BREATHING NEW LIFE INTO OLDER INSTRUMENTS

LabVIEW and Micro-Webservers as Alternative GUI Platforms
How to ensure older equipment is viable for years to come?

• Changes in OS
• Changes in Hardware
NIMS Serial Data Packet

- 26 Bytes/Every Second
- Packet Contains:
  - Status Flags
  - 5 Components
  - GPS Bytes
  - Gain Status
  - Etc
NIMS Serial Interface

Commands:
• Z – change gains of e-field amplifier
• Ctrl-U – start header mode
• D – start logging data
• E – end logging data
• Etc.

HP Plamtop PC
Minerva Board

- CF Card Recording Medium
- Serial Front End
LabVIEW

Connection

Graphing inputs
LabVIEW cont.

Entering Metadata

Start/Stop Run
LabVIEW cont.

- Difficult to maintain
- Dependent on LabVIEW
CF to microSD Card Adapter

- Quality of adapters is questionable
- Firmware updates
  - Antiquated hardware components
  - Card removal recognition
  - Dated compiler/software
Development of Webserver

Front End Webserver

Device Independent
Prototype

Atmel SAMD21 Xplained

TI CC3200 Launchpad
ANY questions?