eInnoSys

Technology Partner You Can Count On

Semiconductor Software Experts

Fab & Assembly
Factory Automation

11
Years

Equipment
Software

Industry 4.0,
IoT& AI/ML

About Us

- Global Presence
  - Headquartered in California, US
  - Global Operations
    - Europe – Germany, France & UK
    - SEA – Singapore, Philippines, Malaysia, Thailand
    - Taiwan, Korea, China & India

- Tier 1 & 2 Fab, A&T & OEM customers across the world

- Team with deep domain expertise

Mission

Expertise on AI/ML, Computer Vision, IoT, SECS/GEM & other FA technologies

+

Decades of Semi Industry Experience

- To help factories achieve greater efficiencies, competitive advantage & reduce cost
- Offer innovative & patented solutions to factories with legacy equipment so that they can also take advantage of FDC, APC, Industry 4.0 & AI/ML

Why Automation?

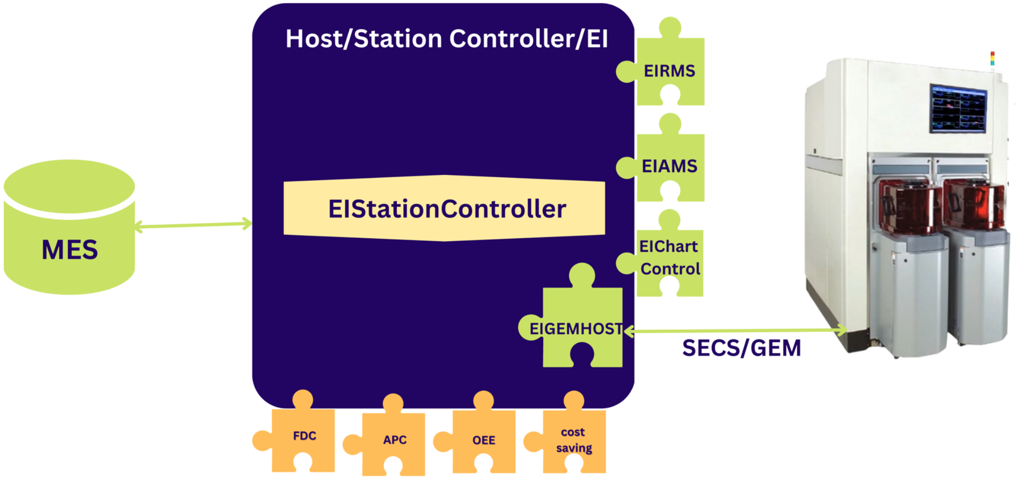
- Improve yield by preventing human errors
- Improve process control and uniformity through realtime window into process
- Improve CT & OEE
- Reduce manufacturing cost
- Improve engineering efficiency

Equipment Integration (EI)

- Complete Equipment Integration (EI) Solution
- Patented Plug-n-Play SECS/GEM for legacy equipment
- Recipe Management System (RMS)
- Fault Detection & Classification (FDC)
- Advanced Process Control (APC)
- Cycle Time, OEE & equipment up-time improvement
- Cost savings through automation

Turnkey EI (Equipment Integration) Solution

- Comprehensive turnkey, module based Equipment Integration (Factory Host) applications
  - EIRMS : Recipe Management System
  - EIAMS : Alarm Management System
  - EIChartControl: Data Collection & SPC
  - FDC: Fault Detection & Classification
  - OEE: Overall Equipment Efficiency
  - APC: Advanced Process Control



🟩 off the shelf eInnoSys products

🟧 Customized Solution

Other Factory Automation Products

- Ai/ML based Smart FDC & Predictive Analytics
- AI/ML based Pump monitoring/Predictive Maintenance System
- Unique approach to AOI – Automated Optical Inspection
- Spare Parts & Vendor Management System
- Reticle/Mask Management System
- MES development, customization & migration
- RFID based WIP tracking & Inventory Management

Equipment Software Expertise

- SECS/GEM implementation on Equipment
    - Both up to 200mm and 300mm wafer size SEMI standards SDKs
- Equipment Controller software development & maintenance
- Sub-tool Integration
    - EFEM, Robot, SMIF/FOUP, OCR, RFID etc.
- Image Processing & Computer Vision software
- Predictive Maintenance sub-system
- Refurbishment Service
    - Replace the robot, etc. of old equipment without modifying controller software
- System audit & training
    - SECS/GEM compliance, software design & architecture, etc.

Delivery Model

- Out-of-the-box Products
  - 18 Product offerings
  - EIGEMBox – Plug-n-Play SECS/GEM for legacy equipment
  - SeerSight – Predictive Maintenance System
  - EIPartsManager - Spare Parts Management System

- Custom Projects
    - Well over 500 custom projects completed

- Automation Roadmap Review

- Contract automation engineers
  - MES, Factory Host, APC, FDC, etc.

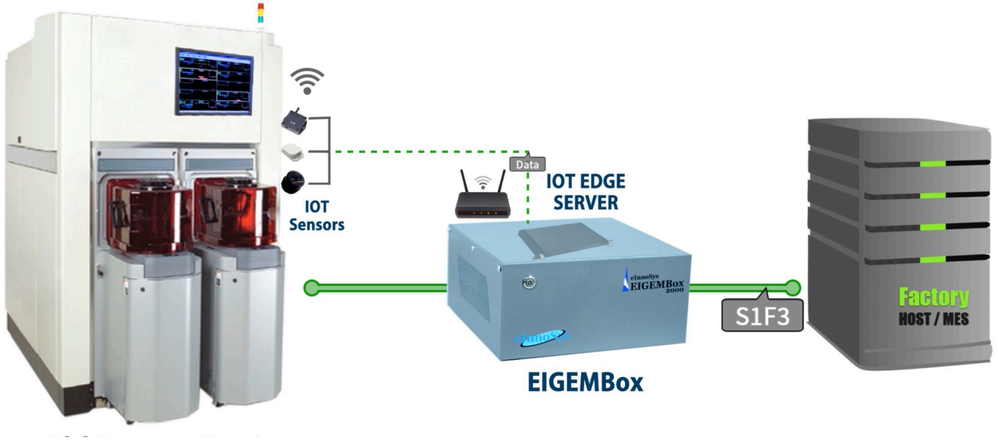
- Compliance Audit & Training
  - Compliance of SEMI & software standards audit
  - Training for SECS/GEM

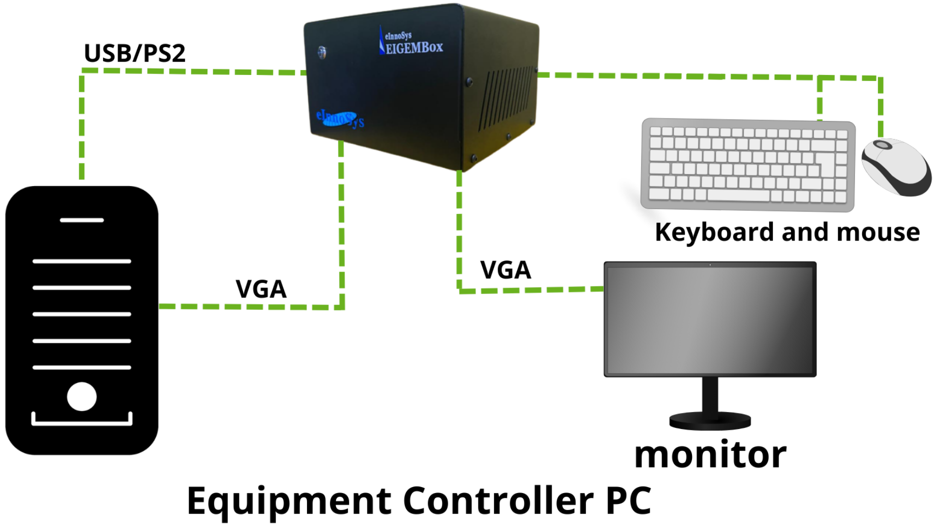
Case Studies

- Saved a fab $3M in equipment upgrade cost
- Saved a fab $1.2M upfront and $200K annually by increasing throughput from a bottleneck equipment by 22%
- Saved a fab $1M annually in improved precious metals reclaim
- One metrology OEM enjoys improved productivity by as much as 30% while reducing cost by 20%

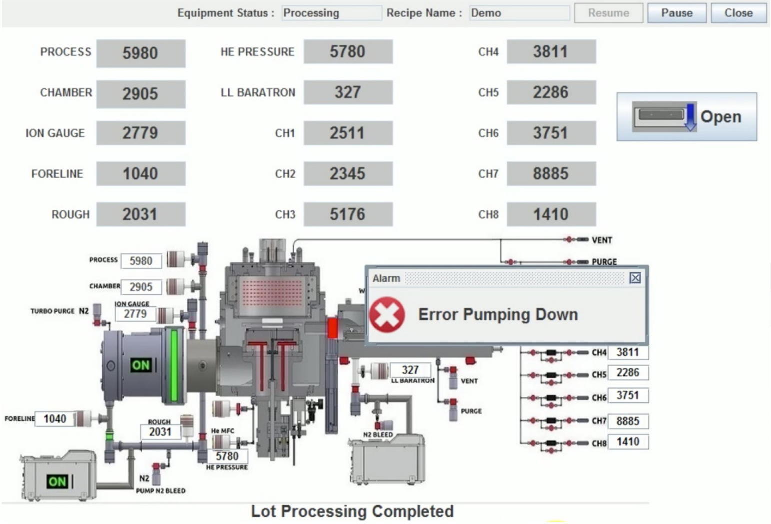
EIGEMBox

- Enables SECS/GEM on existing equipment
- Plug-n-Play, NO software/hardware installation req’d
- Sends data from external sensors
- Patented Technology
- Implemented on 70+ Equipment





EIGEMBox – Configuration



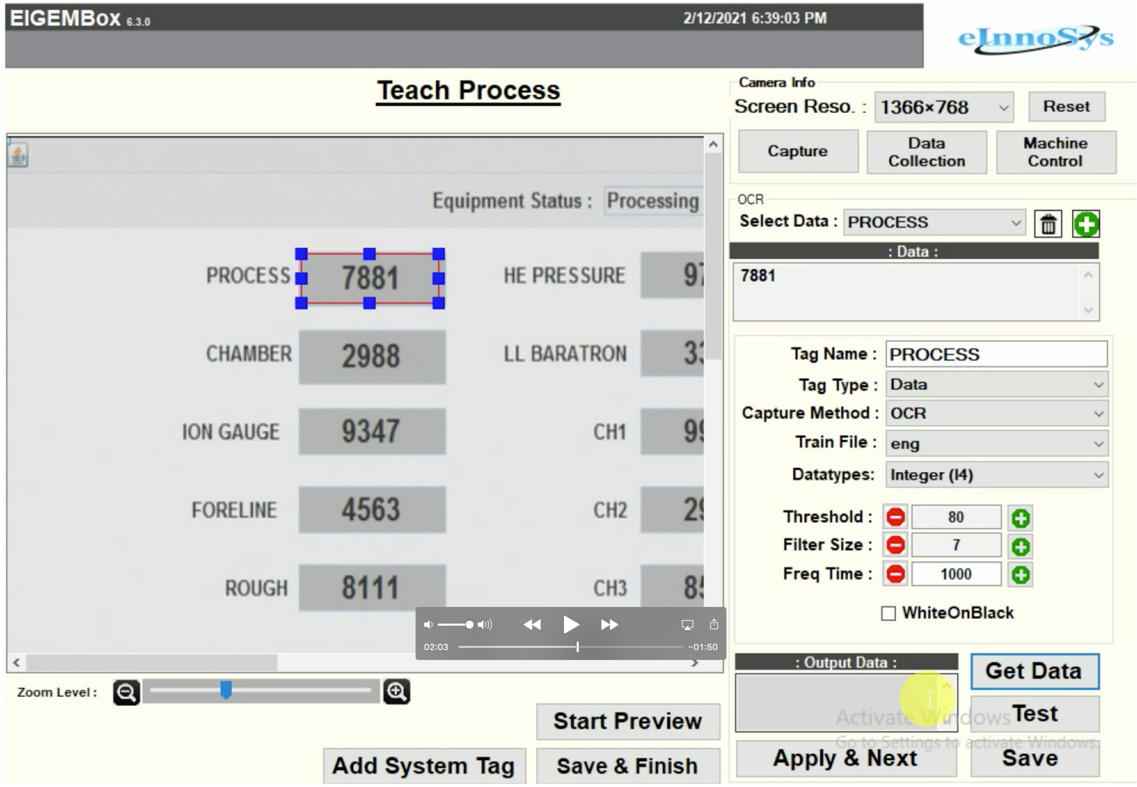
Equipment Status : Processing
Recipe Name : Demo

PROCESS	5980	HE PRESSURE	5780	CH4	3811
CHAMBER	2905	LL BARATRON	327	CH5	2286
ION GAUGE	2779	CH1	2511	CH6	3751
FORELINE	1040	CH2	2345	CH7	8885
ROUGH	2031	CH3	5176	CH8	1410

Alarm

Error Pumping Down

Lot Processing Completed



EIGEMBox 6.3.0 2/12/2021 6:39:03 PM

Teach Process

Equipment Status : Processing

PROCESS	7881	HE PRESSURE
CHAMBER	2988	LL BARATRON
ION GAUGE	9347	CH1
FORELINE	4563	CH2
ROUGH	8111	CH3

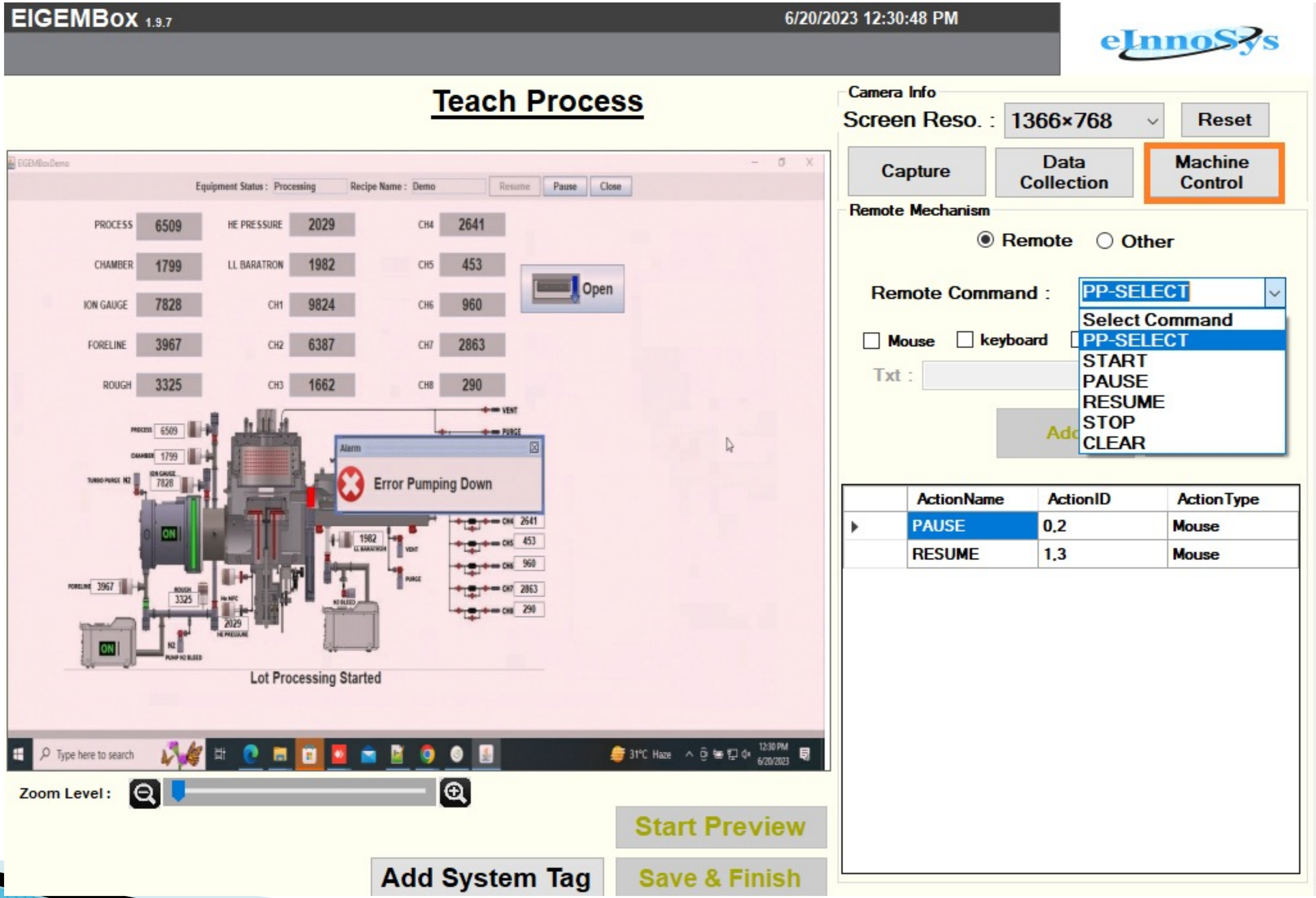
Camera Info
Screen Reso. : 1366×768

OCR
Select Data : PROCESS
: Data : 7881

Tag Name : PROCESS
Tag Type : Data
Capture Method : OCR
Train File : eng
Datatypes: Integer (I4)
Threshold : 80
Filter Size : 7
Freq Time : 1000
☐ WhiteOnBlack

: Output Data :

EIGEMBox – Machine Control



EIGEMBox 1.9.7

6/20/2023 12:30:48 PM

eInnoSys

Teach Process

EIGEMBoxDemo

Equipment Status : Processing

Recipe Name : Demo

PROCESS 6509

CHAMBER 1799

ION GAUGE 7828

FORELINE 3967

ROUGH 3325

HE PRESSURE 2029

LL BARATRON 1982

CH1 9824

CH2 6387

CH3 1662

CH4 2641

CH5 453

CH6 960

CH7 2863

CH8 290

Alarm

Error Pumping Down

Lot Processing Started

Camera Info

Screen Reso. : 1366×768

Remote Mechanism

● Remote ○ Other

Remote Command : PP-SELECT

☐ Mouse ☐ keyboard

Txt :

	ActionName	ActionID	ActionType
▸	PAUSE	0,2	Mouse
	RESUME	1,3	Mouse

Other Features

- Pattern recognition & pattern matching capabilities
- Captures and saves section of screen
  - Wafer map
  - Histogram, other charts/graphs, etc.
- Automate any tasks including PM
- Collect data from external sensors or control systems
- Allow Remote Desktop into equipment PC without network

Partial Equipment List – Fab

KLA Surfscan
Ebara
KLA Therma-wave
Accretech PG300RM
SPTS

Varian 3290
Plasma Therm
Sidea PT-903
TEL Alpha 8 SE
Hitachi M-511AE

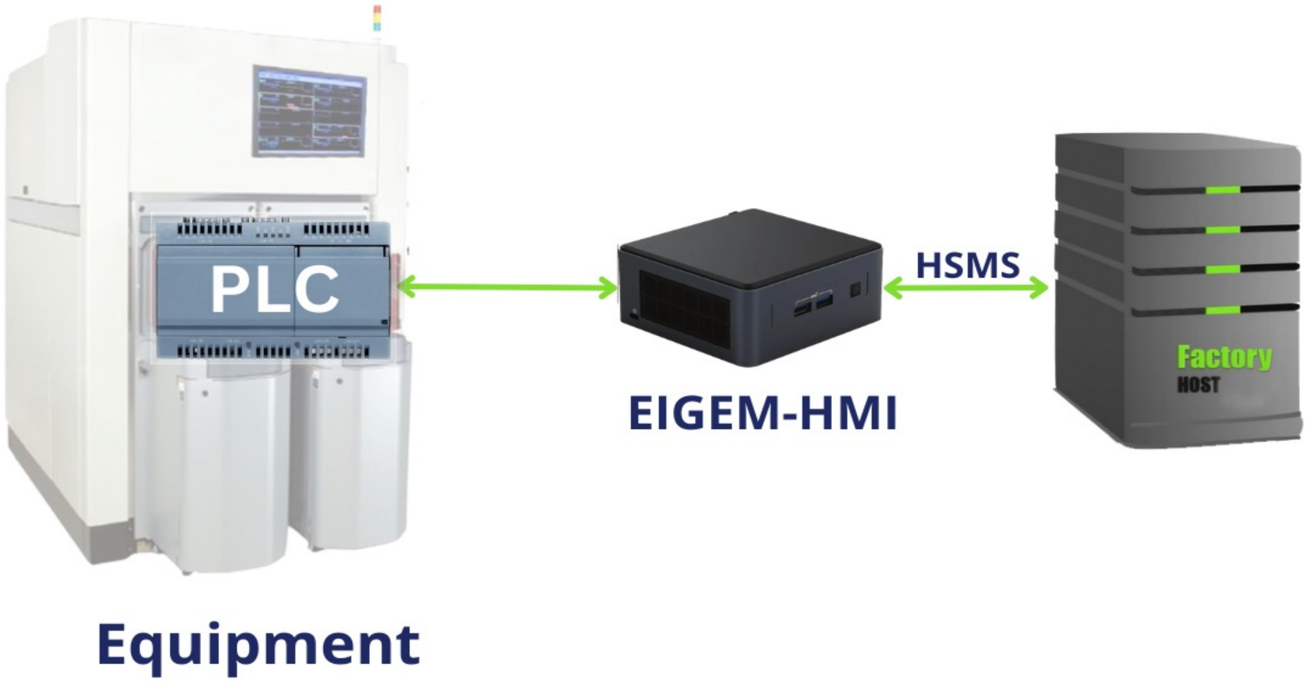
Takatori
MRC Eclipse
CDE Resmap
ASM E2000

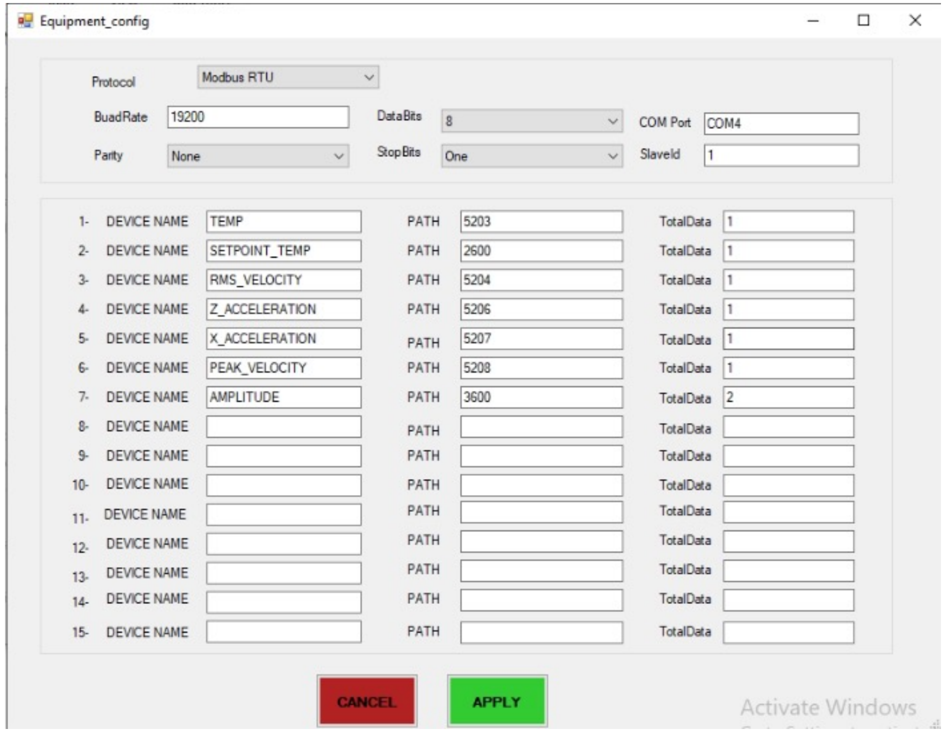
Partial Equipment List – Assembly & Packaging

- Disco 651/641
- Blue M Oven
- Towa Y1
- Asterion
- Budatec
- Orthodyne
- Essentec Fox & Paraguda
- Takatori ATM 8200A
- ASM AD898
- Ismeca SL
- Hexa Max
- Centrotherm CP6202

EIGEM–HMI

- Connects to PLC and converts data to SECS/GEM
- Easy configuration through UI, no coding needed



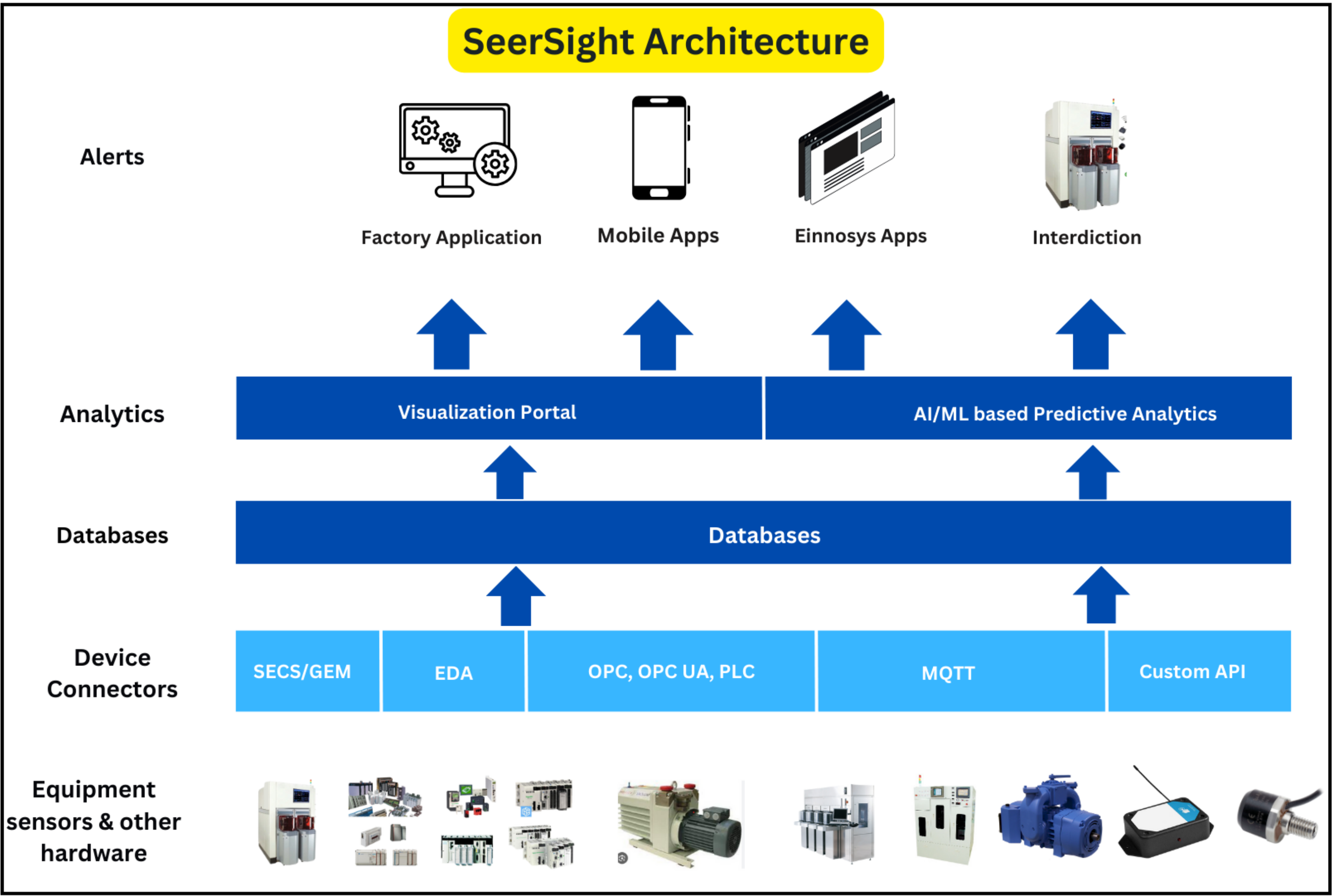


Protocol: Modbus RTU

BuadRate: 19200
DataBits: 8
COM Port: COM4
Parity: None
StopBits: One
SlaveId: 1

1-	DEVICE NAME	TEMP	PATH	5203	TotalData	1
2-	DEVICE NAME	SETPOINT_TEMP	PATH	2600	TotalData	1
3-	DEVICE NAME	RMS_VELOCITY	PATH	5204	TotalData	1
4-	DEVICE NAME	Z_ACCELERATION	PATH	5206	TotalData	1
5-	DEVICE NAME	X_ACCELERATION	PATH	5207	TotalData	1
6-	DEVICE NAME	PEAK_VELOCITY	PATH	5208	TotalData	1
7-	DEVICE NAME	AMPLITUDE	PATH	3600	TotalData	2
8-	DEVICE NAME		PATH		TotalData	
9-	DEVICE NAME		PATH		TotalData	
10-	DEVICE NAME		PATH		TotalData	
11-	DEVICE NAME		PATH		TotalData	
12-	DEVICE NAME		PATH		TotalData	
13-	DEVICE NAME		PATH		TotalData	
14-	DEVICE NAME		PATH		TotalData	
15-	DEVICE NAME		PATH		TotalData	

SeerSight – Smart FDC with AI/ML Based Predictive Analytics



SeerSight Architecture

Alerts

Factory Application

Mobile Apps

Einnosys Apps

Interdiction

Analytics

Visualization Portal

AI/ML based Predictive Analytics

Databases

Databases

Device Connectors

SECS/GEM

EDA

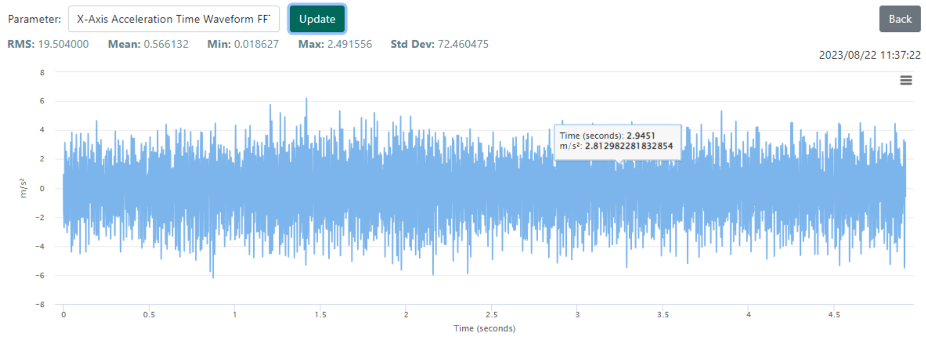
OPC, OPC UA, PLC

MQTT

Custom API

Equipment sensors & other hardware

SeerSight



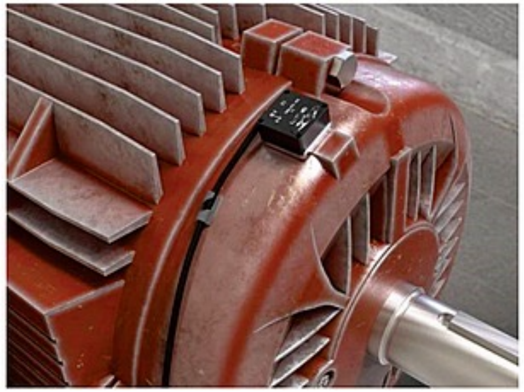
Parameter: X-Axis Acceleration Time Waveform FF

RMS: 19.504000 **Mean:** 0.566132 **Min:** 0.018627 **Max:** 2.491556 **Std Dev:** 72.460475

2023/08/22 11:37:22

xPump – Predictive Maintenance for Pumps/Motors

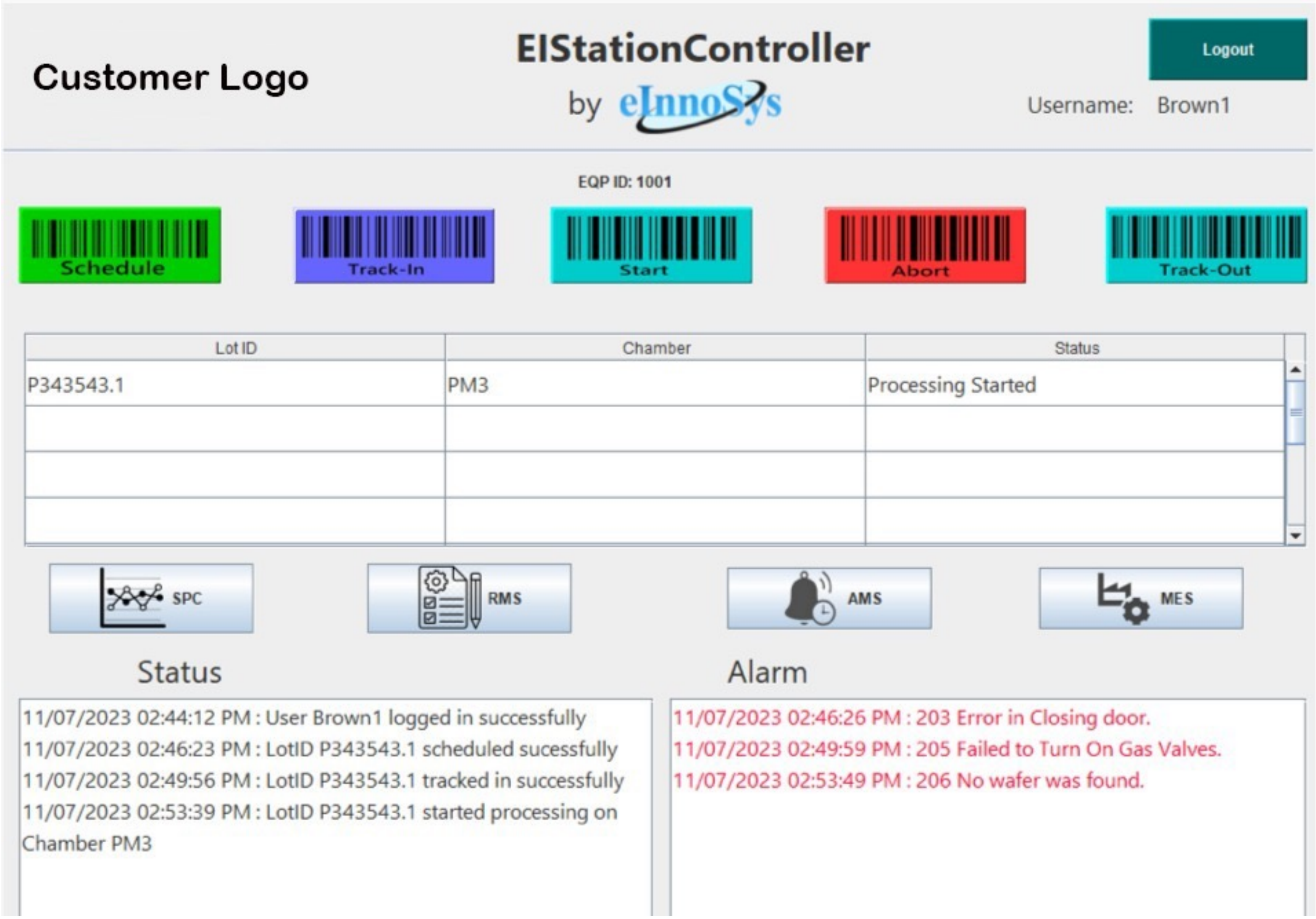
- Predicts failures in pumps, motors, exhausts, ovens & furnaces long before they die
- Comes with proprietary AI/ML analytics software & required sensors
- Continuously monitors health through sensors and alerts when fault is predicted



Notifications:
Email/Text or
SECS/GEM Alarm

EIStationController

- Fully SEMI compliant Equipment Integration application for Fabs & Assemblies



Username: Brown1

EQP ID: 1001

Lot ID	Chamber	Status
P343543.1	PM3	Processing Started

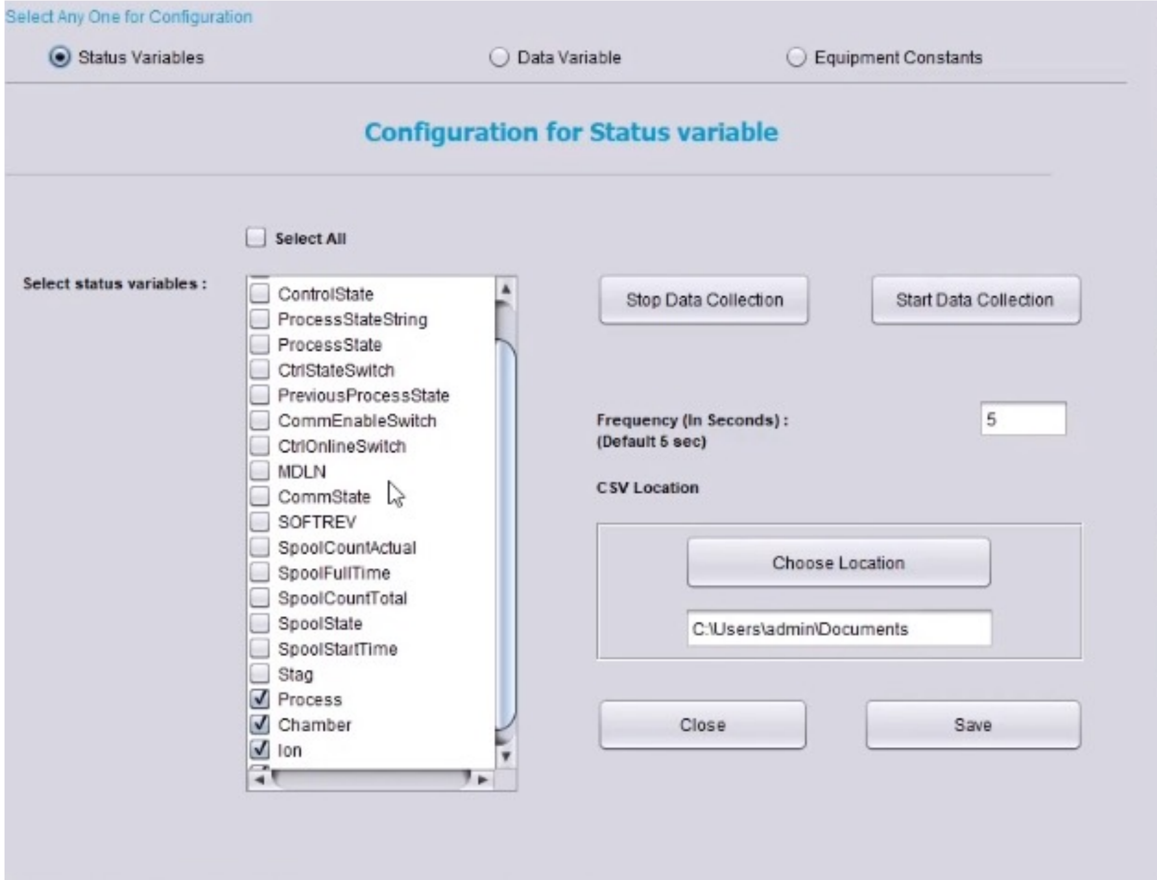
Status

```
11/07/2023 02:44:12 PM : User Brown1 logged in successfully
11/07/2023 02:46:23 PM : LotID P343543.1 scheduled sucessfully
11/07/2023 02:49:56 PM : LotID P343543.1 tracked in successfully
11/07/2023 02:53:39 PM : LotID P343543.1 started processing on
Chamber PM3
```

Alarm

```
11/07/2023 02:46:26 PM : 203 Error in Closing door.
11/07/2023 02:49:59 PM : 205 Failed to Turn On Gas Valves.
11/07/2023 02:53:49 PM : 206 No wafer was found.
```

EIStationController



Select Any One for Configuration

● Status Variables ○ Data Variable ○ Equipment Constants

Configuration for Status variable

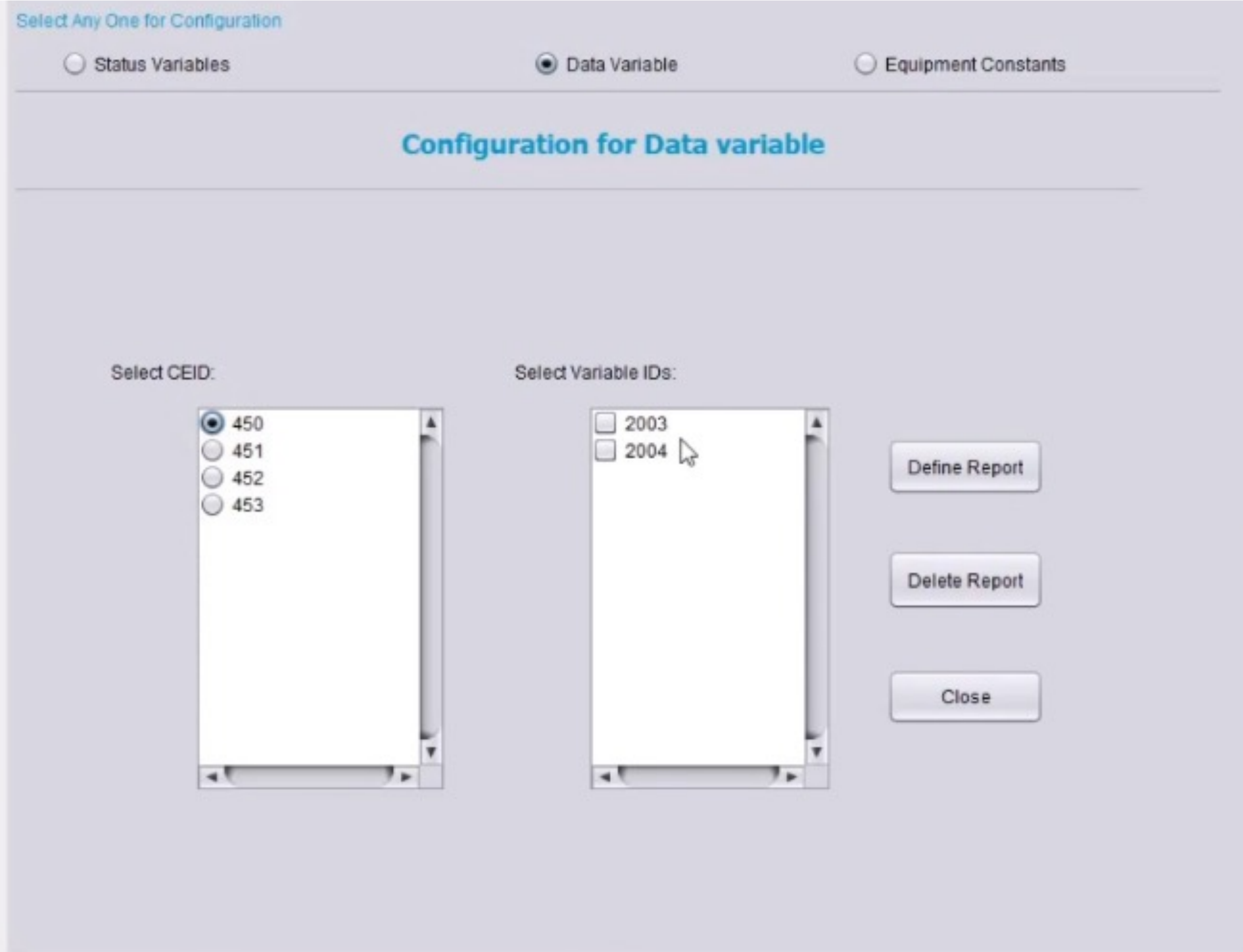
☐ Select All

Select status variables :

☐ ControlState
☐ ProcessStateString
☐ ProcessState
☐ CtrlStateSwitch
☐ PreviousProcessState
☐ CommEnableSwitch
☐ CtrlOnlineSwitch
☐ MDLN
☐ CommState
☐ SOFTREV
☐ SpoolCountActual
☐ SpoolFullTime
☐ SpoolCountTotal
☐ SpoolState
☐ SpoolStartTime
☐ Stag
☑ Process
☑ Chamber
☑ Ion

Frequency (In Seconds) : 5
(Default 5 sec)

CSV Location: C:\Users\admin\Documents



Select Any One for Configuration

○ Status Variables ● Data Variable ○ Equipment Constants

Configuration for Data variable

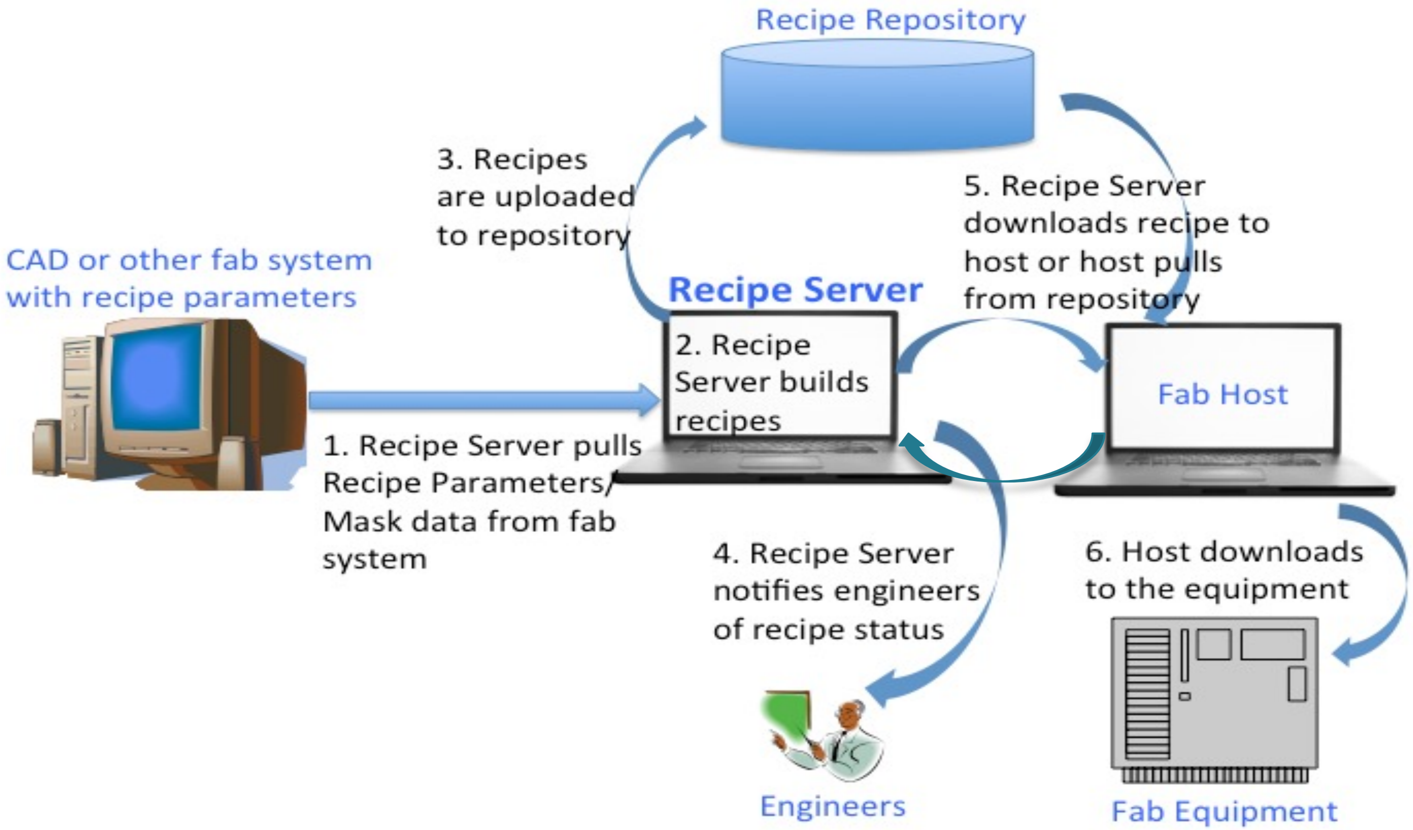
Select CEID:

● 450
○ 451
○ 452
○ 453

Select Variable IDs:

☐ 2003
☐ 2004

EIRMS – Recipe Management System – Workflow



Recipe Repository

CAD or other fab system with recipe parameters

Recipe Server

Fab Host

Engineers

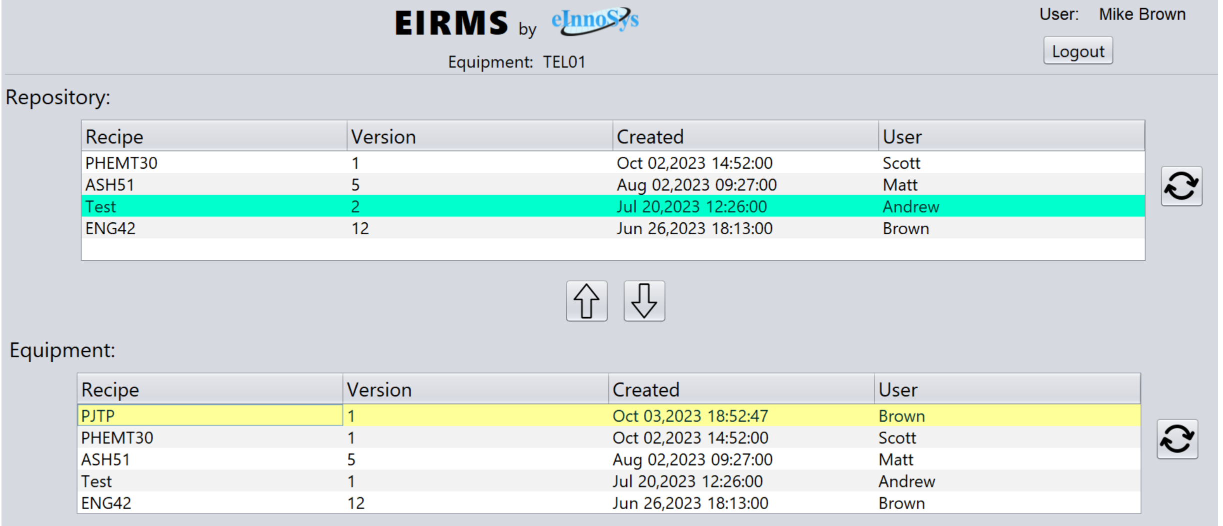
Fab Equipment

1. Recipe Server pulls Recipe Parameters/ Mask data from fab system
2. Recipe Server builds recipes
3. Recipes are uploaded to repository
4. Recipe Server notifies engineers of recipe status
5. Recipe Server downloads recipe to host or host pulls from repository
6. Host downloads to the equipment

Note: Some features require equipment software supporting certain capabilities

EIRMS – Benefits

- Ensures all lots are processed with most up-to-date version of production released recipe
- Saves engineering time in recipe management including copying recipes from one equipment to the others
- Maintains audit trail of all recipes with version control
- Takes periodic backups of recipes



Equipment: TEL01

Repository:

Recipe	Version	Created	User
PHEMT30	1	Oct 02,2023 14:52:00	Scott
ASH51	5	Aug 02,2023 09:27:00	Matt
Test	2	Jul 20,2023 12:26:00	Andrew
ENG42	12	Jun 26,2023 18:13:00	Brown

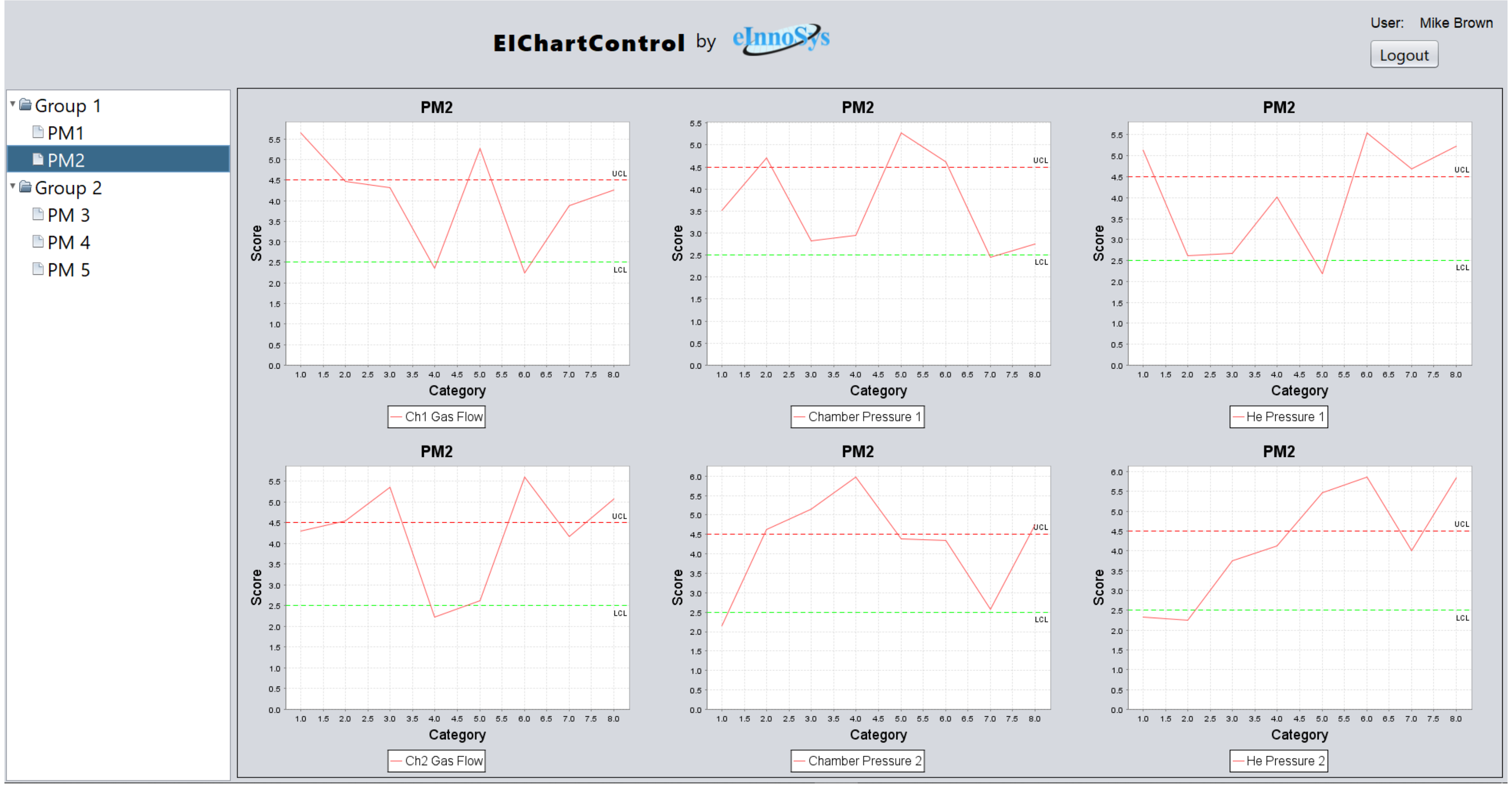
Equipment:

Recipe	Version	Created	User
PJTP	1	Oct 03,2023 18:52:47	Brown
PHEMT30	1	Oct 02,2023 14:52:00	Scott
ASH51	5	Aug 02,2023 09:27:00	Matt
Test	1	Jul 20,2023 12:26:00	Andrew
ENG42	12	Jun 26,2023 18:13:00	Brown

EIChartControl

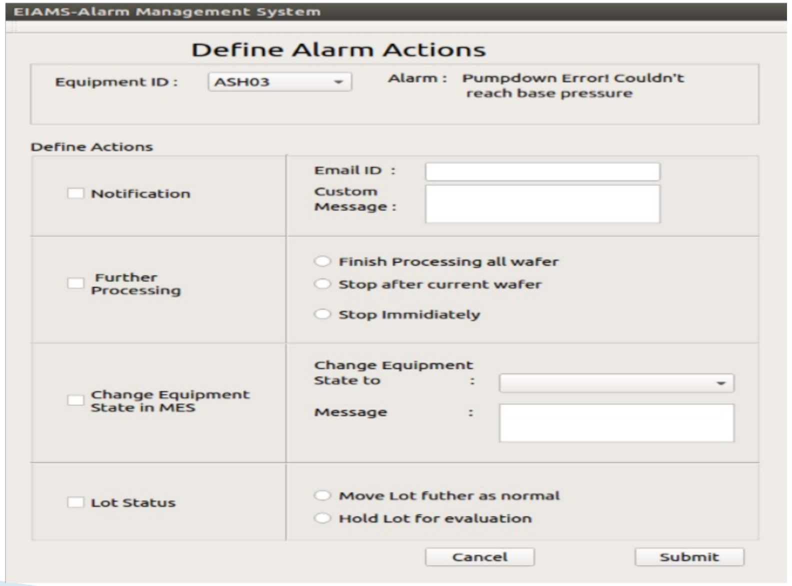
- Data Collection & SPC module that plugs into EIStationController or EIGEMBox seemlessly
  - Allows selection of process parameters to be collected and monitor along with frequency, UCL & LCL
  - SPC capabilities for min, max, avg & 3sigma
  - Presents data in user-friendly graphs
  - Allows user to specify actions to be performed for OOC conditions, such as
    - Stop feeding more wafers into the equipment
    - Abort processing
    - Put equipment down for maintenance in MES
    - Put lot on hold in MES for engineering evaluation

ElChartControl



EIAMS –Alarm Management System

- Implemented successfully at 2 Fabs
- Case Studies:
  - Prevented misprocessing of 160 wafers/qtr
  - Reduced equipment downtime by 10%
  - Improved cycle time by 7%



Define Alarm Actions

Equipment ID : ASH03

Alarm : Pumpdown Error! Couldn't reach base pressure

Define Actions

☐ Notification
Email ID :
Custom Message :

☐ Further Processing
○ Finish Processing all wafer
○ Stop after current wafer
○ Stop Immidiately

☐ Change Equipment State in MES
Change Equipment State to :
Message :

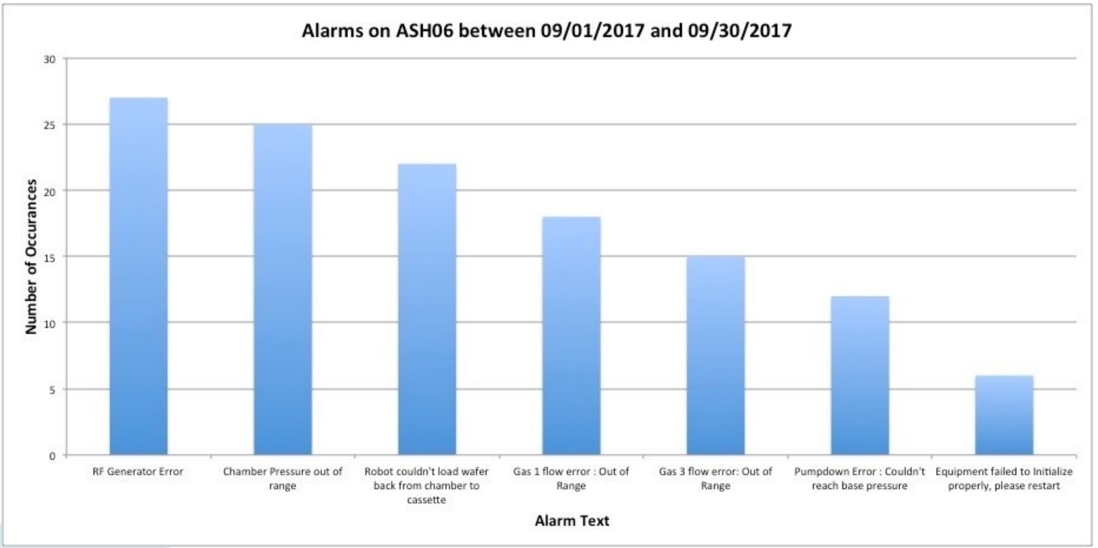
☐ Lot Status
○ Move Lot futher as normal
○ Hold Lot for evaluation

Alarm Management System

- User defines actions that need to be taken automatically as soon an alarm occurs on the tool
- Actions can be any combination of
  - Stop feeding more wafers into the tool
  - Abort immediately (similar to pressing EMO)
  - Notify appropriate people
  - Put equipment in unscheduled maintenance
  - Put wafers on hold for engineering evaluation
- Same system for Fault Detection as well

Alarm Reports

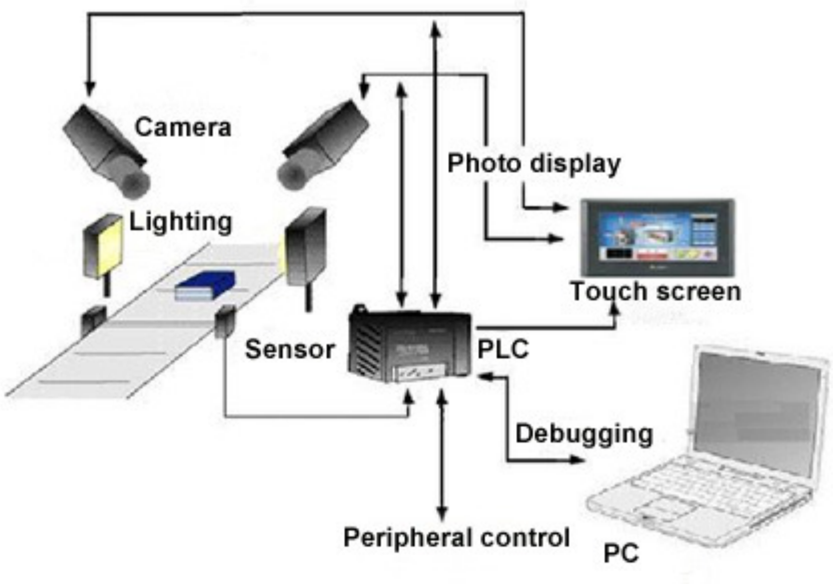
- Various Alarm Reports are provided
  - Alarm Pareto report shows a chart in the order of number of occurrences of alarms
  - Clicking on any bar of the pareto shows details of all occurrences
  - Multiple equipment can be combined for reports

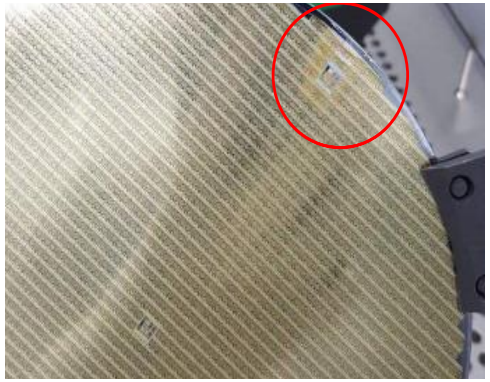


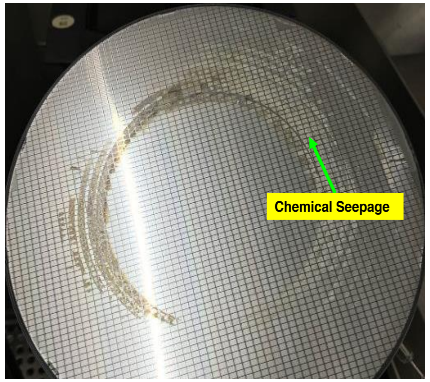
EI-AOI Automated Defect Detection

- Detects surface defects on the wafer while its being unloaded to the cassette

- Comes with required hardware & software





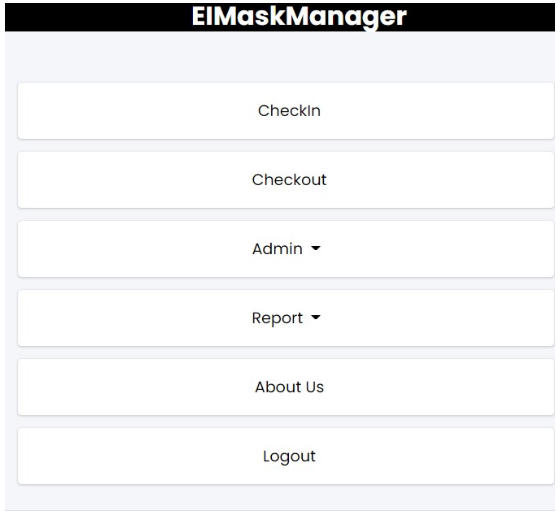


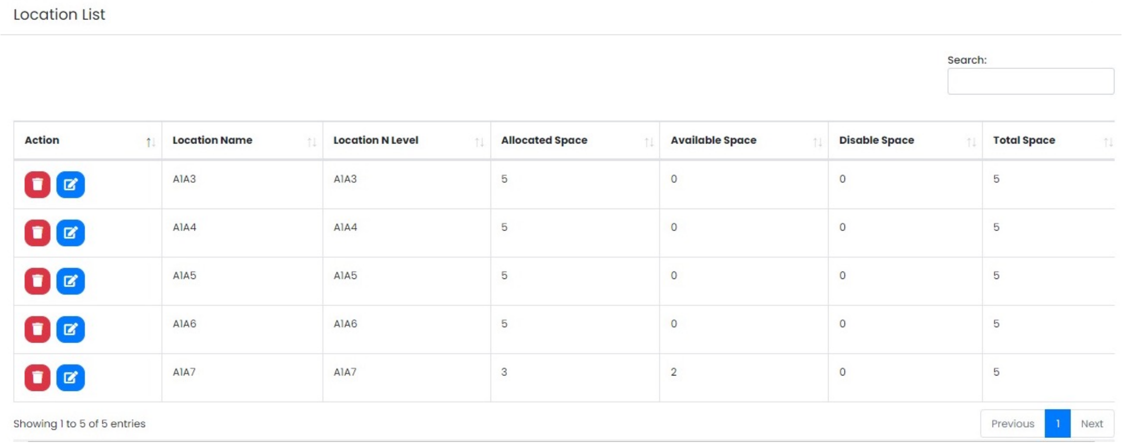
EI-AOI Automated Gauge Reading

- Automated Gauge Reading
  - Sending data via SECS/GEM or OPC
- Read multiple gauges
- Turnkey System
  - Camera, mounting & software provided

EIMaskManager – Reticle Management System

- Helps manage rack and shelf based reticle management
- Check-in & out, search and reporting capabilities
- Comes with required Hardware & software





Location List

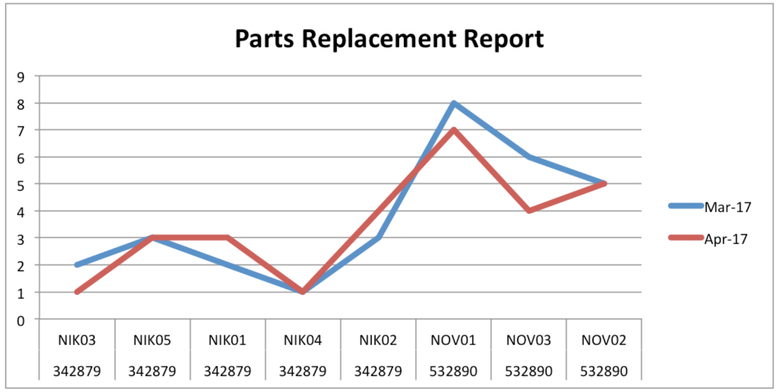
Search:

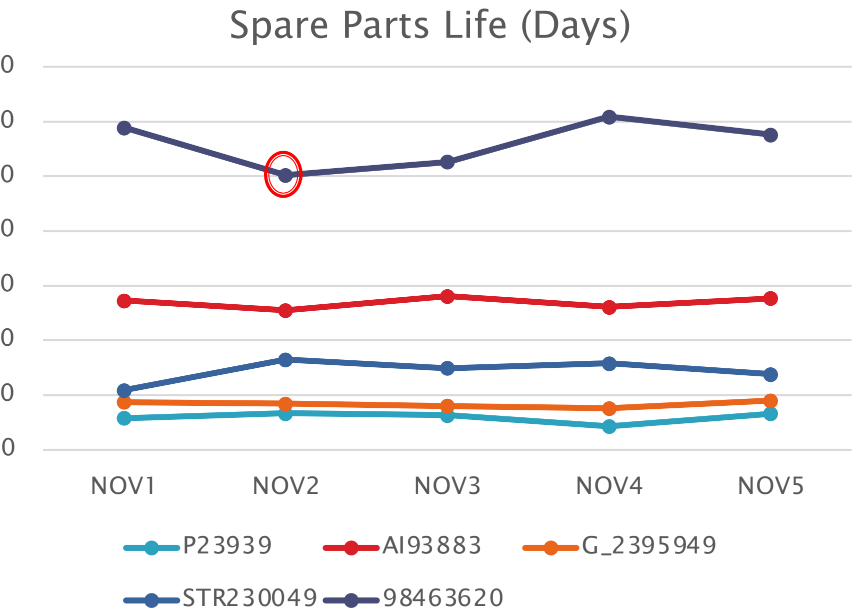
Action	Location Name	Location N Level	Allocated Space	Available Space	Disable Space	Total Space
🗑 ✎	A1A3	A1A3	5	0	0	5
🗑 ✎	A1A4	A1A4	5	0	0	5
🗑 ✎	A1A5	A1A5	5	0	0	5
🗑 ✎	A1A6	A1A6	5	0	0	5
🗑 ✎	A1A7	A1A7	3	2	0	5

Showing 1 to 5 of 5 entries

ElPartsManager

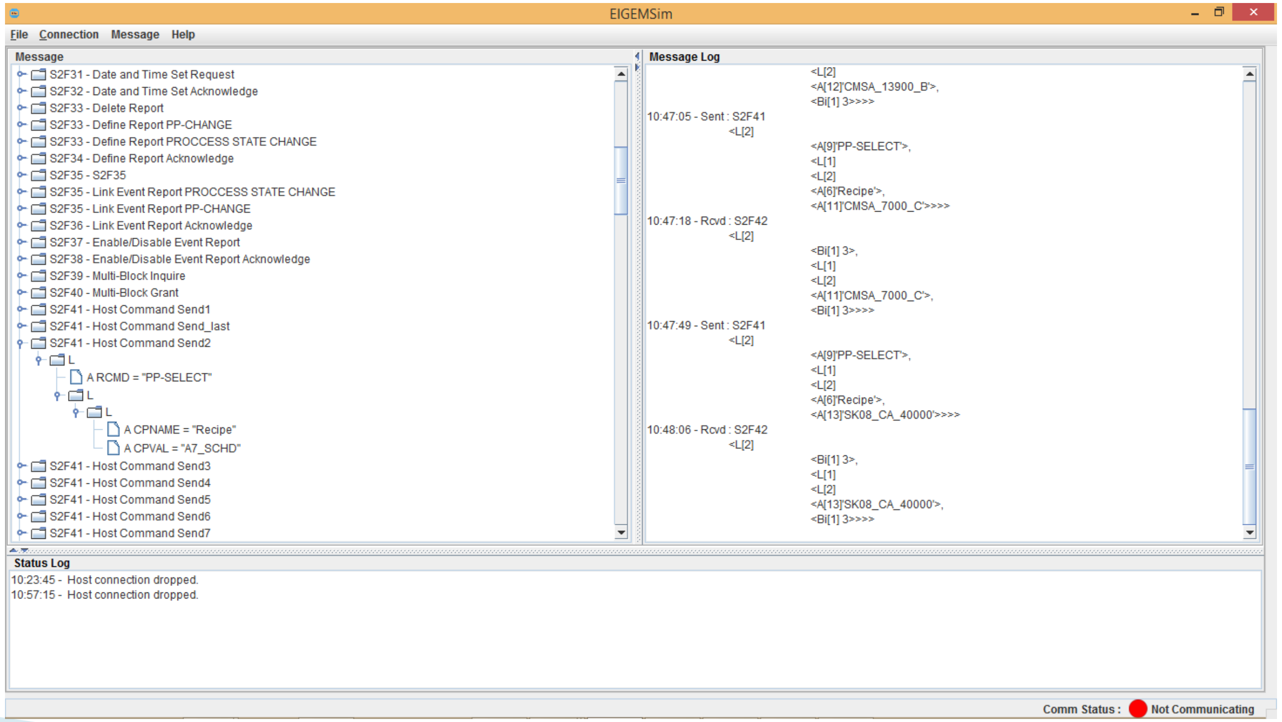
- Tracks life of a spare part on the equipment
  - Compares against historical life of its own and that of others
- Flags for parts that are under warranty
- Alerts for systemic equipment issues
- Calculates and compares equipment maintenance cost
- Tracks parts that are sent for repair or refurbishments





Dev & Compliance Testing – EIGEMSim

- Simulator for factory host or equipment
- Most messages pre-defined
- UI & SML based configuration



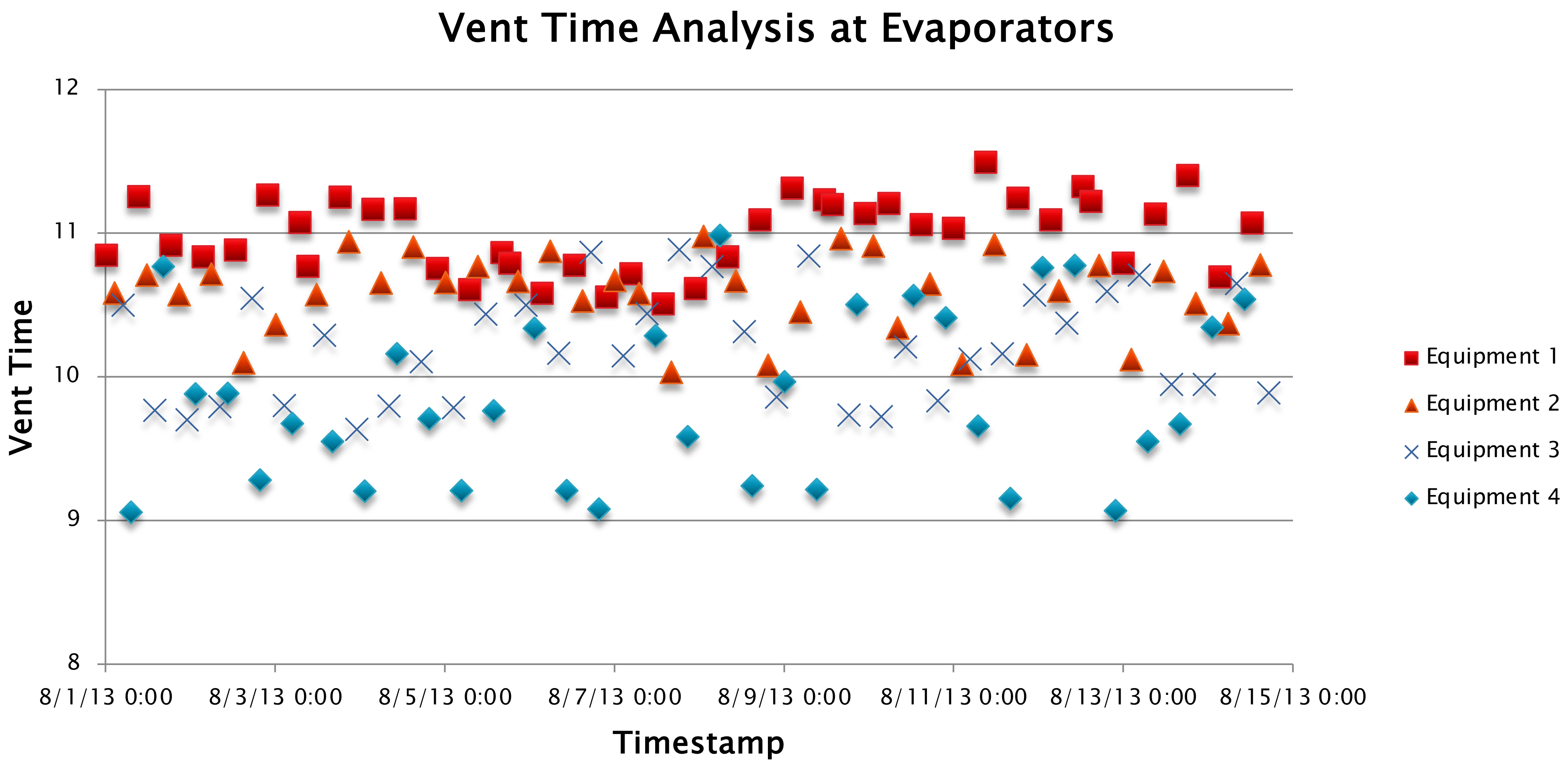
- S2F31 - Date and Time Set Request
- S2F32 - Date and Time Set Acknowledge
- S2F33 - Delete Report
- S2F33 - Define Report PP-CHANGE
- S2F33 - Define Report PROCCESS STATE CHANGE
- S2F34 - Define Report Acknowledge
- S2F35 - S2F35
- S2F35 - Link Event Report PROCCESS STATE CHANGE
- S2F35 - Link Event Report PP-CHANGE
- S2F36 - Link Event Report Acknowledge
- S2F37 - Enable/Disable Event Report
- S2F38 - Enable/Disable Event Report Acknowledge
- S2F39 - Multi-Block Inquire
- S2F40 - Multi-Block Grant
- S2F41 - Host Command Send1
- S2F41 - Host Command Send_last
- S2F41 - Host Command Send2
  - L
    - A RCMD = "PP-SELECT"
    - L
      - L
        - A CPNAME = "Recipe"
        - A CPVAL = "A7_SCHD"
- S2F41 - Host Command Send3
- S2F41 - Host Command Send4
- S2F41 - Host Command Send5
- S2F41 - Host Command Send6
- S2F41 - Host Command Send7

```
                              <L[2]
                              <A[12]'CMSA_13900_B'>,
                              <Bi[1] 3>>>>
10:47:05 - Sent : S2F41
               <L[2]
                              <A[9]'PP-SELECT'>,
                              <L[1]
                              <L[2]
                              <A[6]'Recipe'>,
                              <A[11]'CMSA_7000_C'>>>>
10:47:18 - Rcvd : S2F42
               <L[2]
                              <Bi[1] 3>,
                              <L[1]
                              <L[2]
                              <A[11]'CMSA_7000_C'>,
                              <Bi[1] 3>>>>
10:47:49 - Sent : S2F41
               <L[2]
                              <A[9]'PP-SELECT'>,
                              <L[1]
                              <L[2]
                              <A[6]'Recipe'>,
                              <A[13]'SK08_CA_40000'>>>>
10:48:06 - Rcvd : S2F42
               <L[2]
                              <Bi[1] 3>,
                              <L[1]
                              <L[2]
                              <A[13]'SK08_CA_40000'>,
                              <Bi[1] 3>>>>
```

```
10:23:45 -  Host connection dropped.
10:57:15 -  Host connection dropped.
```

Comm Status : ● Not Communicating

Fault Detection & Classification



Advanced Process Control (APC)

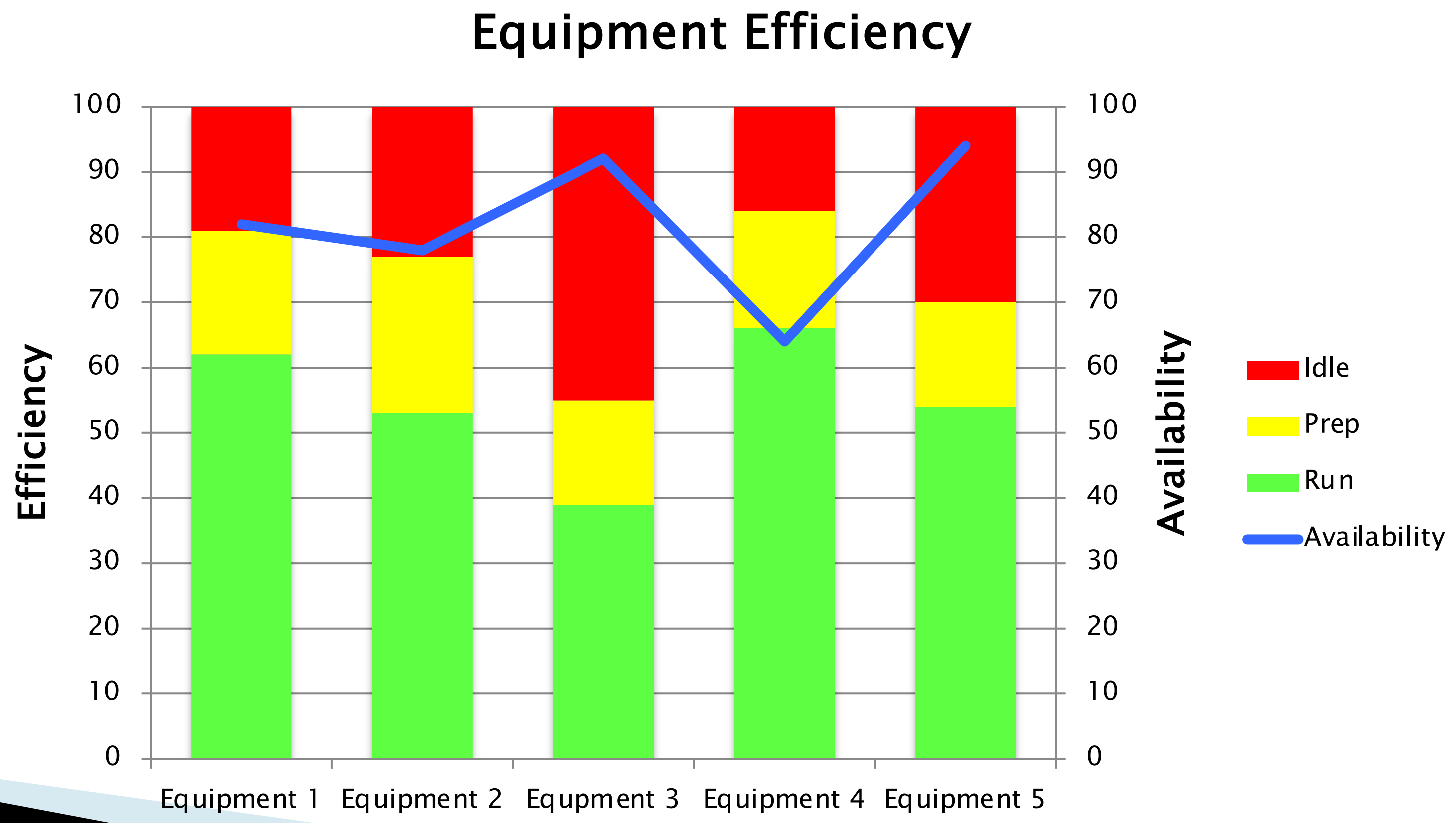
- Run-to-Run (R2R) control and Wafer-to-Wafer (W2W) control
- Feedback System
  - Feeding overlay measurement into steppers
  - Improved cycle time & throughput
  - Better process
- Feeding other metrology results into process steps
  - Grinders
  - Polishers

OEE Improvements

- Monitoring system for bottleneck tools
  - Notifications for idle times
  - Case Study: Increased output by 22%, saved $1.2M upfront and $200K annual cost
- Alarm Management System
  - Taking actions automatically as soon as an alarm occurs
  - Case Study: Cycle time improvement of 7%
- Capability Maximizing System
  - Monitoring for single point of failures and avoiding them
- Bottleneck Reporting

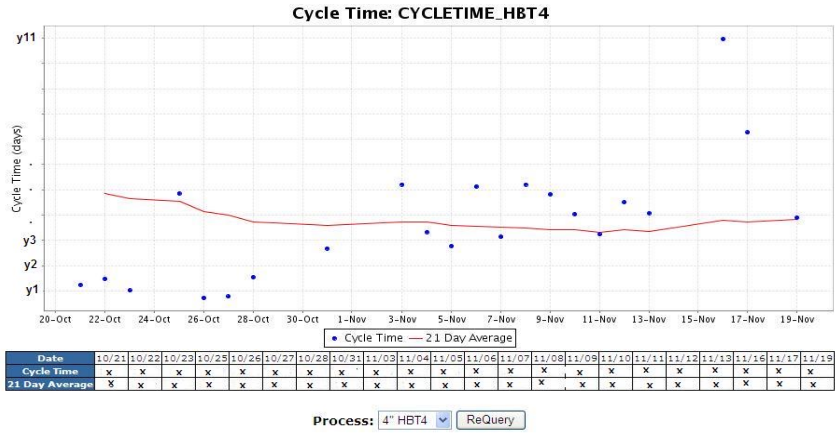
OEE & Cycle Time Improvement

- Result: Increased output by 22%, Saved $1.2M upfront, $200K annually



Cycle Time Management System

- Displays cycle time by device & by no of days finishing on a certain date



Date	10/21	10/22	10/23	10/25	10/26	10/27	10/28	10/31	11/03	11/04	11/05	11/06	11/07	11/08	11/09	11/10	11/11	11/12	11/13	11/16	11/17	11/19
Cycle Time	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
21 Day Average	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Process: 4" HBT4

- Breaks down by hold time, run time and queue time

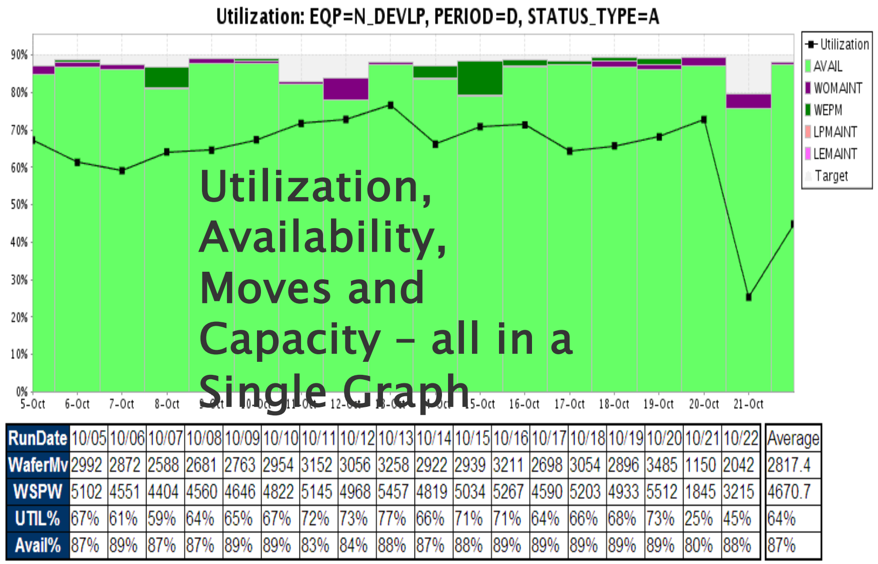
Cycle Time

Start Date: 01/08/2010 End Date: 02/08/2010 Part Type: ALL

Retriving data from 01/08/2010 to 02/08/2010

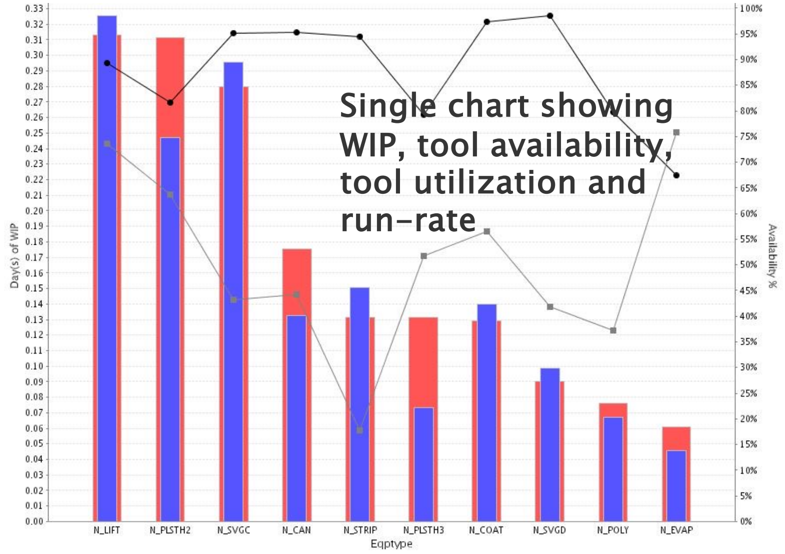
Lot Info			Front End: 24.5				Back End: 5.3				Total: 29.8
Part Name	Lot Family	Qty	Queue Time	Hold Time	Run Time	Total Time	Queue Time	Hold Time	Run Time	Total Time	Combined
xxxxx	3921373	22	17.5	0.5	1.9	19.9	36.4	4.8	1.7	42.9	62.8
xxxxx	3939100	24	6.2	0.0	2.5	8.7	38.5	0.6	2.2	41.3	50.1
xxxxx	3963214	24	5.1	0.0	2.4	7.6	15.3	0.7	2.2	18.1	25.7
xxxxx	3962718	12	7.6	0.1	2.7	10.4	10.4	0.4	0.8	11.7	22.1
xxxxx	3973186	4	7.2	0.0	2.6	9.8	6.1	1.2	1.5	8.8	18.7
xxxxx	3945245	5	15.5	0.0	2.5	18.0	11.6	2.0	1.1	14.7	32.7
xxxxx	3967095	10	8.2	2.1	1.7	12.1	10.4	0.7	1.6	12.7	24.8
xxxxx	3967922	4	10.0	2.4	2.2	14.6	5.4	3.3	1.4	10.1	24.8
xxxxx	3978794	6	6.9	0.0	3.0	9.9	7.3	0.0	1.5	8.8	18.8
xxxxx	3973183	24	6.4	0.0	2.5	9.0	5.2	0.3	2.7	8.1	17.1
xxxxx	3978795	23	7.1	0.0	2.7	9.7	3.0	0.3	2.9	6.2	15.9
xxxxx	3949611	5	0.8	0.0	0.1	1.0	0.7	0.0	0.0	0.7	1.7
xxxxx	3957985	2	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.2	0.3
xxxxx	3965296	5	0.0	0.0	0.1	0.1	0.6	0.0	0.0	0.6	0.8

OEE & Cycle Time Improvement



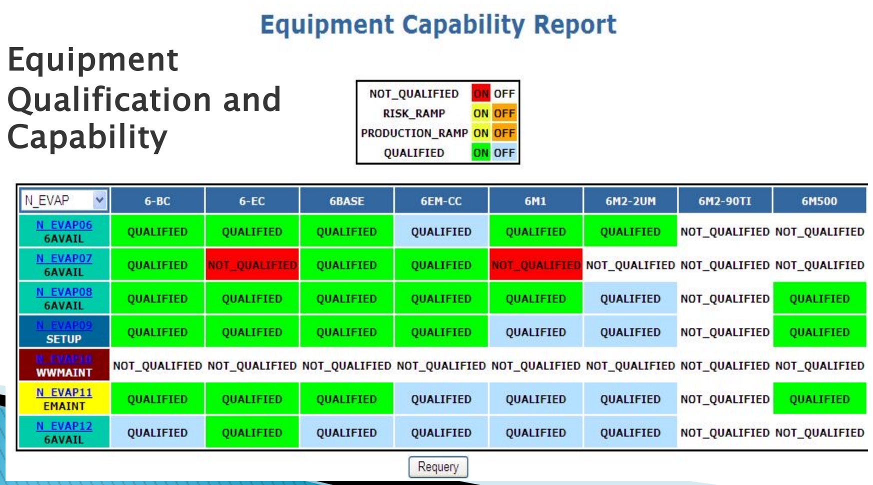
Utilization, Availability, Moves and Capacity – all in a Single Graph

RunDate	10/05	10/06	10/07	10/08	10/09	10/10	10/11	10/12	10/13	10/14	10/15	10/16	10/17	10/18	10/19	10/20	10/21	10/22	Average
WaferMv	2992	2872	2588	2681	2763	2954	3152	3056	3258	2922	2939	3211	2698	3054	2896	3485	1150	2042	2817.4
WSPW	5102	4551	4404	4560	4646	4822	5145	4968	5457	4819	5034	5267	4590	5203	4933	5512	1845	3215	4670.7
UTIL%	67%	61%	59%	64%	65%	67%	72%	73%	77%	66%	71%	71%	64%	66%	68%	73%	25%	45%	64%
Avail%	87%	89%	87%	87%	89%	89%	83%	84%	88%	87%	88%	89%	89%	89%	89%	89%	80%	88%	87%



Single chart showing WIP, tool availability, tool utilization and run-rate

Equipment Qualification and Capability

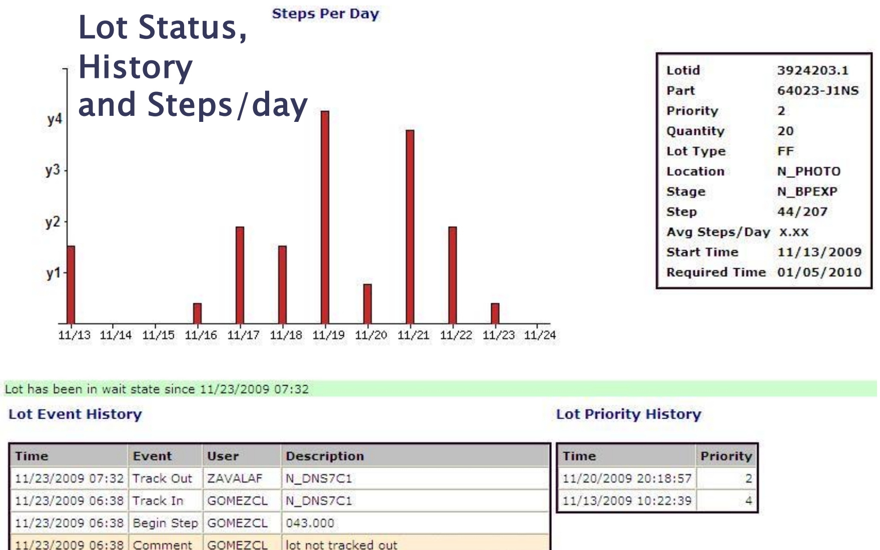


Equipment Capability Report

NOT_QUALIFIED	ON OFF
RISK_RAMP	ON OFF
PRODUCTION_RAMP	ON OFF
QUALIFIED	ON OFF

N_EVAP	6-BC	6-EC	6BASE	6EM-CC	6M1	6M2-2UM	6M2-90TI	6M500
N_EVAP06 6AVAIL	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED
N_EVAP07 6AVAIL	QUALIFIED	NOT_QUALIFIED	QUALIFIED	QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED
N_EVAP08 6AVAIL	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	NOT_QUALIFIED	QUALIFIED
N_EVAP09 SETUP	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	NOT_QUALIFIED	QUALIFIED
N_EVAP10 WWMAINT	NOT_QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED
N_EVAP11 EMAINT	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	NOT_QUALIFIED	QUALIFIED
N_EVAP12 6AVAIL	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	QUALIFIED	NOT_QUALIFIED	NOT_QUALIFIED

Lot Status, History and Steps/day



Lotid	3924203.1
Part	64023-J1NS
Priority	2
Quantity	20
Lot Type	FF
Location	N_PHOTO
Stage	N_BPEXP
Step	44/207
Avg Steps/Day	x.xx
Start Time	11/13/2009
Required Time	01/05/2010

Lot has been in wait state since 11/23/2009 07:32

Lot Event History

Time	Event	User	Description
11/23/2009 07:32	Track Out	ZAVALAF	N_DNS7C1
11/23/2009 06:38	Track In	GOMEZCL	N_DNS7C1
11/23/2009 06:38	Begin Step	GOMEZCL	043.000
11/23/2009 06:38	Comment	GOMEZCL	lot not tracked out

Lot Priority History

Time	Priority
11/20/2009 20:18:57	2
11/13/2009 10:22:39	4

Staff Augmentation

- Team of 50+ Software Professionals of various levels and skills
- Work remotely for cost savings but come and work onsite as much as needed
- Bachelor or Master in Computer Science from reputed universities & undergone extensive training
- Ensure enough business hours overlap with customer time zone
- Experts at
  - SECS/GEM, Factory host, FDC & APC
  - MES – PROMIS, FactoryWorks, Eyelit, FAB300
  - FabGaurd, Sapiance
  - SAP & other ERP integration

MES Services

- Developed custom MES for tracking material (lot/wafer), equipment, process flows and recipes
- Experts at most widely used MES in various fabs for over 20 years
- Expert at integration of MES with ERP and other factory software systems
- Offer MES migration, support, development and integration services

Thank You

Contact Info

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