**Analysis and Modeling Guidelines**

1. Study the problem/opportunity. Break it down to its simplest forms. In troubleshooting, this is known as finding the Root Cause; it is impossible to break the problem down further. In any case, the basic building blocks of the issue must be identified and defined. If you are building a model (analytical, project plan or business strategy), it is critical to define the most fundamental components in order to be comprehensive and efficient ;
2. Develop a blueprint/schematic. This can also be called a process flow, or list of steps which start with the basics and build to a desired result. Start with the milestones and develop the process flow, then break these down to their basic elements. This step defines what needs to be done and, possibly, which tools with which to perform these tasks. It is critical to understand that if you do now know the basic logic or rules associated with your problem or opportunity, your ability to fix/develop a model is severely compromised;
3. Lay the foundation. Study and prepare the data. Organize, clean and manipulate the data so it can be readily utilized by your analysis tools. In a dataset, each of the Columns represent a Field, each of the Rows is an individual record. If the data is not in this format, it will be impossible to perform an efficient analysis or build an accurate model. In addition, if the data has noise or impurities, this will compromise the accuracy of the final information;
4. Build the structure. In many cases, data sets will need to be merged into one flat file in one location. In addition, data retrieval from multiple tables into a final form or analysis is necessary.
5. Finish work. Once the data is organized and retrieved, analysis of that data can be performed to produce the final product, information for decision making purposes. This is the heart of the analysis or model, where most of the functions of the software are useful. This is also where most people want to START the process. However, without a systematic approach, these tools will not be effective in producing the desired results.