

**Client Background:** The Client is a leading Equipment manufacturing Company.

### Background

Defect analysis S/W is a stand-alone software product, which addresses the defect data analysis issues at semiconductor fabrication facilities. It analyses the defect data from any of the Line Inspection tools.

### Objectives:

The objective of this product is to provide an automated defect data analysis solution, allows semiconductor fabrication facilities, for the first time, to automate analysis of defect data generated by inspection, classification and review tools.

- This new yield analysis module allows users to automate complex engineering methodologies using simple flowcharts in effect, transferring expert engineering knowledge and defect analysis routines to fab operators.
- Automation enables the user to quickly analyze huge volumes of defect data and helps reduce the defect data set to represent only the most critical yield deterrents.
- Implementation of this product at key customer sites has resulted in dramatic reductions in cycle time and significant improvement in engineering productivity.

## Solution

The success of this product was dependent on integration with current tools and clients' legacy code. The whole product development was phased out with a knowledge transition phase to ensure control and maintainability of the legacy code of 1 million LOC. The entire project was developed and tested at HCLT, Chennai. One onsite team member handled the requirements and client coordination.

The success to this product is in the form on integration with many tools. So the challenge started from the implementation new defect analysis requirements, migration of DB to new Unix servers and integration with the client's legacy code.

## Salient Features of the solution offered

- User friendly UI to handle defect analysis
- Ability to have an unified DB to store defect data
- Very good UI charts and controls to display / analyze defects
- To reduce cost-of-production through very quick defect analysis
- Dynamic recipe setup to conduct required defect analysis
- Client/Server architecture connected through CORBA
- Automatic flow of data from various tools to DB
- Powerful defect analysis to handle any type defect classification
- Powerful UI with galleries and interactive windows to monitor various charts in one screen
- Automatic job loading and schedule loading to run various recipes without manual intervention
- Very effective logging and report mechanism to automatically notify engineers at Fab.



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