



Speaker notes



Fieldbus
Foundation

Technology ease of use

Advances in FOUNDATION fieldbus provide improved usability

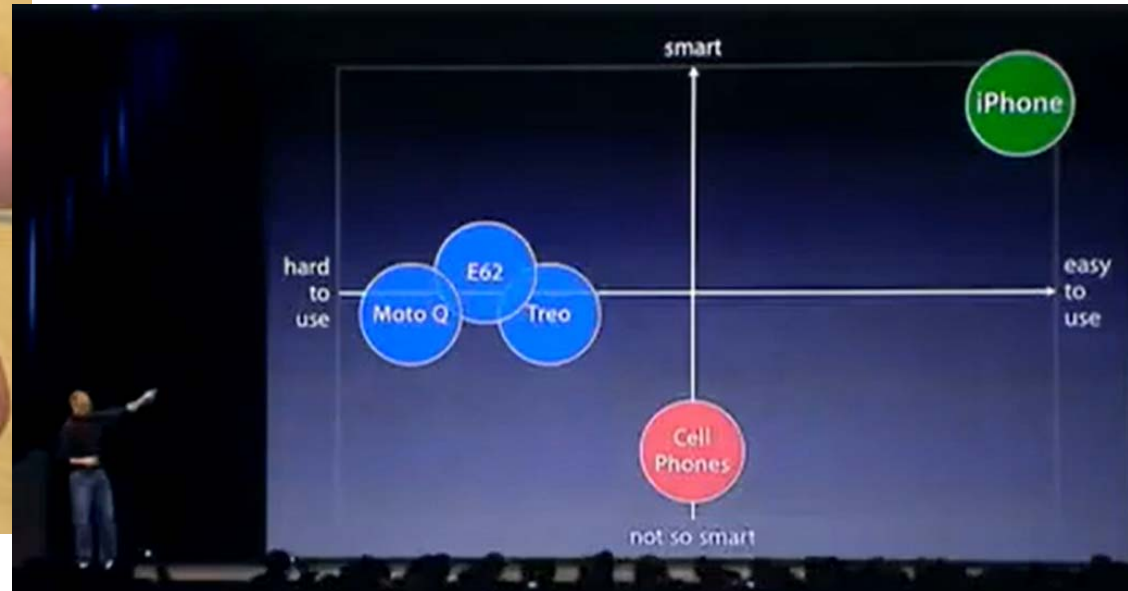
“Introducing Three Revolutionary Products” - iPhone (1st generation)



- Widescreen iPod with touch controls
- Revolutionary mobile phone
- Breakthrough Internet communicator
- This is one device

Released
2007

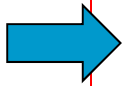
[YouTube 4:47](#)





Quiz: Which was the first phone with web browser?

- Apple iPhone
- Nokia 9000 Communicator
- Motorola Razr



- Not easy to navigate
- People not yet Internet savvy
- No habit of searching web

**Released
1996**

Quiz: Which was the first phone with music player?

- Apple iPhone
- Nokia 9000 Communicator
- Sony Ericsson W800

- Had to rip CDs and copy files
- Not easy to find/search songs



**Released
2005**

Quiz: Which was the first phone where you can install applications?

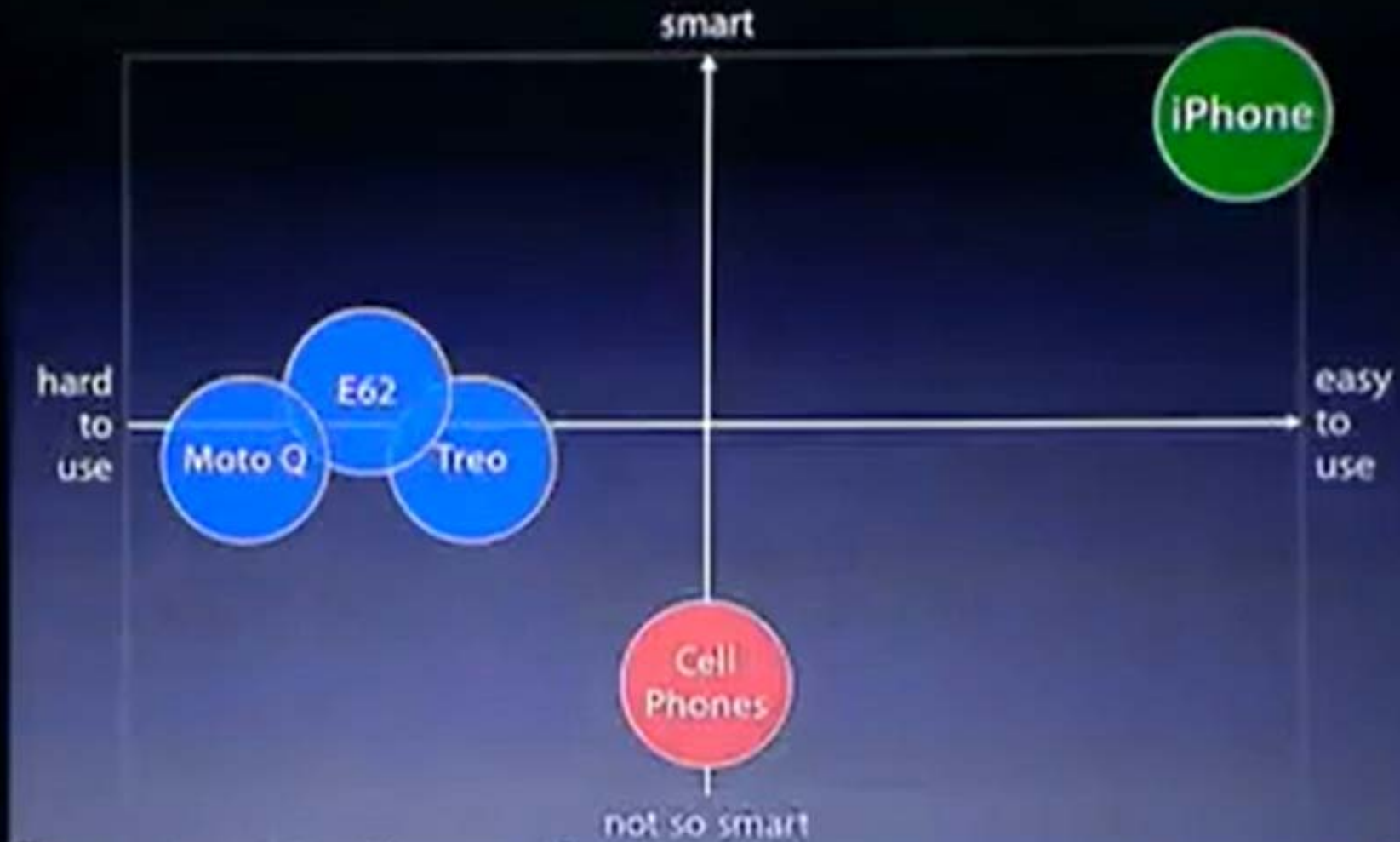
- Apple iPhone
- Handspring (Palm) Treo 180
- Sony Ericsson W800



- “Apps” not easy to buy
- Not easy to use
- “too small”

**Released
2002**

Accelerating Smart Phone Adoption - “We’re Gonna Reinvent the Phone”





This was a problem before but isn't today

Past **Fieldbus Learning Curve**

Different from 4-20 mA

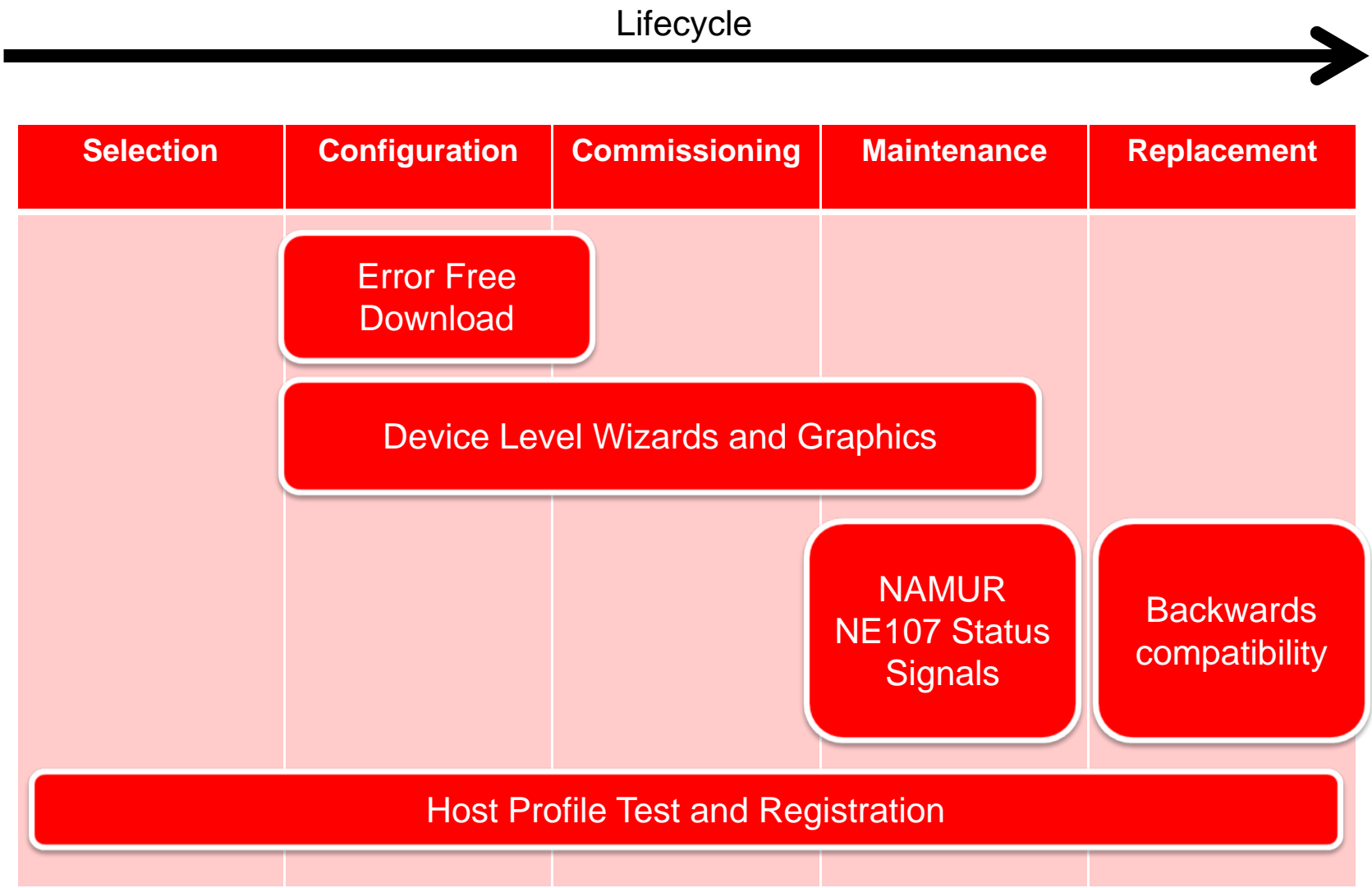
- Had to download DD from the Internet
 - Computer skills
 - Internet skills
- Had to load DD on the system
 - System access
- Can't see PV with multimeter
- No habit of checking diagnostics before going to the field

Too Difficult

- Download errors
- Configuration errors
- Cryptic device error codes
- Had to change system configuration at 'unlike' device replacement
- Scattered parameters with cryptic names
- Conservative and cautious design guide



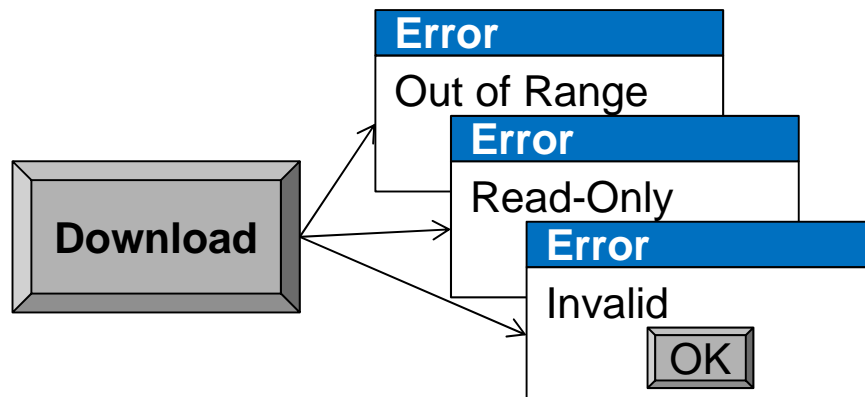
Key Fieldbus Lifecycle Feature Enhancements Already Completed





Improved Commissioning

- Past Problem
 - Download of device configuration resulted in errors
 - Multiple downloads typically resolved errors, but this increased overall commissioning time
- New Enhancement
 - New ITK version 6 devices support new “no download” feature
 - Eliminates the errors, making commissioning smooth



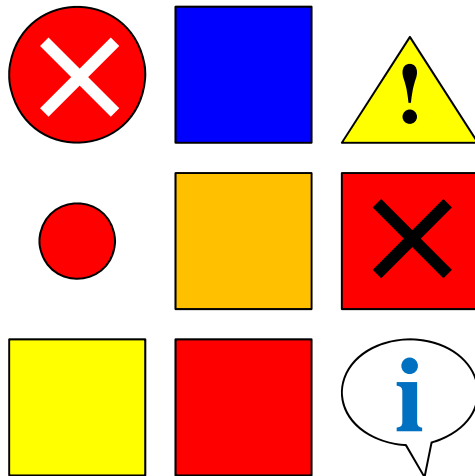
ITK = Interoperability Test Kit



Improved Maintenance - NAMUR NE107

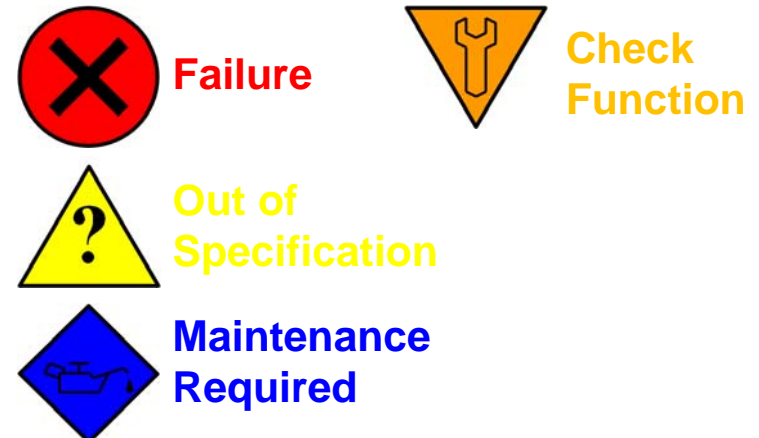
- Past Problem

- Diagnostics were presented in different ways, making interpretation difficult
- Device alarms not displayed to the right people

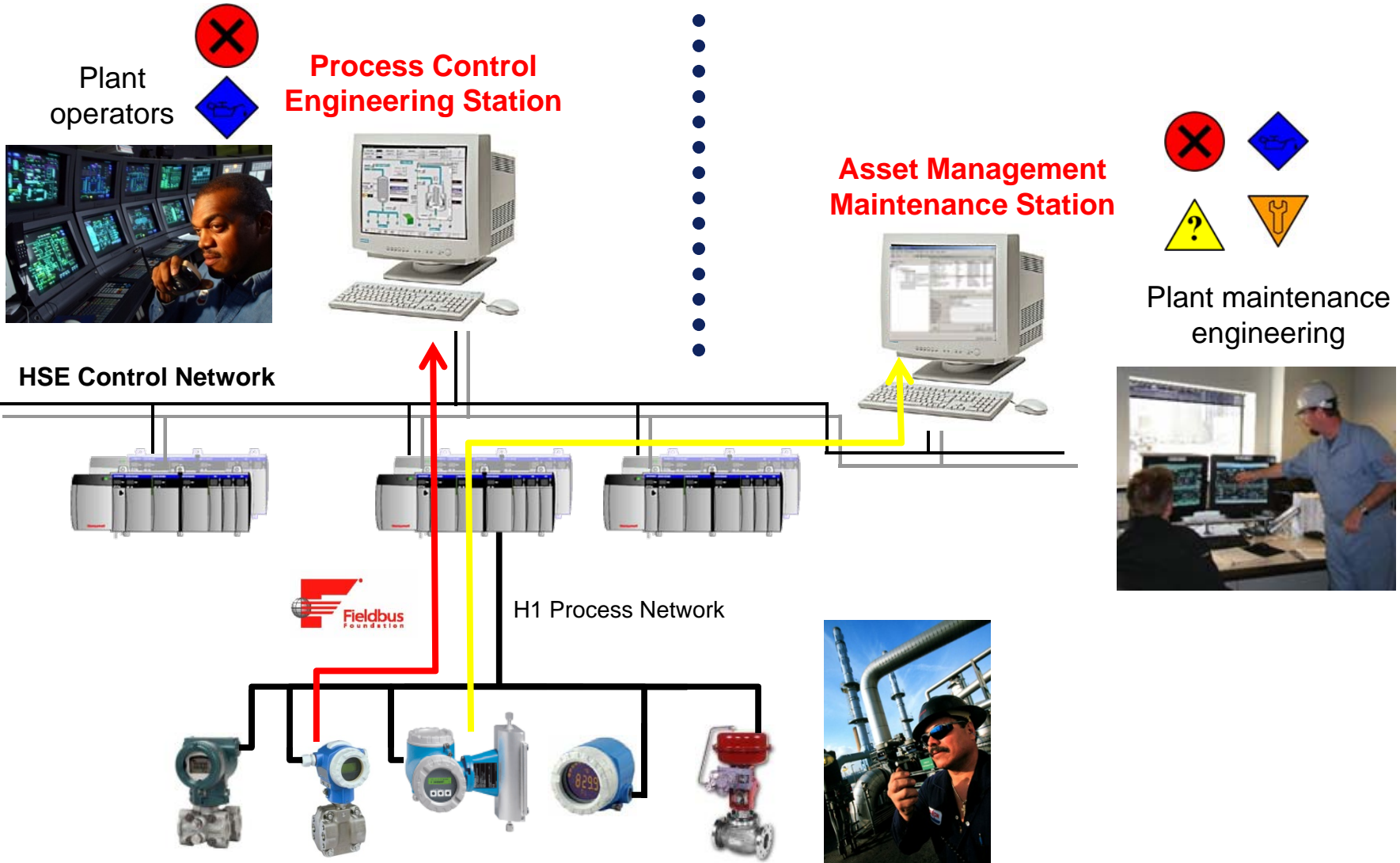


- New Enhancement

- New ITK version 6 devices support the NE107 status signals
- Uniform display of device problems
- Device alarms displayed to the right persons



NE107 Role-Based Diagnostics





Simplified Device Replacement - Backwards Compatibility

- Past Problem
 - Replacement devices are often a newer version
 - A newer version used to require the corresponding DD file to be loaded on the system
 - Instrument technicians don't have access to the system software
 - Could not complete the device replacement...
- New Enhancement
 - New ITK version 6 devices support the “compatibility revision” parameter
 - Enables systems to use a new device of a newer version without loading DD or changing the configuration

Intuitive Device Setup and Diagnostics - 'Device Level' Access

- Past Problem

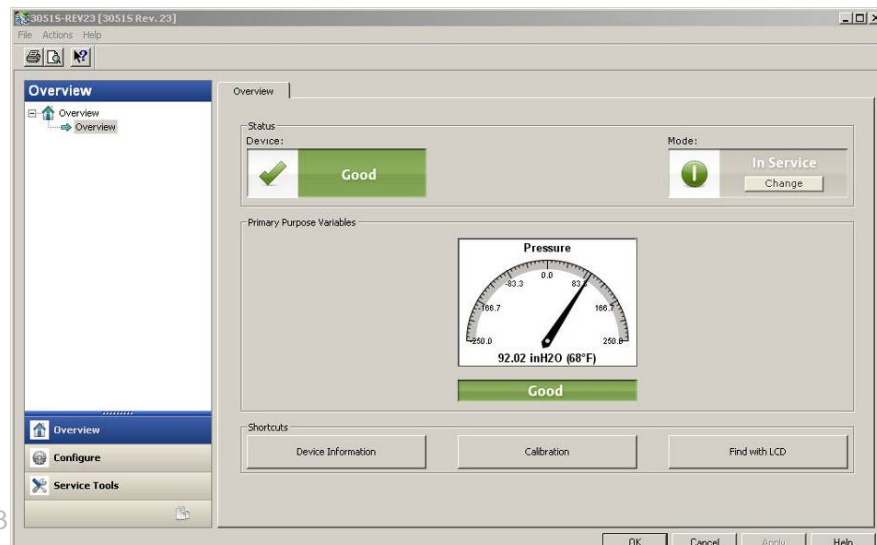
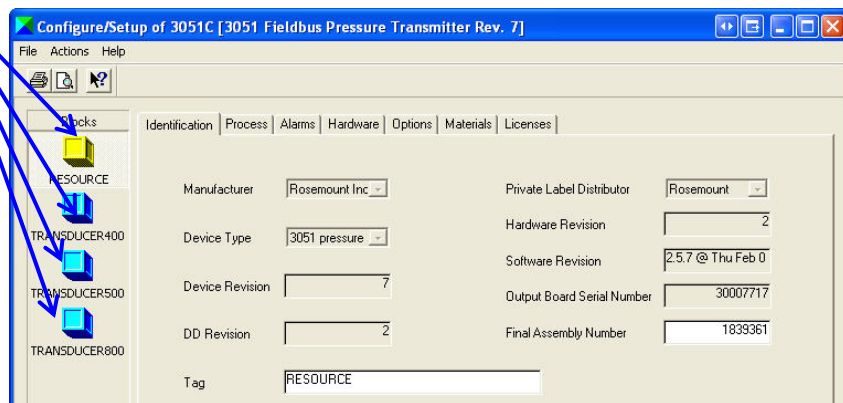
- Users had to browse through many blocks to get an overview of health from all diagnostics
- Users had to open many blocks to completely configure the device

- New Enhancement

- Systems tested to HPR 61b support 'Device Level' access
- Easy overview of whole device from a 'dashboard'

HPR = Host Profile Registration

Blocks



Graphically Enhanced EDDL Integrating Data from Multiple Blocks

- Easier overview
- Task-based instead of block-based


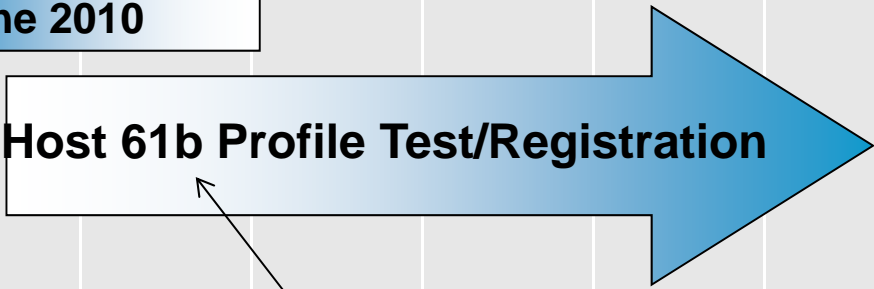
The screenshot displays a software window titled "PT-105 [3051 Fieldbus Pressure Transmitter Rev. 23]". The interface is divided into several sections:

- Status:** Shows a green checkmark and the word "Good".
- Mode:** Shows a green power button icon and the text "In Service" with a "Change" button.
- Primary Purpose Variables:** Features a pressure gauge with a scale from -15.0 to 150.0. The needle points to -0.01 psi, and the text below the gauge reads "Pressure : -0.01 psi". Below the gauge is a green bar with the word "Good".
- Shortcuts:** Contains three buttons: "Device Information", "Calibration", and "Find with LCD".
- Bottom Bar:** Includes "Send", "Close", and "Help" buttons.
- Footer:** A status bar at the bottom left reads "Device last synchronized: Device Parameters not Synchronized."

A sidebar on the left side of the window contains a tree view with "Overview" and "Overview" items. Below the tree view is a task bar with three buttons: "Overview" (with a home icon), "Configure" (with a gear icon), and "Service Tools" (with a wrench icon). Three blue arrows labeled "Tasks" point to these buttons.



Host Profile Registration (HPR) - Compliance Level 'b'

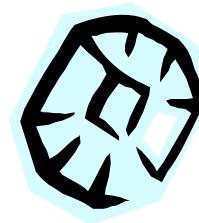
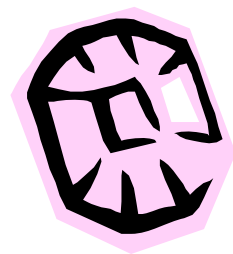
2008		2009		2010		2011		2012	
1H	2H	1H	2H	1H	2H	1H	2H	1H	2H
Host Interoperability Support Test (HIST)				Host 61a Profile Test/Registration Valid through June 2010					

New profile compliance level 'b' has more stringent requirements than older 'a'



“Project Gemstone” Usability

- Next wave of usability improvements
 - Device templates
 - ‘Unlike’ device replacement
 - Etc.
- ITK7
- HPR compliance level ‘d’






Existing Fieldbus Users

- Fieldbus systems which are a few years old do not have these features
- Upgrade your fieldbus system to latest version to take advantage of these features now




Where Can I Learn More?



Fieldbus
Foundation

FOUNDATION™ Fieldbus
The Power of Digital for your Process Devices

www.fteldbus.org



- What is FOUNDATION fieldbus?
- Breaking the Limits of Analog Technology
- Proven Benefits in Projects Worldwide
- Enhanced Operations and Maintenance
- Ease of Use

http://www.fieldbus.org/images/stories/technology/aboutthetechology/overview/fieldbus_brochure.pdf

Technology Enhancements Makes Fieldbus Easier to Use

- New features improve configuration, commissioning, maintenance and replacement
- Reduce complexity while increasing interoperability and productivity
- HPR assures features are consistent across systems