"So easy an end user can do it"
"Full Featured, Powerful & Simple"

Plantwatch

Industrial Automation Software

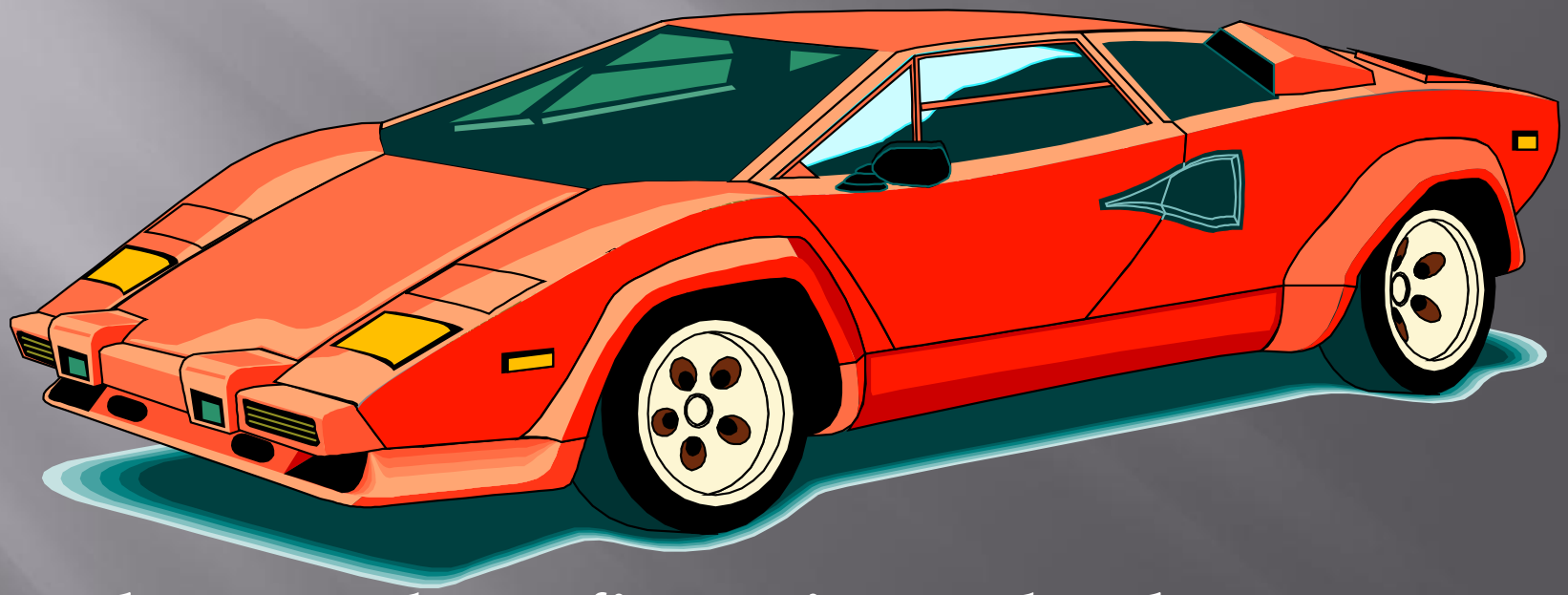
Plantwatch® is an easy to use Track, Control and Visualize System

PlantWatch Users

- MTD
- Cryovac
- TSM mfg
- Cummins Fuel
- Cummins Engine
- Cummins JEP
- Leoni
- HTT
- Magneti Marelli
- Moris Dickson
- Crown Group
- American Battery

The Important Facts

It's what's under the hood that counts….



PlantWatch configuration technology creates applications faster and more efficiently than all other similar systems.

What is PlantWatch ?

Plantwatch® is a simple to use software that is configured to Track, Control and Visualize any process

- *Control the simplest station or do plant wide traceability with **one day of training !***
- *Connect, communicate and control your process with PlantWatch's simple radio button configuration*
- *Create in hours what usually takes weeks*

"So easy even an end user can do it"

Where Does It Fit

- *Control*
  - *Manufacturing cell control and data collection*
  - *Communicate to control devices*

  PLC, Test cells, Robots, Conveyors, Sensors, Light Curtains, Motors and Drives, RF ID, Motion
- *Error Proof*
  - *Evaluate process data in real time*
  - *Confirm correct parts per BOM*
- *Track*
- *Operators, product- Serialized or Lot, process*
- *Database browser SQL, ODBC*
- *Bi-directional comm to higher level systems: MES/ERP*

Not just a data collector !! Makes decisions and performs actions.

Easily configured, learn it in one day!

Plantwatch® systems are so understandable that you can learn everything you need to know in one day!

ERP Workorder #6643892
QTY: 500 LOT No. 486 PART No. 44451 Gear Assembly
Operation
Required File
Recipe
Result
Mark
Verify
Form
Assy Gear
Assy Bushing
Test
Label
Pack
Your Company
Workorder
Mark
Verify
Manufacture
Test
Package
GEAR ASSEMBLY
PN: 44451
LOT: 486
UID: INN5383942
BUSHING ID: .499in
OK TO SHIP

Plantwatch Is Different

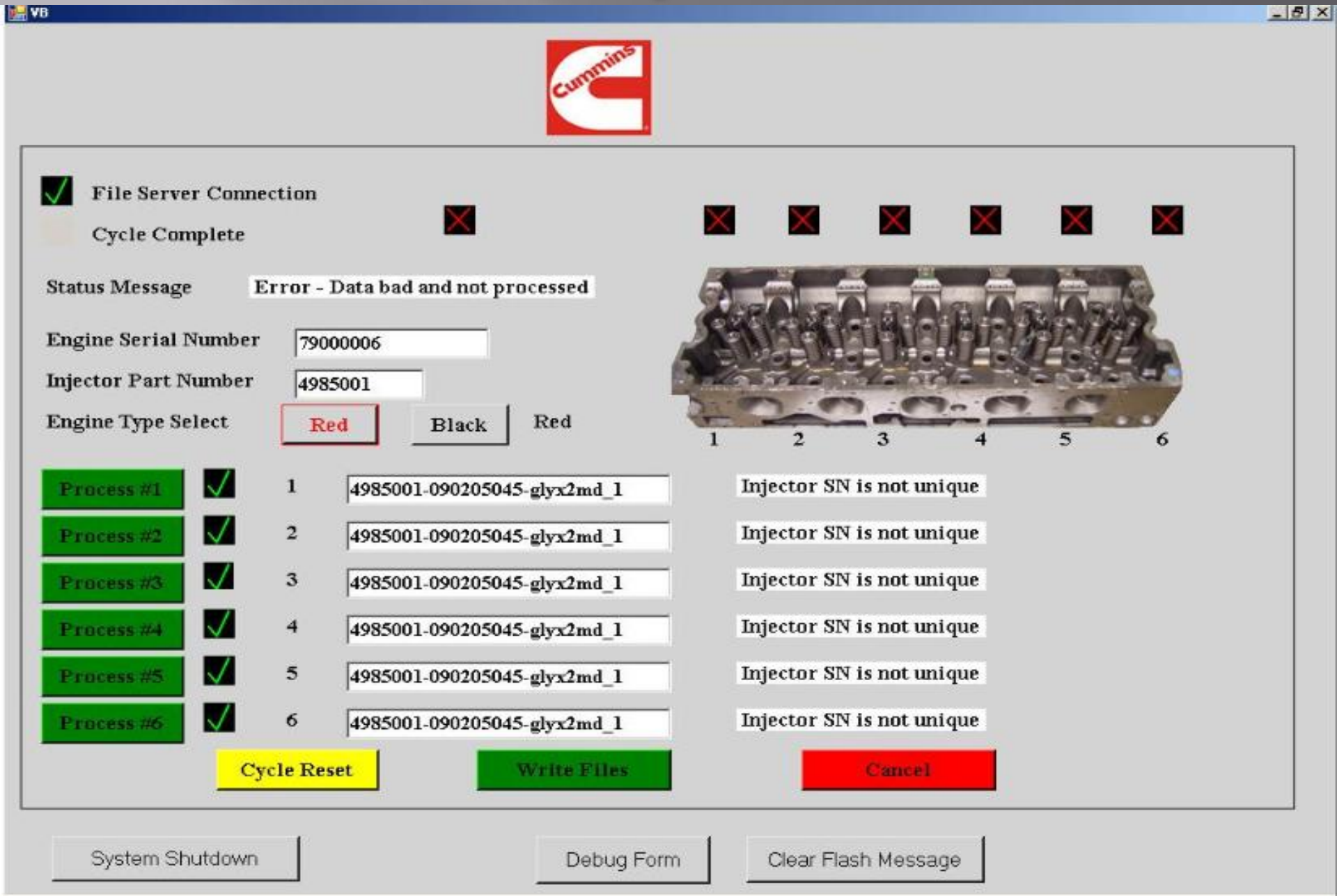
In Plantwatch…
It's easy to do complex things!

- Easy
  - No programming
  - One day training
- Powerful
  - Logic engine is unique
  - Remote .exe
- Interacts with other PC based systems
  - Send/Receive to ERP

Powerful

- Connects to everything, easily!
  - ✓ OPC for PLC's etc
  - ✓ Com Ports
  - ✓ TCPIP Sockets
  - ✓ Files
  - ✓ Databases
  - ✓ I/O

Graphics


VB
Cummins
File Server Connection
Cycle Complete
Status Message
Error - Data bad and not processed
Engine Serial Number
79000006
Injector Part Number
4985001
Engine Type Select
Red
Black
Red
1 2 3 4 5 6
Process #1
Process #2
Process #3
Process #4
Process #5
Process #6
1
2
3
4
5
6
4985001-090205045-glyx2md_1
Injector SN is not unique
Cycle Reset
Write Files
Cancel
System Shutdown
Debug Form
Clear Flash Message

Example – File Manager

Cummins needed to take data from 6 barcode readers and generate formatted Text files for an Engine Control Module Programmer.

PlantWatch was able to extract the data from the barcodes and from it generate the required text files as well as create the subdirectories needed to place the files in.

Example – OPC

An integrator needed to gather information from several addresses within a PLC and from it create Xcel report files.

PlantWatch was able to get the data out of the Siemens PLC, organize it and create the report files. Additionally, the data is present on the screen.

Example – Database Browser

A customer needed to record all of the components being added to a work order in a SQL Database based on barcode reader scans for 25 lines. This real time data is used to manage the flow of material to the 25 lines.

PlantWatch was able to connect and read the 25 barcode scanners and by using the Database Browser store all of the data into the customer's SQL database.

Example - IO

A customer wanted to improve the efficiency of its electro plating line by automatically adjusting the power being applied to the tank based on the type of part being processed.

PlantWatch was able to use it's IO subsystem to drive a 0 to 10 volt analog output to change the settings of the power being applied to the tank. It uses different recipes based on the part type identified by a Vision System

MAGNA
COSMA INTERNATIONAL

PLANT WIDE TRACEABILITY

- Part genealogy birth to ship
- Idra caster, X ray , Furnace , PLC, Cameras,
- Error Proofing

REDSTAMP

Automated Solutions
For the Distribution Industry

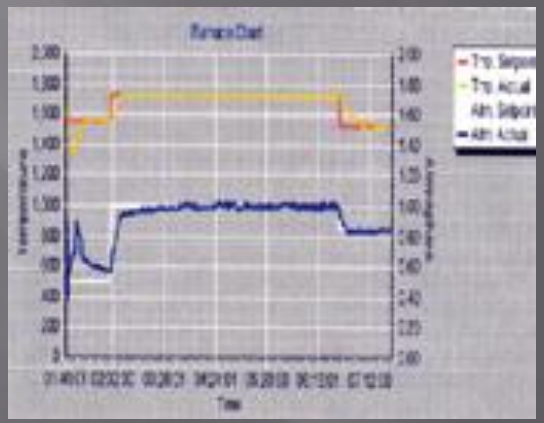
IMAGE MANAGER

- Control conveyor, bar code reader and camera
- Create image file using bar code decode for name
- Lookup based on file name

Heat Treating TECHNOLOGIES·INC

DATA COLLECTION

- Data matrix verification DPM/logging
- Batch of serialized parts married to furnace data



ASSEMBLY REPLENISHMENT SYSTEM

We are currently using the Plant Watch product from HTE.
Our deployment takes data from over twenty scanners, processes the data with a rules based engine and then writes the information to a SQL database that support key business processes.
Plant Watch provided an activity dashboard to assess system and scanner activity.
We have found the HTE team to provide excellent technical support, and solid product training.
We found the price point and richness of the tool to exceed our requirements.

Christopher Gribben
Process Development and C I Manager MTD

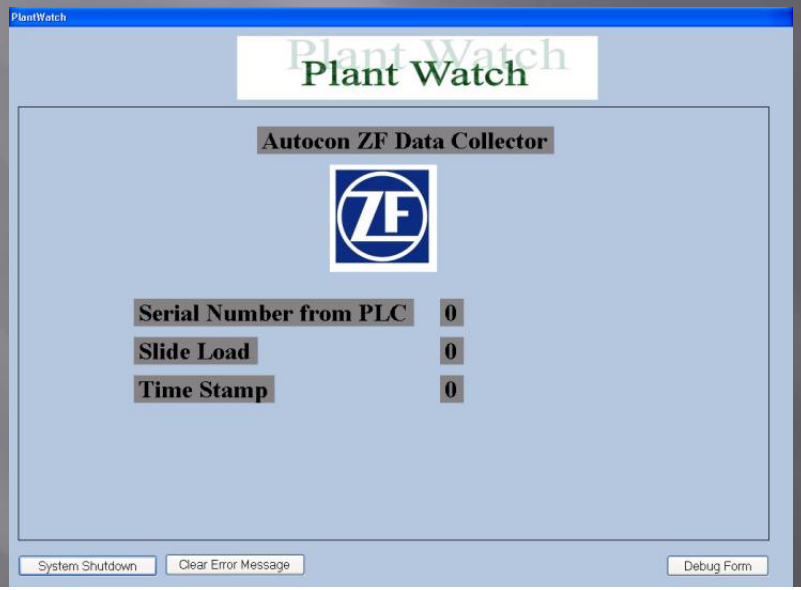
20+ Scanners consume components

PW monitors component levels on line

- Comm. to inventory system for replenishment

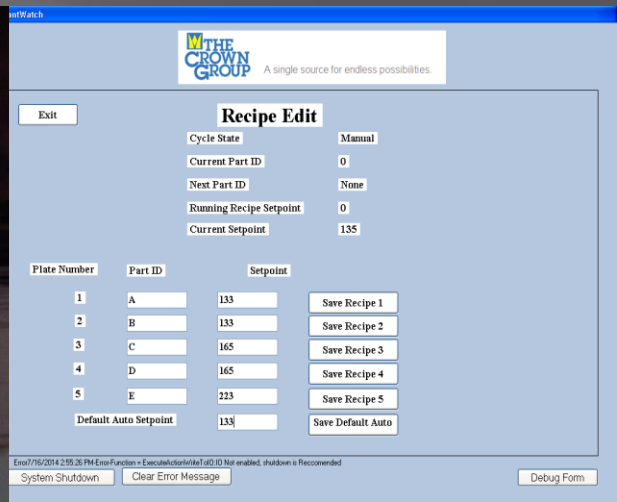
TRACEABILITY

- Communication to PLC
- Logging



ELECTROPLATING SYSTEM CONTROLLER

- Control the voltage within electroplating tank
- Set point is determined by using a Vision system to determine part type

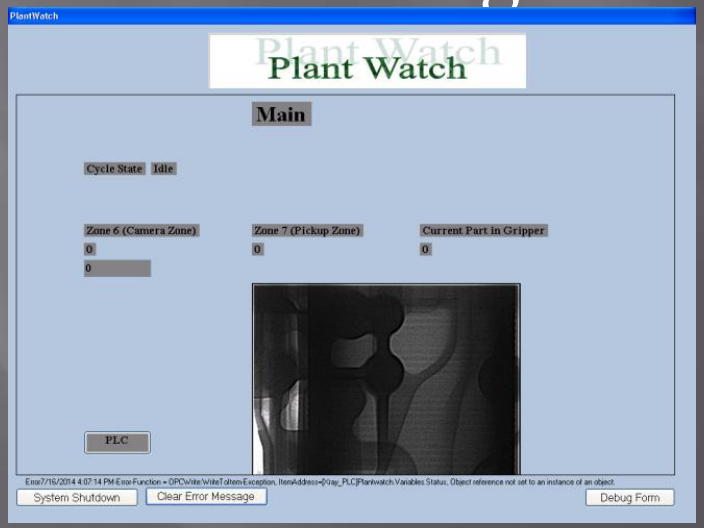


Godfrey & Wing Inc.

LEONI

DATA COLLECTION

- Engine block X Ray
- Collect images and data from PLC and X Ray system
- Generate data for engine block



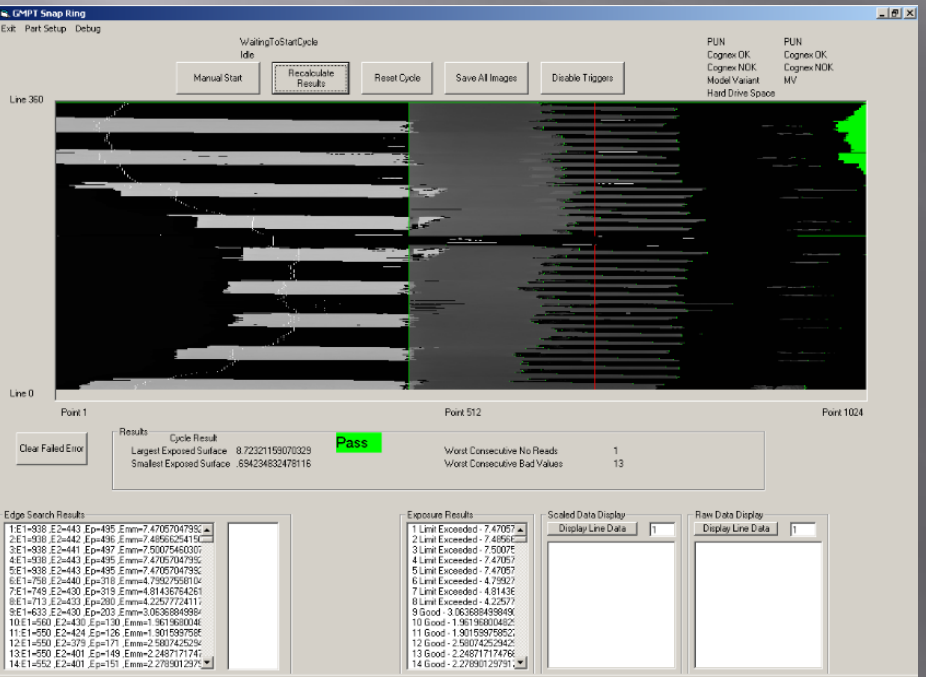
DATA COLLECTION FILE MANAGEMENT

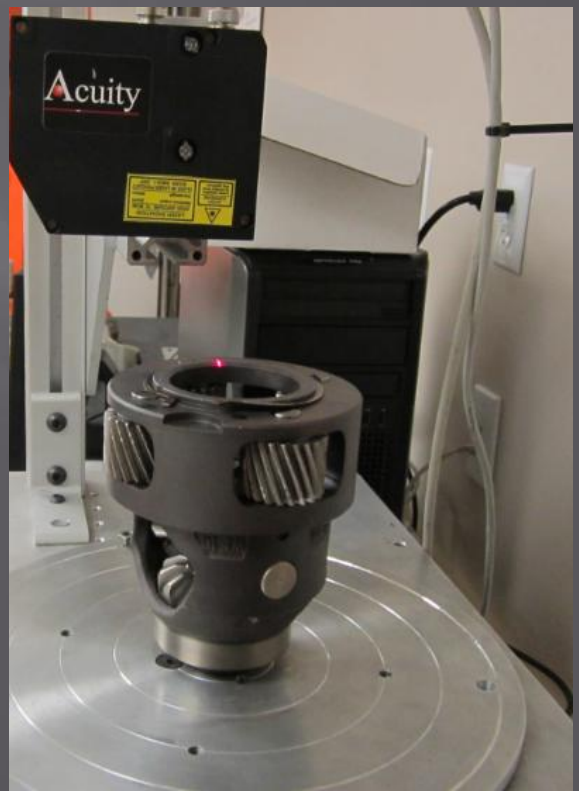
- Read data matrix on six injectors
- Relate injector to installed cylinder
- Create file with flow data parsed
- Send data for ECM programming

GMPT Toledo

General Motors Powertrain

- Used to interface HTE Snap ring system to GM Siemens PLC





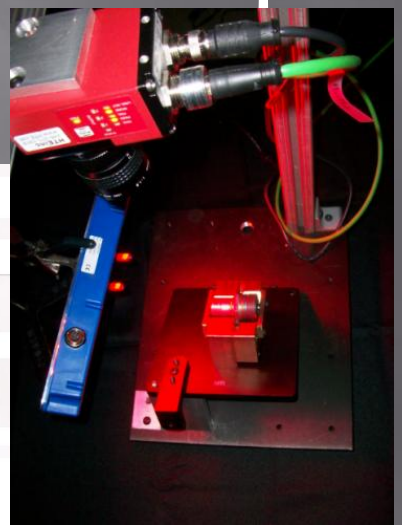
INJECTOR TRACEABILITY

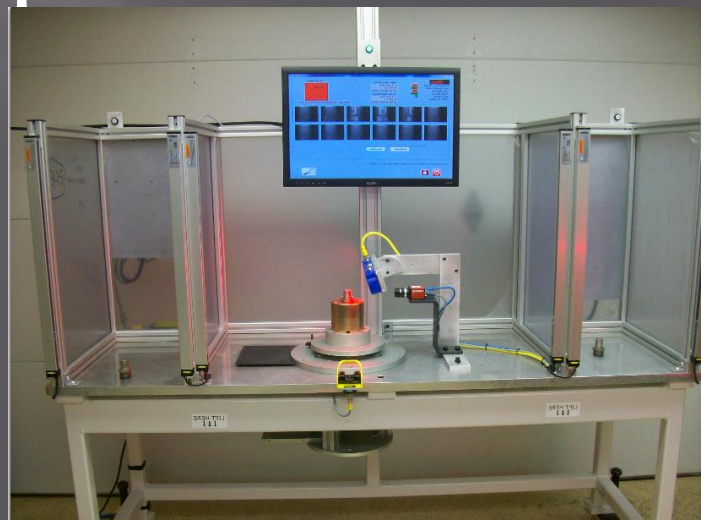
Verify data matrix mark quality

- Communicate to laser marker for correct part type
- Control station: light curtains, rf id tags, turntable

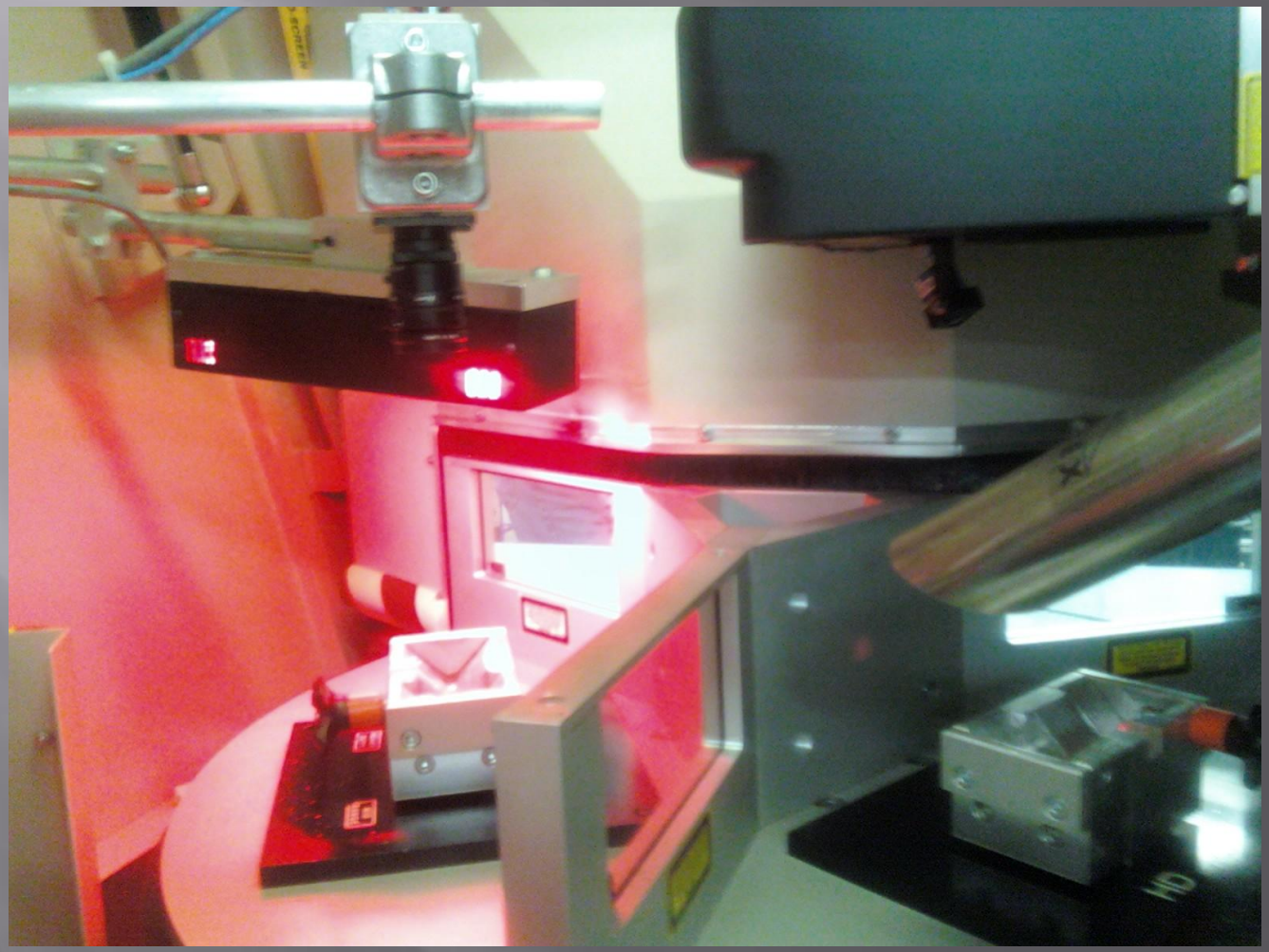
Control camera, trigger, save images

- Error proof part type

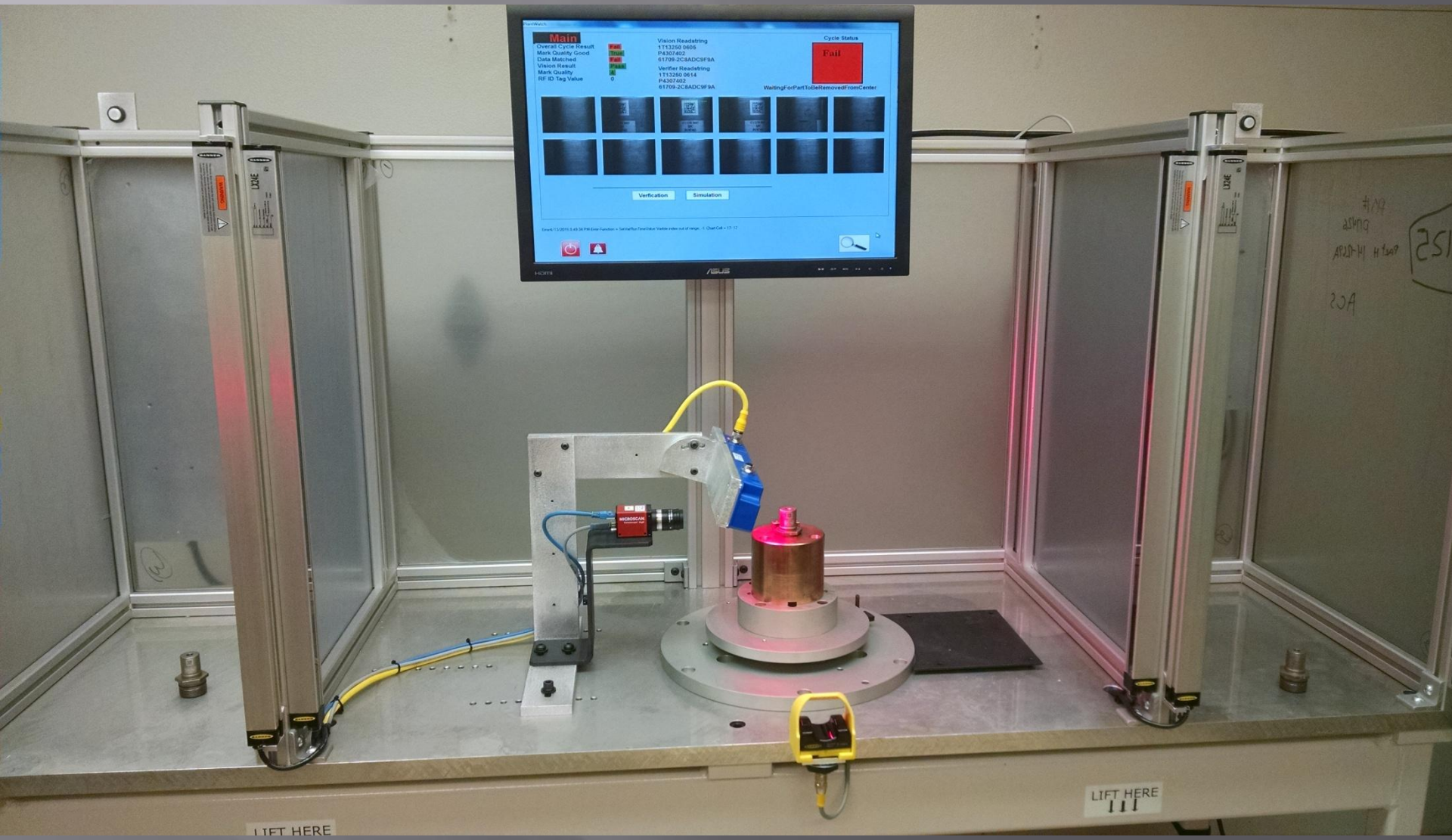


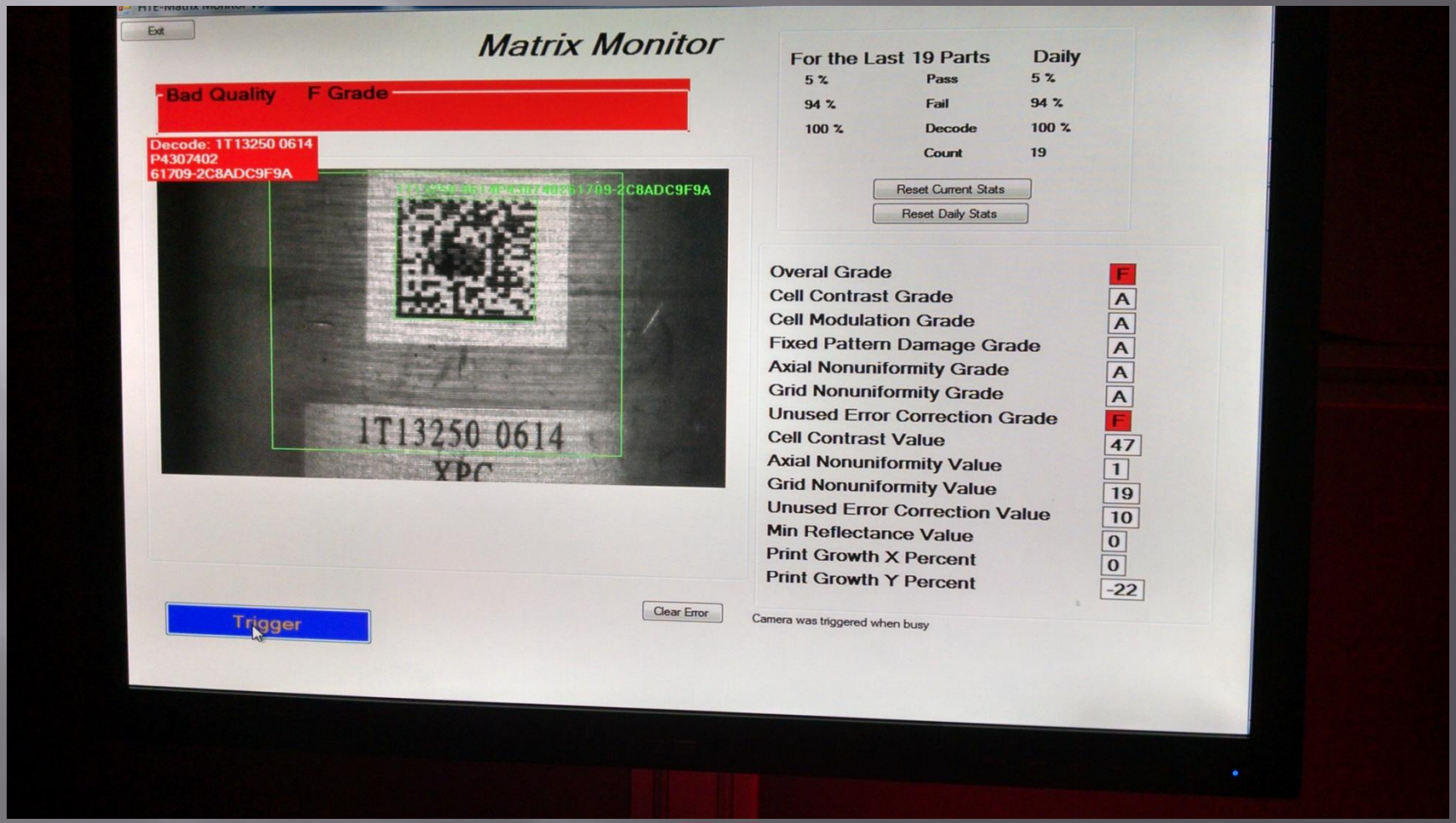


PW gets part type from plc. Checks correct part type by read RF id tag on pallet. Nests are unique to part type. Sends file to laser; triggers laser; mark complete; rotates turntable; fires camera to verify quality; sends results back to PW



B station camera inspects for only one data matrix and compares to A station to confirm verified to “C” grade or better . Confirms unique serial #. Controls light curtains and indicator lights to direct operator motions. Left side is good parts, right side are bad. Stops station until light curtains are broken in correct sequence. Data stored with time date stamp as CSV and to SQL




Exit
Matrix Monitor
Bad Quality F Grade
Decode: 1T13250 0614
P4307402
61709-2C8ADC9F9A
1T13250 0614
For the Last 19 Parts
Daily
5 %
Pass
5 %
94 %
Fail
94 %
100 %
Decode
100 %
Count
19
Reset Current Stats
Reset Daily Stats
Overal Grade F
Cell Contrast Grade A
Cell Modulation Grade A
Fixed Pattern Damage Grade A
Axial Nonuniformity Grade A
Grid Nonuniformity Grade A
Unused Error Correction Grade F
Cell Contrast Value 47
Axial Nonuniformity Value 1
Grid Nonuniformity Value 19
Unused Error Correction Value 10
Min Reflectance Value 0
Print Growth X Percent 0
Print Growth Y Percent -22
Trigger
Clear Error
Camera was triggered when busy