TITLE

A Study of the Communication of Design Engineering Information by way of
Computer Systems within the Automotive Manufacturing Community

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EXECUTIVE SUMMARY

Since the 1800's, engineers have communicated their ideas through a specially viewed projected, 2-D drawing called a design. With the advent of computers in the middle of the 20th century, it appeared that a better, and faster, less 'human error' method of communicating design ideas has arrived. Yet, as the 21st century begins, the automotive manufacturing community is at a lost to why it is taking longer, and requiring more effort, to communicate their ideas, especially in when compare to the speed of communication right before the advent of computers. This study was conducted to possible issues that have occurred since the introduction of computer systems, and to see if any efforts were made to resolve them.

What was found in this study was the major issues with the computers are their cost, their incompatibility with each other, and the questionable cooperation within the automotive community to resolve computer issues. With the community beset with a multitude of communication methods, computer tools that are not compatible, and the issue of not fully converting design engineering tasks to those tools, communication of information is going to get worse with each additional computer system introduced and that these systems will bankrupt companies at an increasing rate.

This researcher recommends that the automotive community either revise the methodology in which it does tasks on the computer, so that all programs work together, or purchase just system for the whole of the community to use. This choice is soon slipping fast, for the vendors that sell these systems are merging together, with no possible way for community to tell if this is to their advantage or not.

TO OBTAIN A COPY OF THE FULL THESIS

If you like a full copy of this thesis – please e-mail Matthew Sawtell at
matthew.sawtell@comcast.net to make arrangements. Please note the ZIP file is
6 Megabytes in size, so sending by e-mail may be problematic.