WRITE DIAGNOSTIC SOFTWARE

• Diagnostic software for construction, marine and agricultural equipment.

• CAN, CANopen and J1939 Visualization Software.

• Custom written software to meet your needs.

PROVIDE REMOTE DIAGNOSTICS

• We provide hardware and software to remotely diagnose your equipment.

• No matter the age or complexity, we’ll help you talk to your machines.

• We can install remote diagnostics on almost anything.

PROVIDE CUSTOM AUTOMATION & TECHNOLOGY INTEGRATION

• We can add today’s technology to older equipment and make it smarter.

• We do industrial and mobile automation.

• Give us your toughest, reoccurring problems and we’ll help you solve them.
It is our goal to provide unmatched customer service.

When you choose Grathwol Automation for remote diagnostics, you are not buying a black box. We provide remote diagnostics to troubleshoot your equipment the way it makes sense to you and your customers. We can customize our software to meet your needs.

When it comes to customer support, there is no such thing as time zones or business hours. We are here for our customers 24/7.

“We have worked with Grathwol Automation on several projects. We have found their knowledge, professionalism and application expertise to be beyond our expectations and are very satisfied with the results. We plan to continue using Grathwol Automation for our telematic needs.”

David Swearingen
VP-Engineering
Roadtec, Inc.
Chattanooga, TN

“Each engineering project integrated for Midwest Engineering & Automation has performed flawlessly. Grathwol Automation’s ability to understand the equipment’s operation allows them to develop software that installs immediately and requires little back end support. The J1939 to ModbusTCP has performed without a hiccups since 2007.”

Bruce Hayes
President
Midwest Engineering & Automation
Wadsworth, OH
The screenshot above is an example of our software that illustrates a Live Schematics™ view of a very simple circuit. This water spray system has two modes of operation, automatic or manual. When in automatic the machine must be moving forward and there must be water in the tank for the spray system to operate. Green means current is present. Red means no current present. It’s just that simple.

Live Schematics™ is a very effective troubleshooting tool. It allows a technician to see the entire circuit including interlocks at once. No more paging through schematics to decide where to start troubleshooting. Now you can see the entire circuit.
Find your equipment easily with our built-in GPS feature.

Our software monitors the engine operation and performance including fault codes. You may also choose to be notified via email of engine fault codes immediately when they occur.
The concept of telematics has become a catchall for much of the information-based developments and systems being seen in the marketplace. Grathwol Automation has taken the next logical step with telematics and created IntelliMatics™, which can diagnose why a machine’s engine or other system has stopped working. Telematics can tell the customer that the engine has stopped - IntelliMatics™ tells why.

Briefly, this newest technology innovation addresses the following:

- IntelliMatics™ has the ability to show why the engine will not start and/or why other production systems on the machine have stopped working, such as why the upper conveyor won’t operate on a milling machine or why the screed won’t move on a paver.

- Provide a visual guide so the technician, or machine owner can see where the voltage path stops in the circuit under test. We call this Live Schematics™.

- Create customized fault codes for the machine, not just the engine. With this advance, a customer can be notified when a steering or grade sensor fails and receive warnings when hydraulic pressures or temperatures are out of spec.

- Provide access to engine operating data in real time with fault code reporting. The fault codes are decoded and provide the fault description in text, not just an SPN number.

“The IntelliMatics™ solution from Grathwol Automation is the perfect interface to our control systems for OEMs and customers alike. This technology is a revolutionary step in system diagnostics and will make the common service trip a thing of the past.”

Frank Flores
President
Flores Automation
Muskego, WI
EGON IntelliMatics™ was developed and written by Grathwol Automation for Guntert & Zimmerman Const. Div., Inc. Guntert & Zimmerman continues to lead the concrete slipform paving industry by being the first to incorporate IntelliMatics™ into their machines.

EGON is the closest thing to having a Gunert factory technician on the machine with the customer. The machine is constantly monitored and will report engine, machine and hydraulic fault conditions immediately. IntelliMatics™ takes the sophisticated systems of the Guntert machines and converts them to Live Schematics™ providing easy troubleshooting should a system require it.
Guardian IntelliMatics™ was developed and written by Grathwol Automation exclusively for Roadtec, Inc. and is currently standard equipment on all Roadtec Tier IV milling machines and pavers.

Guardian provides a Live Schematics™ view for all of the key electrical circuits on the mill plus the desired and actual currents that are output to the valves. A technician can see instantly where current is lost in a circuit and determine if a shorted or open circuit is present. In depth troubleshooting can be accomplished remotely through the internet without sending a technician out to the machine.

Guardian also provides instant fault reporting via email as well as a daily report including hours until service, fuel usage, etc.
IntelliMatics™ also provides live production data to aid in job costing and accounting as well as real time job productivity with daily reports. In the Roadtec Guardian example critical operating and production data is collected daily and for the lifetime of the machine.

In this example the Guntert paver steering system is displayed showing all the steering switches, steering sensors and steering feedback sensors as well as the desired and actual output to the steering directional control valves. All of this can be viewed remotely for troubleshooting purposes allowing the technician to see:

- Switches failed open or closed
- The steering potentiometer dropping out or spiking
- Live data from the feedback and steering sensors
- The desired and actual current going to the directional control valves indicating an open or shorted circuit
OUR MISSION

We provide innovative technology solutions to help troubleshoot and monitor mobile or stationary equipment. It is our goal to equip today’s technicians with the best possible means to accurately and effectively troubleshoot, thereby increasing productivity and up-time for business owners.

We write diagnostic software for equipment manufacturers. We make it easy for field technicians and customers to troubleshoot and repair the equipment you build.

We are technology integrators for equipment owners and can upgrade your equipment with current technology to make it smarter and more reliable.

“Customer Service Is Everything”
-Kyle E. Grathwol