



# Development of ECS for die bonder

- 1 Problem Statement**  
 To develop equipment control software for die bonder with E-95 compliant user interface
- 2 Uniqueness of the requirement**  
 The ECS had to control around 10,000 I/O points and had over 200 screens and dialog boxes
- 3 Solution delivered to the customer**  
 A comprehensive control software with modular architecture and E-95 compliant user interface

<b>Customer Profile</b>	Global semiconductor equipment OEM
<b>Industry Segment</b>	Die bonder OEM
<b>Headquarters</b>	Japan
<b>Global Presence</b>	US, Latin America, China, Korea and Singapore

- 4 Value Delivered to customer**  
 Through the engagement with GES, the customer could save around USD 0.5M in the development effort. Standardization of hardware abstraction layer enabled the customer to release new products with minimal effort in ECS

<b>Technologies</b>	C# / C++
<b>Tech Areas</b>	GUI
<b>Engagement</b>	Offshore + Onsite



We initially explored a relationship with GES only to take some minimal level of software support. As we moved on in the project we realized that they had extremely good equipment knowledge and hence we decided to partner with them for the entire development



# Development of ECS for wafer inspection equipment

**1 Problem Statement**  
 The develop a comprehensive wafer inspection system with both defect detection and classification capabilities

**2 Uniqueness of the requirement**  
 The project required an in-depth understanding of the image processing and algorithm development. In addition the client wanted the software to reduce the burden on hardware (costs)

**3 Solution delivered to the customer**  
 A very comprehensive wafer inspection systems with defect detection and classification capability (capability to capture particle of size 10 μ and scratch of depth 0.2μ)

<b>Customer Profile</b>	Global semiconductor equipment OEM
<b>Industry Segment</b>	Wafer inspection equipment
<b>Headquarters</b>	Japan
<b>Global Presence</b>	US, Latin America, China, Korea and Singapore

**4 Value Delivered to customer**  
 A 40% saving in development cost (around USD 0.3M)

<b>Technologies</b>	C++
<b>Tech Areas</b>	GUI, algorithms, image processing
<b>Engagement</b>	Offshore + Onsite



GES was successfully able to build this solution in a way that we were able to achieve 40% savings on the estimated development costs. The ability to handle the image processing part effectively was key in having this solution implemented.