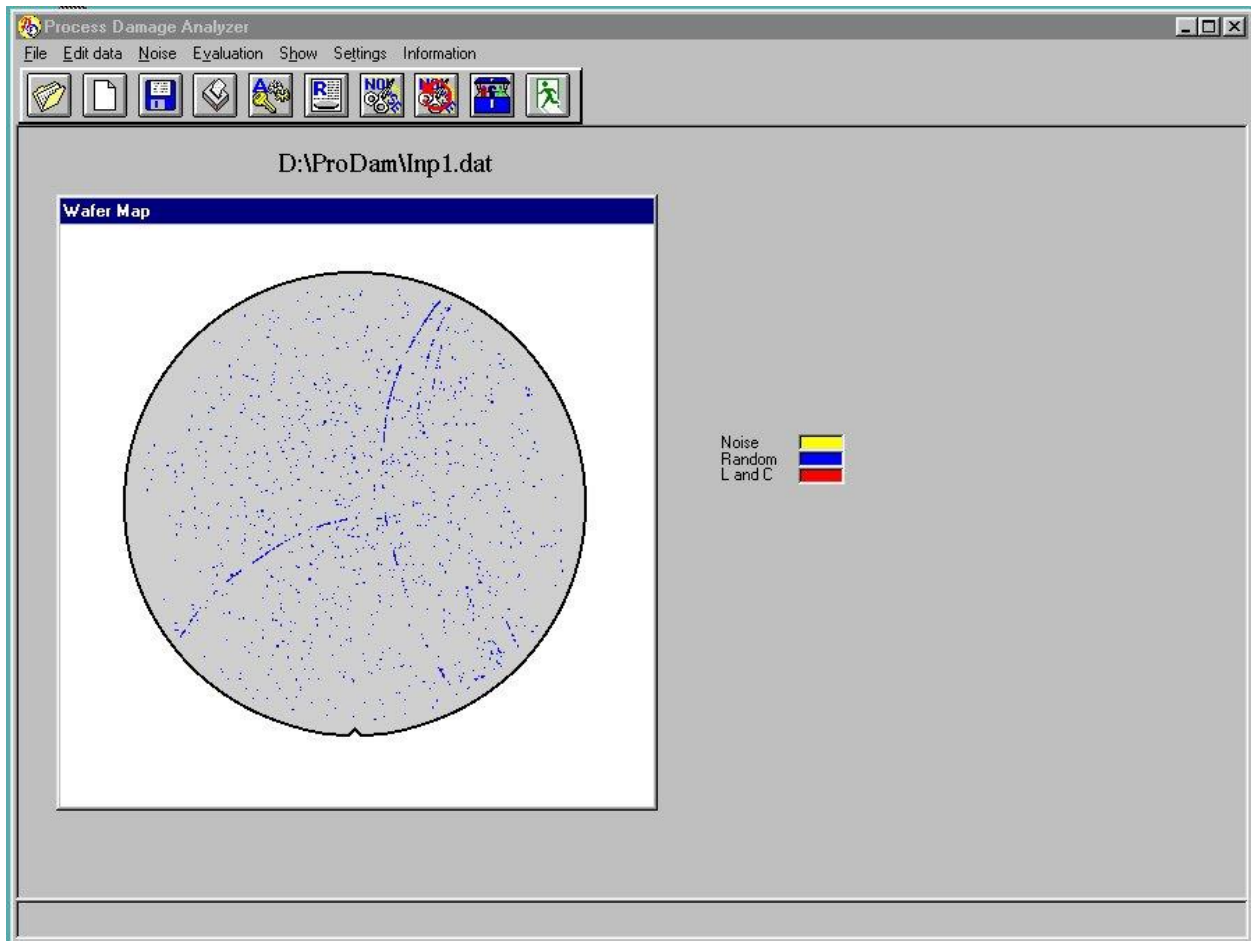


ProDam

ProDam - Process Damage Analyzer automatically discriminates randomly distributed surface defects from those being lined-up and clustered. In other words ProDam performs categorization of all surface defects (Local Light Scatterers (LLS) detected by particle counter) into R (randomly distributed) and LC (lined-up and clustered) classes.

What ProDam is used for?

Since the defects such as COP and particles are typically R class defects, whereas 1- and 2-dimensional defect agglomerates ("shimi", "kumori", "kizu", slip and other process-induced defects) are LC class defects, ProDam immediately detects and quantitatively characterizes "troubles" at polishing or cleaning lines. It is also in fact the first and inevitable step of any further LLS recognition and classification.

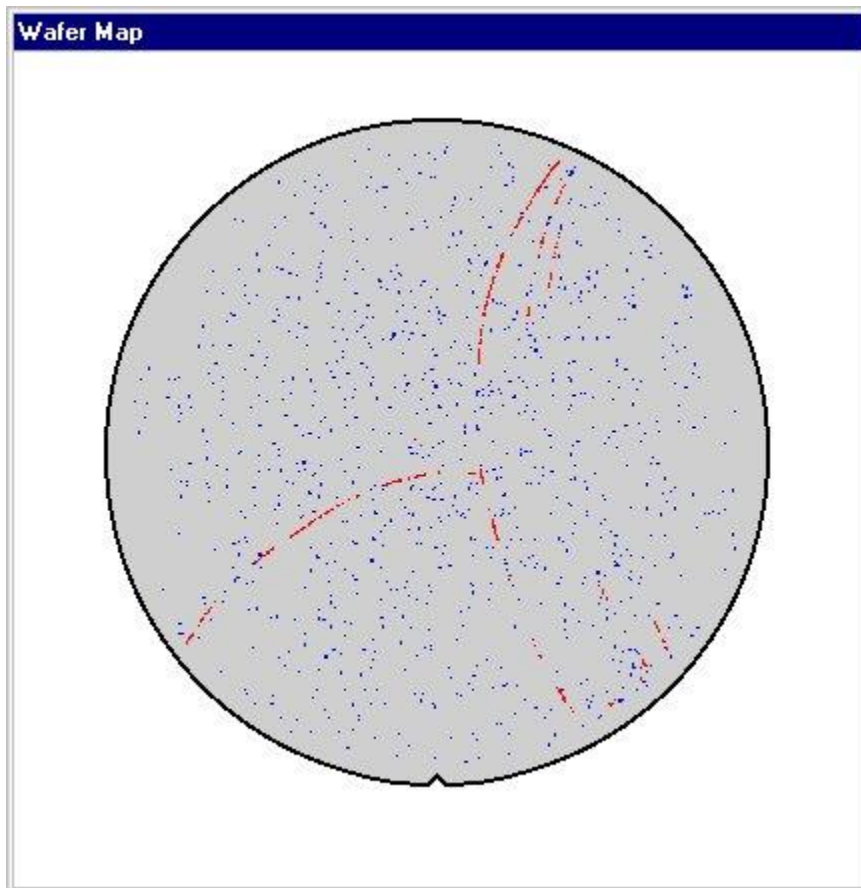


How does ProDam work?

At the start of classification procedure ProDam assumes that all surface defects are R class defects, i.e., they are distributed according to Poisson distribution. Then it locally verifies this statistical assumption using the probability theory. If the defects under consideration are really randomly distributed, the assumption is verified. Otherwise, the defects are classified as being lined-up or clustered (LC class defects). Thus, all detected defects are separated in R and LC classes.

What do you need to run ProDam?

All you need are X, Y coordinates and sizes of LLS measured by particle counter of any type.

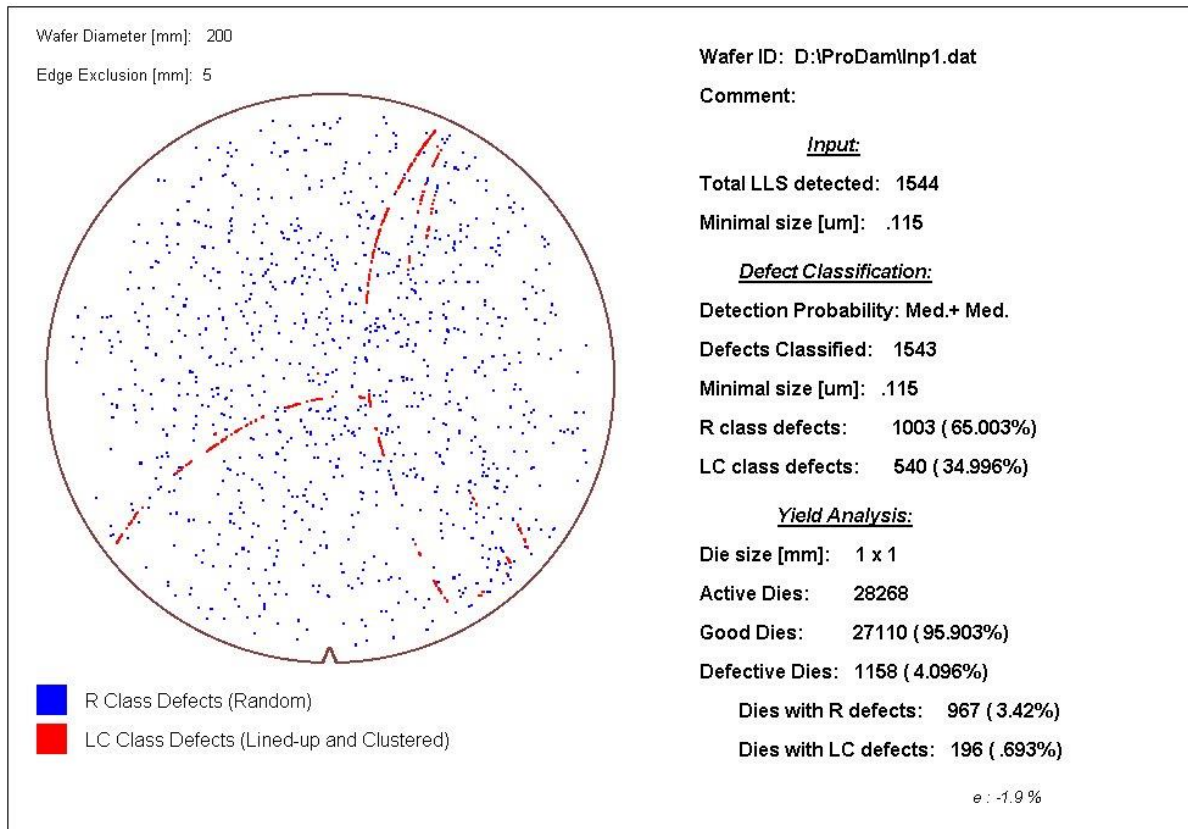


What will you get?

You will get back X, Y coordinates and size of each defect together with its R or LC category. That's not all. You will also get total numbers of R and LC class defects on the wafer, as well as the global characteristics such as yield losses caused by various kinds of defects and the wafer area damaged by your imperfect polishing or cleaning process. Calculated data will be presented in report .

System requirements

- Windows 95/98, NT4.0 or higher (Japanese or English); - For faster processing 48 MB RAM and at least 150 MHZ processor are recommended; - Display resolution 1024x768 pixels or higher.



Input

- Input data: x, y coordinates and sizes of LLS; - Input files: *.dat (ASCII), *.txt (ASCII), *.dst (Seiko SPA 460).