



# USING THE OPENLOOP VEHICLE MOTION GENERATOR [ REAL-TIME-CLOCK ]

If your application requires a CURRENT-REAL-TIME Fix, use this operational configuration in which TAPESTRY outputs an RF Signals consistent with REAL-TIME-OF-DAY. The provided modes include:

- Scenario Playback using TIME-OF-DAY
- Real-Time Interactive 6DOF Motion Generator at TIME-OF-DAY
- Basic RF Output at TIME-OF-DAY

**GPS CONSTELLATION SIMULATORS FROM NAVIGATION LABORATORIES INC.**

**NAVLABS**

**RUN REAL-TIME**

**OPEN LOOP USING REAL-TIME CLOCK**

**STATIC REAL TIME**    **DYNAMIC REAL TIME**

**JOYSTICK / KEYBOARD DRIVEN 6DOF**

**Tapestry Open Loop Control Interface :: Build 1134 :: Initialized from c:\Tapestry\runs\COMPLEX3D**

**TAPESTRY OPEN LOOP OPERATION**

**FIXED POSITION OUTPUT**

**START**    **START TIME = PC-TIME**

**BASIC OUTPUT @ TIME-OF-DAY**

**L BIT**    **GETTING STARTED**

**APPLICATIONS & TOOLS**

- Remote Control Operation
  - REMOTE CONTROL**
- Real Time Scenario Operation
  - RUN SCENARIO**
  - USE REAL-TIME CLOCK**
- Hardware Functions
  - BUILT-IN-TEST**
  - CALIBRATION**
  - TEST SIGNAL GENERATOR**

**REAL-TIME SCENARIO OPERATION**

**c:\Tapestry\runs\COMPLEX3D**

**Record**    **0**

**1964 Records**

**SCENARIO PLAYBACK @ TIME-OF-DAY**

**SHARED MEMORY VIEW**

**Vehicle One**    **Vehicle Two**

**JSSETUP.JNI**

**TopJoystick Time**    **0.0 10:30:2011**

**TopJoystick Time**    **0.0 10:30:2011**

**JSNEW**    **AT (TAPMSEC - JOYVPO) 0.00**

**SHOW ALL**

**2D - AUTOMOTIVE CONFIGURATION**

**PING**

**2D AUTOMOTIVE CONFIGURATION**

- CONFIGURATION A (FR - TURN, THRUST BTM-1/2)**
- CONFIGURATION B (PC - TURN, THRUST BTM-1/2)**
- 2D FLIGHT STICK (6DOF)**
- CONFIGURATION C (PCH-ROLL - THRUST BTM-1/2)**

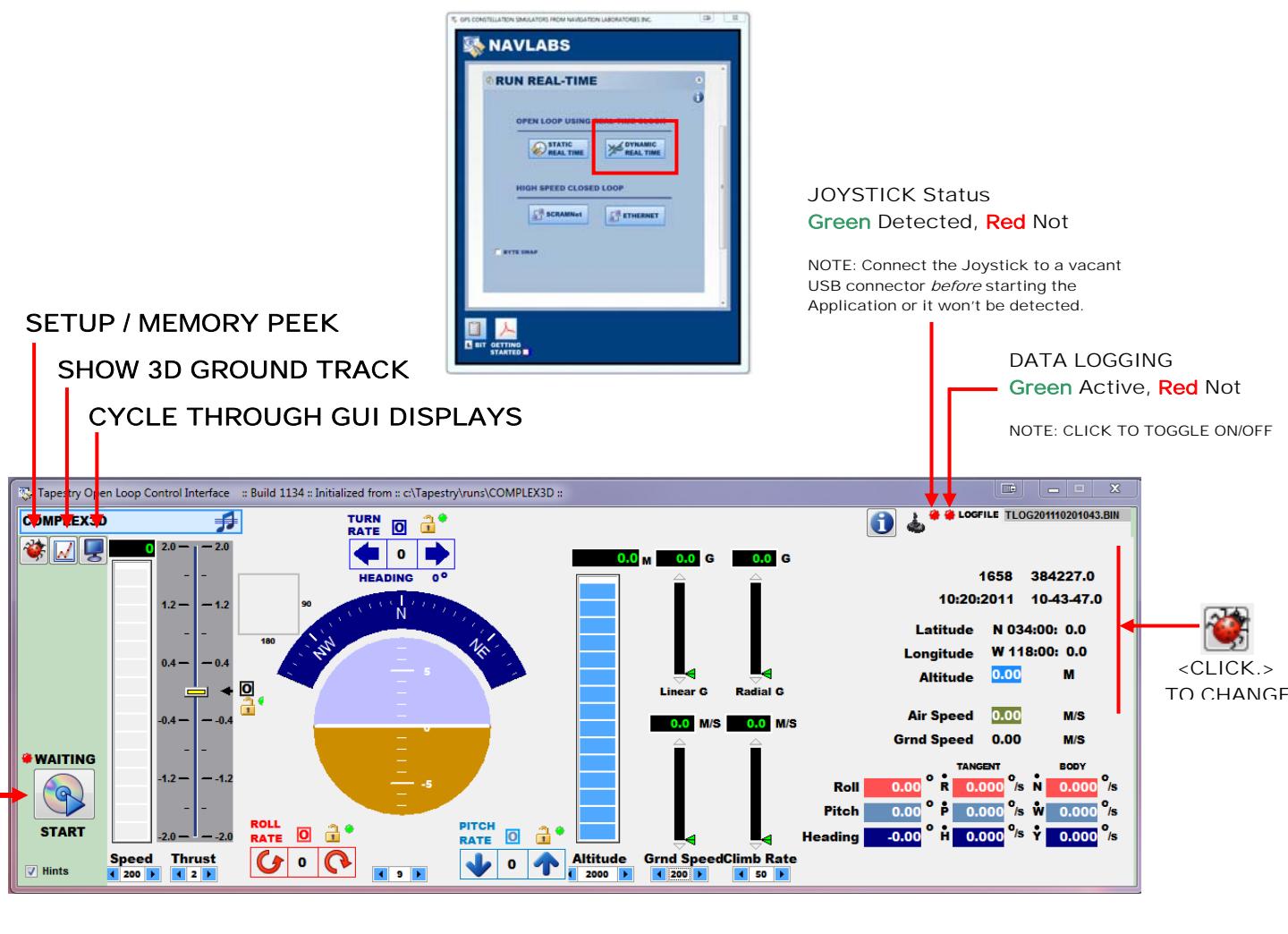
**MIN**    **MAX**

# 6DOF COCKPIT TRAJECTORY GENERATOR

The COCKPIT Application provides an alternative method for:

- Constructing a Complex motion profile that can be imported into the **Build Scenario** Application.
- Constructing a Dynamic Vehicle Motion Profile at TIME-OF-DAY

To Start the Application, select the **Run Real-Time** Group → Open Loop - DYNAMIC REAL-TIME



START / STOP



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# 6DOF COCKPIT SETUP

**COMPLEX3D**

SETUP FORM

SHOW GROUND TRACK

TOGGLE TO SMALLER COCKPIT DISPLAY

**Tapestry Open Loop Control Interface**

WAITING FOR RUN SCENARIO TO START  
AFTER THE PING WAS SENT - WILL TRANSITION TO RUNNING (SECONDS)

**SHARED MEMORY VIEW**

START / STOP

TOGGLE SHOW HINTS

**SHARED MEMORY VIEW**

**TAPMSEC INPUT BLOCK CREATED BY THIS APPLICATION**

TRUTH DATA	[ READ TRUTH BLOCK (from TAPJOY to TAPMSEC) ]
Time Of Block 395214.0 10:20:2011 01-48-34.0	TOP 0 BOTTOM 0
X 0.000 m Vx 0.000 m/s	X 0.000 m/s <sup>2</sup> Jx 0.000 m/s <sup>3</sup> Webx 0.000000 r/s C b 0.000000 0.000000 0.000000
Y 0.000 m Vy 0.000 m/s	Y 0.000 m/s <sup>2</sup> Jy 0.000 m/s <sup>3</sup> Weby 0.000000 r/s
Z 0.000 m Vz 0.000 m/s	Z 0.000 m/s <sup>2</sup> Jz 0.000 m/s <sup>3</sup> Webz 0.000000 r/s

XPOS 0 YPOS 0 ZPOS 0 RPOS 0 POV 0 BTN 0

**TAPMSEC OUTPUT BLOCKS CREATED BY TAPMSEC**

STATUS BLOCK (from TAPMSEC)	TIME BLOCK (from TAPMSEC)	DBG BLOCK (from TAPMSEC)
TOP 0 BOTTOM 0	TOP 0 BOTTOM 0	TOP 0 BOTTOM 0
Time Of Block 604800.0 ???:??????-??-???	INITIALIZATION TIME COUNT 0	TAPMSEC TIME LAG 0.000
GPS TIME OF WEEK 0 ms	MOTION TIME COUNT 0	OUTPUT BLOCK ΔT 0.000
SIM STATUS 0	ELAPSED TIME 0.00 s	

SHARED MEMORY VIEW

**2D - AUTOMOTIVE CONFIGURATION**  
 CONFIGURATION A (F/R - L/R BTN-1/2)

**3D AUTOMOTIVE CONFIGURATION**  
 CONFIGURATION B (PCH - TURN, THRUST BTN-1/2)

**3D FLIGHT STICK (6DOF)**  
 CONFIGURATION C (PCH -ROLL - THRUST BTN-1/2)

MIN MAX

2G

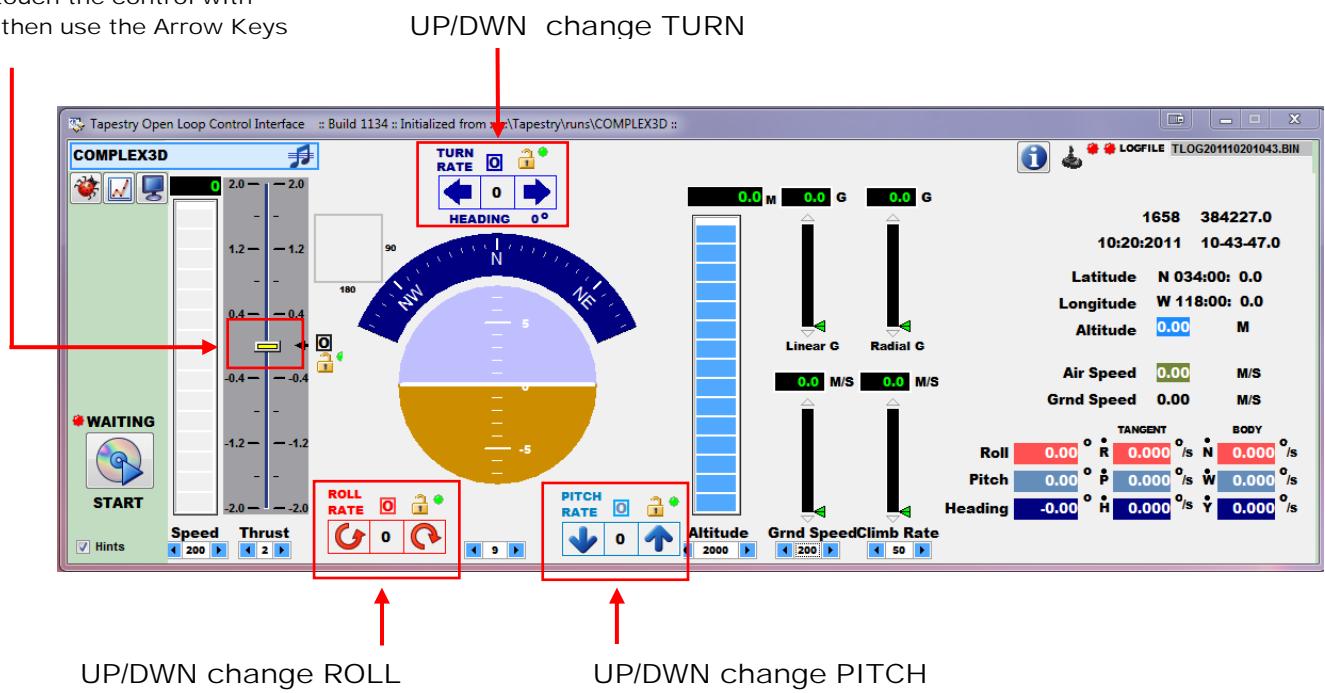
JOYSTICK CONFIGURATION



# 6DOF COCKPIT VEHICLE MOTION CONTROLS

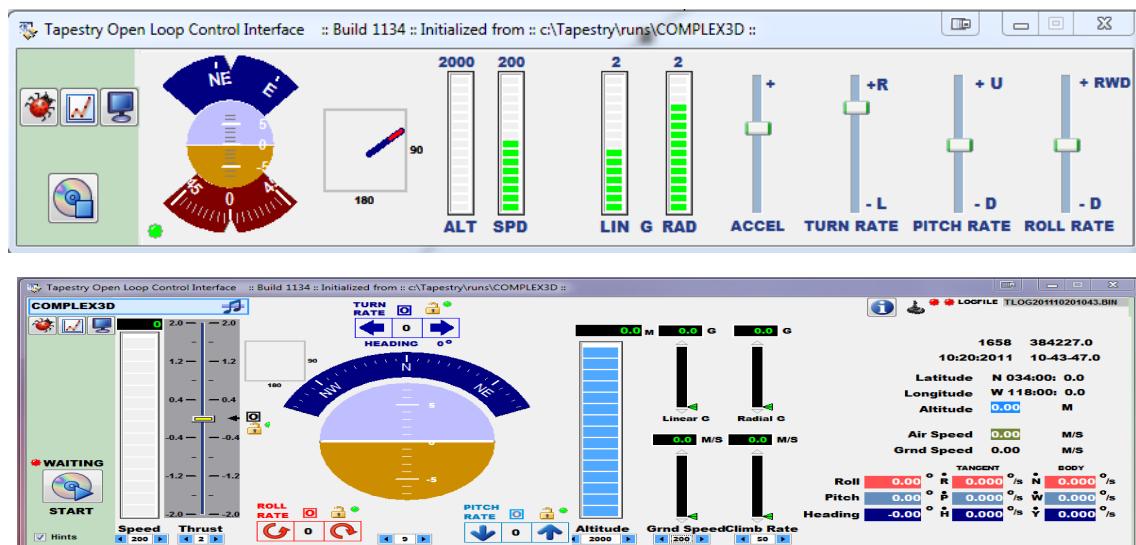
Pull the Slider to change the AIR-SPEED

Note: You can touch the control with the mouse and then use the Arrow Keys for fine control



MINI FLIGHT PANEL TO AVOID COVERING RUN SCENARIO

TOGGLE BETWEEN TWO FLIGHT DISPLAYS

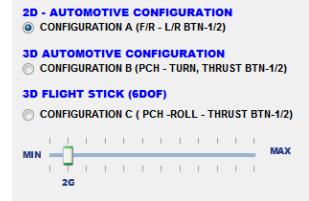




## SETUP FORM

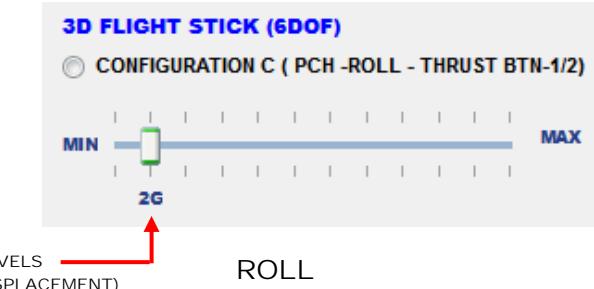
**2D - AUTOMOTIVE CONFIGURATION**

## CONFIGURATION A (F/R - L/R BTN-1/2)



3D AUTOMOTIVE CONFIGURATION

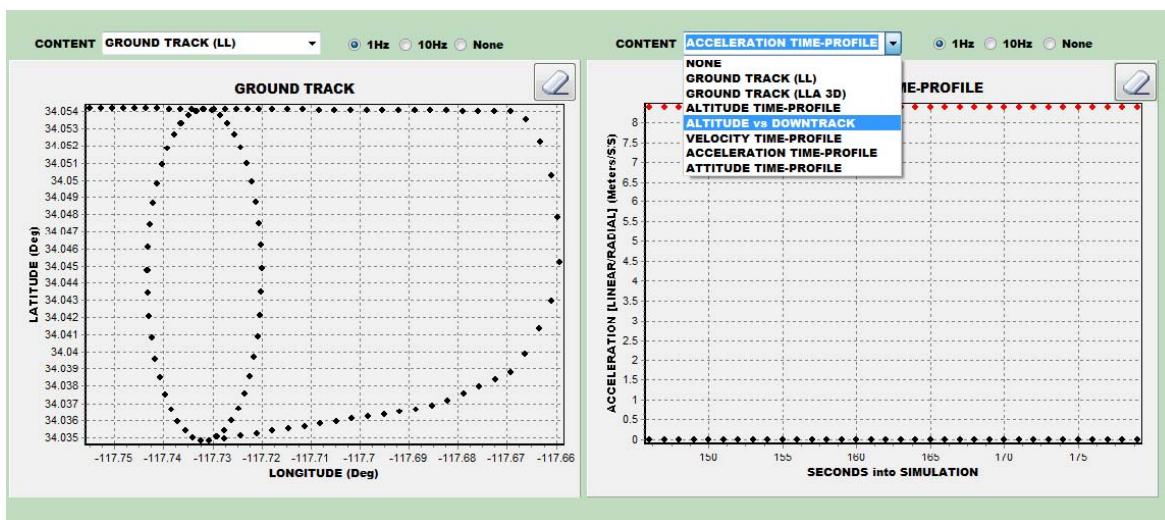
#### ● CONFIGURATION B (PCH - TURN, THRUST BTN-1/2)





## PLOTTING

Plot windows can be configured separately run-time.

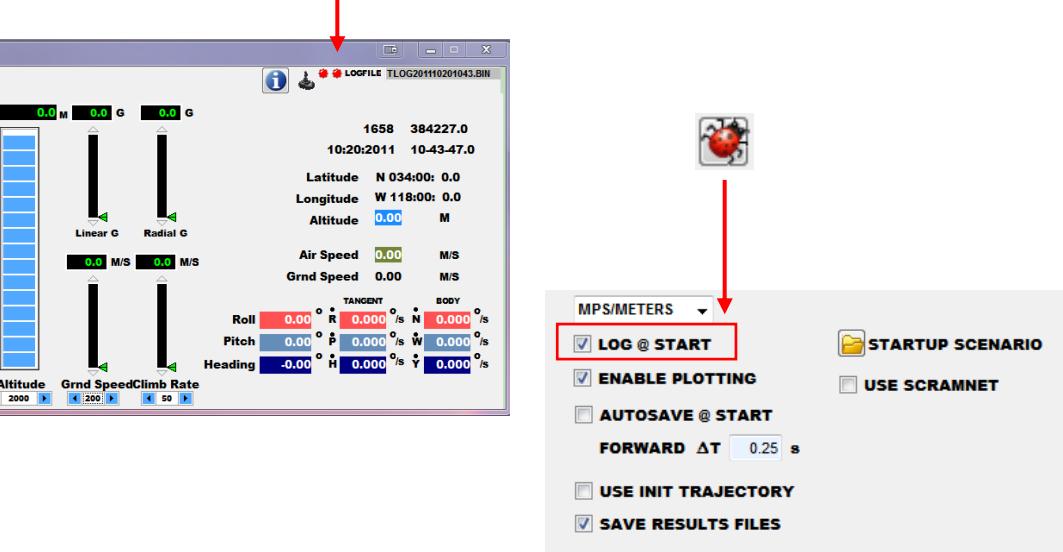


## DATA RECORDING

### DATA LOGGING

Green Active, Red Not

NOTE: CLICK TO TOGGLE ON/OFF

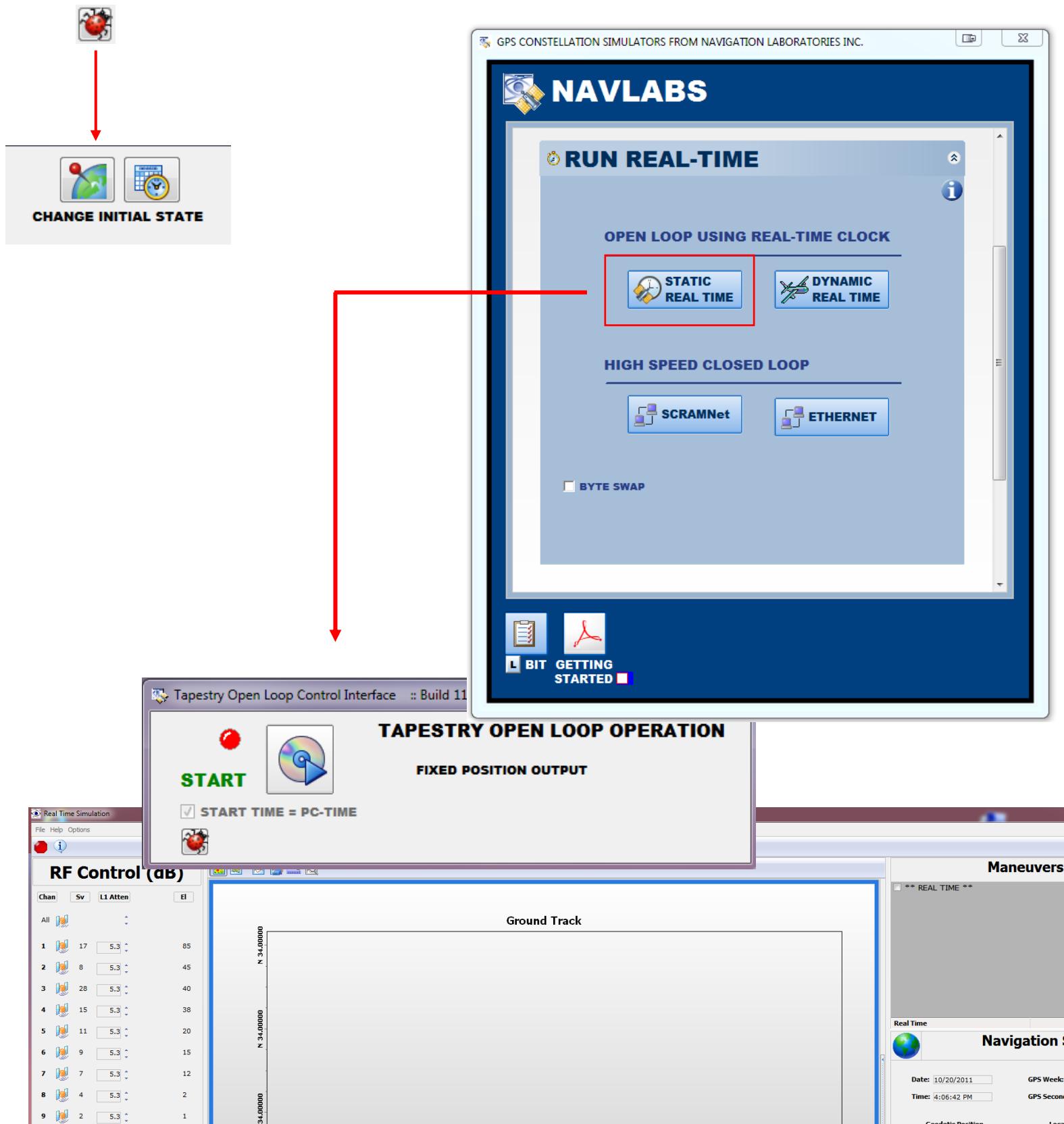


Data is saved in [\[Week Seconds\]](#)



# BASIC RF OUTPUT @ TIME-OF-DAY

Press the Control and an RF Output will commence using the STATIC position as defined in the START SCENARIO. Adjust the Initial Location using the Setup Menu.



# SCENARIO PLAYBACK @ TIME-OF-DAY

USE THE OPENLOOP MODE TO PLAYBACK A SCENARIO USING CURRENT TIME-OF-DAY.

This is for those applications that cannot go "back in time"

