

CASE STUDY SCYTEC

The Need for Data-Driven Operations

You don't know what to do or how to do it. You just know you need to do something, because you're not as efficient as you could be. You have no real insight into:

- What's causing downtime
- Which operators need more training
- Who are the most productive operators and why
- How much time you lose during changeovers
- When machines are inactive and why
- What's the best time to schedule maintenance

This is the situation facing metalworking manufacturers across the nation. Overall equipment effectiveness (OEE) software addresses this issue by monitoring and analyzing CNC machining and related manufacturing operations. However, implementation time can be long and arduous.

Using Mitsubishi Electric Automation's IMA Adapter[®], SCYTEC can set up their DataXchange OEE software to pull data from Mitsubishi Electric CNC machines within 10-15 minutes – with no machine downtime. The IMA Adapter fast tracks implementation of OEE software by simplifying CNC interfacing.

The name of the game today is continuous process improvement

CNC machines can have a long life. Many are 20 or more years old. "They may have delivered competitive advantage



The IMA Adapter, combined with SCYTEC DataXchange software provides a lot of value and accelerates the journey to Smart Manufacturing

when they were first installed, but that's no longer the case," according to Josh Davids, CEO and President of SCYTEC. "Most shops can create a good part. That's table stakes today. Successful shops are the ones that are digitizing and using data to manage their machines. There are so many gains to be made."

Being competitive today is all about process improvements – using data to continuously:

- Improve cycle times
- Increase production throughput and
- Shave time wherever possible

Prior to working with Mitsubishi Electric Automation, SCYTEC customers had two options to get data from their Mitsubishi Electric CNC:

1. A hardware-based approach
2. A custom software approach

In the first option, setup was time and resource intensive. The customer had to purchase the hardware and take the machine down for half a day to install it. This typically involved the customer's maintenance team or one of SCYTEC's technicians flying out to their site and wiring into the machine. The approach resulted in a long implementation, a limited data set and additional failure points.

The second option, the custom software approach, was costly and time consuming, with an even longer implementation time – albeit a better data set.

Fast-tracking implementation

When the Integrated Machine Analytics (IMA) Adapter was introduced by Mitsubishi Electric Automation in 2018, things definitely changed for the better. The adapter is a



SCYTEC and Mitsubishi Electric Automation utilize the universal connectivity enabled by MTConnect to fast track access to more and better data

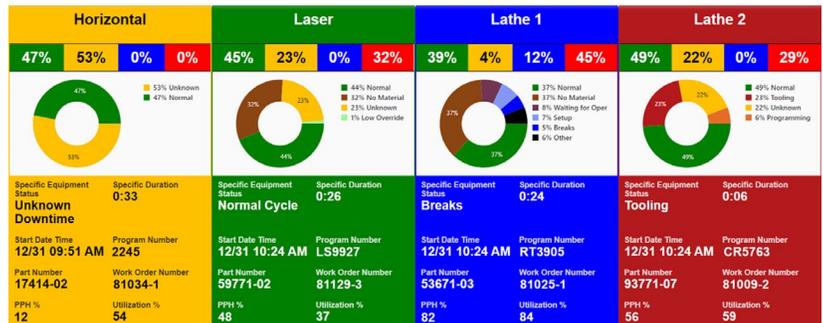
read-only software package that captures data and sends it to OEE monitoring software like SCYTEC's. In most cases, SCYTEC can install their software remotely and start pulling data from the machine in minutes – with no machine downtime.

Mitsubishi Electric's IMA adapters are compliant with the latest version of the MTConnect standard, which enables universal connectivity for CNC machines and other electrical equipment from different manufacturers. Josh says, "It's a quick, painless solution and our customers don't just benefit from faster implementation, they get more and better data."

With the IMA Adapter, SCYTEC customers can access more data points for more effective monitoring. More and better data enhances the ability to:

- Remotely monitor, manage and analyze production data in real time
- Identify problems or inefficiencies in the production line
- Take quick action to remedy the situation

Real-time equipment status is a key capability for improving OEE and realizing a quick return on investment (ROI)



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Manufacturers who deploy this solution can increase shop floor utilization by 10-30%, thanks to the quality of the data and the reliable performance of the adapter.

Remote visibility into what’s happening in the shop has been extremely important during the pandemic, according to Josh. “Prior to COVID-19, many companies were on the fence. Not any more. The pandemic has actually accelerated digital transformation, which is all about data.”

Josh believes the relationship with Mitsubishi Electric Automation is a really good fit, because both companies understand the importance of data and the incredible value it brings to customers. “A lot of machine tool distributors and control builders are difficult to work with. They simply want to sell machines and controls, so they view us as a nuisance. Mitsubishi Electric Automation understands the importance of data and why manufacturers want it.”

Josh says, “Others support data just to say they have it. Mitsubishi Electric Automation understands the vision and believes as we do, that this is where the industry should go. Our company is focused on meeting the needs of 21st Century manufacturing. As the industry rapidly evolves, we know we have a great partner that’s easy to work with, helps us address challenges and takes advantage of opportunities.”



Learn more
about SCYTEC
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AUTOMATION SOLUTION INGREDIENTS

- **Integrated Machine Analytics (IMA) Adapter[®]**
- **Mitsubishi Electric CNC Products**

NEXT STEPS

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