Photronics Implements SafeVelocity^{tm} to Increase Tape-Out Speed & Reliability and Sees Immediate ROI

About Photronics:

Photronics is the industry leader in the design, development and production of reticles and photomasks for semiconductor and microelectronic applications. Photronics supports the diverse needs of the global semiconductor community through a network of manufacturing facilities in Asia, Europe and North America.

Their Challenge:

Merchant mask shops must insure the smooth transfer of large data sets between design house, mask shop, foundry, and customer. These data sets represent product and therefore must reach their destination in order for work to commence or continue. Transfer delays at any stage of the process can push manufacturing and release dates out resulting in large losses of revenue, so making sure the file transfer is fast, reliable and secure is of critical importance. Photronics also has a great deal of production automation at multiple manufacturing sites that is specifically designed to be triggered by the FTP server daemon when a transfer is closed. They needed a way to step up from traditional FTP throughput rates that would guarantee fast and reliable bi-directional transfer of data as efficiently as possible, and to do so without re-engineering the applications in place or fundamentally moving away from FTP as the primary method of moving data between sites. As their design file sizes expanded this became a very critical data transfer issue.

The SafeVelocity Solution:

Photronics decided to apply Solution-Soft's SafeVelocity to solve these problems as it offers a superset of traditional FTP functionality which allowed Photronics to simply replace their old FTP daemon without impacting any other aspect of the environment. This eliminated the need for (and expenses associated with) maintaining an FTP daemon of their own. By using adaptive techniques to adjust for latency and other network conditions, and by performing automatic compression and decompression when beneficial to do so, Safe Velocity provided the substantial increase in transfer speed Photronics was looking for. By using the guaranteed transfer mode Safe Velocity provided the reliability Photronics users and application components required by eliminating the need for manual or programmatic recovery and retransmission. And by supporting a callout script at session-close Safe Velocity allowed Photronics to automate the handling of reticle data, further increasing overall process efficiency and reducing total cycle time.

"I have proven to myself that a SafeVelocity client to SafeVelocity server transfer is faster than standard FTP and does not require additional compress/decompress time at both

ends as would be necessary when transmitting GZIP data. That is to say you don't compress anything beforehand; you let SV do it on the fly at both ends.

A recent real world example from earlier in the week had a user spend 8-10 hours at his location doing a TAR/ GZIP on a 232 GB GDS data set, and then sending the resultant 100GB GZIP file using standard FTP at standard FTP throughput rates. The transfer would have taken about 25 hours (if it had completed) and would have been followed by another number of hours at the receiving end for the required UNZIP/ UNTAR operations.

SafeVelocity transferred the entire 232 GB of original uncompressed GDS files in 20 hours (achieving effective throughput rates beyond those of the underlying physical circuit) and restarted itself four times during that period because of network issues," said John Chivian at Photronics.

That is a guaranteed reliable transfer with more than 15 hours of time savings (not counting FTP failure discovery and retransmit time) for this one instance.

John continues, *"You guys are head and shoulders above every other product I am doing throughput testing with (for uncompressed data) and no other product comes close to meeting our world wide transfer needs".*

John (JC) Chivian
Staff Software Engineer
Staff Systems/Network Administrator
Photronics, Inc. Corporate Information Systems

About Solution-Soft

Solution-Soft is the leading provider of Intelligent Data Optimization (IDO) solutions, which address the urgent need for automated management of data in complex networking environments. IDO solutions facilitate automated data selection, movement and redirection that optimize high availability, storage scalability and system performance. The company has developed robust data and information life-cycle management software solutions for corporate data centers and storage system vendors. Solution-Soft boasts more than 1,500 customers, including 3M, AT&T, Boeing, Ford, French Telecom, Hewlett Packard, Merck and UMC. Solution-Soft's market presence is bolstered by partnerships with Citrix Systems (NASDAQ:CTXS), FalconStor. (Nasdaq:FALC), Fujitsu Siemens, Hewlett-Packard (NYSE:HWP), IBM (NYSE:IBM), Microsoft (NASDAQ:MSFT), Netapp (NASDAQ: NTAP), Red Hat, Inc. (Nasdaq:RHAT) and Sun Microsystems NASDAQ:SUNW).

Founded in 1993, Solution-Soft is privately held and based in Santa Clara, Calif. For more information, visit www.solution-soft.com or call +1.408.346.1415.