

A Capsis quick tutorial

Create a ModisPinaster project, build silvicultural scenarios, check the results in the integrated charts.

fc, september 2013

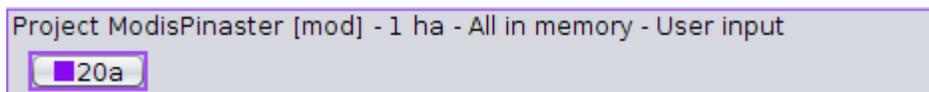
This is an example of use of Capsis and the ModisPinaster model (Teresa Fonseca, UTAD Vila Real, Portugal)

Launch Capsis (*)

New project > ModisPinaster

We use the demo feature to simulate a Maritime pine stand at age 20, 2200 stems / ha with a dominant height of 10.3 m

Hit the 'Demo' button > Ok

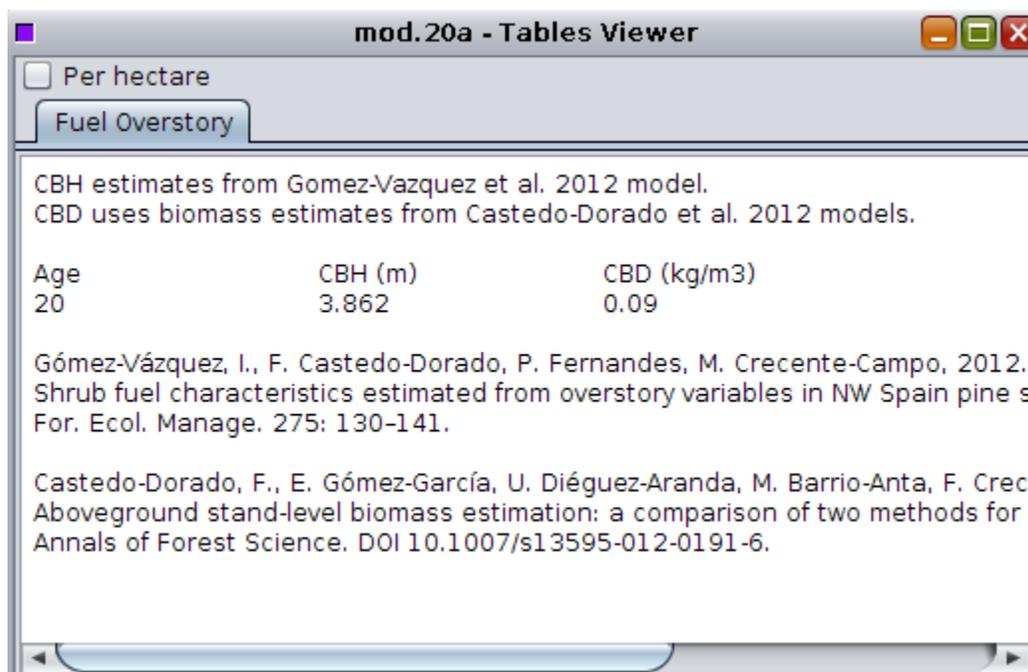


A project opens in the PtojectManager, with the model name, the project name and the surface of the plot. Each step has a date. This is first step of scenario a.

Open a StandViewer

In Capsis' lateral bar, choose the Viewers tab

Double click on 'Tables Viewer'



The StandViewers give a representation of a stand, it can be textual or with graphics. The title bar reminds the step name.

Evolution

Right click on the scenario root step > Evolution
Number of years: 45

Configure the ProjectManager to see fewer steps
Right click on a step > 5



*A simulation in the ProjectManager. Some steps can be hidden for a global check.
The steps with a '*' result from an intervention.*

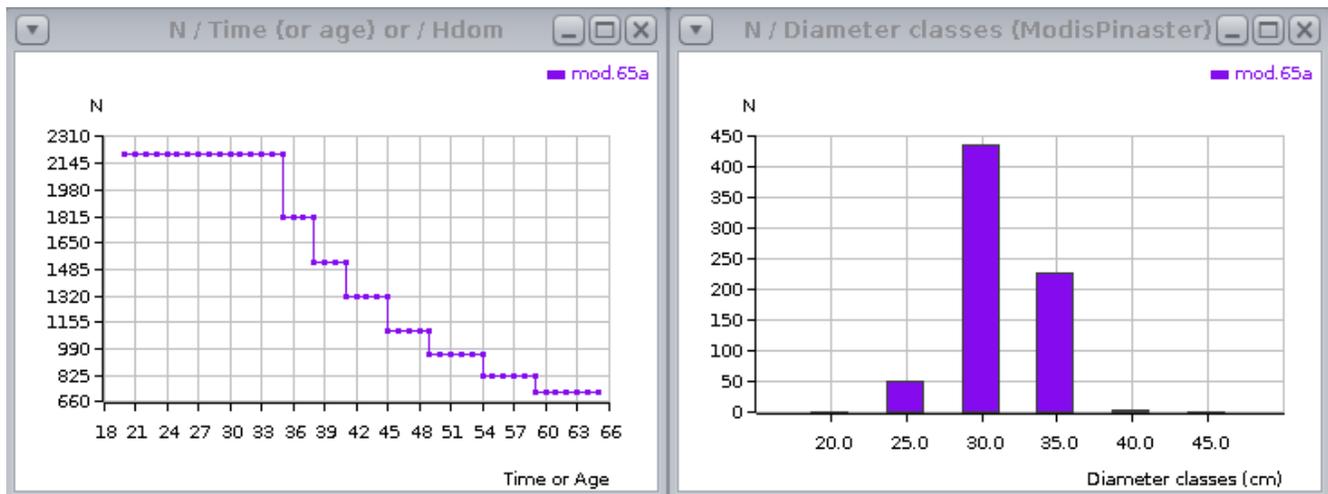
Check the Simulation results in the integrated charts

In Capsis' lateral bar, choose the Charts tab

Click on the last step in the scenario to make it 'current': 

The current step is the one with a colored rectangle

Double click on 'N / Time' and 'N / Diameter classes'



Charts can be opened on whatever step. They open on the current step. They show the scenario evolution from the root step (left) or simply the state of the current step (right).

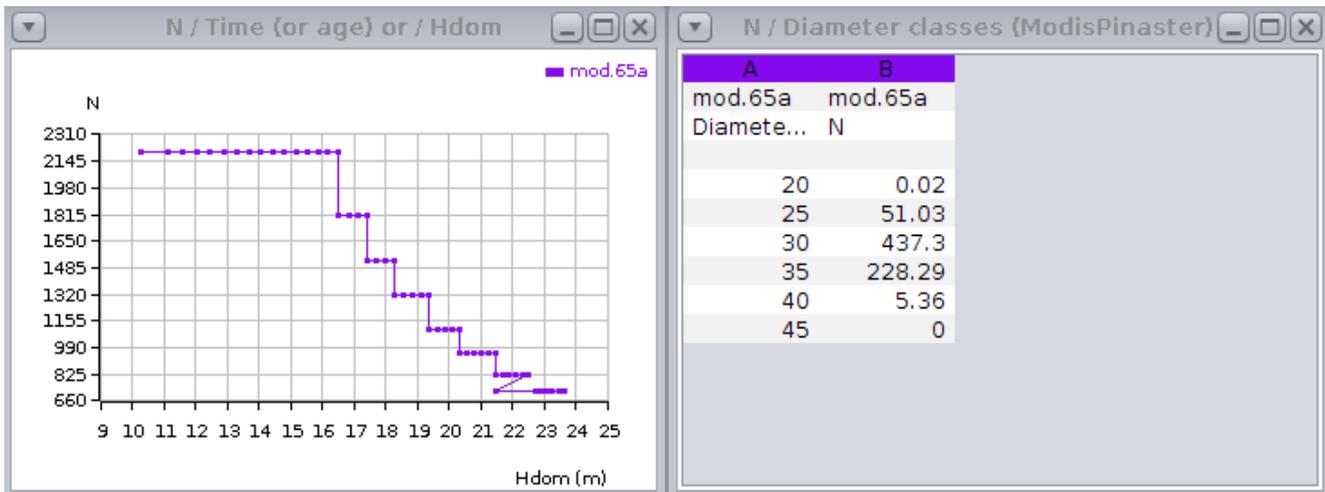
Configure the charts

Right click on N/ Time

Configure > Hdom on X-axis

Right click on N / Diameter classes

Tables



Cutting trees does not change Hdom (calculated on the biggest trees). The data in the table can be copied / pasted to other applications.

Make another scenario

From the root step

Evolution > 15 years

On step 35b

Intervention > Thinning diagram

The 'Thinning diagram' dialog box is shown with the following settings:

- Class width (cm): 10
- Minimum threshold (cm): 0.0
- Per hectare Girth Centered classes
- Option: use the Alder's thinning algorithm
 - Wilson factor
 - Stand density index
 - N trees to cut: 600
- Option: Stumps are treated against Heterobasidion

Below the parameters are five vertical sliders for diameter classes: 0-10, 10-20, 20-30, 30-40, and 40-50. The current values are 0, 1192, 999, 7, and 0 respectively.

Results (approximate):

	Before	After	Cut
N	2200	2200	0
G (m2)	54.2	54.2	0
Dg (cm)	17.71	17.71	0

Use the Alder algorithm > N trees to cut: 600 > Apply > Ok

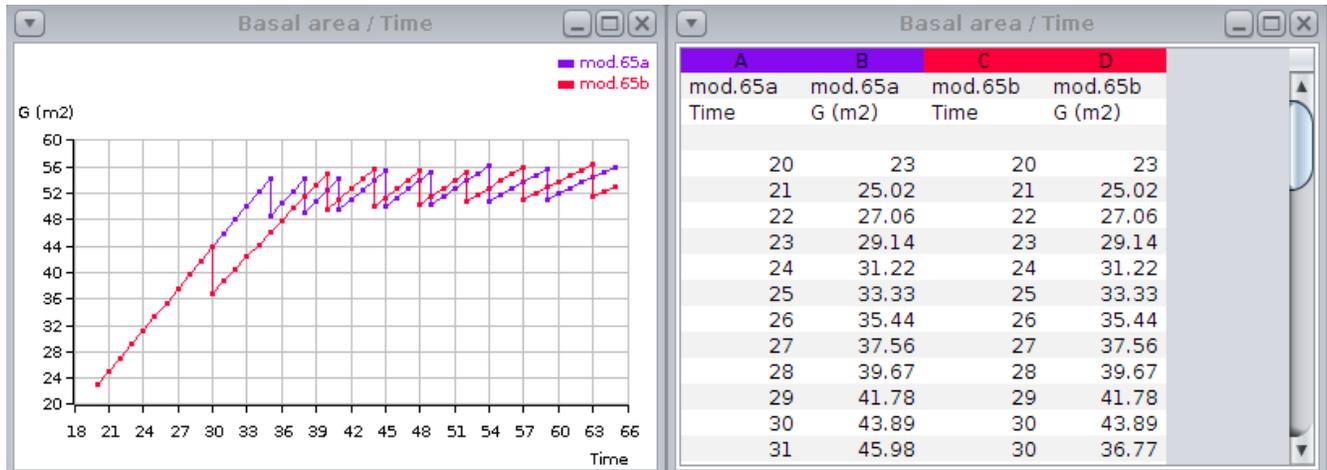
The Alder thinning algorithm changes the diagram to cut 600 trees. It cuts more small trees than bigger. The user can refine the diagram before validating.

On step *35b > Evolution > 35 years

Compare the 2 scenarios With the Basal area / Time chart

Click on 65a > Basal area / Time

Click on 65b > Right click on the chart > add mod.65b



Comparison of Basal area / Time for scenarios a and b. In scenario b, the intervention was earlier and stronger.

* How to launch Capsis

If you have no shortcut on your desktop, launch it from a Terminal:

Under Windows

Open a terminal

Programs > Accessories > MS DOS Prompt

Go to the Capsis install directory

`cd capsis\install\directory\`

Run Capsis in english

`capsis -l en`

Under Linux (e.g. Ubuntu)

Open a Terminal

Dash (lateral bar, top icon) > Terminal

Go to the Capsis install directory

`cd capsis/install/directory/`

Run Capsis in english

`sh capsis.sh -l en`