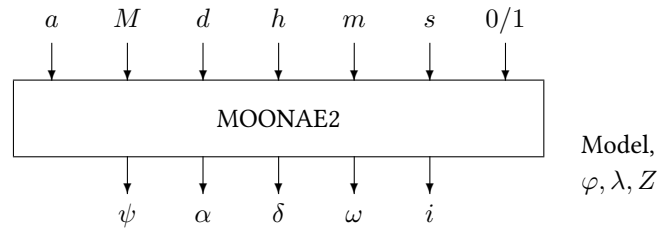


Block MOONAE2

The MOONAE2 block calculates the position of the Moon in horizon and equator coordinates.



Name	MOONAE2
Function	em0040
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Inputs

- 1 Year a (for example 2021)
- 2 Month $M \in [1, 12]$
- 3 Day $d \in [1, 31]$
- 4 Hour $h \in [0, 23]$
- 5 Minute $m \in [0, 59]$
- 6 Second $s \in [0, 60)$

Outputs

- 1 Azimuth ψ (north = 0° , east = 90° ... west = 270°)
- 2 Elevation $\alpha / ^\circ$
- 3 Declination $\delta / ^\circ$
- 4 Hour angle ω (0° ... 360° west)
- 5 Moon phase angle i (0° : full moon, 90° : half-moon, 180° : new moon)

Parameters

- 1 Latitude $\varphi \in [-90^\circ, +90^\circ]$, northern hemisphere positive
- 2 Longitude $\lambda \in [0^\circ, 360^\circ)$, Greenwich = 0° , **east positive**
- 3 UTC-Time zone $Z \in [-12, 12]$, e. g. Central European Time: $Z = +1$

Strings

None
