# Proposed Project Description

#### Interface for quick volumetric error compensation of machine tools

Dan Bloch, Samuel Easley, Jennifer Creamer

In order to begin implementation of table based volumetric compensation on the production floor, a machine must be able to be calibrated by maintenance personnel. Current practice uses several Matlab files which are relatively complex to take the raw measurement data and generate compensation tables. A user interface which simplifies this process is therefore necessary. Such a program would take raw comma separated measurement data and a machine configuration and output compensation tables. We propose that the program be created using C#, and would like to take advantage of the techniques that those trained in computer science use to design a program to be easy to support and upgrade in the long run. These techniques could include class and functions created with future expansion in mind. We would also like to take advantage of versioning, archiving, and a team approach to programming.

Support staff includes Boeing electrical engineer Sam Easley, Boeing mechanical engineer Dan Bloch, Missouri S&T professors Douglas Bristow and Robert Landers, and Missouri S&T PhD student Jennifer Creamer.

**Contact Information**

Sam Easley

[samuel.j.easley@boeing.com](mailto:samuel.j.easley@boeing.com)

Dan Bloch

dan.bloch@boeing.com

Douglas Bristow

[dbristow@mst.edu](mailto:dbristow@mst.edu)

Robert Landers

[landersr@mst.edu](mailto:landersr@mst.edu)

Jennifer Creamer

[jcbk4@mst.edu](mailto:jcbk4@mst.edu)