Product Summary

New Eagle is releasing an infotainment rapid-prototyping platform to enable engineers to rapid-prototype and test in-car HMIIs (Human Machine Interfaces).

Infotainment HMI is a very complex and highly visible aspect of a modern vehicle. It is notoriously difficult to do well and takes many hours of trial to get a slick, usable and delightful HMI. Time taken to perform a change with a traditional supplier can be lengthy, so when time runs out, the OEM settles for the ‘not too bad’. Further, without many expensive rigs, only 1 or 2 people can test drive at a time.

This exciting new platform supports system and control logic modeled in Simulink and Stateflow with the graphical user interface designed in Adobe Flash. Separating the engineering logic from the graphical skin ensures that the layers are kept intact, the features testable and reusable and the look and-feel changeable. Since the platform is robust and has a very low quiescent current as well as wake-on CAN it is an ideal in-car prototyping platform so that the HMIs may be tested as they are meant to be used, in a vehicle.

It allows early prototyping and testing of HMI logic, enabling improvements in ergonomic screen flow, data positioning and graphical styling. Needless to mention, with the very early testing in-vehicle, one can avoid extended periods to discover what it is like to live with a HMI design.

Simulink Blockset

- CAN, configured via the industry standard DBC file format.
- LIN, configured via the industry standard LDF format
- GPIO, easy to use sink and source blocks for all IO
- Adobe flash interoperability via a Flash Communications Block set so that data can be passed between the graphical skin and the engineering logic.
- Complete with Simulink’s External Mode support for easy debugging and calibration.
- Uses Real Time Workshop to generate the code, compile and build.
Interfaces

- 4 CAN channels (all with wake-on-CAN)
- 4 LIN channels
- 8 vehicle digital input channels
- 2 Low Side Driver channels (250 mA)
- 2 High Side Driver channels (250 mA)
- 8 Analog inputs
- 2 Analog outputs
- Dual touch screen output
- Audio output & Microphone input
- Power Requirements
  - 6 V – 34 V input, 1 mA Quiescent Current

Processing Capability

- Intel Atom N330 (dual-core, 1.6 GHz)
- Integrated NVIDIA ION Graphics Processor