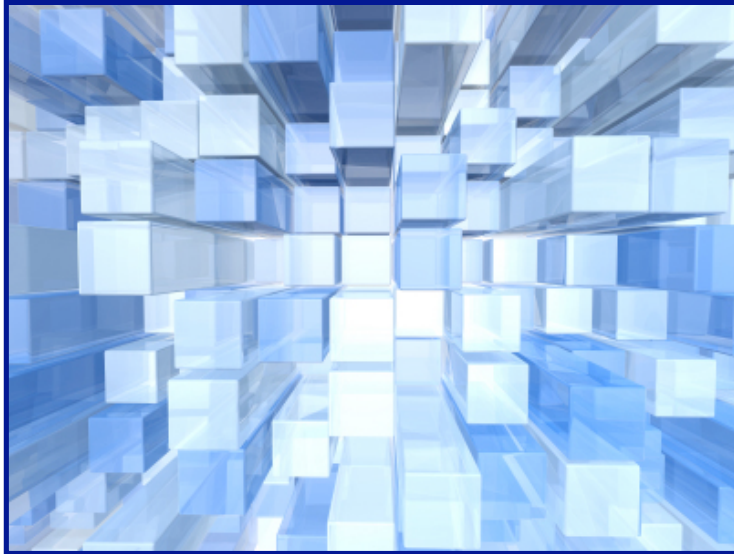




## Numerically Controlled Machine Tool Selection

*Sandia National Laboratory*



Numerically controlled machines can be used to make a wide range of parts in complex geometries. Such tools have the ability to automatically change tools to make different types of cuts. Unfortunately many machines, especially older ones, can only hold a limited number of tools. Consequently, the making of a cut may have to be done with a tool that is suitable but not optimal in terms of cutting.

ANVIL is a software program for making the tapes that control such numerically controlled machines. ANVIL gets some information it needs from blueprints, but still needs to ask the user many questions. For some parts it can take 6 hours or more to answer all of the questions. Exsys Inc. worked with Sandia National Laboratory to develop a knowledge automation expert system, which greatly reduces the number of questions and the time needed to generate ANVIL tapes.