Calculating houses and planets according to Campanus

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The `Prime_Vert_Hor_de.xls` spreadsheet is used in the calculation of planets and houses of a horoscope according to the Campanus-House system. The calculations are specifically carried out as follows:

- The ecliptical and mundane positions of the ten "astrological planets" Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto are calculated. The list of these planets is easily expandable by other factors.

- The calculation is done on a *topocentric* base, i.e. the coordinates refer to the observation point defined by the geographic length, width and height (longitude, latitude, and altitude) above sea level, not the center of the earth.

- For each "astrological planet", the elliptical length, projected elliptical length, right ascension, declination and mundane position are issued respectively in the decimal system and in the sexagesimal system (arc degree / minutes / seconds).

- The *projected elliptical length* is the length of the ecliptic point, which lies on the same mundane position loop as the actual celestial point. For the sun, which is always (almost) exactly on the ecliptic, this is no difference to its normal ecliptical length. For other planets, significant deviations from the usual ecliptical length may arise, which is calculated by vertical projection on the ecliptic.

- The *mundane position* (or house position) is the angular distance (measured at the first vertical,) of the planetary circle passing through the planet from the horizon. For a planet that is just rising, the mundane position is always 0°. For a planet in the upper culmination, the mundane position is always 270°.

- House tops are listed according to the Campanus-house system.

Prerequisites

The Excel spreadsheet requires a Windows 32 platform.

The Swiss ephemeris is used for astronomical calculations. This can be downloaded for private use from http://www.astro.com/swisseph/. The `\sweph\bin` directory of the Swiss Ephemeris must be included in the search path of Windows for executable code into the system variable `PATH`.

Excel sheet structure (Emil Lips)

Sheet 1: Prime Vertical Horoscope 1

Sheet 2: Prime Vertical Horoscope 2

Sheet 3: Horoscope data

Sheet 4: Calculations of Rüdiger Plantiko for Sheet 1

Sheet 5: Calculations of Rüdiger Plantiko for Sheet 2