This is the 'screen-play' for the sample video Cyberfungus02.avi (an AVI file (Audio Video Interleaved) introduced by Microsoft in November 1992)

When you *play the video ...* you will see the blank **Neighbour-Sensing** start-up screen. The user's first activity is to choose a '*strategy*' or *parameter set* from the menu of built-in sets.

The menu offers Boletus, Amanita, Trichoderma, Random, Conus (which makes a conical cybermycelium), Cords (which makes strands of parallel cyberhyphae), and standard (a 'general purpose' starting set). I choose the **Amanita** strategy here, and immediately press the *Start* button.

You can see that the simulation has started by the appearance of descriptive numerals in the bottom left corner of the frame [for example: time 8 (8 program time units have elapsed), tips 3 (the cybermycelium has produced three cyberhyphal tips), length 12.7 (total length of cyberhyphae produced = 12.7 program length units), and unit 4.23 (average length of each cyberhyphal segment)].

Mais quel dommage! **We can't see the simulation on screen** because I failed to centre the starting cyberhyphal tip in the field of view before pressing the start button**!!** Cue panic as I scramble to adjust the right-hand slider to bring the simulation down to the field of view, and then the slider on the bottom frame to set it into the centre.

Note, though, that while this adjustment is being done the simulation continues serenely. This is generally true of the orientation controls (field of view, rotation, magnification) they operate while the simulation proceeds.

The simulation is then allowed to continue to 132 time units (= 136 tips), at which time I click the *pause check box* to stop the simulation.

I then activate the *rotation controls* at the top of the frame. Rotating the cybermycelium first around the horizontal axis and then around the vertical axis (notice that the amount of rotation is shown in angular degrees just to the left of each slider), in order to inspect *the three dimensionality of the cybermycelium*. That done, I click the small button labelled 0 (zero) at top right and this sets the rotations back to zero degrees.

Then I move my attention to the *magnification* (**scale**) of the simulation by moving the *scale slider* at the top of the frame. Note how the **scale bar** (top left of the field of view) expands as this is done. Note also that this control *does not affect the simulated cybermycelium*. This is, effectively, a zoom control, which allows you to zoom into the cybermycelium to inspect closely the cyberhyphae and their branching system.

Pause the final stage of the video for a while to appreciate some of the detail the most magnified stage reveals:

You will have noticed before this, that the cyberhyphae have blobs on the end (each cyberhyphal apex is a small circle). This is not very realistic, real live fungal hyphae do not go around with blobs on the end; so these are modelling information devices. They're not just any old blob, they are colour-coded blobs (actually, properly called '**tags**'), which the user can use to identify *particular* cyberhyphal tips. In the simulation shown in the video, cyberhyphal tips are either blue or red. These tags identify the position of the 'growing' apex, and are colour-coded *red for non-growing and blue for growing tips* in the algorithm iteration which is displayed.

You may have noticed earlier, but will more easily see in the magnified image, that the colour of the cyberhyphae also differs. The program knows the exact position of every cyberhyphal segment it creates, so when it sends that information to the visualiser it can include other colour-coded information about the cyberhyphal segment. In the video simulation the colour coding shows the **age** of the cyberhyphal segment, where age is expressed in terms of the number of iterations of the program algorithm since the cyberhyphal section was formed; in this simulation we have chosen that the youngest (that is, most recently produced cyberhyphal sections) should be coloured red, and then the colours vary through green and blue to black for the oldest (= *original*) hyphal segments.