



# Torque Control & Monitoring

## TORQUE CONTROL CAPABILITIES

- Enable / Disable
- Parameter Set Selection
- Torque Retry
- Status Interpretation
- Torque Tool Override
- Spatial Positioning
- Operator Assist
- Batch Count

In assembly operations, there's arguably no more important piece of process equipment than the Torque Tool. Tightly integrating a series of them with your operations can be your biggest challenge or your biggest competitive advantage.

Matrix Automation has mastered the art of monitoring and controlling torque tools as part of a cell, line or plant-wide manufacturing execution system. We look at torque tools as intelligent devices that can be integrated with other devices and equipment – in manual, automated or semi-automated processes – to integrate everything, digitize your processes, and tightly control the output of your operations.

Our Torque Control Monitoring solutions are built on our proven ProductionWare™ Software tool-set – our library of reusable software templates with out-of-the-box capabilities to perform specific production-centric operations. ProductionWare™ uses standard interfaces and communications protocols to talk to Torque Tools and control their interaction with your production processes:

- disable the Torque Tool until needed,
- enable it and set its parameters based on the in-station unit,
- validate the number, torque and angle for all run-downs performed,
- manage retries, locking out the process if maximum is reached.

Our software templates allow you the flexibility to work within your unique environment while reducing your risk by using proven, configurable software modules. The Torque Tools are configured in the same way, and using the same configuration tools, as any other intelligent device, allowing our software to integrate the tools directly with the rest of your production processes. ProductionWare™ also tracks and displays all the process state information of all the Torque Tools, giving you reports, views and Excel-exportable spreadsheets for everything happening everywhere.

