

Appendix 6

Trouble-shooting and Tips

As for any complex system, the number of ways in which the model can go wrong is nearly infinite, while there is only one (or a few) ways it can go right. So the odds certainly are against us. If things go wrong, however, there are a number of ways to identify the source of the errors as a step towards mending it.

Difficulties in loading the files:

- o Links can not be established: check whether you have indeed opened the right XLS file and have not changed the position of any of the linked parameters by adding or deleting rows or columns or moving cell contents around,
- o Low Memory ('cannot continue DDE conversation'); it may help to remove all memory demanding programs, including net-work links and microsoft office toolbars from the memory; sometimes it helps to re-boot the computer and start afresh; this type of error message may occur when you update the links by running the Ctrl+Y, Ctrl+W or Ctrl+U macro in the excel; if the problem persists you'll have to get more RAM on your computer (32 MB is a bare minimum); you can also make runs in the Stella model without opening the excel + links, or close the excel file after updating parameter values, to increase the memory allocation for the Stella model.
- o Running speed can be increased by locking graphs/tables that you're not currently interested in.
- o Links are not working; WaNuLCAS.xls is developed using MS Excel with English language as the settings. If you use MS Excel with settings on other languages the link will not work. You will need to modify the links within the model (WaNuLCAS.stm) using STELLA version 6 or above.

Error message at start or during RUN

It is possible that when you press RUN you get an error message, instead of output. The message will indicate a parameter name and the error usually consists of division by zero. We have tried to protect all equations from such an event, but if necessary you can add an 'If *** <> 0 then '...existing equation...' else 0' statement to the equation involved, with the *** replaced by any divisor in the equation.

Trees or crops do not grow at all

A second class of errors is that trees or crops do not grow as expected, or other events do not happen as you thought you asked for in the calendar. In such case you can add a new table to the output screen and check where the error originates by tabulating output values related to the event. For trees and crops it is helpful to tabulate the growth stage as well as components of the biomass, to check whether the error is in the plants not getting started at all, or not making biomass. It may be necessary to tabulate input values and compare with the values you intended. Sometimes the x axis for tabulated input parameters, such as the strings of crop or tree parameter, gets changed and all parameter values are shifted by one or

more positions, leading to nonsensical results; if this happens open the graph and read just the number of points. You can try the 'return to default' button on the 'input' screen to restore (unintentional) modifications of parameter settings that may be responsible for unexpected run results; if you want to modify the 'default' values to which you return with this button, you have to modify the values in the dialogue boxes on the 'second level' (the modelling layer).

