SynthSys Hands-on Tutorials on the Arabidopsis Framework Model for plant scientists, 2 and 5 December 2014.

Digital Gardening!

What limits the size and mass of a growing plant? How would your experimental plants grow under different conditions? Simulate and see!

Whether you are a plant scientist with no modelling experience or a mathematical modeller new to plant science, our simulation model has a user-friendly interface and an animation of the growing plant to get you started.

Aim

This online tutorial is intended for plants scientists, systems biologists and modellers interested in running the Arabidopsis Framework Model (recently published as Chew et al., 2014; doi: 10.1073/pnas.1410238111). Others might find it hard to follow: please contact us by email.

We will briefly introduce the model and our online resources. Participants will run the model on their own computers, in the free version of the graphical modelling software Simile. You will learn protocols that alter environmental conditions such as light and temperature, and the genotype of the plant, together with some pointers on working with your results.

Times

We are running two online sessions. Join us at ONE of the sessions below; please connect 15 minutes early to set up your web conferencing (see below).

Tuesday 2nd December 2014 (17:00 – 18.30 GMT): EU and Americas.

Friday 5th December 2014 (09:00 – 10.30 GMT): Europe, Africa and Asia.

Simile installation

1. Download and install the free Evaluation edition of Simile from here
   http://www.simulistics.com/products/simile.php
   Choose the appropriate version for your computer.
2. To test that the software is working properly, open the file 'forest' in the 'Examples' folder and click the Run/Play button. You should see trees growing in a pop-up run display window.

Model download

1. Download the Arabidopsis Framework Model from SynthSys' model repository PlaSMo, here
   http://www.plasmo.ed.ac.uk/plasmo/models/model.shtml?accession=PLM_76
   Download all the Supplementary Data Files (except the MATLAB version) at the bottom of the page and follow instructions 1-3 to save the correct files in the right folders.
2. The instructions explain how to test that the model is working properly, but we will also cover this during the tutorial.

Webinar connection

We will use the GoToMeeting service, which will either load in a browser or download a Java application to run locally on your computer. When you are ready to connect on the day, navigate your browser to the URL for the meeting time that you wish to attend:

Tuesday 2nd December 2014 (17:00 – 18.30 GMT) https://global.gotomeeting.com/join/552532477, Access Code: 552-532-477

Friday 5th December 2014 (09:00 – 10.30 GMT) https://global.gotomeeting.com/join/497122141, Access Code: 497-122-141

The conference will be available to join up to one hour before the start time; the organiser will join the meeting ca. 30 mins before the tutorial start time. The tutorial is limited to 100 simultaneous connections, which should be plenty.

Computer setup

GoToMeeting and the simulation software can run on the same computer, for example for a single user on a laptop, but more screen space is an advantage. Running GoToMeeting in a seminar room with a data projector can also be effective, so multiple users can test distinct simulations on their laptops. Audio is important for the live question-answer intervals; webcam input is optional.

Contacts

Ms. Julie Fyffe, J.Fyffe@ed.ac.uk; @CSBEd (for questions about the web conferencing)

Dr. Yin Hoon Chew, YinHoon.Chew@ed.ac.uk (for questions about the model)

Prof. Andrew J. Millar, Andrew.Millar@ed.ac.uk; @A_J_Millar (for questions about the tutorial)

Funding

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