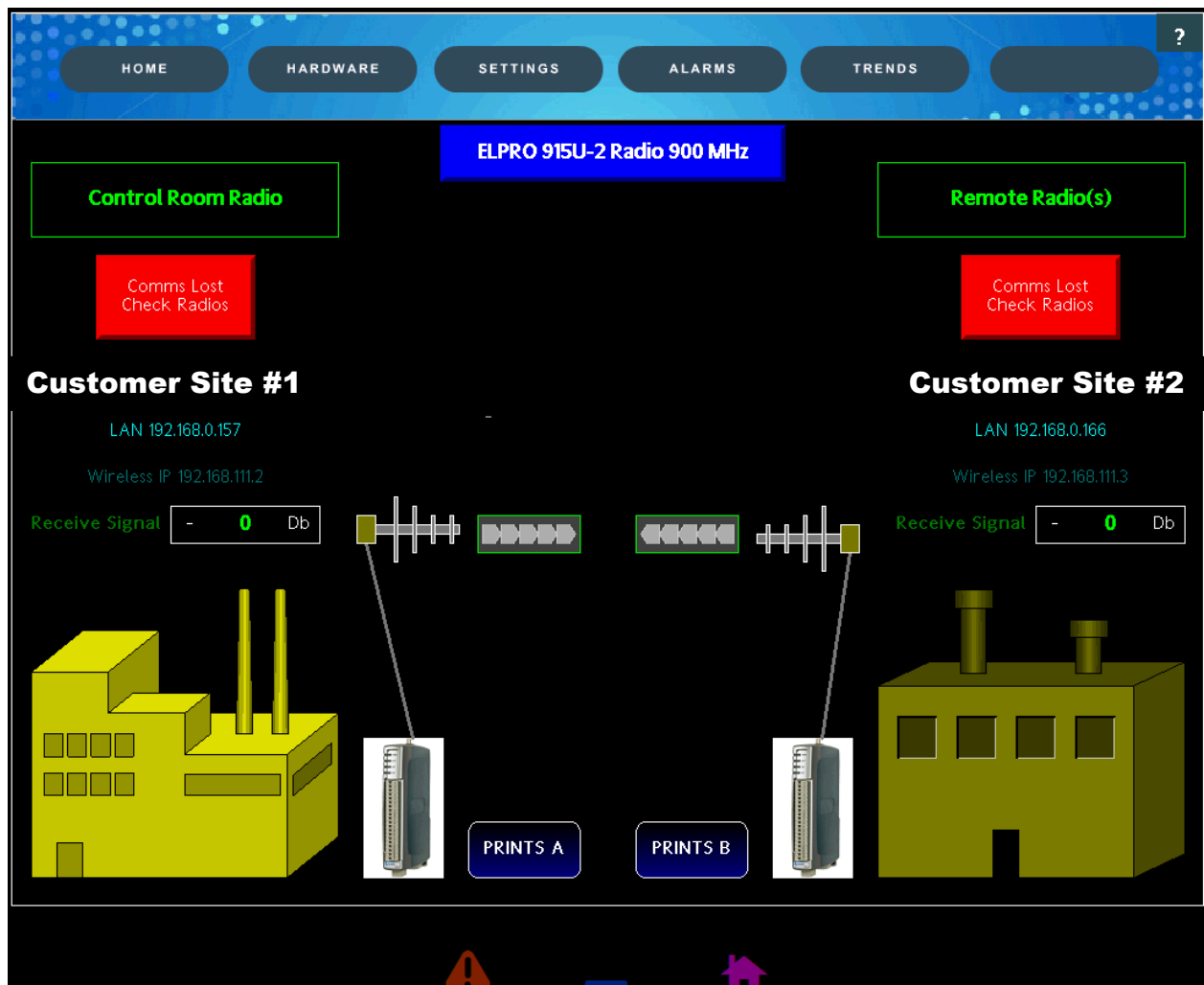# Neal Systems, Inc. (NSI)
Technical Bulletin #1

Date: 4 December 2014

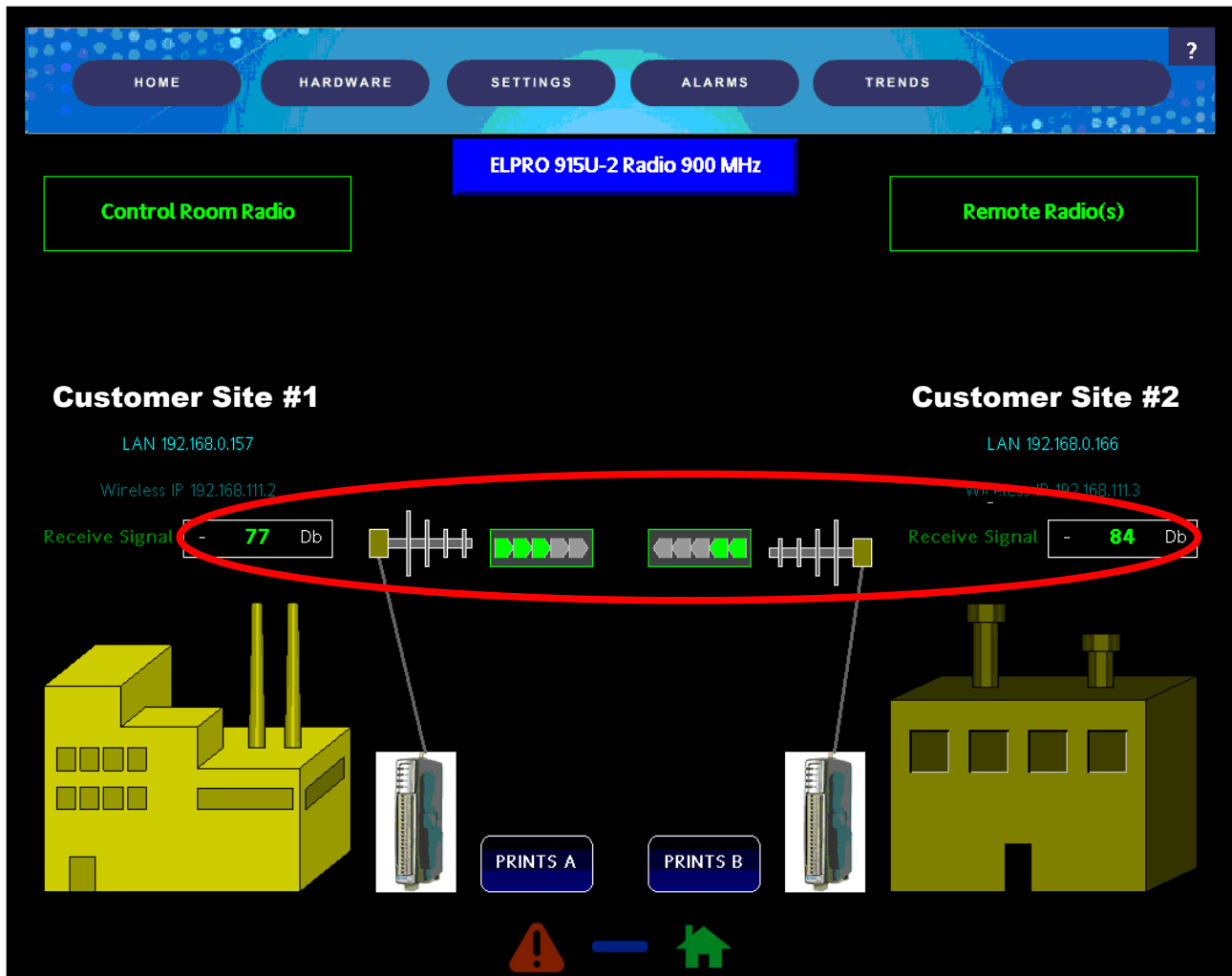**Subject: Red Lion Graphite Series – High Definition HMI**

I am Peter Jackson of NSI Neal Systems, Inc. (www.nealsystems.com), writing to you on a fantastic new high definition HMI – the Red Lion Graphite series. Below are a few examples of some project screens we have developed that might interest you. These examples are a complete "soup to nuts" example of how you might want to present these solutions to your customer.

In the example below, you can quickly see the Red Lion Graphite's powerful, high resolution graphics, giving you high-pixel richness in screen design, color range, and text clarity. These examples are a design concept for a customer's wireless radio communications project using the Elpro 915U-2 I/O series. We designed them to assist the start-up or troubleshooting of a typical wireless project, where the on-site guy needs to understand what might not be working correctly with wiring, noise, and transmission strength or IP addresses, all within a visualization of the entire project.

Radio Status Screen.

Now look at the screen image below, which is a snapshot of a live screen showing the actual information being mined and presented on this Red Lion Graphic HMI. Note the outstanding clarity, even down to the number of bars on the radio signal just like you see on your cellular phone. (live signal strength circled in red.)

Live Snapshot of the Radio Status Screen
(Live Signal Strength Circled in Red)

Now, if the last two images were not enough for you, we have a "Help Page" shown below.

Radio Description

The ELPRO 915U-2 Wireless Mesh Networking I/O and Gateway is a multiple I/O node that extends communications to sensors and actuators in local, remote, or difficult to reach locations. Designed with a long range, license-free wireless transceiver, the 915U-2 can provide IP-based mesh networking across sprawling industrial environments typical of industrial applications.

Capable of ad-hoc mesh networking, roaming and discovery, as well as deterministic mesh, the 915U-2 can serve as an end node, a routing node, or a network gateway. Scalable to thousands of nodes, its gather-scatter and block mapping technology offers efficient utilization of network resources and eases integration into complex monitoring and control systems. Integrated Modbus® server capability allows further I/O expansion through the use of ELPRO 115S expansion modules.

The 915U-2XM is a factory hardware option that provides 200 MB of extended internal flash memory specifically for use with the logging soft feature key option. Soft feature options are available for the 915U-2 and 915U-2XM, including Modbus TCP and logging. These are purchased separately and can be enabled as required via a code provided.

Radio Expansion Module(s) Description

The ELPRO 115S series allows end users to readily accommodate changing I/O needs as project specifications evolve. The 115S series of products can be used with ELPRO transceiver-based I/O, gateway, Ethernet, and serial products to expand input and output count or

Connected via RS485 and communicating using ELPRO WIBNet? or Modbus protocols, the 115S series is available in three versions with different numbers of I/O ports. Multiple 115S products may be daisy?chained to accommodate changing application needs.

CONTACT for SUPPORT

Your contact information here –

ABC Company

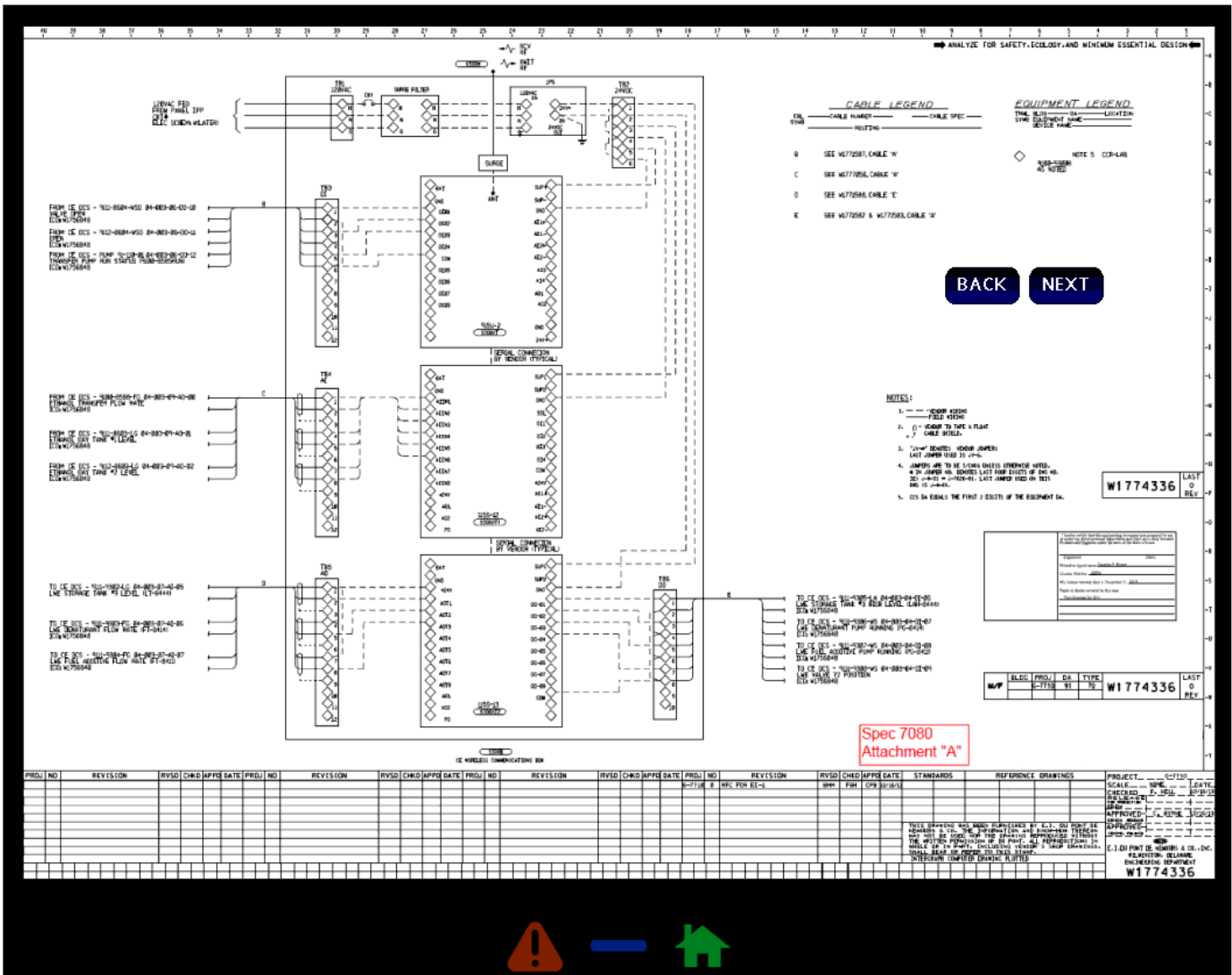123 Graphite Way, Smalltown, USA

ELPRO – WWW.COOPERINDUSTRIES.COM
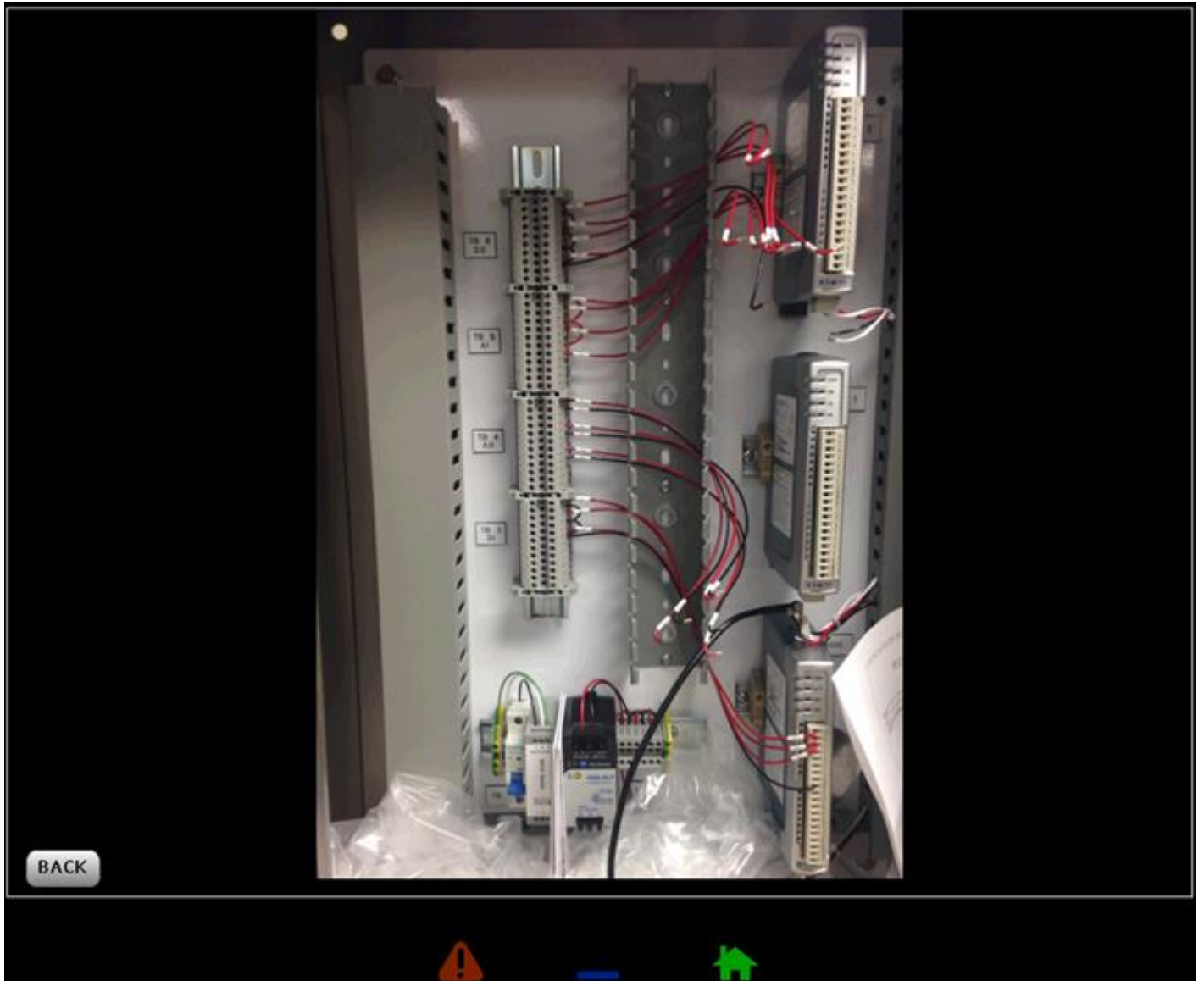
BACK

Help Page

(continue on next page ↓)

We have not finished yet. The image below is the Autocad ™ drawing of your entire project. No hard copy drawings to lose. No shelf space used up to store documentation binders.

Project Schematic

We have even included a picture of the terminal connections – *AS SEEN ON THE GRAPHITE.*

Graphite Terminal Connections

DO NOT FORGET – All these inputs can be directly connected to your Red Lion Graphite HMI thanks to the innovative design of direct "plug-in" modules and Ethernet/serial signals.

Now go and pick up the telephone or compose an e-mail to me, Peter Jackson, on how we can make your projects a whole lot easier!

Peter Jackson
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