

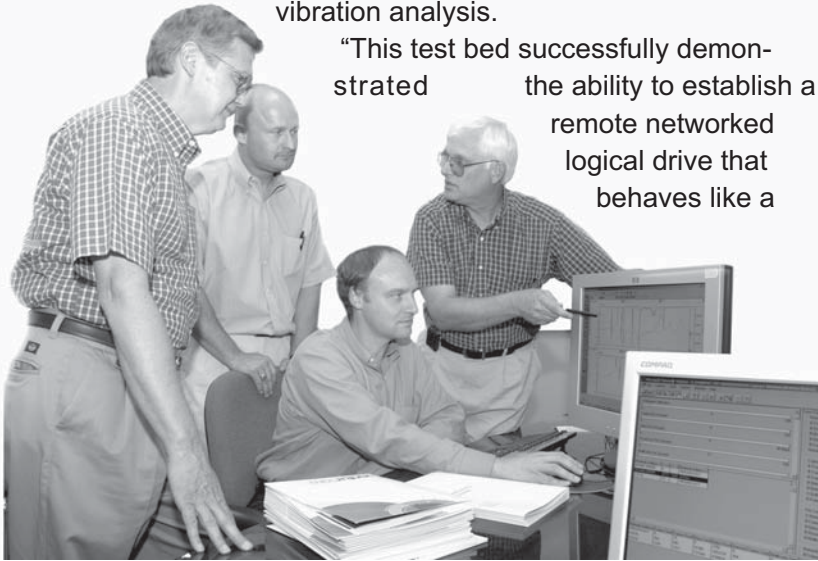
# Y-12 tests diskless computer technology

Saving time and money, making operations more efficient and improving computer security are some of the benefits that may result from a BWXT Y-12 test project to use diskless computer technology in a manufacturing setting.

A project to provide secure, remote network integration using BXP Secure integrating network software was successfully completed and tested recently at the Y-12 National Security Complex. The first deployment of this technology will be for the

Physical Testing department supporting vibration analysis.

“This test bed successfully demonstrated the ability to establish a remote networked logical drive that behaves like a



*Curt Holmes and Jeff Phillips of Technical Computing and Blake Van Hoy of the Physical Testing Department, standing left to right, and Guido Bossaert, seated, from M+P International discuss the test of the diskless technology.*

local hard drive for, in this case, a vibration analysis gage,” said Curt Holmes of Technical Computing.

“The operating system and application software for the vibration gage were downloaded from a remote computer, and the real-time data from the vibration analysis testing were captured and stored on a logical drive at a remote classified computing facility. The result is a secure local workstation without hard drives or media-writing capability. It’s a clean environment when you start and it’s clean when you stop,” Holmes said.

The technology can be applied to a wide range of work at Y-12. “We started with the most difficult application and completed it successfully, so we know we can use this for other applications. We believe there is potential for significant savings,” noted Holmes.

Diskless technology has several benefits in sensitive manufacturing facilities like Y-12. It can eliminate the use of removable write-enabled storage devices from personal computers, workstations and factory floor systems. Networking, remote computers and remote disk systems will enable an enterprise-wide secure environment with a significant improvement in operational efficiency by moving computer security issues away from the local workstation to a remote, certified, classified computing facility.

In addition, the production data are captured in real time during the actual factory floor operation, enabling electronic data capture, backup and retrieval.