

CASE STUDY

REACTIV LASER SYSTEMS

Defining Forward Migration and Backward Compatibility

A 20-year-old laser system that's still got a lot of life left in it. An obsolete servo that was discontinued in 2013 and no longer available from the manufacturer. A desire to upgrade the servo drives and motors without having to replace the entire control system.

The Challenge

This was the challenge reACTIV Laser Systems brought to automation solutions provider, Power Motion. reACTIV supplies a wide range of industrial laser systems for manufacturing. They needed to replace three Mitsubishi Electric MR-J2 servos with MR-J4 servos. They also wanted to maintain the machine's existing motion control scheme, so they could shift data from the old system to the new one.

The Solution

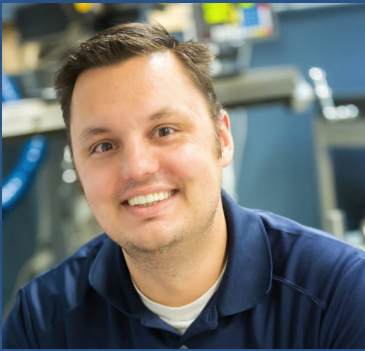
Some providers might throw their hands up in a situation like this. But not Power Motion. They strive to support customers and overcome challenges. And let's face it, what virtually every company wants is to keep their machines running for as long as humanly possible. Working with Mitsubishi Electric helps Power Motion do this for their customers.

The Benefits

Supporting Customers to a Fault

Our distributors and customers will tell you that Mitsubishi Electric puts emphasis into making backward compatibility and forward migration as easy as possible. And while we recommend that manufacturers follow our tested and proven migration path to update their systems, we will always do our best to find a way forward if that's not the case.





“Working with Power Motion is always a pleasure. The team is highly experienced, well-versed in product knowledge and continuously gives a great response time. With regards to our current project utilizing MR-J4 Servo Drives with an older control system, Mitsubishi Electric’s experience and assistance with product startup has been excellent.”

Adam Nelson
– Owner
reACTIV Laser Systems

That’s why we developed a solution for running MR-J4-A servos in MR-J2 CL compatibility mode, so the new servo can communicate with the old PC-based controller. It’s also why we created an instruction manual to support migration of legacy systems in the field.

This migration solution, which is available to all of our distributors and customers, made it possible for Power Motion to quickly and cost-effectively upgrade the laser. And Power Motion did it without having to replace the entire control system, which would have required more hardware and significantly more time.

The Results

World-class Quality. Industry-leading Performance.

While the MR-J2 servo served them very well, reACTIV is benefitting from the new servos. The MR-J4 Servo has:

- Sixteen times the encoder resolution of the MR-J2 Series
- Four times the processing power for greater throughput
- Three times faster motion network performance

The MR-J4 servo also delivers:

- Automatic adjustment of servo gains simply by turning it on
- Advanced vibration suppression control for shorter settling times
- Greater operator control and the ability to increase the system’s resolution with a higher pulse rate

We still get requests to replace MR-J2 servos even though product discontinuation was announced in 2013. It reinforces what we already know: product quality, performance and compatibility differentiate us from the competition.



Mitsubishi Electric’s MR-J4 Series Servo Motors and Amplifiers

AUTOMATION SOLUTION BENEFITS

- Reduced engineering time and costs
- Fewer components to minimize hardware purchases
- One software package to program motion, PLC and HMI
- Fewer connections to reduce labor required for wiring
- Increased system reliability for faster, easier start-up
- Easier troubleshooting with detailed drive and motor status information



Learn more about reACTIV Laser Systems:
reactivlaser.com

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CS-VH-00141

NEXT STEPS

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