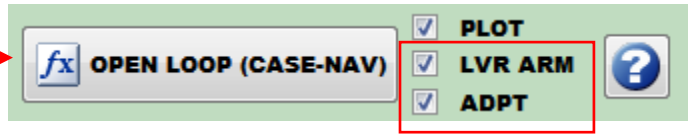
NOTE: Using this control has NO IMPACT on the actual IMU output Data, only affecting the Plot and TXT Dumps

OPEN LOOP DEAD RECKONING



unconditionally:

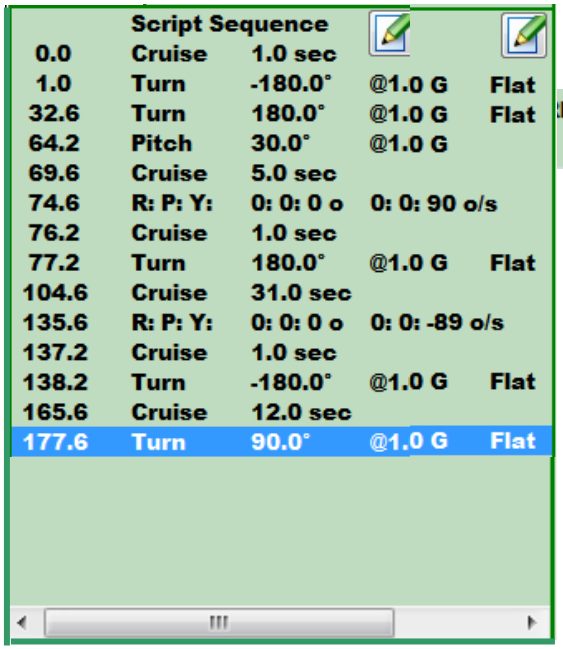
- Integrates CASE to NAV - LLA
- Adaptation Parameters Applied
- Lever Arm Applied

conditionally:

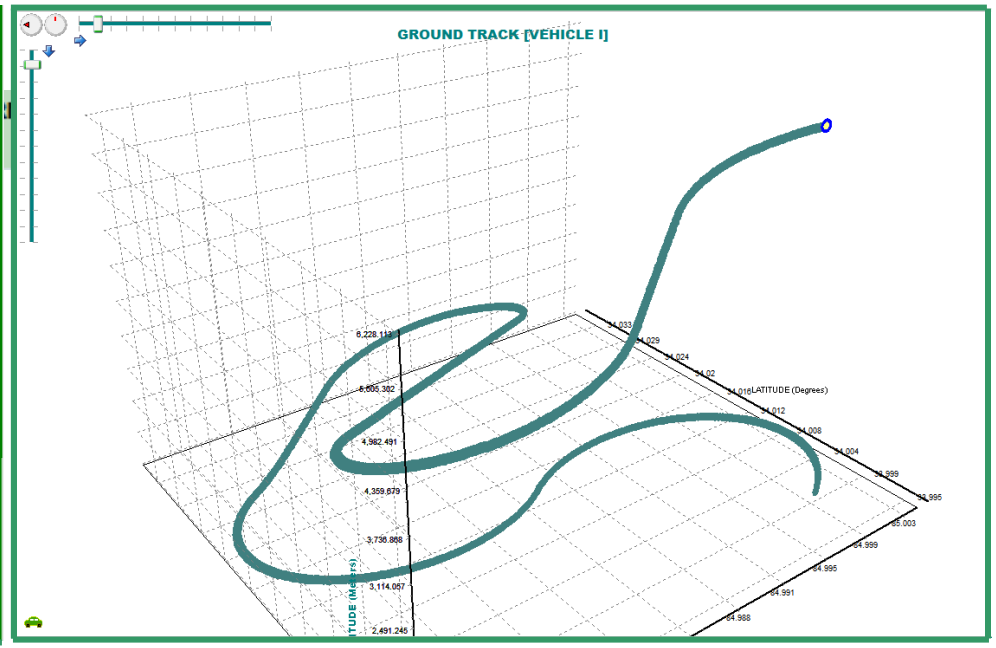
- compensates for Lever Arm
- compensates for Adaptations
- applies IMU Error Model

These only control the COMPENSATIONS applied in the Dead Reckoning Processing. They do not affect the actual IMU Output Data via MFIO.

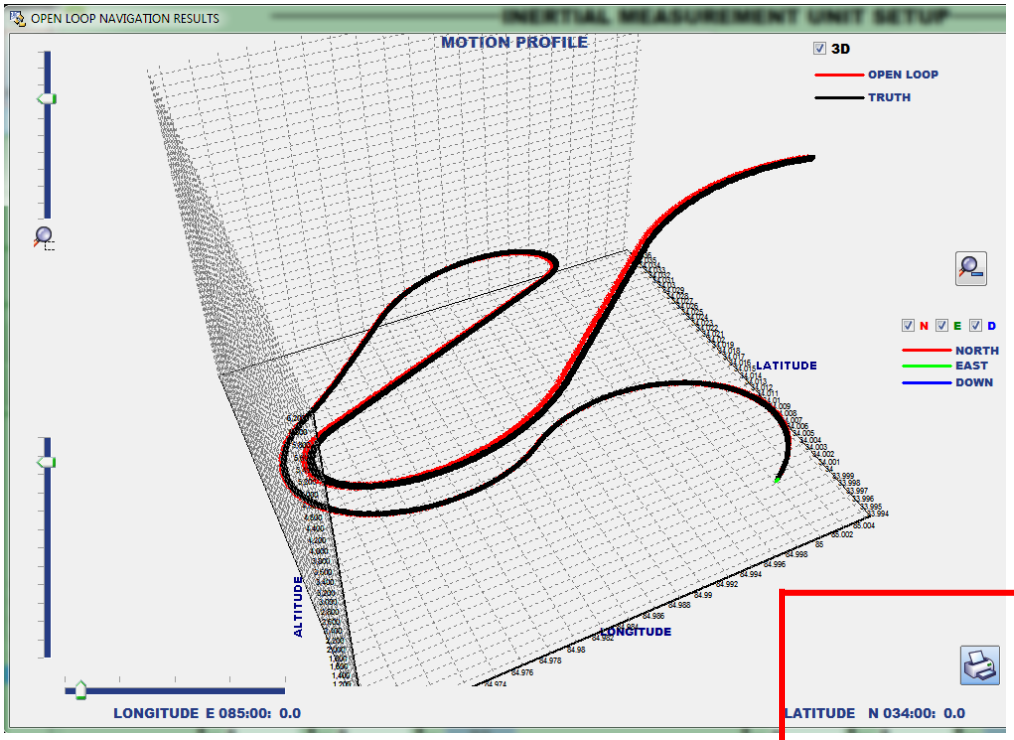
EXAMPLE



Script Sequence				
0.0	Cruise	1.0 sec		
1.0	Turn	-180.0°	@1.0 G	Flat
32.6	Turn	180.0°	@1.0 G	Flat
64.2	Pitch	30.0°	@1.0 G	
69.6	Cruise	5.0 sec		
74.6	R: P: Y:	0: 0: 0 o	0: 0: 90 o/s	
76.2	Cruise	1.0 sec		
77.2	Turn	180.0°	@1.0 G	Flat
104.6	Cruise	31.0 sec		
135.6	R: P: Y:	0: 0: 0 o	0: 0: -89 o/s	
137.2	Cruise	1.0 sec		
138.2	Turn	-180.0°	@1.0 G	Flat
165.6	Cruise	12.0 sec		
177.6	Turn	90.0°	@1.0 G	Flat



EXAMPLE FLIGHT PROFILE



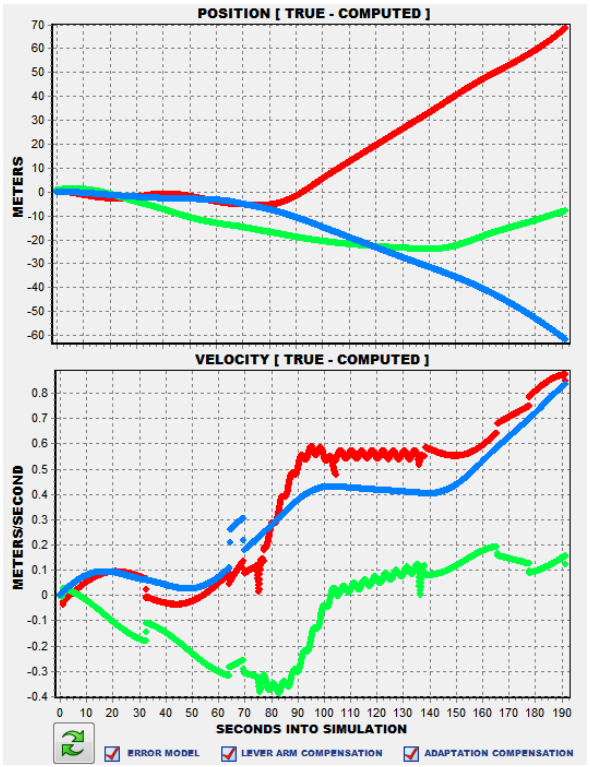
LVR ARM

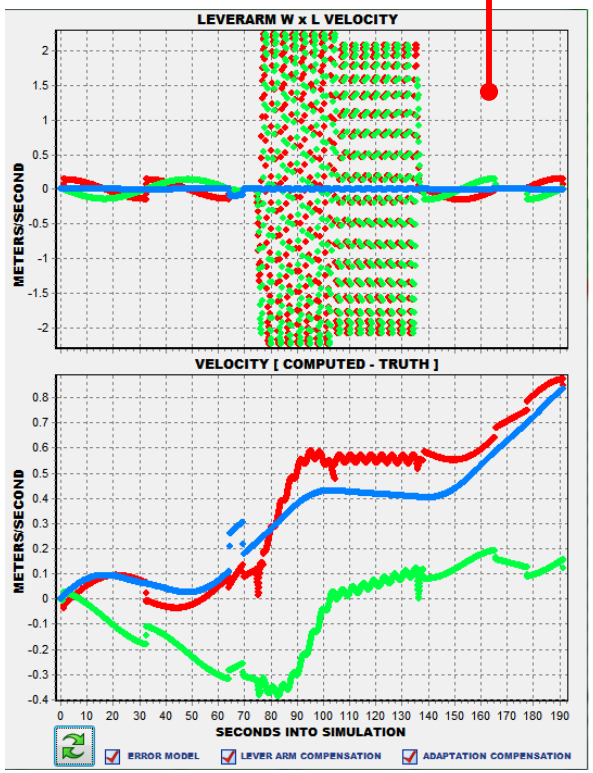
ADPT

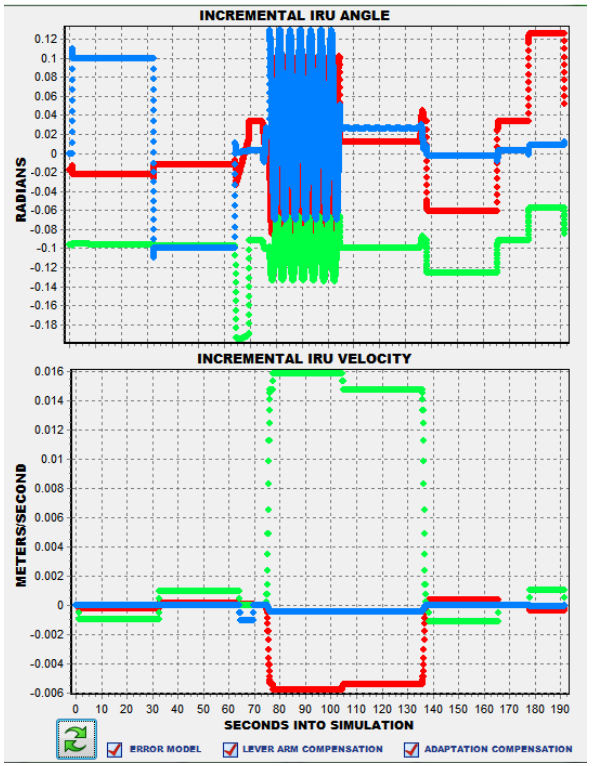
COMPUTED LEVER ARM CORRECTION W x L

OPEN LOOP POSITION AND VELOCITY ERROR GROWTH FULLY COMPENSATED

RAW INCREMENTALS

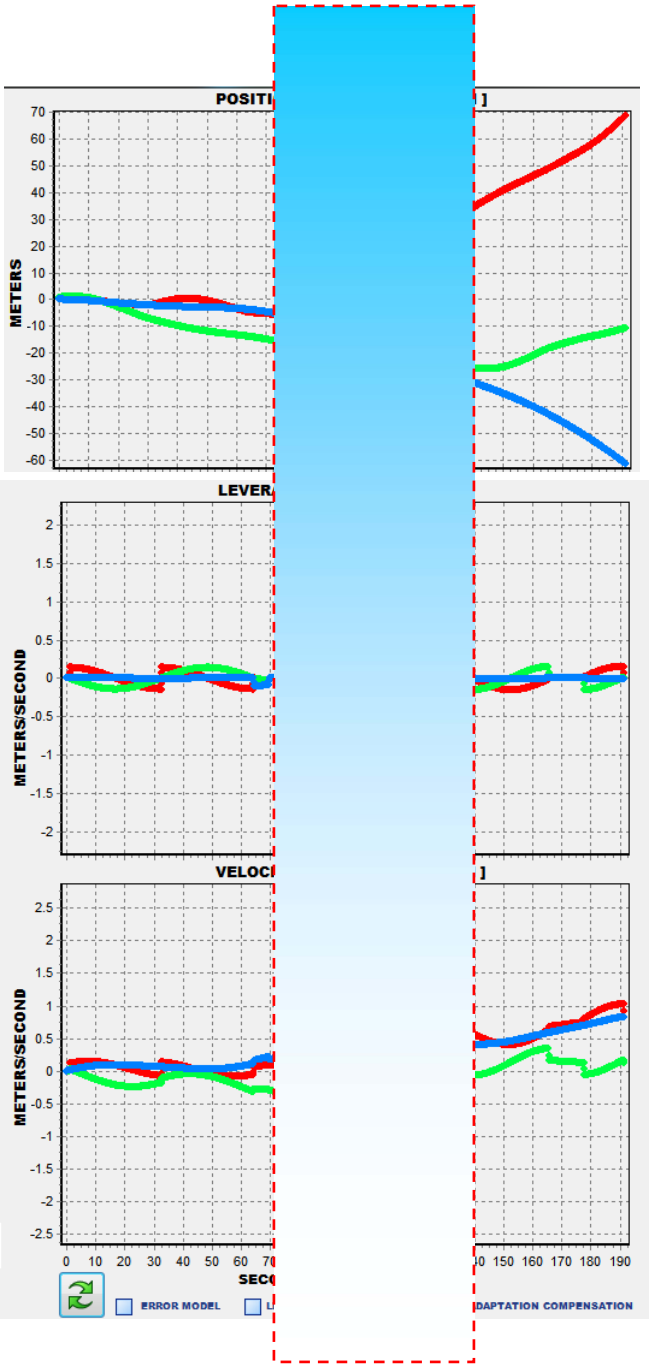


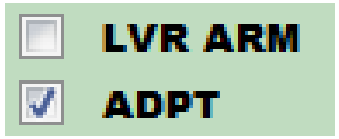




90^{O}/s ROTATION ABOUT YAW

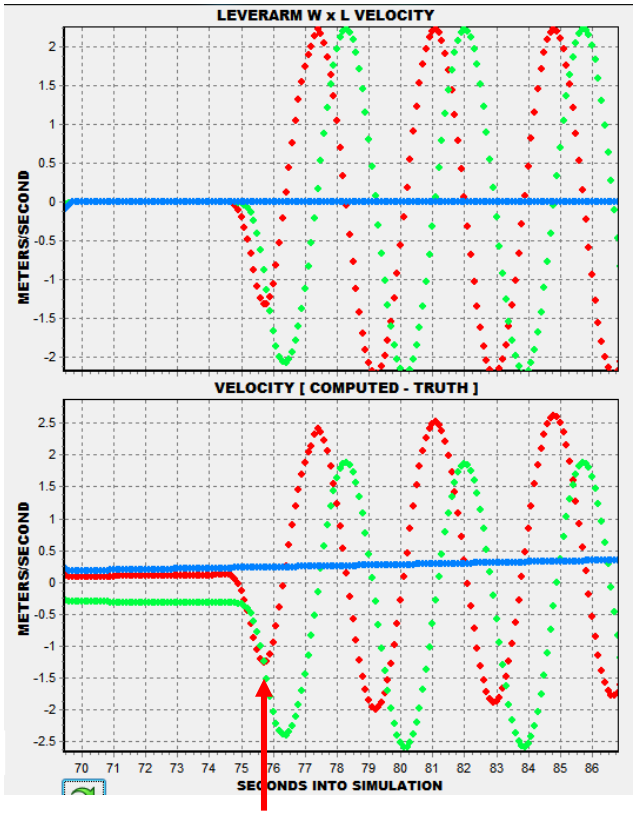
NO LEVER ARM COMPENSATION





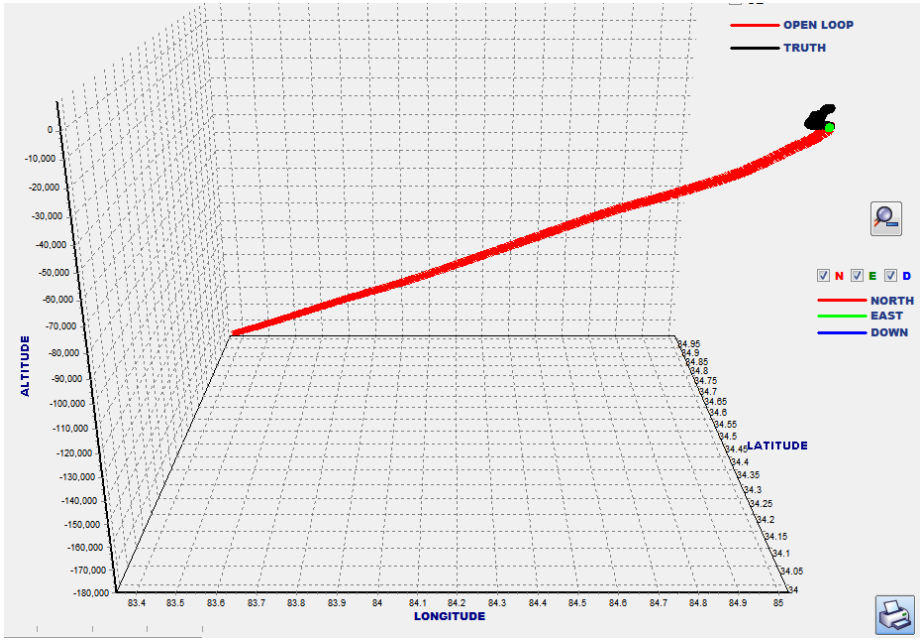
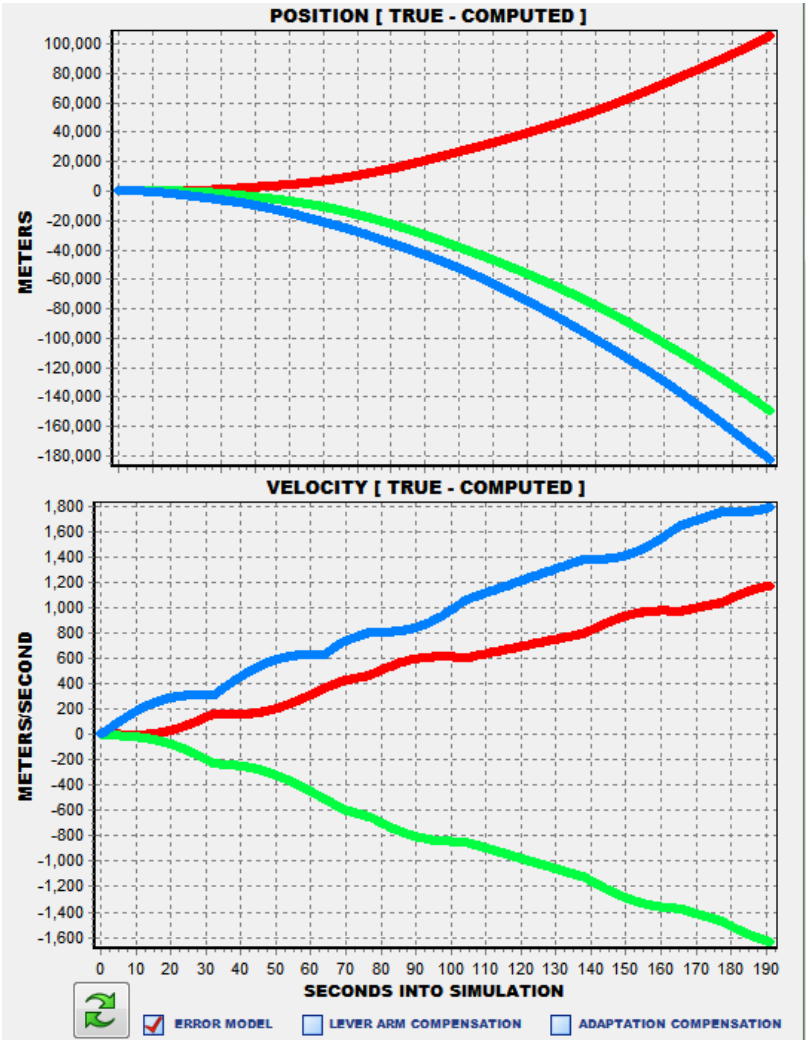
ZOOM

COMPUTED LEVER ARM
CORRECTION W x L



UNCOMPENSATED 90^{O}/s ROTATION

LVR ARM

ADPT

IGNORING ADAPTATIONS CAN RESULT UNBOUNDED ERROR GROWTH