



Abstract

This paper strives to convey the problems and proposed solutions for Strasbaugh's Nonconforming Report (NCR) Optimization. Strasbaugh is a world leader in silicon wafer polisher and grinder technologies. After a significant down size to the company parts they used to manufacture now have to be purchased, and many of these incoming parts do not conform to Strasbaugh's high standards. This has led to an increase in NCRs that need to be processed, which takes up time, resources and money.

The objective therefore became to update the multi-sheet carbon copy paper system to better optimize the use of these reports and get to the root cause of the issue. This was done using Microsoft Access (per clients request) as a low cost solution with a quick implementation period. Higher cost web-based server solutions were also proposed for future use. The design of the database is simple, sleek and user friendly. The main menu gives options to view the percentage breakdown report, search for potential trends in NCR's, export NCR entries to an excel file, as well as track trends to find faulty suppliers or other major issues.

In addition to the database, three flowcharts were created to document the process for current employee use and aid in training future employees. Lastly, a cost breakdown was done to show Strasbaugh that by using the new procedure they would be able to save money in the long term. Ideally, Strasbaugh would be able to identify root causes by using the database and completely eliminating all NCRs. Realistically, they will be able to reduce somewhere between 25% and 50% of their NCRs. In reducing 25% Strasbaugh would save \$11,250 in overtime caused by rework and \$1,502.40 in time the Quality Engineer can spend doing someone else or even towards solving the root causes. With a 50% reduction, the savings would double.

As Strasbaugh has more money and resources they can dedicate to improving this process, they can begin using a web-based server. This will allow them to easily send data within the company, input NCRs from multiple locations, and generate more in depth reports for management. With a web-based server, an administrative account could also be created so not all information is accessible and only the administrator will have editing capabilities. The following report will give a detailed analysis of the processes used and the end deliverables to be given to the client.