UMC Standardizes on Solution-Soft's gdzip™ & mezip™ to support all in-house & mask-shop partners

ABOUT UMC

UMC is a world-leading semiconductor foundry, specializing in the contract manufacturing of customer designed ICs for high performance semiconductor applications. Its position as the foundry industry technology leader has been a major contributing factor to its rapid growth. UMC delivers the cutting-edge foundry technologies that enable sophisticated system-on-chip (SoC) designs, including 0.13um copper, 90nm copper, and mixed signal/RFCMOS. In addition, UMC is a leader in 300mm manufacturing with strategically located 300mm fabs to serve their global customer base. UMC employs over 12,000 people worldwide and has offices in Taiwan, Japan, Singapore, Europe, and the United States.

THE CHALLENGE FACING UMC AND MASK SHOP PARTNERS

As IC designers and production processes push chip designs towards 90nm manufacturing process and beyond, these more sophisticated and complex designs result in increasingly larger files. The application of more aggressive OPC (Optical Proximity Correction) additionally increases the size of design files. These files are often in the tens of Gigabyte (GB) range resulting in storage, transfer, productivity and bandwidth bottlenecks for UMC and its mask shop partners. UMC needs to address bandwidth congestion issues to avoid longer transfer and decrease consumption of storage from these ever increasing large design files.

THE GDZIP, MEZIP SOLUTION

Solution-Soft's gdzip compresses GDSII files three to ten times smaller than what gzip can do. Similarly, mezip compresses MEBES files forty percent to ten times smaller than gzip. The gdzip and mezip solutions do so with faster speed and reliability with block level checksums. They are fast becoming the industry standard. Leading foundries, such as TSMC, UMC, Chartered Semi, SMIC are in production and encourage their worldwide customers to tapeout with Solution-Soft's compression formats.

INCREASED TRANSFER EFFICIENCY AND REDUCE CYCLE TIME

Very large GDSII files are constantly transferred from UMC to its mask shop partners and even larger MEBES files are sent back from these mask shop partners to UMC. The cycle time required for transferring these files continuously impacted their ability to achieve the turn around required in this highly competitive market.

After a thorough assessment, UMC found that buying additional high cost bandwidth alone would only partially solve this problem. They decided to implement gdzip & mezip compressors from Solution-Soft to address the root cause. After implementation, gdzip & mezip compressed files three times smaller on average therefore each transfer was three times faster and more reliable. With UMC handling thousands of files on a daily basis, the cycle time and transfer efficiency savings are tremendous.

UMC has standardized on gdzip and mezip to handle all GDSII and MEBES files within UMC and between all mask shop partners, including Toppan (TCE), Dai Nippon Printing (DNP), Photronics (PSMC), Taiwan Mask Corporation (TMC), and Hoya.

SAVE STORAGE COST AND SPEED UP BACKUP

With UMC's vast quantity of GDSII and MEBES files, the average 3 times size reduction over gzip provides very sizeable online and offline storage savings.

Before adoption of gdzip & mezip; daily backup was a major challenge as the backup window is set at only 8 hours. All backups must complete within this time frame to be valid and to avoid impacting production. Because of the tremendous amount of data accumulated daily, on many days the backup could not complete in time. Now due to the gdzip & mezip file size reduction, backups finish three times faster and now at UMC meeting the time-window constraint is no longer a concern.

"We standardized on gdzip & mezip for many years now with UMC and our mask shop partners. With the volume of data that we have, the cost savings and operation efficiency gains are tremendous. We are very happy with the products and Solution-Soft's first rate of technical support." – Peter Peng, Deputy Division Director, mask Engineering & Service Division, UMC.

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, compression, movement, and redirection that optimize high availability, storage scalability, and system performance. The company has developed robust data-management software solutions for corporate data centers and storage solution providers. Solution-Soft boasts more than 1,500 customers, including 3M, AT&T, Boeing, Chartered Semi, Citibank, Dai Nippon Printing, Ford, French Telecom, Hewlett Packard, Merck, Photronics, Qualcomm, Toppan, TSMC, UMC and Xilinx. Solution-Soft's market presence is bolstered by partnerships with Citrix Systems (Nasdaq:CTXS), FalconStor (Nasdaq:FALC), Hewlett-Packard (NYSE:HWP), IBM (NYSE:IBM), Microsoft (Nasdaq:MSFT), Network Appliance (Nasdaq: NTAP), Oracle (Nasdaq:ORCL), Sun Microsystems (Nasdaq:SUNW) and Synopsys, Inc. (Nasdaq:SNPS).

Founded in 1993, Solution-Soft is privately held and based in Santa Clara, California, USA. For more information, visit www.solution-soft.com or call +1.408.346.1424.

<div align="center">###</div>

Solution-Soft is registered trademark and gdzip & mezip are trademarks of SolutionSoft Systems, Inc. Other registered trademarks are the properties of their respective owners.