Odyssey
Production-Centric Yield Management for Wafer Manufacturing

Overview
Odyssey consists of multiple components to satisfy the requirements of today’s modern semiconductor fabs. Odyssey Defect is a production-proven defect data management solution that has helped over thirty-five manufacturing sites manage their defect issues.

With over fourteen years of developmental history, Odyssey Defect provides real-time lot dispositioning, SPC alarming and a complete set of defect analysis tools to help fab engineers resolve both random and systematic yield issues. A true 24x7 system, Odyssey Defect delivers results efficiently and reliably, leveraging error-correcting processes to assure users of maximum up time.

Odyssey Defect has an open and vendor-neutral architecture that supports all inspection, review and classification tools with a full range of interactive charting, wafer mapping and reporting capabilities.

Benefits
- Easy to use Odyssey GUI enables high productivity
- Supports wide range of inspection and review tools. Automates in-line defect analysis to reduce diagnosis cycle time
- Real time server-based defect source analysis (DSA), SPC functions and automatic wafer sampling productivity through automated analysis
- Interactive spreadsheets and maps to arrive at root cause in minimal time
- High reliability with low maintenance, suitable for 24x7 fab operations
- Integrated automation features allow users to collaborate faster and address root cause analysis in minutes
- Odyssey data system is built on Oracle platform and runs in Unix environment with Windows client

Odyssey Yield Management Solution
Odyssey YMS is a complete yield management solution which combines the following modules and allows correlation between them.
- Defect
- Bin Sort
- Bit Fail (memory)
- Metrology
- Parametric
- WIP (MES)
Additional Modules
Additional modules integrate and manage critical manufacturing data to improve yields. These are,

- StatTool (statistical analysis and charting package)
- Real-time Kill Ratio engine (populates database at load time)

Figure 1: Odyssey's interactive user interface and easy to create correlation plots across modules

Figure 2: StatTool performs multi-parameter correlation analysis to identify yield limiters