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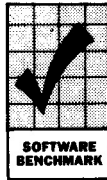
NEWS

Xmodems: The right blend?

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This software benchmark examines two Xmodem communications products designed specifically for personal computer-to-Unix communications: Tango from Computerized Office Services, Inc. and PC Works from Touchstone Software Corp.

Included in the testing was Blast from Communications Research Group (CRG), one of the few non-Xmodem products available on the market today.



tocol. CRG refers to their technique as a "blocked, sliding window" protocol. This means that data is sent in a pipeline of encoded blocks.

The program continues to send blocks of data without waiting for a receiving acknowledgment. When the acknowledgment is received by the transmitting program, blocks that were corrupted can be re-sent out of order. This process allows transmission to be much more efficient under adverse conditions.

As the number of errors rises, Xmodem products must resend corrupted data before new data is sent, greatly slowing down the process.

Propagation delays can also cause great problems for Xmodem products, which must wait for an acknowledgment before continuing transmissions. Blast's sliding window allows propagation delays of up to 2 sec. at 1,200 bit/sec., enabling the product to be used with satellite links, microwave transmission, private branch exchange systems and other links that traditionally create problems for data communications. This qualifies Blast as an "industrial strength" product that can provide reliable, quick transmissions even under conditions that are far from ideal.

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The difference lies in Blast's transmission protocol.

With line noise at approximately 20%, Blast had no trouble with transmission of large files. In fact, transmission time was roughly the same as over directly connected lines (22 min for 100K bytes at 1,200 bit/sec.), indicating that Blast's error-correction methods are very efficient.

On three separate tries under the same conditions, Tango's error threshold was exceeded for every attempt to transmit a file larger than 40K bytes.

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