

# Project management

[Engineering](#), [Project Management](#)



Project Management: Green Computing Research Team BY YOU YOUR SCHOOL INFO HERE HERE Project Management: Green Computing Research Team In this particular scenario, the scattergram is the most useful project management tool. It serves as a graphical representation as a means to isolate or identify potential correlations based on the information being sought. The following scenario is one where the scattergram would be effective at Green Computing Research: Ben, the project sponsor, is attempting to determine whether production is reaching its maximum efficiency. Consider the following: The current temperature of the production vat designed to create computer software chips is to be maintained at 412 degrees F in order to secure the bondings between gold fillings and the iron composite used to develop the chips in a manner that secures their longevity in personal home computers. At the same time, the production expectations demand a defect rate of only five percent for a batch run of 4, 000 chips that are usually run in a single production shift. However, recent gold bonding tests of the produced chips have indicated that the defect rate continues to increase, thus many of the computer chips produced are being returned to the organization by angry customers who are threatening to pull out on their supply contract. There is clearly a problem with the temperature on specific batch runs that can likely be attributed to poor monitoring by the production staff. In this scenario, Ben wants to identify where the most inefficient temperature readings are occurring during the production run and isolate where the defects are occurring. As part of the monitoring process, Ben takes hourly readings of the temperature and demands that each set of chips be labeled with tags that read Batch Run A, B, C and D to represent the

different four hour shifts responsible for their production. As part of the quality assurance process, each set of chips is put through rigorous QA testing to determine whether they are likely to experience high defect rates after their placement in consumer-based computer systems. QA results measuring defects are then instantly reported to Ben who charts them on the scattergram throughout a one week monitoring period. After the week is completed, Ben compares the hourly gold integrity readings to the level of defect rates and spots a pattern. At certain points of the day, production shift A, based on the cloud formation of the scattergram, has the most correlations where the data is clustered together. This indicates that this particular production shift is ineffective and requires additional training on how to properly maintain the vat temperature and further test the integrity of the gold bonding on each computer chip without necessarily having to rely on QA for costly and time-intensive defect testing. The scattergram is the most important method of measuring production quality as the cluster of data can track a specific action being undertaken, especially in an environment where production staff cannot be controlled effectively. By plotting the data on the scattergram regularly over a specified period, later review can indicate where defects are occurring most regularly. The benefits of this type of quality control tool could be better production, better training for poor production staff, and definitely improved quality after the product has been purchased by high-dollar customers. Though this tool requires regular assessment of the situation requiring data production, the end result is a very clear indication of where the problem is occurring especially if the x or y axis represents a time factor associated with the four different

production shifts. If the rate of defect is measured by the y axis and the time is represented by the x axis, the cluster of data will clearly indicate where the problem is occurring, thus allowing management to change the internal methodology of how production is coordinated and monitored to avoid future problems with lost revenues and gain control over quality.