the screen saver to appear automatically on your screen, your computer's display properties need to be adjusted. There are two possible ways of doing this:

1) Open the **Control Panel** and select **Display**. Click on **Screen Saver** and select the Astrolabium Screen Saver.
2) Right click with the mouse on the desktop. From the Popup menu that appears select **Properties**. The **Display Properties** menu appears. Click on **Screen Saver** and select the Astrolabium Screen Saver.

It is also possible to vary the parameters of the Astrolabium Screen Saver from this screen.
The parameters for the town of Mestre for example are: latitude: 43.5047, longitude: -12.2525, STZ = -1.
On the screen, however, they appear in sexagesimal form, i.e.: latitude: 43° 30' 16.92", longitude: -12° 15' 9".
If daylight saving time is in operation, click on DST (dst = 1).
The astrolabe is a stereographic projection of the sky from the South Pole for the Northern hemisphere and from the North Pole for the Southern hemisphere. On the screen, when looking at the Northern hemisphere, North is at the bottom and South is at the top, and vice-versa for the Southern hemisphere. The constellations are seen as a mirror image.
All the planets, the moon and the sun are shown. The various phases of Mercury, Venus, Mars and the moon are also shown as well as the vernal point γ.
The astrolabe shows the times at which both the moon and the sun rise and set and the solar noon. It also shows the date according to the Julian calendar, that is the number of days since 4712 BC at 12pm Universal Time. And it shows Local Apparent Time and Local Sidereal Time.
The information is updated every second.
The sky is pale blue during the day, and then changes colour gradually after sunset until the sun reaches an angle of 18° below the horizon, at which point it turns black. The three outer circles show three different altitudes of the sun, or of any other star, below the horizon: -6° (cyan blue), -12° (blue) and –18° (dark blue).
The figure-of-eight curve, the lemniscate for average time (analemma), shows how the sun's position at 12 noon varies according to the season. The lemniscate is subdivided into 12 parts, each of which represents a month of the year. The sun's exact position is indicated by a circle of the same dimensions as the sun's disk. At 12pm, the sun sits precisely on the circle.
When the sun hits the north-south axis precisely it is 12pm local time, or solar noon.
The solstice lines are also shown, along with those of the equator and the ecliptic.
The grid lines on the astrolabe cover the section of sky that is above the horizon.
The altitude circles above the horizon are shown at ten-degree intervals. Those below the horizon are shown at six-degree intervals. The azimuth lines, arcs of a circle at ten-degree intervals, converge at the zenith.
The position of the North Pole is indicated by the pole star.
That of the South Pole is highlighted by a red dot.

Astrolabium Screen Saver is a simplified version of The Astrolabium, a sophisticated professional program which supplies much more information and simulates cosmic events such as precession, the comparative size of the planets, the apparent position of Jupiter's satellites as discovered by Galileo, Saturn's rings with the Cassini division etc. It allows the user to print out a chart of the

heavens as well as a grid of the azimuths and the almucantarats for the production of a traditional metal astrolabe.

Both programs are the result of a father-son team effort. We have put our initials together to give the acronym RAWA.

The programme was produced with the almost exclusive use of spherical trigonometry in Visual Basic.

Conditions of use

Astrolabium Screen Saver is the *demo* version of a freeware programme. Use of the product is permitted but any sale thereof is strictly forbidden by law. The authors own the intellectual property rights to the programme. They take no responsibility for any malfunctions or any consequences arising from improper use of the same.

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