SCYTEC

DATA XCHANGE

Case Study

Utilization Increase with Machine Monitoring

TECH MANUFACTURING

powered by ADDMAN®

Client: Tech Manufacturing
Industry: Aerospace
Specific Products: F-15 Components

Interviewee: Jerry Halley C/E
Equipment: New and Legacy CNC Equipment
Connection Method: Fanuc FOCAS & Hardware

A solution was needed for Tech Manufacturing's business problems. Those solutions were provided by DataXchange

About Tech Manufacturing

Tech Manufacturing (now part of ADDMAN) produces complex, tight tolerance parts, of medium to large size for the aerospace industry. Tech's material scope is vast and their work is highly regarded for airframe applications. Tech Manufacturing was formerly owned by Chief Engineer Jerry Halley and other colleagues utilizing a background in high-speed machining for the creation of aerospace structures like Bulkheads using 5-Axis machines with hard and soft metals. Tech Manufacturing has been a Scytec DataXchange customer since October 2012 and currently utilizes Scytec's machine monitoring platform in fourteen different machines across two different license levels.

What Were the Problems?

Tech Manufacturing is a 40 thousand square foot facility in Wright City, Missouri that specializes in low volume high mix parts. This includes a range of platforms including the F-15 and includes some parts that take over 100 man hours to machine. Tech Manufacturing is a twenty-four hours a day, seven days a week operation utilizing limited automation. **Their target is to be running sixty five percent or more of the time In Cycle.**

What Were the Requirements?

In 2012, Tech Manufacturing was reconfiguring their shop floor with LEAN methodology and wanted to implement a simple machine monitoring solution that they would be able to grow into. Shop floor insight was also needed regarding metal removal rates, feed rates, and changeovers for parts and personnel.

Success Summary

- Fifteen Percent Increase in Utilization
- Won New Business with DataXchange
- Full Data Visibility and Accuracy
- Improved Maintenance and Scheduling
- Decrease in Downtime



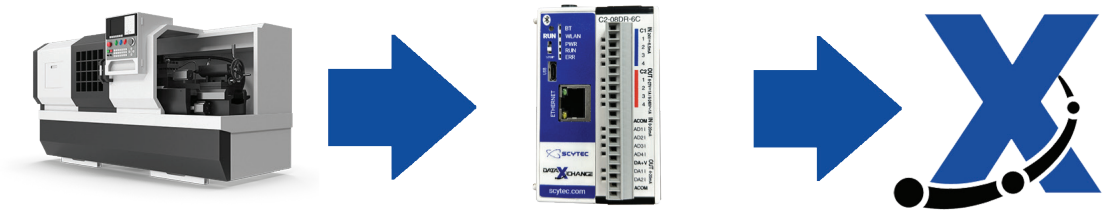
Tech Manufacturing produces exceptional parts for a range of platforms including the F-15

Business Requirements

- Ability to Connect to All Types of Equipment
- Affordability
- Insight into Daily Operations
- Simple Monitoring Solution

What Was the Solution?

Tech Manufacturing was looking for a viable option and had researched some well known machine monitoring platforms. However, high start-up costs and computational infrastructure needs pushed Tech Manufacturing to investigate other alternatives. Tech Manufacturing was referred to Scytec DataXchange through Shop Floor Automations, an official DataXchange reseller. The low start-up cost and the ability to easily pull data through common protocols over Ethernet with a mixture of legacy and modern equipment **made DataXchange the obvious choice**.



Scytec DataXchange SRC can collect data from legacy equipment

The Outcome

The Scytec DataXchange ROI was very short with Tech Manufacturing. Chief Engineer Jerry Halley describes the increase in utilization as **"an easy 15 percent or more improvement"**. As the years went on and more Scytec DataXchange updates were released, Tech Manufacturing found themselves utilizing more of the offered new features to a higher degree of production success. The DataXchange Real Time Viewer (RTV) and Operator Data Interface (ODI) were not features when Tech Manufacturing first started out with DataXchange, but found their inclusion down the line to be especially useful for sharing data amongst shop floor personnel like specific machine downtime and encouraging awareness and teamwork. DataXchange helped Tech Manufacturing point out the first steps in improvement such as eliminating loss and reducing non-value added time. When asked why Scytec DataXchange has been such a mainstay at Tech Manufacturing Jerry Halley offered his insight…

15%
Utilization

"What has kept me here is, Scytec innovates, they have good customer support"



The Scytec Operator Data Interface (ODI)

The Outcome Builds New Business

The Scytec DataXchange machine monitoring platform has also helped Tech Manufacturing gain new business. For example, the DataXchange ODI has functioned as an auditing measurement for customers so they can have some transparency when they inquire about specific operations. The 15 percent increase in utilization equals an increase in parts produced which in turn has lowered the cost per part making Tech Manufacturing more competitive. The 15 percent increase in utilization has also saved Tech Manufacturing money and helped them make deadlines a little easier. In Jerry's own words...

Capital Saved ↑
Cost Per Part ↓
Part Counts ↑
Utilization ↑

"I don't need to go buy machinery to cover that 15 percent."

The Next Steps

The Scytec DataXchange platform has been incorporated into the daily routine at Tech Manufacturing with ease. Every morning Tech Manufacturing looks at the last 24 hours of shop floor information produced by DataXchange and has DataXchange running in real-time to utilize the notifications and email alerts. Tech Manufacturing looks at three different snapshots in a given period of time. Real-Time, Daily, and Weekly. Different employee levels utilize different snapshots related to their positions within Tech Manufacturing as well. Currently, there are Kaizen related projects with Scytec DataXchange involved at Tech Manufacturing involving insight into why issues are causing non-value added time and figuring out the proper methods on how to tackle them.

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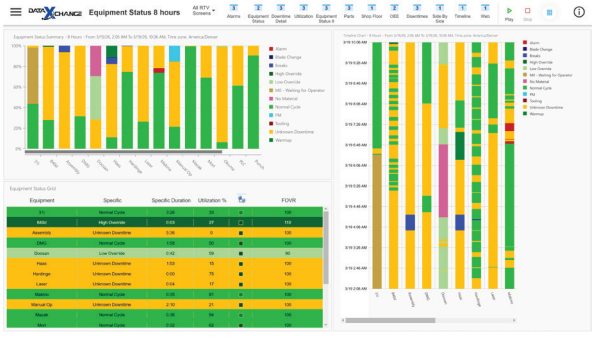
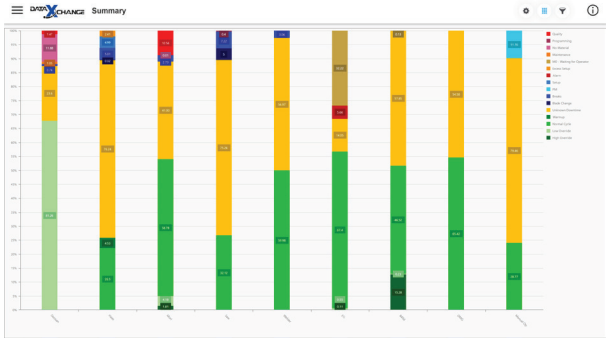
DataXchange Snapshots
- **Real Time**
- **24 Hours**
- **Weekly**



The Real Time Viewer (RTV) inside DataXchange provides users with machine status and much more.

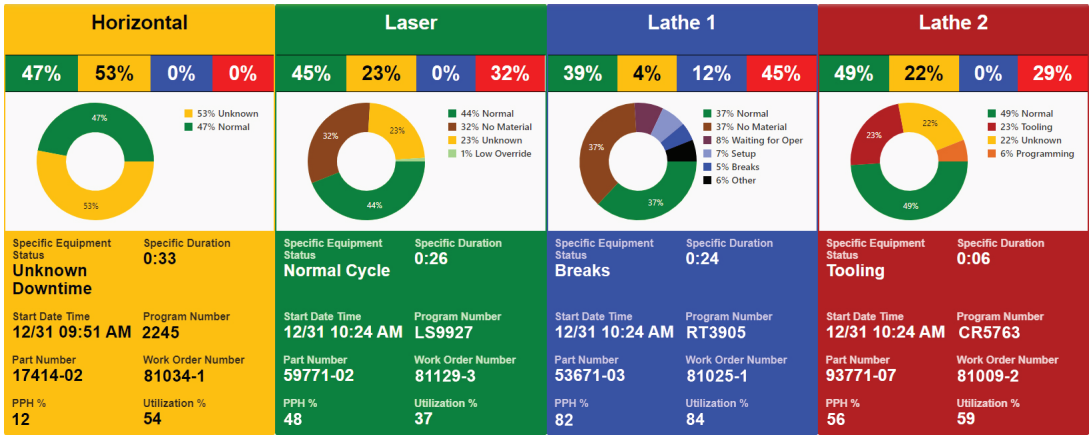


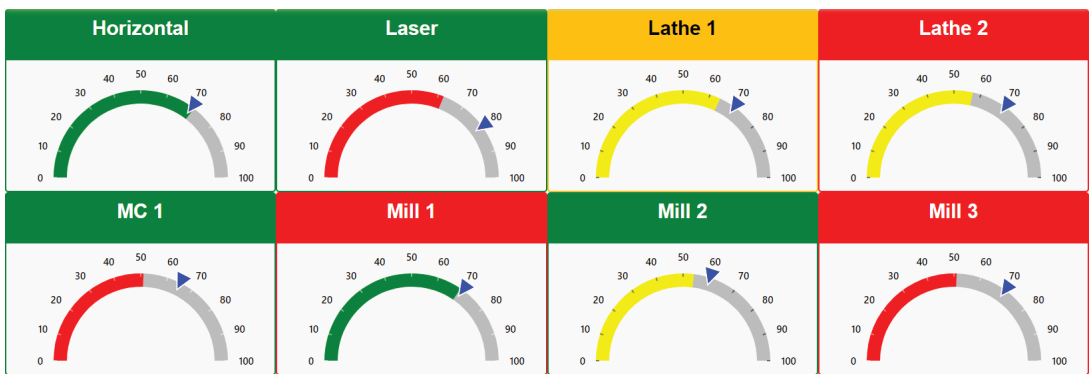
Summary Charts inside of DataXchange provide users with accurate historical data.

What Would Have Happened?

As digital transformation and Industry 4.0 techniques become more prevalent and improve more operational processes in the manufacturing industry it has become apparent that machine monitoring solutions like Scytec DataXchange are needed to stay competitive in the manufacturing world. Tech Manufacturing was going to go with a machine monitoring solution at some point one way or another and they chose DataXchange for the sole initial reason to see machine statuses at a low cost. Tech Manufacturing started simple and grew with the data they received over the years and created more efficient processes with each subsequent DataXchange update. They have stayed with Scytec DataXchange for close to a decade even as common machine brands have developed their own proprietary machine monitoring software that does not carry the same commonality that comes with Scytec DataXchange. In Jerry Halley's own words…

"What is useful about DataXchange is the ability to get consistency across platforms".





Scytec DataXchange is a Cloud and On-Premise OEE manufacturing machine monitoring system, and so much more. For more information as well as a free demonstration of the capabilities of Scytec DataXchange, please visit **https://scytec.com**

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