



# Simulating an Orbit (extra exercises)

GMAT Fundamentals  
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# 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
... 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}