

# Visitor Research Report

**Visitor Name:** Mr. Matthew J. Fischer  
Georgia Institute of Technology

**Area of Research:** Life Cycle Model

**Period of Visit:** May 19, 2008 through August 8, 2008

## **Goal:**

To analyze cost data for NASA's Constellation Program

## **Strategy:**

Look at various reports and data models, and learn new programs and techniques to view this data. By learning these programs, I could manipulate the data to view it in new or different ways. In the process of doing so, we found we needed a new tool, so we decided to build one.

## **Accomplishments:**

Currently, only cost analysts are able to run sets of data and generate specific charts. Someone else must request a new case to be run, and have the analyst run the model and create the new charts. We decided we needed to build a visualization tool for Constellation program cost data in which anyone can manipulate the charts in any way they would like without changing the raw data. The tool would display a sand chart of cost data over the course of the Lunar program. To build this, we looked at various methods of entering data and allowing a user to view it. In the end, we decided PivotTables in Microsoft Excel, along with the ability to program Visual Basic for Applications (VBA), were ideal for construction of our program.

Upon building our program, we came up with many new features that would allow a user to better customize the data and plots they would like to see. We utilized the capabilities of PivotTables to allow the user to break down cost into different Projects, Phases, or other categories that best represent the data. While building the tool, we made numerous improvements such as changing the years on which to plot data, adding a budget line, and changing the plot type.

## **Future Work:**

Possibly add new features to the tool, including manifest data, import/export capabilities, and budget threat scenarios.

## **Pending Publications:**

N/A

**Seminar Presented:**  
N/A