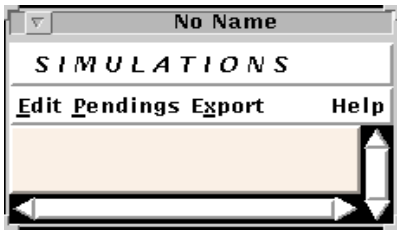
CHAPTER 5 MERGED INTO LIBRARY

5.1 SIMS WINDOW

The *Sims* window, short for Simulations window, contains the name of the simulations that can be run. We can see in Figure that there are three major menus and the **Help** menu available through the Sims window.

Figure 5-1



The menus are the **Edit**, **Pendings**, and **Export** menus. There are two ways a simulation can be created. The first way is manually through the Library window. Assume for the moment that you are running a reactor model and the following libraries and models have been loaded into the *Library* window.

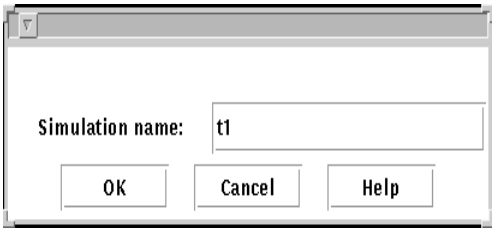
```
ivpsystem.lib;
atoms.lib;
components.lib;
H_G_thermodynamics.lib;
stream.lib;
reactor.lib;
test_reactor.asc;
```

By highlighting test_reacotr.asc, the following options appear in the right hand side section of the *Library* window.

```
reactor_control
reactor_test
td_reactor_test
```

If you highlight reactor_test option and select **Compile** from the **Create** menu, a window appears that allows the user to enter the name of the simulation. In this case, we will simply call the simulation t1. Figure shows this window.

Figure 5-2



Once the simulation name has been entered, select the OK button. Once this is complete, we see that

```
t1 IS_A reactor_test
```

has been added to the *Sims* window. The *Sims* window can contain any number of simulations.

The second way to create a simulation is through the *Script* window. Assuming that the necessary libraries and models have been loaded into the *Library* window, simulation t1 above can be created by executing the following line in the Script window.

```
set model t1;
```

We see that the second option is not only faster, but it is more convenient.

5.1.1 THE EDIT MENU

There are three selections available in the **Edit** menu, these are **Delete**, **Save**, and **Restore**.

5.1.1.1 DELETE

Once a simulation has been loaded into the *Sims* window, it can easily be removed by selecting the **Delete** option from the **Edit** menu.

5.1.1.2 SAVE

This option is currently not functional.

5.1.1.3 RESTORE

This option is currently not functional.

5.1.2 THE PENDINGS MENU

There are three selections under the **Pendings** menu, these are **To Screen**, **To Display**, and **To File**. Pendings in a simulation are relations that have not yet been fully processed by ASCEND's compiler. It is the modeler's job to correct the pending relations in order to arrive at a fully functional simulation. Corrections may be made by either creating a model which refines the current model or by editing ASCEND code and starting over. The Pendings menu gives the user access to information about the type and location of the pending statements.

5.1.2.1 TO SCREEN

By selecting the **To Screen** option from the **Pendings** menu, all of the simulation pendings are displayed in the window from which ASCEND IV was started.

5.1.2.2 TO DISPLAY

By selecting the **To Display** option from the **Pendings** menu, all of the simulation pendings are displayed in the *Display* window.

5.1.2.3 TO FILE

By selecting the **To File** option from the **Pendings** menu, the *File select box* is opened and the user is asked to enter the name of the file in which to save the model pendings.

5.1.3 THE EXPORT MENU

There are three selections under the **Export** menu, these are **to Browser**, **to Solver**, and **to Probe**.

5.1.3.1 TO BROWSER

By selecting the **to Browser** option from the **Export** menu, the simulation is loaded into the *Browser.* From the *Browser,* the model can be explored in more detail. This is covered more thoroughly in the Browser section of the documentation.

5.1.3.2 TO SOLVER

By selecting the **to Solver** option from the **Export** menu, the simulation is loaded into the *Solver.* (Note that exporting to the solver causes a degrees of freedom analysis to be carried out.)

5.1.3.3 TO PROBE

By selecting the **to Probe** option from the **Export** menu, all of the variables of the simulation are loaded into the *Probe*. This is not recommended as there are usually more variables in a model than the user would wish to view at one time. However, if the user does wish to look at all of the variables and their current values, the **to Probe** option can be useful. More on this is covered in the Probe section of the documentation.