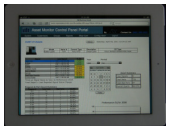
Asset Monitor Powered By LCC,

Distributed By CNC Machinery Solutions



CNC Machine Event and Performance Monitor (Asset Monitor)

CNC Machine Event Email/Text Message System (AM-Email/Texting)

Visit www.MyAssetMonitor.com or contact Sales at 865 816-6345 to Start Your FREE Trial Today!

Making Chips / Making Money

Conventional wisdom in metalworking says that you are making money only when you are making chips. Asset Monitor (AM) gives you detailed real-time and historical knowledge of what is happening on the shop floor. That knowledge – when you are making chips, when you are not and why – gives you the ability to optimize your processes so that you can make more chips and more money.

Better Than The Competition

So you think monitoring just "Program In Cycle" is an accurate measure of machine performance? What if Feed Hold is on, or % Feedrate Override is at 50% or less? These are the areas that separate Asset Monitor from the competition! Our system allows you the flexibility to monitor Feed Hold, % Feedrate Override, Spindle, Axis Motion, Coolant On/Off etc. to get an accurate measure of production. Combine any machine signal to get a true representation of when the machine is "Making Chips".

Tired of scrolling through a lengthy list of report names to get a piece of information? Our intuitive user interface provides a detailed view of shop production quickly and easily. Just one or two clicks of the mouse and you have what you need.

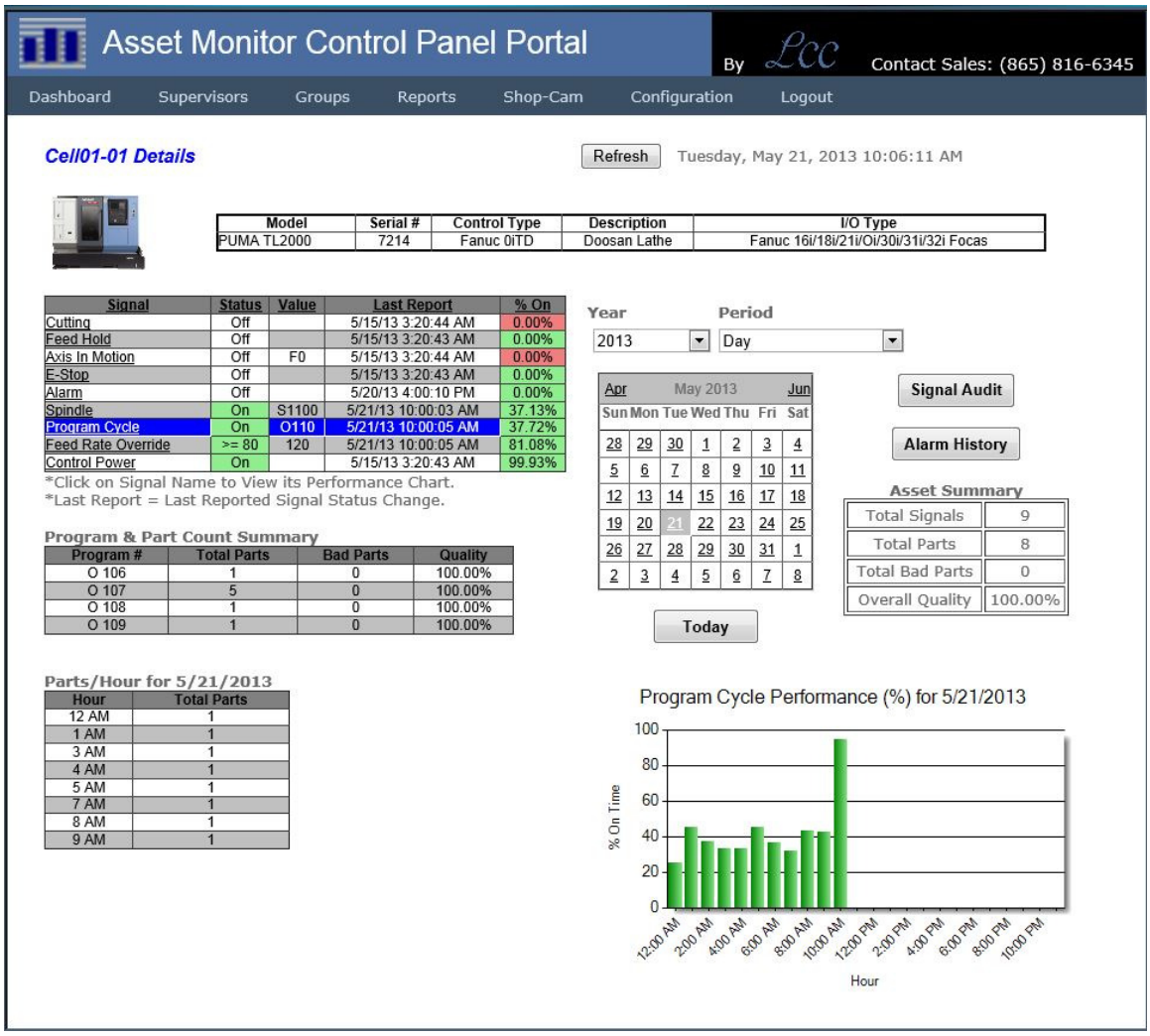
Accurate Data, The Foundation For Success

Charts, graphs and summary reports are, of course an important part of Asset Monitor, but if the data behind these presentations is inaccurate or unreliable then even the most sophisticated presentations are of little value. The accuracy and reliability of data gathered from machine tools varies widely, depending on the equipment and methods of collection used.

LCC's and CNC MS's deep expertise in CNC communications and our ability to integrate physical and logical data access methods assures that the data obtained from your machine tools is accurate and meaningful.

NEW Software as a Service (Cloud Computing) Option

In addition to our traditional In-House offering, we now offer Asset Monitor as a Cloud solution. Software as a Service is a low cost innovative approach to delivering high performance, high availability applications over the internet. It eliminates the IT burden customer have when purchasing traditional "in-house" solutions. SaaS has a very low monthly fee with NO upfront costs or commitments.


Asset Monitor Control Panel Portal
By Lcc
Contact Sales: (865) 816-6345
Dashboard
Supervisors
Groups
Reports
Shop-Cam
Configuration
Logout
Cell01-01 Details
Refresh
Tuesday, May 21, 2013 10:06:11 AM
Model
Serial #
Control Type
Description
I/O Type
PUMA TL2000
7214
Fanuc 0iTD
Doosan Lathe
Fanuc 16i/18i/21i/Oi/30i/31i/32i Focas
Signal
Status
Value
Last Report
% On
Cutting
Off
5/15/13 3:20:44 AM
0.00%
Feed Hold
Off
5/15/13 3:20:43 AM
0.00%
Axis In Motion
Off
F0
5/15/13 3:20:44 AM
0.00%
E-Stop
Off
5/15/13 3:20:43 AM
0.00%
Alarm
Off
5/20/13 4:00:10 PM
0.00%
Spindle
On
S1100
5/21/13 10:00:03 AM
37.13%
Program Cycle
On
O110
5/21/13 10:00:05 AM
37.72%
Feed Rate Override
>= 80
120
5/21/13 10:00:05 AM
81.08%
Control Power
On
5/15/13 3:20:43 AM
99.93%
*Click on Signal Name to View its Performance Chart.
*Last Report = Last Reported Signal Status Change.
Year
Period
2013
Day
Apr
May 2013
Jun
Sun Mon Tue Wed Thu Fri Sat
Signal Audit
Alarm History
Asset Summary
Total Signals 9
Total Parts 8
Total Bad Parts 0
Overall Quality 100.00%
Today
Program & Part Count Summary
Program #
Total Parts
Bad Parts
Quality
O 106 1 0 100.00%
O 107 5 0 100.00%
O 108 1 0 100.00%
O 109 1 0 100.00%
Parts/Hour for 5/21/2013
Hour
Total Parts
12 AM 1
1 AM 1
3 AM 1
4 AM 1
5 AM 1
7 AM 1
8 AM 1
9 AM 1
Program Cycle Performance (%) for 5/21/2013
% On Time
100
80
60
40
20
0
12:00 AM
2:00 AM
4:00 AM
6:00 AM
8:00 AM
10:00 AM
12:00 PM
2:00 PM
4:00 PM
6:00 PM
8:00 PM
10:00 PM
Hour

System Features And Functions

Asset Monitor offers **Real-Time** monitoring, providing production statistics, Overall Equipment Effectiveness (OEE), mobile phone texting, and email notifications on key machine signals and events. The system archives your production data so that you can historically view shop floor performance over a year, month, week, day, or shift period. For Fanuc CNC Controls supporting the FOCAS interface, Asset Monitor keeps track of Good/Bad Parts Count, along with the CNC Program numbers run on each machine. The system is web based, so that any PC, iPad, Smart Phone or Mobile Device with a web browser a user login can access the system and its data.

Configuration tools allow users to setup how they want production data presented to them. Assign specific machines to an Asset Group to get statistics on machine cells and/or departments. Assign Asset Groups to shop personal (like Supervisors or Foreman) who are responsible for specific cells or departments. With these configurations, users can quickly asses performance (OEE) and identify bottlenecks and problems across the entire shop.

Derived Signals

Asset Monitor allows users to combine machines signals to create a higher level derived signal. For example, the derived signal "Cutting Part" can be created to represent the following…

Power On + Cycle On + Spindle On + Feed Hold Off + Axis Motion + % Feed Override >= 80%

When the above is true, the derived signal "Cutting" is considered to be on.

Supported CNC Controls And Signals

Asset Monitor is a flexible system providing Ethernet connectivity to ALL equipment. A direct Ethernet connection can be made to CNC Controls supporting the following interfaces.

- **MTConnect** (Mazak, Fanuc, Haas, Okuma, and growing…)
- **Fanuc FOCAS** (Most I series Controls)

For all other Control types, Asset Monitor supports a **NON-proprietary** Ethernet I/O Module which allows us to tie discrete machine signals to the I/O Module. Any 24 VDC or 120 VAC CNC Control signal, lamp, switch, relay, etc can be wired to the module for monitoring by the system. For **MTConnect** and **Fanuc FOCAS** interface types, below is listed some of the signals that can be monitored.

- Control Power On/Off
- Spindle On/Off
- Program Cycle On/Off
- Feed Hold On/Off
- % Feed Override
- % Spindle Override
- Axis In Motion
- E-Stop
- CNC Alarm
- Coolant On/Off
- Feed Rate (F)
- Spindle Speed (S)
- Program # (O)

For **Fanuc FOCAS**, PMC bit or binary data can also be monitored. The system allows users to configure what PMC address and bit(s) to monitor, and what the signal represents.

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Charts And Reports To Fit Your Needs

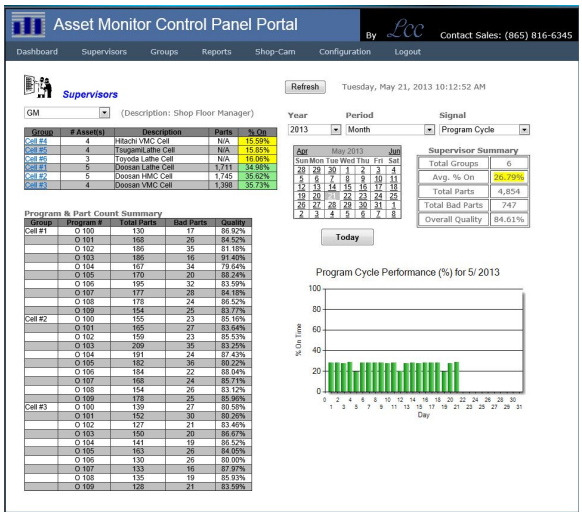
Once you have configured the system to monitor the machine signals that are important to your operations, Asset Monitor provides an easy to use, intuitive web based utilization and performance viewer.

Part Count Supported

Get an accurate count on the number of Good and Bad Parts produced in your facility. Asset Monitor keeps track of the number of Parts machined, if they are good or bad, and the CNC Program used to machine them. Based on this data, Asset Monitor calculates OEE Quality metric over a year, month, week, day or shift.

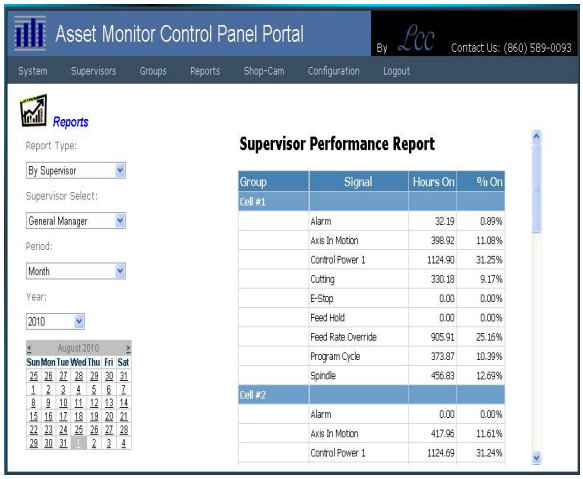
Text Message And E-Mail Notifications

Configure your system to send Text Messages and/or E-Mail Notifications when a specific Machine Event occurs (ie: alarmed or out of cycle for a period.)



View a snapshot of the entire shop floor, or drill-down to specific departments, cells or machines you have defined. View % utilization in real-time, or select a specific time period (year, month, week, day or shift) to analyze production. Identify trends, bottlenecks and potential problems using the performance chart.

View OEE Quality metrics for the Parts machined in your shop. Get total on the Good/Bad parts made over any time period, for any machine, cell, department or supervisor.



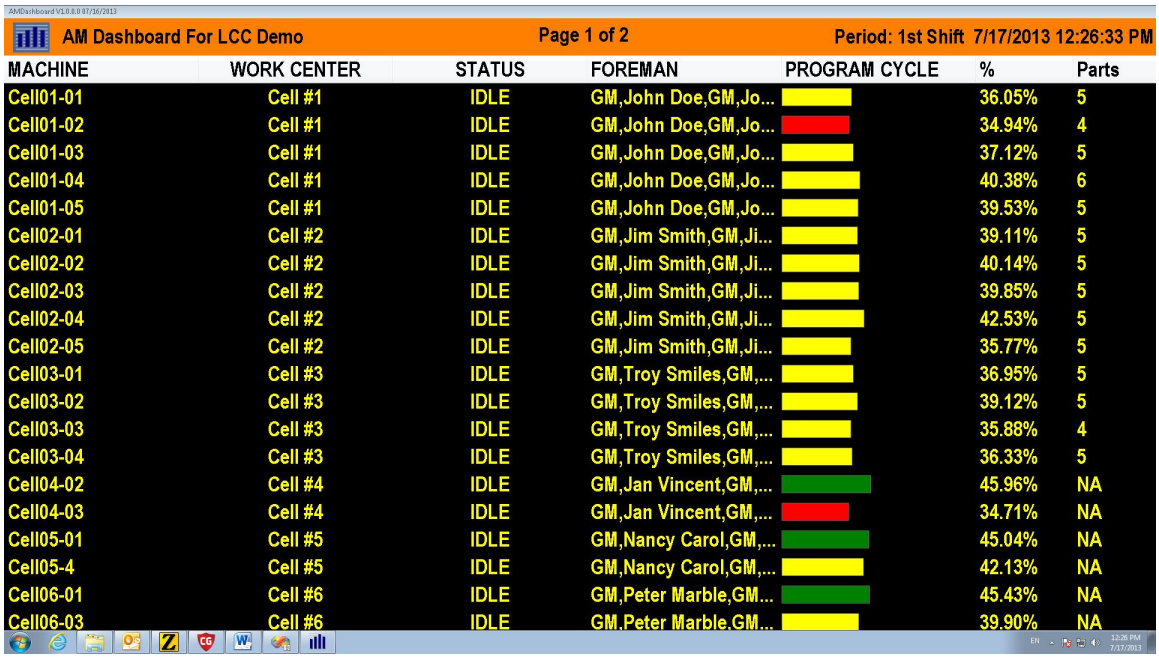
Generate detailed utilization and performance reports with our performance report generator. td>

Shop-Cam Support

Asset Monitor's web based UI allows you to tie in your local and global facilities web camera system for quick easy access to your video feeds. The system allows you to tie in as many webcams as you want, and name each.

Dashboard Display for the Shop Floor and Office

AMDashboard is a Windows™ application used to provide users a quick view of shop floor production by displaying Asset Status, Performance and Part Count in a priority driven real-time list. AMDashboard can be configured by the user to define how the display looks, and what signal status and performance information will be displayed.



AM Dashboard For LCC Demo — Page 1 of 2 — Period: 1st Shift 7/17/2013 12:26:33 PM

MACHINE	WORK CENTER	STATUS	FOREMAN	PROGRAM CYCLE	%	Parts
Cell01-01	Cell #1	IDLE	GM,John Doe,GM,Jo...		36.05%	5
Cell01-02	Cell #1	IDLE	GM,John Doe,GM,Jo...		34.94%	4
Cell01-03	Cell #1	IDLE	GM,John Doe,GM,Jo...		37.12%	5
Cell01-04	Cell #1	IDLE	GM,John Doe,GM,Jo...		40.38%	6
Cell01-05	Cell #1	IDLE	GM,John Doe,GM,Jo...		39.53%	5
Cell02-01	Cell #2	IDLE	GM,Jim Smith,GM,Ji...		39.11%	5
Cell02-02	Cell #2	IDLE	GM,Jim Smith,GM,Ji...		40.14%	5
Cell02-03	Cell #2	IDLE	GM,Jim Smith,GM,Ji...		39.85%	5
Cell02-04	Cell #2	IDLE	GM,Jim Smith,GM,Ji...		42.53%	5
Cell02-05	Cell #2	IDLE	GM,Jim Smith,GM,Ji...		35.77%	5
Cell03-01	Cell #3	IDLE	GM,Troy Smiles,GM,...		36.95%	5
Cell03-02	Cell #3	IDLE	GM,Troy Smiles,GM,...		39.12%	5
Cell03-03	Cell #3	IDLE	GM,Troy Smiles,GM,...		35.88%	4
Cell03-04	Cell #3	IDLE	GM,Troy Smiles,GM,...		36.33%	5
Cell04-02	Cell #4	IDLE	GM,Jan Vincent,GM,...		45.96%	NA
Cell04-03	Cell #4	IDLE	GM,Jan Vincent,GM,...		34.71%	NA
Cell05-01	Cell #5	IDLE	GM,Nancy Carol,GM,...		45.04%	NA
Cell05-4	Cell #5	IDLE	GM,Nancy Carol,GM,...		42.13%	NA
Cell06-01	Cell #6	IDLE	GM,Peter Marble,GM...		45.43%	NA
Cell06-03	Cell #6	IDLE	GM,Peter Marble,GM...		39.90%	NA

This application is designed as an add-on utility for the Asset Monitor System. It can be deployed on large flat panel monitors out on the shop floor or on an office PC to help foreman and supervisors quickly identify Maintenance issues, Machine Faults, Downtime, Out Of Stock and Performance issues.

Cost Effective And Scalable

Asset Monitor is designed to fit a wide variety of implementations. From small shop environments supporting several machines, to enterprise wide multi facility solutions, Asset Monitor can easily be scaled to fit your needs.

We now offer Asset Monitor as a **Software as a Service (Cloud Computing)** product. Advantages include:

- Access your data from anywhere in the world.
- Use your iPad, Smartphone or Mobile Device to access your data.
- Minimum upfront startup investment.
- Get up and running in a day.
- NO in-house IT support required on Database & Web Server hardware/software
- Get free upgrades as they become available!

Or choose our "***in-House***" solution where were we install our database and web application on your servers. Advantages to our In-House solution are:

- One time up front cost
- Run your own custom reports against the database
- Bring production data up to your ERP system