



Simulating an Orbit (extra exercises)

GMAT Fundamentals
Joel Parker
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NASA Goddard Space Flight Center

Propagate for Elapsed Days

Propagate1

Propagators and Spacecraft

Propagate Mode: None

☐ Backwards Propagation ☐ Propagate STM ☐ Compute A-Matrix

Propagator	Spacecraft List
... LowEarthProp	... Sat
...	...
...	...
...	...

Stopping Conditions

Stop Tolerance: 1e-007

Parameter	Condition
... Sat.ElapsedDays	= ... 2
...	...
...	...

OK Apply Cancel Help

Propagate LowEarthProp(Sat) {Sat.ElapsedDays = 2}

Propagate to Ecliptic XY Plane

Propagate1

Propagators and Spacecraft

Propagate Mode: None

☐ Backwards Propagation ☐ Propagate STM ☐ Compute A-Matrix

Propagator	Spacecraft List
LowEarthProp	Sat

Stopping Conditions

Stop Tolerance: 1e-007

Parameter	Condition	Value
Sat.EarthMJ2000Ec.Z	=	0.0

OK Apply Cancel Help

Propagate LowEarthProp(Sat) {Sat.EarthMJ2000Ec.Z = 0.0}

Propagate Multiple Spacecraft

Propagate1

Propagators and Spacecraft

Propagate Mode: None

☐ Backwards Propagation ☐ Propagate STM ☐ Compute A-Matrix

Propagator	Spacecraft List
LowEarthProp	Sat, Sat2

Stopping Conditions

Stop Tolerance: 1e-007

Parameter	Condition
Sat.Earth.Periapsis	

OK Apply Cancel Help

Propagate LowEarthProp(Sat, Sat2) {Sat.Earth.Periapsis}