State Estimator software development status as of 12/23/2013

I'm busy finishing this part now

Gravity + Rate TestCase ❌

Translation TestCase ✅

Rotation TestCase ✅

MATLAB

50 Hz process

DataFusion EKF Wander-Azimuth + Earth Rate ✅ ❌

MATLAB

Reference INS ✅

MATLAB

Trajectory Simulator and Evaluation ✅

Sufficient Infrastructure to use MATLAB EKF for generating usable ERS

but

intention to convert to C++ model class once we happy with performance

LCM

Reuse from VRC

state-estimator ✅

333Hz process

LegOdo Interf. ✅
INS Interf.
Vicon Interf.
Eval. Interf. ✅
Joint Encoder KFs
Fovis Interf. ❌ ❌
Feedbck. Update

ERS

Gravity slaved orientation

AHRS ❌

Leg-FK odometry ✅

Attitude Comp. INS ✅

General Kalman Filter ✅

Encoder model ✅

Wander Azimuth + Rate model ❌

C++ copy of MATLAB version