

Example 2: Saving Yield by Managing Probe Cards

The Challenge

A large fabless company tests a number of different products at various test houses around the globe. Each test house maintains its own supply of probe cards for each of the tested products. Using the Optimal+ solution, the fabless company detects that significant yield loss is attributed to poorly maintained probe cards. The company wants a mechanism to alert when a probe card is nearing the end of its life span or requiring preventative maintenance, before yield loss starts to occur.

The Solution

Test data collected in the Optimal+ Database contains an accurate count of touchdowns and cleans performed by each probe card. A “target” is defined in the Optimal+ database for each individual probe card specifying the number of touchdowns at which an alert is to be triggered. When the alert is triggered, a request is sent to the supplier to perform preventative maintenance. When the probe card is re-instated, the target is updated with the new value for the next maintenance cycle. Views generated by the interface are defined to display aging probe cards together with data from probe card related rules showing issues with probe cards. In the first example, the dashboard shows rule alerts by a probe card with a summary of the top “offender” probe cards that triggered the most alarms for yield/quality issues. The second example contains information about each probe card with its performance and health status including total touchdown count, average lot yield by site, bin summary by site etc... It also shows the target spec for each probe card and its status in relation to that spec (the colored column)

