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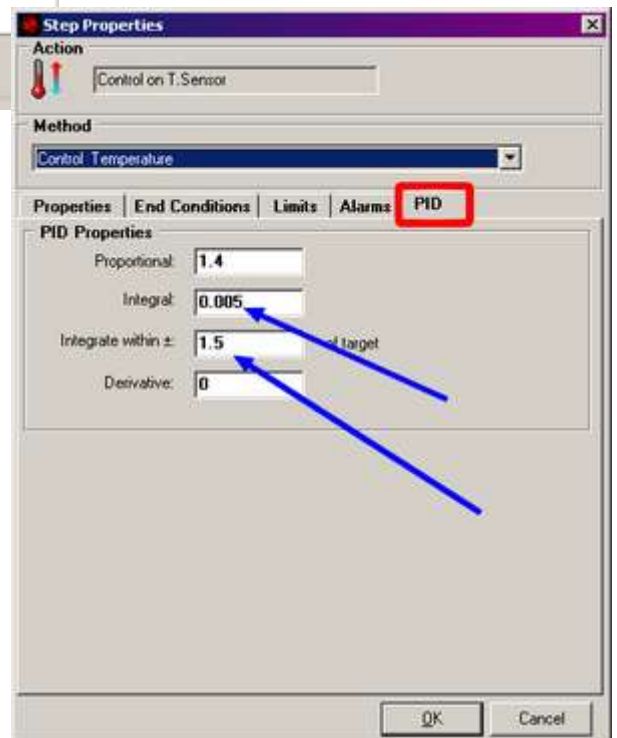
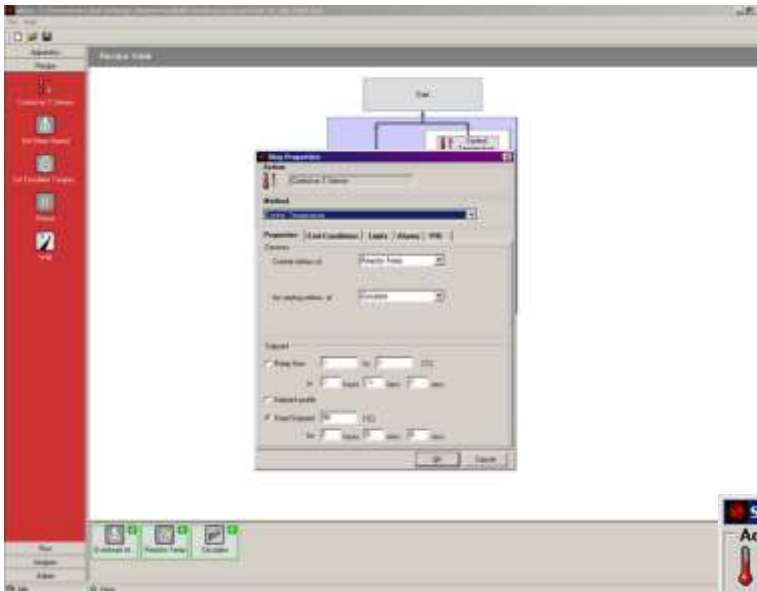
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System/Product	Atlas
Model/Module	All
Subject Type	PC Software
Subject Version	1.2
Author	SV
Date	17/07/2008

Technical Note –

1 How to modify PIDs in recipe steps

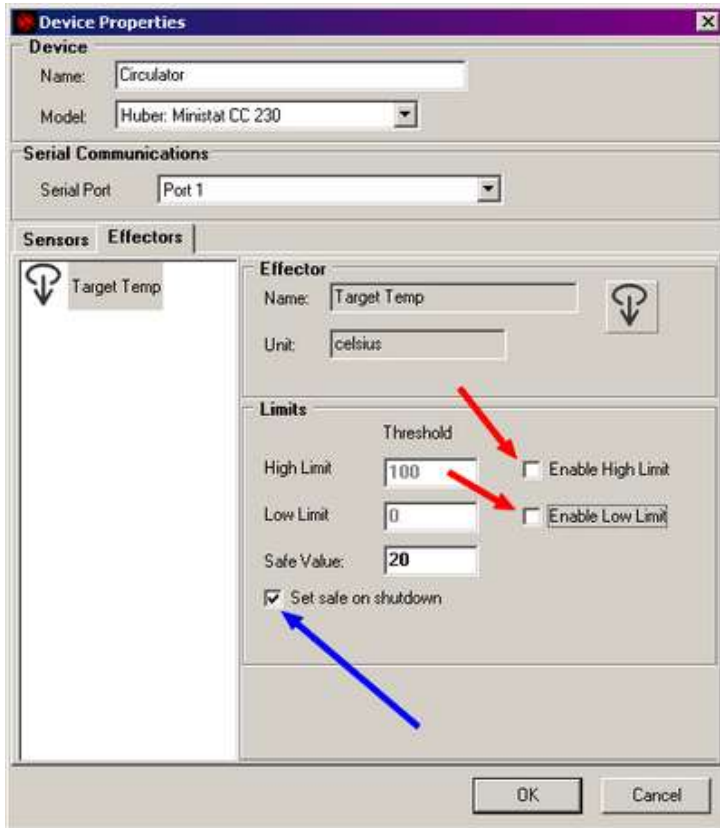
- 1) Double click the temperature control step to open up the step properties box



- 2) Select the final 'PID' tab in the step properties window (Circled in red)

Change the 'integrate within \pm ' value to 5 and the 'Integral' value to 0.00375. This should give you a much better degree of control when running the recipe. Repeat for other temperature control step and then save your recipe.

3) In apparatus view, double click on the circulator to open the device properties window

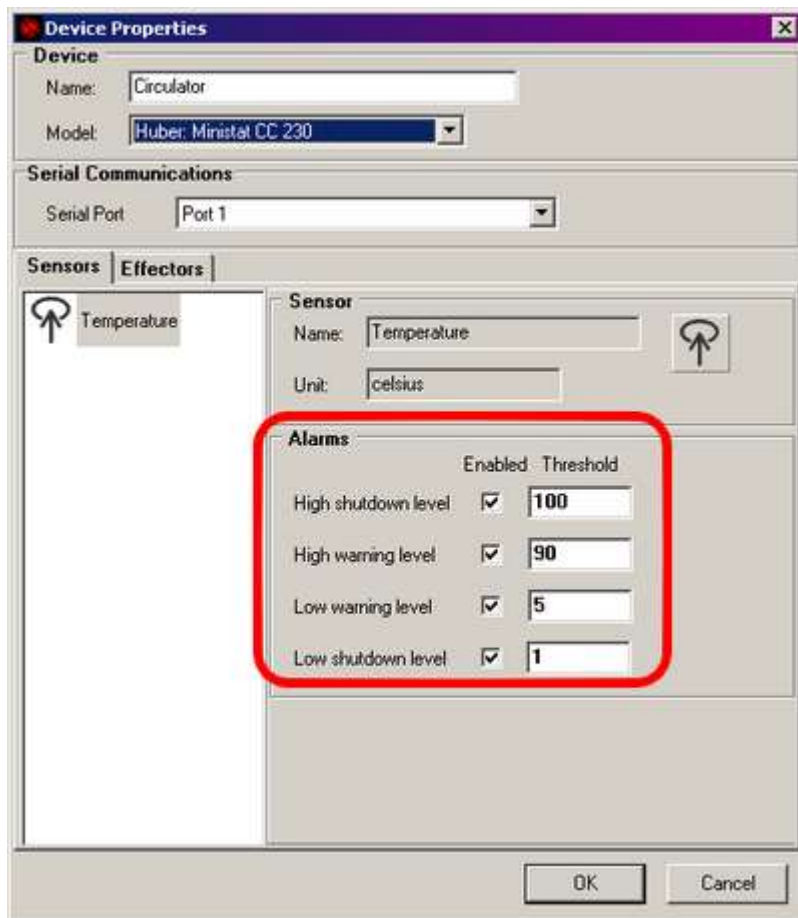


Uncheck the box shown by the blue arrow if you wish the circulator to switch off after your recipe.

Make sure the High and low limits are disabled (uncheck the boxes shown by the red arrows) or set to a value better suited to the oil you are using (e.g. DW Therm = -90°C to 200°C so -85°C to 195°C. Paratherm LR = -40°C to 200°C so -35°C to 195°C). Do not worry about safety if you uncheck the boxes. The Huber has hardware limits set within in the unit that will prevent anything from going wrong. These limits have to be removed/set correctly to allow the software to send the correct setpoints to the Huber for reactor temperature control.

e.g. If the Huber high limit box is checked and set to 100°C and the user has a step which is to control the reactor at 100°C, the highest setpoint the huber will receive from the software is 100°C. But by the time the oil has left the circulator@100°C and reached the reactor jacket, it would have lost heat and the reactor will never reach the users desired temperature.

4) Whilst in the device properties window select the 'Sensors' tab. See next page



Select suitable values for the circulator alarms and shutdowns to suit your needs.

e.g. DW Therm range is -90°C to 200°C. Mainly doing reactions at about 100°C, so, just of the top of my head....

High shutdown level = 160

High Warning level = 155

Low Warning level = 10

Low Shutdown level = 5

These values are entirely up to you. They will be logged in your data file should anything go wrong and can provide piece of mind when the unit is running unattended.

5) Save your recipe again!

With these modifications in place, the software should now do as you command. Please send me the data files as I'd like to see the result. The Huber and the Julabo will behave differently and the data will help is making sure they both perform to their full potential in your recipes.