Use these controls for Terrestrial Applications

Initial Vehicle Navigation State [Terrestrial and Spaceborne UE]

─────────INITIAL STATE VECTOR─────────

TERRESTRIAL USER VEHICLES [GEODETIC]

◉ Use Terrestrial Script Motion Interface

Latitude	N	34	0	0.000	Latitude	34.000000 °
Longitude	W	118	0	0.000	Longitude	-118.000000 °
Altitude				-0.000 Meters		

Speed 0.000 m/s   Heading 0.000 ° Pitch 0.000 ° Roll 0.000 °

Earth Centered Earth Fixed (ECEF)

X	-2485034.263 Meters	Vx	0.000	Meters/Sec
Y	-4673669.705 Meters	Vy	0.000	Meters/Sec
Z	3546446.564 Meters	Vz	0.000	Meters/Sec

SPACEBORNE USER VEHICLES [J2000 ECI]

(Nominal) Space Craft Attitude

○ Use Spaceborn Script Motion Interface

X	4089245.927 Meters	Vx	245.435	Meters/Sec
Y	-3365772.559 Meters	Vy	297.909	Meters/Sec
Z	3541964.126 Meters	Vz	-0.268	Meters/Sec

🌐 Gravity / Drag

○ Use BODY-to-INERTIAL Direction Cosines & Rates   ◉ Nadir Pointing

C_I^B = BODY-to-INERTIAL Direction Cosines [3 x 2 x 1]

Rotation about Body -X Axis [1]	0.000 °
Rotation about Body -Y Axis [2]	0.000 °
Rotation about Body -Z Axis [3]	0.000 °

W_{IB}^B = BODY-to-INERTIAL Rate in BODY

W_{IB}^x	0.000 °/sec
W_{IB}^y	0.000 °/sec
W_{IB}^z	0.000 °/sec

CANCEL ❌   APPLY ▶

Check if Spaceborne

Aligns spacecraft **BODY** frame to **J2000**.
$C_B^I = R(\theta_Z)\, R(\theta_Y)\, R(\theta_X)$ (Default = $\bar{I}$)

Propagation rate BODY to J2000 direction cosines.

$\dot{R}_B^I = -\, W_{IB}^B \times R_B^I$

Use these controls for Spaceborne Applications – *Ignore otherwise*

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