CHAPTER 2   GETTING STARTED WITH ASCEND

2.1 PHILOSOPHY

Our goal is to create a set of very powerful modeling/solving tools. A side effect is that users can often find uses for the tools we did not anticipate. Another is that, while we have tried to build a user interface that lets every user from beginner to expert use our tools (or theirs combined with ours!) in a comfortable fashion, we have almost certainly erred on the side of giving the user too much control. Knowing that to be the case, the user should fearlessly dive in and try to use the system, at first by doing some of the simple problems we have provided in this documentation. The first step, of course, is to start the system up, the purpose of this section.

This chapter largely out of date. See howto-ascend.pdf and instructions on http://www.cs.cmu.edu/~ascend/ascend_download.htm instead

2.1.1 GETTING THE ASCEND SYSTEM AND INSTALLING IT

ASCEND is available through our Web page. Using your web browser, go the URL

```
http://www.cs.cmu.edu/~ascend/Home.html
```

Follow the instructions (the ftp link) there to download ASCEND.

Installing the UNIX version   If you are downloading a version to run on a UNIX workstation, then find someone who is a UNIX expert to help you. The process will involve transferring the source files for ASCEND along with a MAKE file. The MAKE file will allow a UNIX specialist to compile ASCEND and get it ready for use. There are detailed instructions that come with

this version to help in installing it. (Your expert's expertise may be very minimally required for installing it on most systems.)

Installing the PC version

If you are downloading to a PC running under either NT or Windows 95, you will be downloading ASCEND4.zip. Uncompress using WinZip, double click on install.exe and follow the instructions.

2.1.2 STARTING ASCEND

2.1.2.1 FOR PC USERS ONLY

On the PC, simply double click on the ASCEND icon.

2.1.2.2 FOR UNIX USERS ONLY

The ASCEND IV interface is an open system written in TCL on top of several libraries of C code. The users are expected to customize it to suit their individual tastes.

We assume users are at least aware of the existence of environment variables and X resources. If you are not, contact your UNIX expert or the person who installed ASCEND on your system.

Environment Variables

Normally, if you are running on **UNIX** your system administrator will have set up a shell script to let you run ASCEND simply by typing `ascend`. To see if this is true, try typing
`ascend -h`
If this doesn't work, you may need to define the following environment variables in your `.login` (or perhaps `.profile`) file, or if you can find the ASCEND binary, it will frequently run without requiring a shell script.

ASCENDDIST   points to the directory where the ASCEND code has been installed.

```
setenv ASCENDDIST /usr1/ballan/asc4/test
```

ASCENDHELP   points to the ASCEND help file tree on your system. The tree does not have to reside with the rest of the distribution, though it may. This should have been configured for you when was installed.

ASCENDLIBRARY   is a colon-separated list of directories where ASCEND looks for files which are required by other files or which are read into ASCEND from a script without giving a complete path name. If you do not define ASCENDLIBRARY, the system will make guesses that usually work.

```
setenv ASCENDLIBRARY $ASCENDDIST/models/examples:$ASCENDDIST/models/libraries
```