# *Chapter 2.*
# Understanding the Save File

ACIS stores geometry information to *save files*. Save files are sometimes referred to as *part save files*. These files have an open format so that external applications, such as those not based on ACIS, can have access to the ACIS geometric model. These applications are then able to read the pure geometric data from or write information to a saved model without negatively impacting the ACIS core routines or other external applications. An example of a non-ACIS based application that needs the geometric model information is one that converts an ACIS model to another model format, or vice versa.



## Using the Save File for Other Purposes

With an ACIS file translator or converter in mind, reading and writing are the two primary operations that would be performed on the save file. ACIS tools make these tasks easier, because they already understand the save file format and the underlying classes and structures. If ACIS is not available, the *ACIS Save File Format Manual* provides the basic information needed to accomplish file conversion on your own.

Obviously, reading and writing impose two different approaches as to how you would want to reference the material in this manual. The reading operation requires starting with information (e.g., keywords) in a sequence of a save file, and then tracing in the manual its derived data elements through their parents, determining all data arguments required for each keyword, and then associating these data arguments with the data in that sequence. The writing operation is almost exactly opposite, in that geometric data is probably already available but needs to be somehow transformed into an ACIS-type topology, converted to ACIS data classes given in the manual, associated to ACIS keywords, and then written to the save file in the proper format.

## Save File Types

ACIS supports two kinds of save file: .sat and .sab files. These stand for “save as text” and “save as binary”, respectively. The model data information stored in the two formats is identical.

However, .sat files may be viewed with a simple text editor. White space in the form of spacing between items and carriage returns help readability. A .sab file cannot be viewed with a simple text editor. It is not meant for human readability, but for compactness. A .sab file will not have the white space formatting which “straightens” up the information for human eyes. A .sab file uses different delimiters between elements and binary tags.