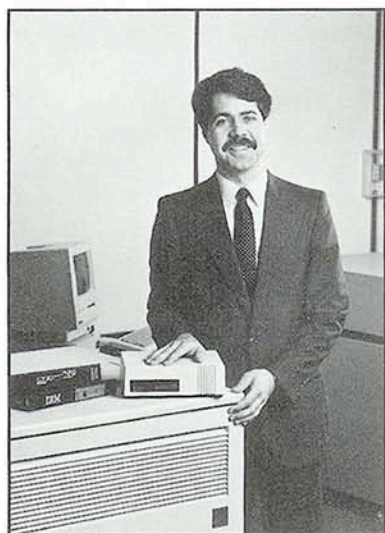


At John Deere, AppleTalk Makes the Link to Multiple Mainframes



"...more powerful than other 3270 terminals."

—Doug Foster, systems engineer,
John Deere

At a Glance:

Application:

Linking multiple hosts to Macintosh in a manufacturing management and control environment

Hosts:

IBM 3081, IBM 3083, Tandem

Connectivity:

AppleTalk network to host gateway via
Netway 1000A

Software:

•MacWindows

The John Deere Dubuque Works in Dubuque, Iowa, a division of Deere & Co., designs construction equipment. In that complex work environment, Macintosh Plus and Macintosh 512K Enhanced computers provide two essentials: low-cost engineering workstations and efficient communications with the mainframes of two vendors, IBM and Tandem. A Tandem is located at the Dubuque Works site, and the IBMs—3081 and 3083 mainframes running under IMS, TSO, and CICs—are at corporate headquarters in Moline, Illinois.

Sixty-five of the 82 Macintosh computers at Dubuque are connected by three AppleTalk networks. To connect to the IBM mainframes from their Macintosh workstations, John Deere engineers required a solution that would allow them easy access and would work with the installed AppleTalk networks. They chose Tri-Data's Netway 1000A AppleTalk gateway, a hardware-software combination that emulates a 3274 cluster controller. The Netway 1000A allows any Macintosh on an AppleTalk network up to four simultaneous host sessions, with a maximum of 16 simultaneous sessions on a given Netway 1000A.

"The Macintosh, combined with the Tri-Data Netway 1000A and its multiple-window software, MacWindows, is more powerful and flexible than other 3270 terminals, including the IBM PC 3270," says Doug Foster, a manufacturing engineering systems engineer. "With the Netway 1000A, you can open different windows on a Macintosh and use it as a terminal to access information on several mainframes. We open one window to access an IBM host and open another window to access a Tandem host. This way we're getting multiple use out of the Macintosh. With a Macintosh, you get substantial versatility and performance relative to the cost.

"Our factory revolves around IMS applications," explains Foster. "We use the Macintoshes to do transactions in IMS on the mainframe related to our internally developed part-routing and specification systems. For instance, we access an application on the host by entering a transaction code and a part number. The computer comes back with screens of information related to that part. We can check information on the number of parts produced in one day, where a part is at in the manufacturing process, cost information, scheduling requirements, machine tooling information, and machine usage."