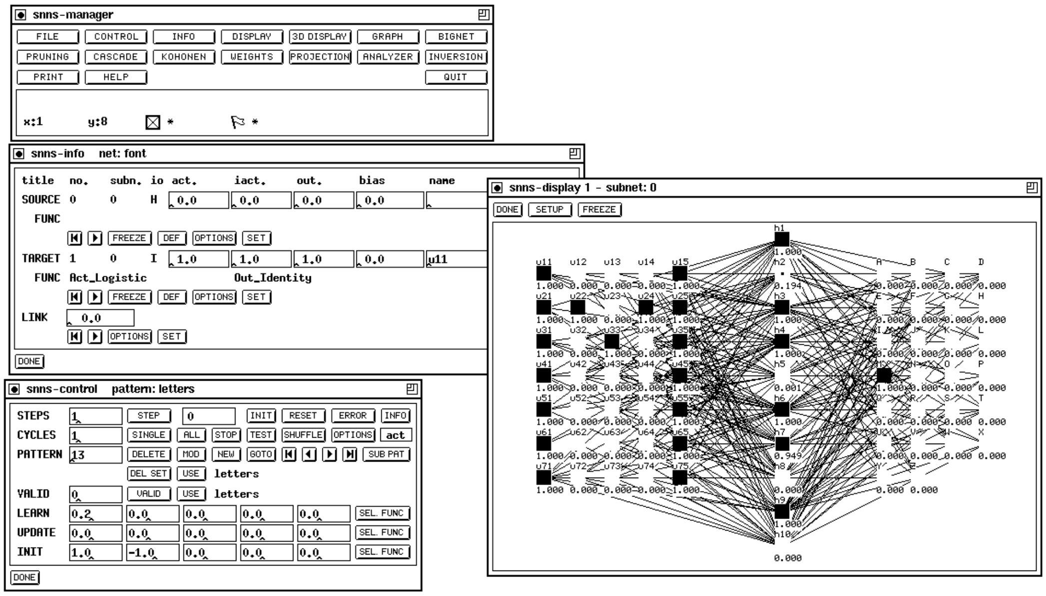

Figure 4.1: Manager panel, info panel, control panel and a display.

The complete help text from the file `help.hdoc` is available in the text section of a **help window**. Information about a word can be retrieved by marking that word in the text and then clicking `LOOK` or `MORE`. A list of keywords can be obtained by a click to `TOPICS`. This window also allows context sensitive help, when the editor is used with the keyboard.

`QUIT` is used to leave XGUI. XGUI can also be left by pressing ALT-q in any SNNS window. Pressing ALT-Q will exit SNNS without asking further questions.

4.2.1 Manager Panel

Figure 4.2 shows the manager panel. From the manager panel all other elements that have a different, independent window assigned can be called. Because this window is of such central importance, it is recommended to keep it visible all the time.

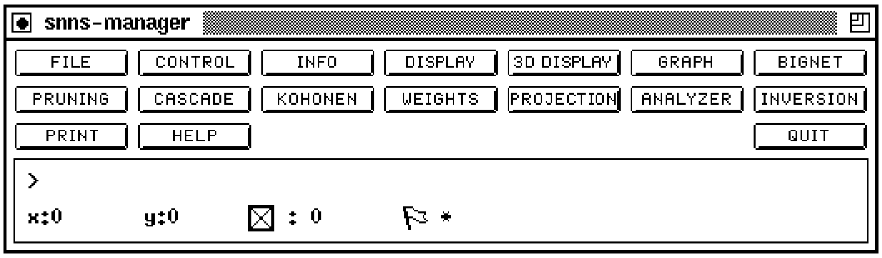

Figure 4.2: Manager panel

The user can request several displays or help windows, but only one control panel or text window. The windows called from the manager panel may also be called via key codes as follows ('Alt-' meaning the alternate key in conjunction with some other key).

FILE	Alt-f	CONTROL	Alt-c
INFO	Alt-i	DISPLAY	Alt-d
3D DISPLAY	Alt-3	GRAPH	Alt-g
BIGNET	Alt-b	PRUNING	
CASCADE		KOHONEN	Alt-k
WEIGHTS	Alt-w	PROJECTION	Alt-p
ANALYZER	Alt-a	INVERSION	
PRINT		HELP	Alt-h
QUIT	Alt-q		

SNNS Status Message:

This line features messages about a current operation or its termination. It is also the place of the command sequence display of the editor. When the command is activated, a message about the execution of the command is displayed. For a listing of the command sequences see chapter 6.

Status line

This line shows the current position of the mouse in a display, the number of selected units, and the position of flags, set by the editor.

X:0 Y:0 gives the current position of the mouse in the display in SNNS unit coordinates.

The next icon shows a small selected unit. The corresponding value is the number of currently selected units. This is important, because there might be selected units not visible in the displays. The selection of units affects only editor operations (see chapter 6 and 6.3).

The last icon shows a minature flag. If `safe` appears next to the icon, the safety flag was set by the user (see chapter 6). In this case XGUI forces the user to confirm any delete actions.

4.2.2 File Browser

The file browser handles all load and save operations of networks, patterns, configurations, and the contents of the text window. Configurations include number, location and dimension of the displays as well as their setup values and the name of the layers.

In the top line, the path (*without* trailing slash) where the files are located is entered. This can be done either manually, or by double–clicking on the list of files and directories in the box on the left. A double click to [..] deletes the last part of the path, and a double click to a subdirectory appends that directory to the path. In the input field below the path field, the name for the desired file (without extension) is entered. Again, this can be done either manually, or by double–clicking on the list of files in the box on the left. Whether a pattern file, network file, or other file is loaded/saved depends on the settings

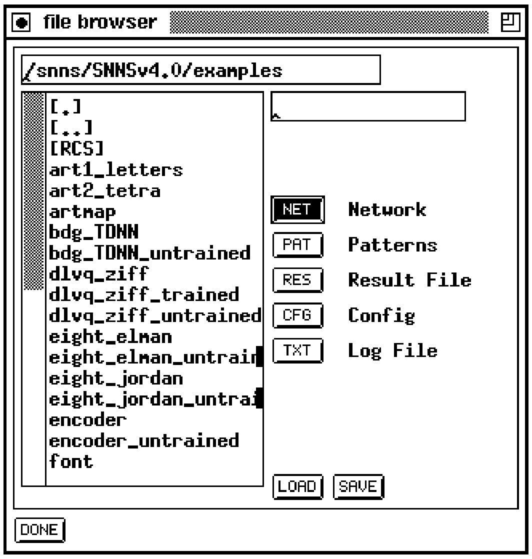

Figure 4.3: File Panel.

of the corresponding buttons below. With the setting of picture 4.3 a network file would be selected. A file name beginning with a slash (/) is taken to be an absolute path.

Note: The extension `.net` for nets, `.pat` for patterns, `.cfg` for configurations, and `.txt` for texts is added automatically and *must not* be specified. After the name is specified the desired operation is selected by clicking either LOAD or SAVE. In the case of an error the confirmer appears with an appropriate message. These errors might be:

Load:	The file does not exist or has the wrong type
Save:	A file with that name already exists

Depending upon the error and the response to the confirmer, the action is aborted or executed anyway.

NOTE: The directories must be executable in order to be processed properly by the program!

4.2.2.1 Loading and Saving Networks

If the user wants to load a network which is to replace the net in main memory, the confirmer appears with the remark that the current network would be erased upon loading. If the question `'Load?'` is answered with YES, the new network is loaded. The file name of the network loaded last appears in the window title of the manager panel.

Note 1: Upon saving the net the kernel compacts its internal data structures if the units are not numbered consecutively. This happens if units are deleted during the creation of the network. All earlier listings with unit numbers then become invalid. The user is therefore advised to save and reload the network after creation, before continuing the work.

Note 2: The assignment of patterns to input or output units may be changed after a network save, if an input or output unit is deleted and is inserted again. This is caused because the activation values in the pattern file are assigned to units in ascending order of the unit number. However, this order is no longer the same because the new input or output units may have been assigned higher unit numbers than the existing input or output units. So some components of the patterns may be assigned incorrectly.

4.2.2.2 Loading and Saving Patterns

Patterns are combinations of activations of input or output units. Pattern files, like nets, are handled by the SNNS kernel. Upon loading the patterns, it is not checked whether the patterns fit to the network. If the number of activation values does not fit to the number of input, resp. output units, a sub-pattern shifting scheme has to be defined later on in the sub-pattern panel. See chapter 5 for details. The filename of the patterns loaded last is displayed in the control panel.

Note: The activation values are read and assigned to the input and output units sequentially in ascending order of the unit numbers (see above).

4.2.2.3 Loading and Saving Configurations

A configuration contains the location and size of all displays with all setup parameters and the names of the various layers. This information can be loaded and saved separately, since it is independent from the networks. Thereby it is possible to define one configuration for several networks, as well as several configurations for the same net. When XGUI is started, the file `default.cfg` is loaded automatically.

4.2.2.4 Saving a Result file

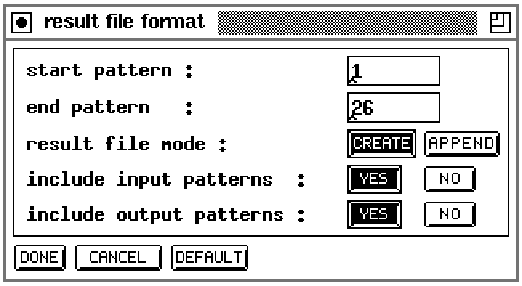

Figure 4.4: Result File Popup

A result file contains the activations of all output units. These activations are obtained by performing one pass of forward propagation. After pressing the SAVE button a popup window lets the user select which patterns are to be tested and which patterns are to be saved in addition to the test output. Picture 4.4 shows that popup window. Since the result file has no meaning for the loaded network a load operation is not useful and therefore not supported.