TrueMask® MDP Quotes from the Semiconductor Ecosystem

Dai Nippon Printing Co., Ltd. (DNP)

"Mask customers are interested in making a balanced trade-off between wafer quality achievable with complex optical proximity correction (OPC)/inverse lithography technology/source mask optimization and the turnaround time of masks. Of particular interest are sub-resolution assist features (SRAFs) and other sub-80nm features that decorate the mask to improve wafer quality. D2S TrueMask™ MDP is the first and the most promising product we've collaborated on that uses the new model-based mask data preparation approach to enable both accuracy and reasonable mask write times."

—Naoya Hayashi, Research Fellow

HOYA

"Complex mask shapes are now required to enable wafer quality for our customers' leading-edge masks. Along with complex mask shapes comes the requirement to balance mask write times. We are very pleased to find that the newly announced D2S TrueMask™ MDP reduces the burden on the writers in the production line through shot count reduction while achieving our critical mask quality objectives."

—Hiroshi Kinoshita, General Manager, Advanced Technology Department

JEOL

"Our JBX-3200MV system is available today with 4095 levels of per-shot dose modulation and works particularly well with the newly announced D2S TrueMask™ MDP. Together, we enable fully automated, full-chip mask data preparation for any complex mask shapes, even curvilinear ideal ILT masks, with practical write times. The enhanced CD Uniformity from the flexibility of per-shot dose modulation improves wafer quality."

—Yasutoshi Nakagawa, General Manager of Semiconductor Equipment Business Unit

NuFlare Technology, Inc.

"Our EBM-8000 system together with D2S TrueMask™ MDP enables our customers to reduce the shot count required to write complex masks and is particularly suitable for the 20-nm node. The ability to optimize TrueMask™ MDP for the EBM-7000 or EBM-8000 using overlapping shots will help broaden the adoption. We value our partnership with D2S as we continue to develop cost-effective solutions for the production of complex optical photomasks."

—Hirokazu Yamada, Senior Manager for Strategic Planning Department, Mask Lithography Division

KLA-Tencor

"We joined the eBeam Initiative along with D2S in order to foster communication and collaboration on new eBeam technologies and approaches. We have followed the development of the model-based mask data preparation approach led by D2S to balance accuracy and write time demands at advanced nodes. Now that this approach is incorporated into TrueMask™ MDP, KLA-Tencor's mask inspection solutions can be used with it in the mask ecosystem."

—Yalin Xiong, general manager of RAPID Division