

CONTROL

F O R T H E P R O C E S S I N D U S T R I E S

PlantTriage Keeps Plants Running Smoothly

Rich Merritt, Senior Technical Editor.

Imagine a system that checks to see if loops are in tune, valves are sticking, or some other part of the plant is interfering with your operations. It tells you what's wrong, how to fix it, and makes the plant run smoothly and efficiently. Sounds too good to be true, doesn't it? Based on responses from end users, that dream system seems to be exactly what PlantTriage from ExperTune does.

"PlantTriage is an enterprise-wide, automation monitoring, and diagnostic system," explains John Gerry, president of ExperTune. "PlantTriage monitors and evaluates over 40 separate analytical measures for every loop in the plant. All of these measures are archived for historical trending or if you wish, any combination can be viewed if detailed analysis is desired. In addition all the performance measures are made available via OPC so you can make them available to anyone, anytime, anywhere."

Jean-Guy Lagacé, instrumentation supervisor for the major project team at Kruger, a paper mill in Trois-Rivieres, Quebec, Canada, has been using ExperTune software products for seven years, and he's convinced that it helps optimize his processes and find problems. He recently installed PlantTriage on a new paper machine at Kruger's Wayagamack mill. "We had an excellent result," he reports. "The new machine is recognized as one of the best in the world, and PlantTriage had a major impact during startup. We found and resolved problems during startup and avoided useless stopping of the process. The production cost for this machine is around \$ 10,000 per hour." Lagacé says he also uses the software to identify oscillations. "It is an excellent tool for that. The savings are very good. Each variation we eliminate has a direct impact on the quality."

Lothar Lang, lead engineer, Control Systems at Bayer MaterialScience AG in Baytown, Texas, is equally pleased. "We decided to use PlantTriage to monitor and analyze process control performance in different units," he says. "PlantTriage was selected after a comparison of different commercially available tools for control loop performance. What we liked about PlantTriage was the ease of use, wealth of readily available performance information, Web browser access, and a great number of already existing interfaces to different DCS systems."

But did it work? "In those units where we established a Define Measure Analyze Implement Control (DMAIC) approach based on PlantTriage data and intensive discussions/meetings with operating staff and process engineers, we were able to significantly improve process

control performance, which led to a smoother operation of the units with increased reliability."

Lang isn't sure how many process shutdowns have been avoided. "We assume that we might have avoided one unplanned shutdown," he says. "This would have saved \$1,000,000."

Gary Lipson, principal electrical engineer at Hercules, a specialty chemical company in Wilmington, Del., selected PlantTriage to find and cure poorly tuned loops. "PlantTriage identified a number of problems, including poorly tuned loops, valves that were sticking, and several loops that were interacting with each other," says Lipson. "In one case, the interacting loops were in completely separate areas of the plant, connected only by a common steam header."

Dr Zaid Rawi, PAT engineer at BP Chemicals in Saltend, Hull, East Yorkshire, UK, also uses PlantTriage. "We wanted to automatically

pick up problems with our control loops and valves to improve engineering and maintenance efficiency whilst reducing the likelihood of unplanned shutdowns," explains Rawi.

It worked, too. "It has picked up problems with our control systems which we have then fixed, and it has helped us to decide what valves to take out for maintenance," he says.

What needs improvement in PlantTriage? Rawi wants ExperTune to make it possible to set up a Shadow Server, so users outside the control network can see the data. Lang has a similar complaint. "We want to have access for several users at a time," he asks. "The web browser allows unlimited access, but only gives predefined information."

Lipson would like ExperTune to reduce the initial work required to establish communications between the control system and PlantTriage. "Once we get it working, it operates flawlessly. But each time we start up a system it seems as though we hit unique problems we need to work through." On the other hand, Lagacé is perfectly happy with his system.

ExperTune note: PlantTriage now includes a Shadow Server and multi-user access.

For more information on PlantTriage, contact ExperTune at 262/369-7711; or visit www.expertune.com.



Kruger's Wayagamack Mill, Trois-Rivieres, Quebec, Canada

Reprinted with permission from *Control Magazine*, May 2005.

© 2005 Putman Media Inc. All rights reserved. On the web at www.controlmag.com.