



## **DELTA Microelectronics selects yieldWerx software for IC yield management.**

*With yieldWerx, DELTA and its fabless customers can standardize on one software platform and identify, analyze, and report on the root causes of yield loss.*

yieldWerx Semiconductor, a leading provider of Enterprise and Desktop test data analysis software, has successfully implemented yieldWerx at DELTA Microelectronics, one of Europe's largest semiconductor test houses, and provided DELTA's customers with its software for characterization, yield improvement, and tester correlation analysis.

DELTA Test, a full-service test house, provides test services to the fabless semiconductor sector in Europe. Fabless customers receive test data from DELTA, often in data files such as STDF, which are used by test and product engineers to perform characterization, production monitoring, and yield analysis studies. Generally, test and product engineers know which tests have failed, but find it hard to discover the root cause. They go through large amounts of manufacturing and test data loaded onto a spreadsheet looking to find the causes for low yield.

DELTA chose to partner with yieldWerx after careful assessment of available packaged solutions. yieldWerx was selected to provide DELTA engineers and customers with a comprehensive and scalable, enterprise wide test data warehousing, analyzing, and yield reporting solution. The purpose was to provide fabless companies with enterprise wide yield monitoring and reporting for their executives and engineers through interactive reports which offered high level snapshots, as well as detailed test data analysis reports from wafer acceptance testing, wafer sort, and final test operations.

yieldWerx integrates test data provided to fabless companies by DELTA, and allows them to integrate it with manufacturing data. The yieldWerx solution sweeps, cleanses, and loads the available data, ensuring immediate access to WIP, yield, E Test (PCM), inline, wafer sort, and final test data. Product and test engineers identify root causes of the yield issues they face by browsing through lot, wafer, and die level parametric test data, capturing critical yield information. yieldWerx automatically identifies failing tests and dies, providing users with the ability to modify failure search criteria in real time. All searches can be saved and templates created for reuse with data received in the future.

yieldWerx provides engineers with a single click solution to generate comprehensive reports, such as zonal and parametric wafer maps, parametric failure summary, yield summary, Cp, Cpk, tester to tester and prober-to-prober type comparison reports. Additionally, engineers can use yieldWerx to perform customized "what-if" analysis, with the provision to remove outliers automatically or through user defined limits, and evaluate the impact of program changes on yield and repeatability.

"To meet today's time-to-market challenges, for us internally, and for Delta's customers, design support is essential as the backbone to really effective manufacturing and supply logistics. One of the major challenges with wafer testing, which relies heavily on good support from software developers, is fast, efficient data extraction: test engineers and other interested parties need to be able to quickly identify root causes of poor dice, wafer, and lot yields. With many varied test systems and problems, Delta has gained much confidence in yieldWerx Data Analysis Software, coupled with comprehensive support through many different project phases; with this strong performance, we are left virtually speechless, other than to say that we have benefited greatly from prompt responses to all our support requests. This was unlike any other company with whom we had dealt in this league previously." said Erik Christian Oleson, Delta's Chief Engineering Officer.



Innovision, one of UK's leading fabless RFID solutions providers, is one of DELTA's customers who have implemented yieldWerx. Using yieldWerx, Innovision users are able to load data from DELTA into a central database, drill down into it using yieldWerx's automated reports, and perform detailed root cause analysis. yieldWerx enables Innovision engineers to compare lots processed that day to other previously processed lots (e.g. 30 days ago), giving them the tools necessary to compare their yield and parametric results and analyze important factors contributing to yield loss before a large number of wafers are endangered.

"With less effort required to obtain wafer yield analysis, Innovision now expects a faster turnaround on reporting yield variation to the wafer fab." said Andy Pienkowski, Chief Architect at Innovision. "Innovision anticipates that using Yieldwerx will lead to ever quicker advances in the design, verification, and testing of its IC designs thereby facilitating optimal time to market. In this respect, Yieldwerx has been invaluable to Innovision for a fast turnaround in data analysis and thereby resulting in financial savings overall." he added. Talking about yieldWerx's support, Andy said "With the recent commissioning of so many software and hardware systems simultaneously, yieldWerx's support was invaluable in indicating where problems in source data generation were likely to be - so enabling quick decision making within the IC design department."

"yieldWerx provides dramatic efficiency improvements for product and test engineers introducing semiconductor products because of both the speed in which data can be collected and analyzed in yieldWerx and with the product's collaborative architecture which allows data to be shared over the Internet," states Omar Malik, CEO of yieldWerx. "yieldWerx's ability to dramatically improve yield, achieve faster time to market because of quicker design closure, and its economical total cost of ownership, has made it the product of choice for product and test engineers. Our relationship with DELTA allows its fabless customers to instantly have access to this competitive advantage, while allowing them to simultaneously focus on their core task of product development" he added.

#### **About DELTA Microelectronics**

DELTA Microelectronics is a division of Danish Electronics, Light & Acoustics (DELTA) headquartered in Hørsholm, Denmark, with offices in Hengoed, South Wales. DELTA has extensive expertise in microelectronics with the development and production of custom ICs as one of its main business areas. Its areas of expertise include chip design, test solution development and provision of solutions for wafer production, component packaging and logistics. DELTA has developed solutions for testing complex SoC and wireless devices including Bluetooth and Wireless LAN. DELTA has enabled a wide range of fabless companies to bring their products to market with complete and robust test and production solutions covering telecommunications, consumer, medical, military and industrial applications. For more information, visit [www.delta.dk](http://www.delta.dk)

#### **About Innovision Group**

Innovision is a fabless semiconductor solutions provider with a focus on RFID. Since 1994 it has been applying its expertise in this field to produce innovative, customized, and highly cost-effective technologies. The company specializes in developing and licensing its technologies for high volume, low-cost applications. For more information, visit [www.innovision-group.com](http://www.innovision-group.com)

#### **About yieldWerx**

yieldWerx Semiconductor provides the semiconductor industry with low cost, enterprise wide test and engineering data management solutions that increase yield and reduce time to market. With yieldWerx reports, product and test engineers can gain better visibility of their test data, which is essential for intelligent decision making, directly impacting yield and profitability. yieldWerx is headquartered in Naperville, IL, and has sales and support offices in the United States, Canada, Japan, Taiwan, and Singapore. For more information, visit [www.yieldwerx.com](http://www.yieldwerx.com)