The location of the earth's mean ecliptic and its relation to the earth's mean equator are quantities basic to current theories of precession and nutation. However, those quantities must be extracted from the planetary ephemerides, since the ephemerides give only the instantaneous ecliptic in the International Celestial Reference Frame. This paper describes how the instantaneous ecliptic and equator are determined in the planetary ephemerides and 2) how the mean values of these quantities are extracted from the earth's coordinates.