Plantwatchtraceability.com

PlantWatch Users

- MTD
- Cryovac
- TSM
- Cummins Fuel
- Cummins Engine
- Cummins JEP
- Ancor
- Gebbers
- Classy Closets
- Magneti Marrelli
- Magna Cosma
- Crown Group
- MSPrecision
- GM Toledo

What is PlantWatch ?

Plantwatch® is a simple to use software that configures 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

- *Track*
- *Data Collection, geneology- Serialized or Lot,*
- *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!

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

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

Process #1	✓	1	4985001-090205045-glyx2md_1	Injector SN is not unique
Process #2	✓	2	4985001-090205045-glyx2md_1	Injector SN is not unique
Process #3	✓	3	4985001-090205045-glyx2md_1	Injector SN is not unique
Process #4	✓	4	4985001-090205045-glyx2md_1	Injector SN is not unique
Process #5	✓	5	4985001-090205045-glyx2md_1	Injector SN is not unique
Process #6	✓	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

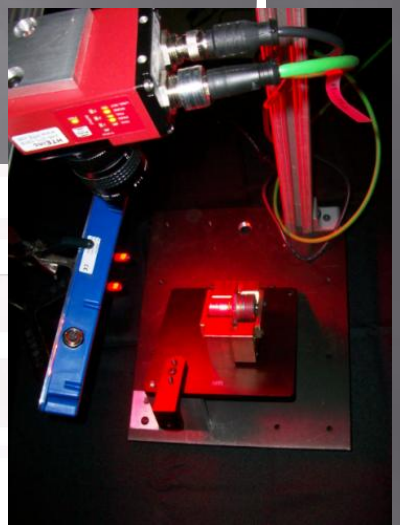
INJECTOR TRACEABILITY

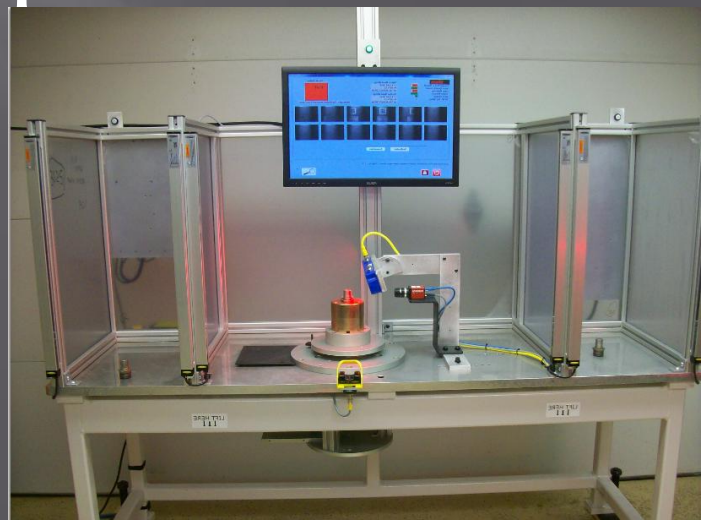
Verify data matrix mark quality

- 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





MAGNA
COSMA INTERNATIONAL

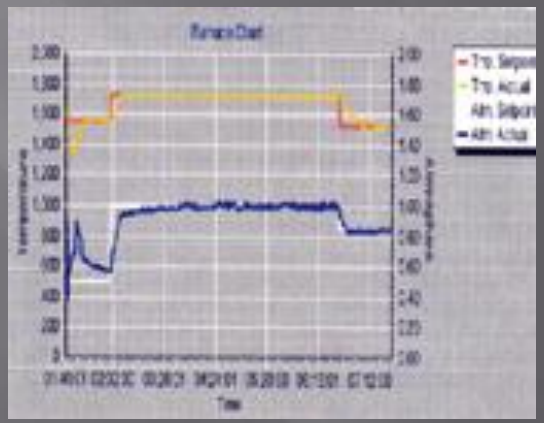
PLANT WIDE TRACEABILITY

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

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

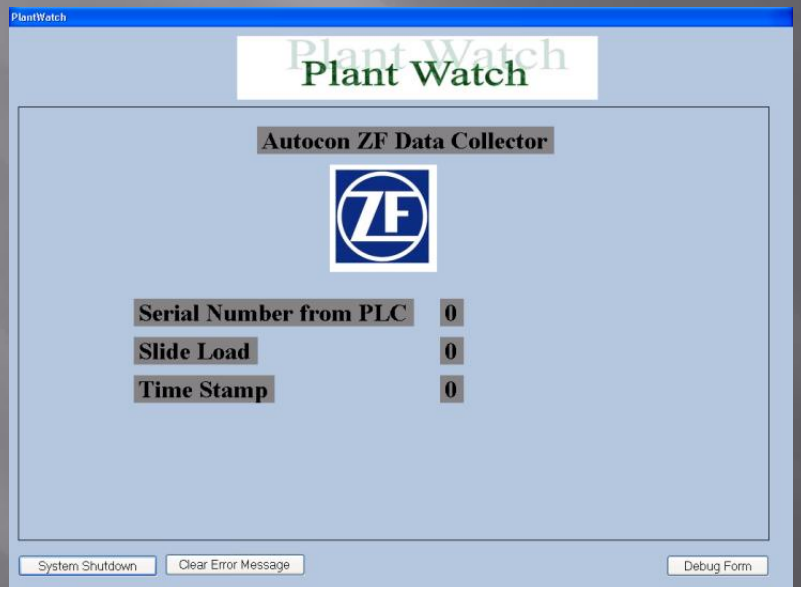
20+ Scanners consume components

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

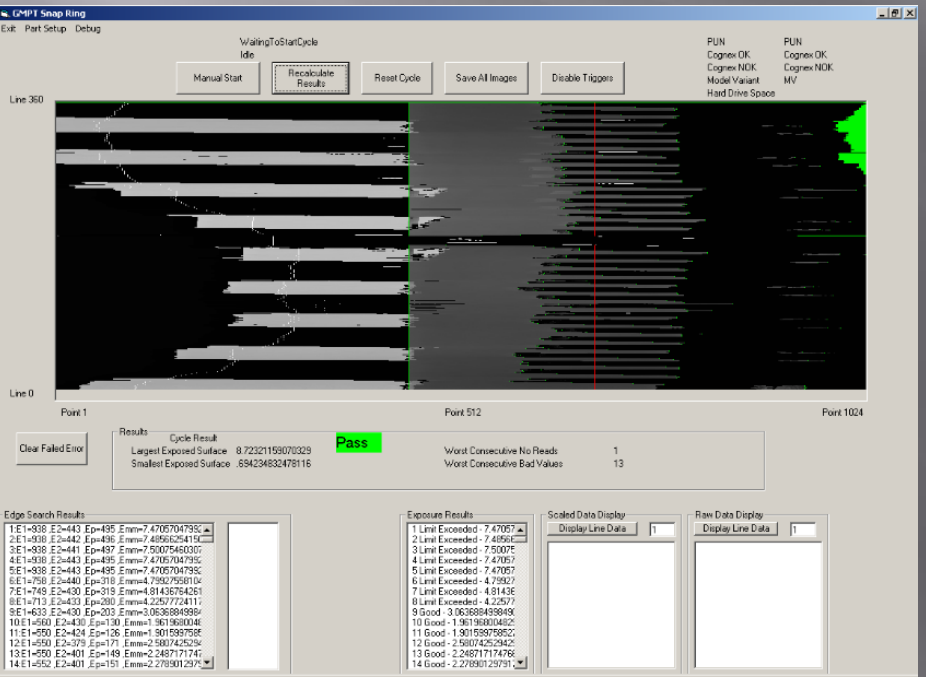
DATA COLLECTION FILE MANAGEMENT

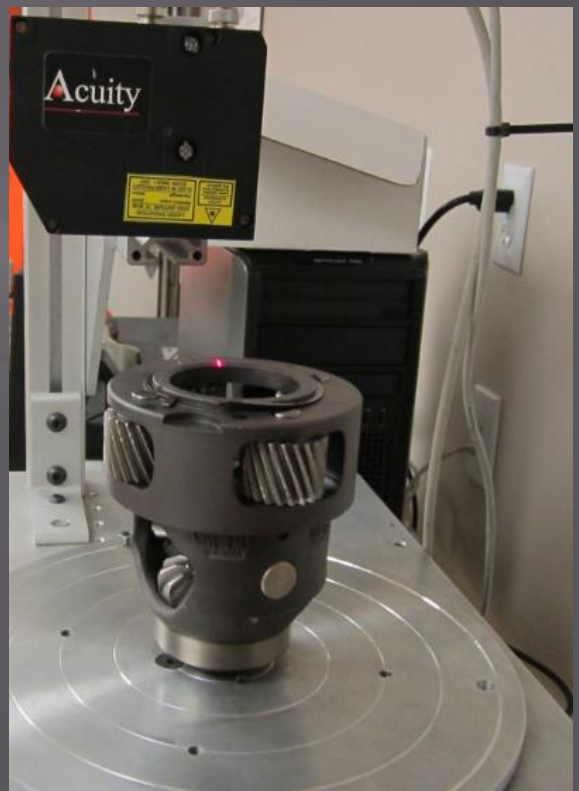
- Read data matrix on six injectors
- Relate injector to installed cylinder
- Create file with flow data parsed
- Send data for ECM programming

GMPT Toledo

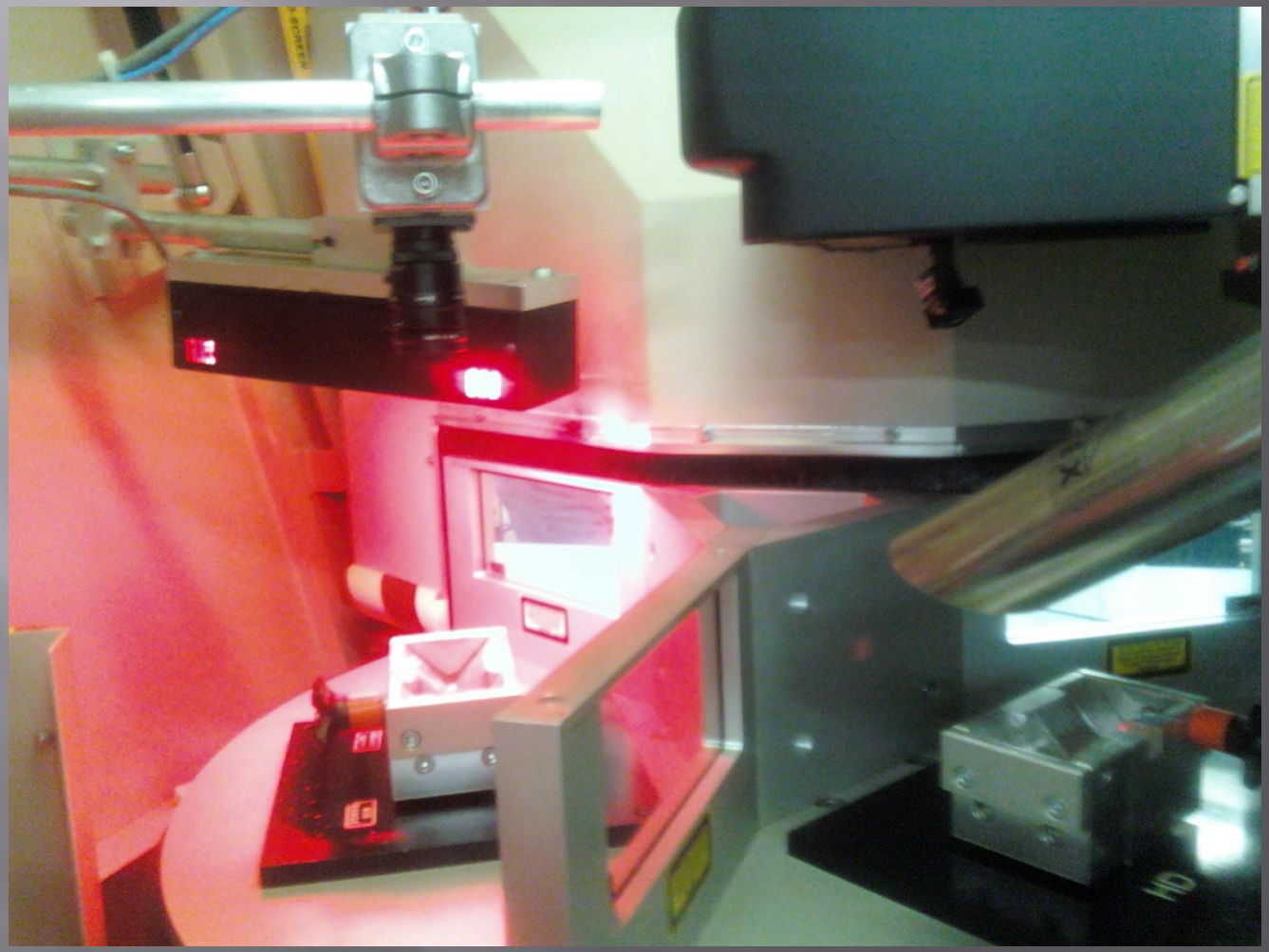
General Motors Powertrain

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

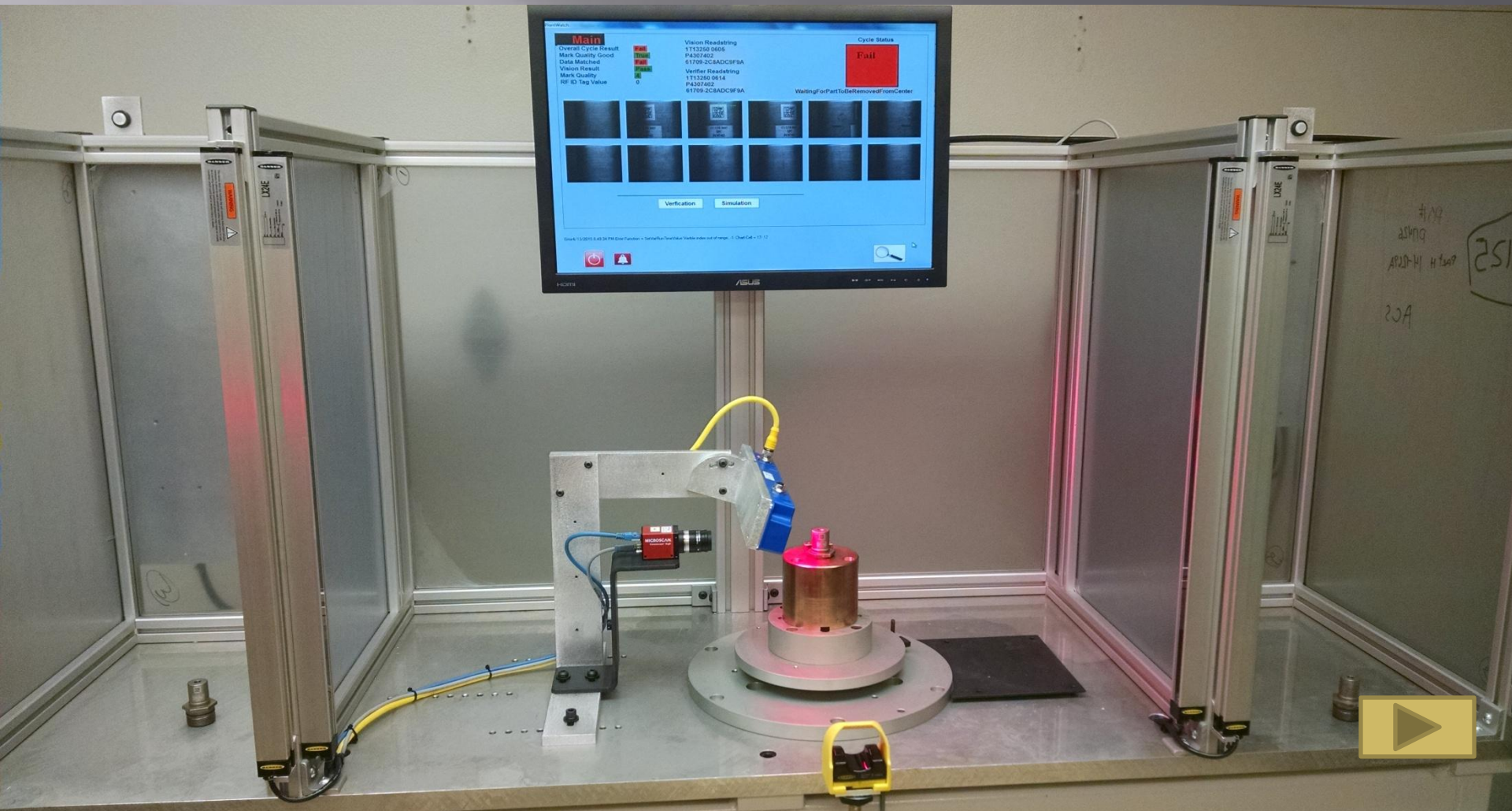




PW gets part type from plc. Checks correct part type by read RF id tag on pallet. Nests are unique to part type. Sends file to laser; triggers laser; mark complete; rotates turntable; fires camera to verify quality; sends results back to PW



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



Example of OEM implementation of Plantwatch

LINEWATCH

Increase your process monitoring power with LINEWATCH

Based on the powerful PlantWatch software platform, LINEWATCH offers expanded capability in tracking, image saving and production reporting. The LINEWATCH system allows for the expansion and/or reconfiguration of your production monitoring as your requirements change.

LINEWATCH is an independent PC/PLC based software application that monitors, tracks and verifies the integrity of packaging lines.

Verification: Data Content, Code Quality, Blemish

Reporting: SQL, OBDC, TXT, CSV

Control: PC, RFID, Discrete, Serial, TCP/IP

Traceability: Geneology

Image Saving: Completed Packages

Hardware Independent: Folders, Inserters, Print Lines, Label Verification

Mail system application example:

LINEWATCH is totally configurable to perform many other functions not included in this mailing system.

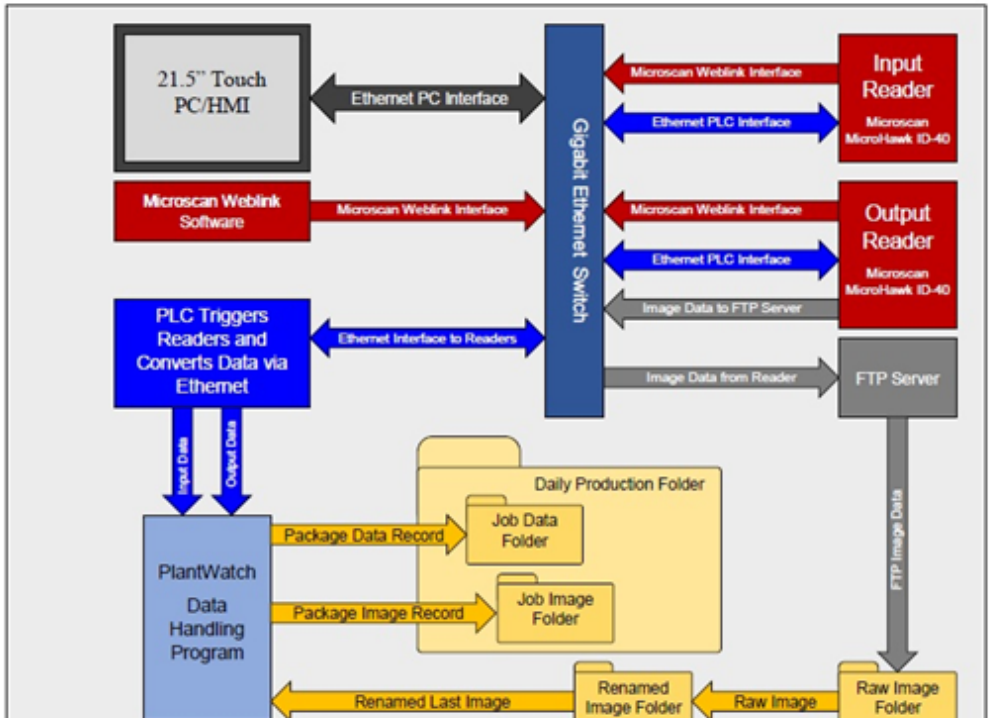
This system is started by the operator entering a job name and index of the first expected package to come through the machine.

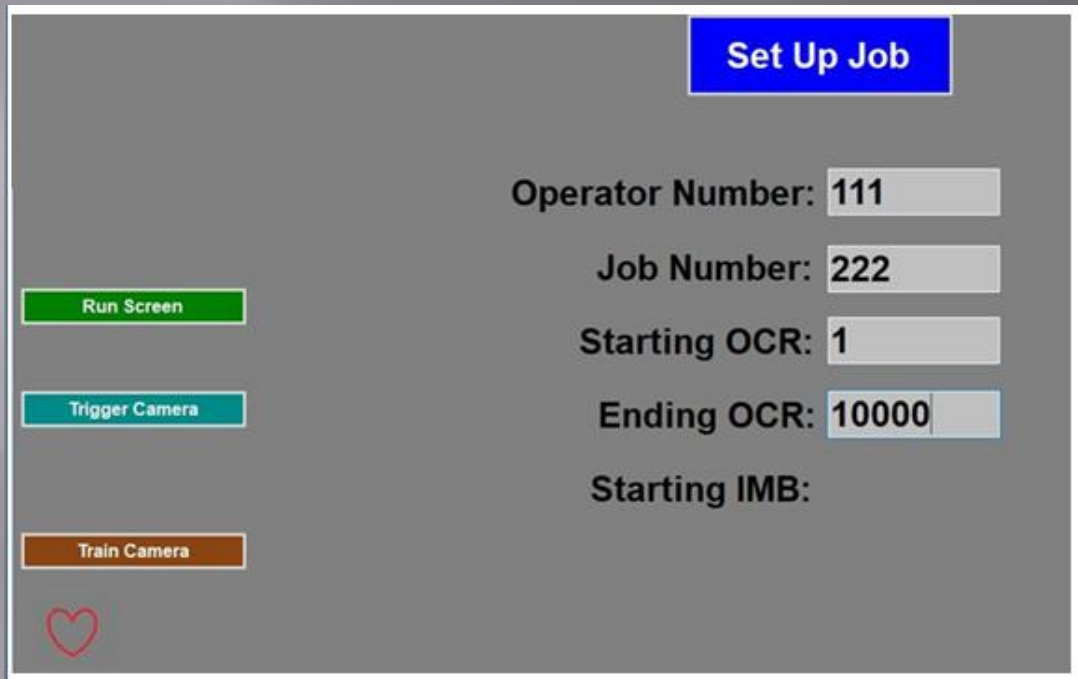
When the job is done, a report is generated which shows each package/document processed and any missing product with an image of each package successfully processed.

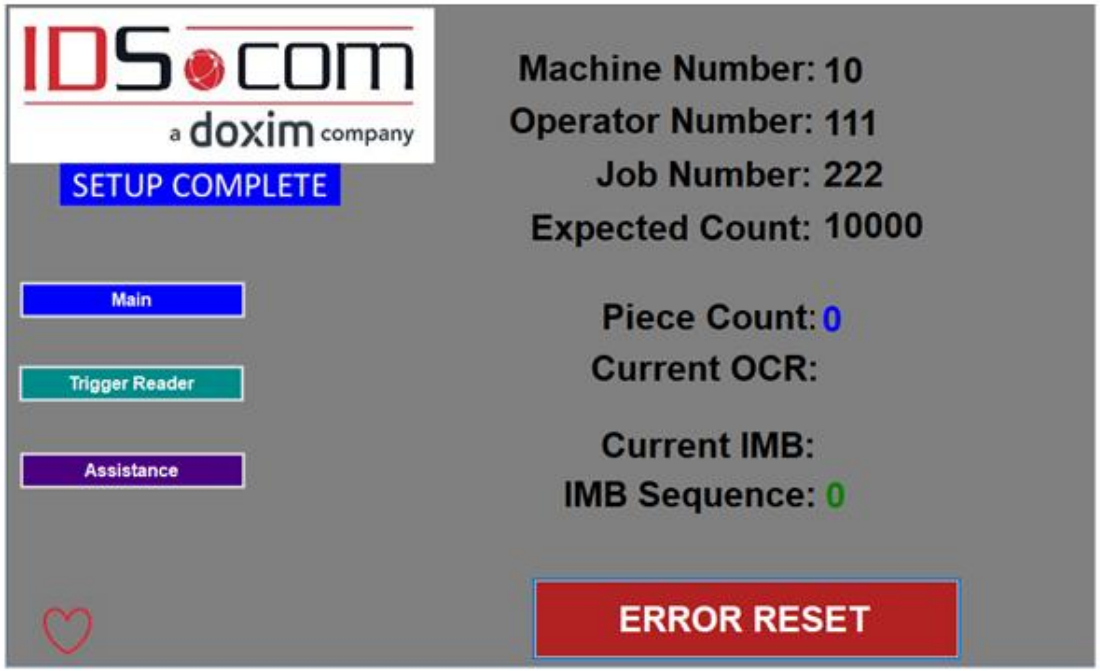
As the system runs it reads the postal or 2DBarcode thru the window each envelope to verify the sequence number of the document set inside.

If the index number does not match sequentially, an error is created, the machine is stopped and a record is placed into an error report.

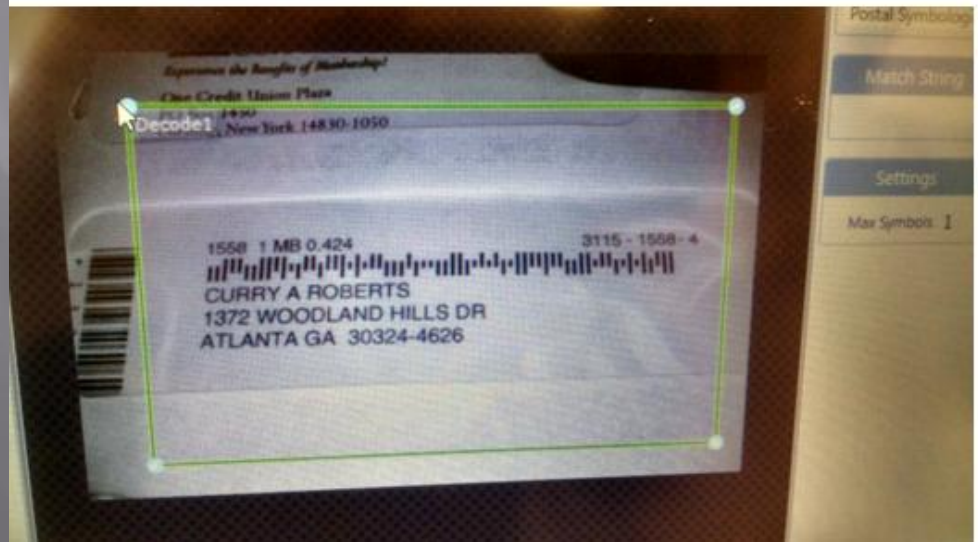
For each mail piece that is processed a record is placed into the main section of the repo and an image is captured and renamed to associate it with the mail piece that it came from




Set Up Job
Operator Number: 111
Job Number: 222
Starting OCR: 1
Ending OCR: 10000
Starting IMB:
Run Screen
Trigger Camera
Train Camera


IDS.com
a doxim company
SETUP COMPLETE
Machine Number: 10
Operator Number: 111
Job Number: 222
Expected Count: 10000
Piece Count: 0
Current OCR:
Current IMB:
IMB Sequence: 0
Main
Trigger Reader
Assistance
ERROR RESET

This is a saved image from the computer. Each triggered read results
a saved image with a unique file name for historical look up.



One example of a report. Unlimited reports are configurable.

Production Data.txt

```
Production Data
Machine:1
Operator:11
Exit Count,Read,Time,System,Pages,Read,Process Status

1,00001,10:49:20,FED,3 Pg,00001,Auto
2,00002,10:49:25,FED,1 Pg,00002,Auto
3,00003,10:49:28,FED,2 Pg,00003,Auto
4,00004,10:49:30,FED,1 Pg,00004,Auto
5,00005,10:49:32,FED,4 Pg,00005,Auto
6,00006,10:49:34,FED,3 Pg,00006,Manual
7,00007,10:49:37,FED,1 Pg,00007,Auto
8,00008,10:49:39,FED,2 Pg,00008,Auto
9,00009,10:49:41,FED,1 Pg,00009,Auto
10,00010,10:49:43,FED,4 Pg,00010,Manual
11,00011,10:49:45,FED,3 Pg,00011,Auto
12,00012,10:49:47,FED,2 Pg,00012,Auto
13,00013,10:49:50,FED,1 Pg,00013,Auto
14,00014,10:49:53,FED,3 Pg,00014,Auto
15,00015,10:49:55,FED,2 Pg,00015,Auto

10:52 AM 9/25/2018
```