Editing a Case - Part 3

Setting the element framework

You can change the number of elements in the x, y, and z directions of the element framework using the **Number of Elements** parameter value group, reached by clicking the Edit settings **Model** Tab.

Changing the number of elements in the element grid causes the model to automatically add and/or subtract elements to suit. New elements are populated with interpolated data values. The result may not be exactly what is required, and the interpolated data needs to be carefully checked.

For example, when a model is reduced, the original Active elements that are left retain their original parameter values. The new Boundary elements are assigned the same parameter values as those contained in the nearest old Boundary elements.

If the model increases in size the original Active elements retain their original parameter values and the new Active and Boundary elements are assigned the same parameter values as those contained in the nearest old Active and Boundary elements. These new assignments of parameter values need to be carefully checked and edited if necessary.

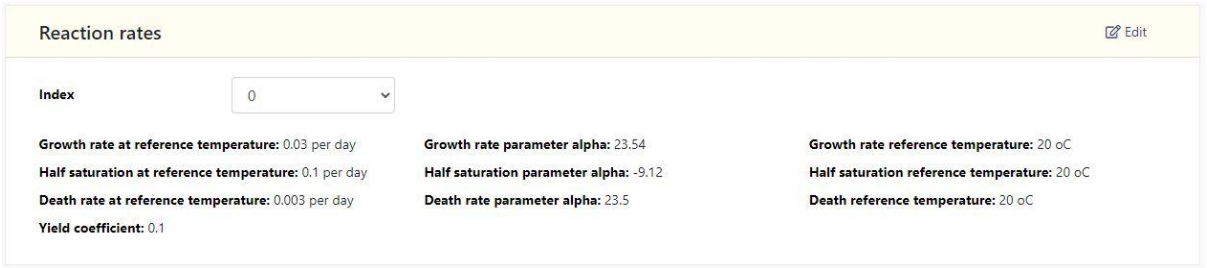
Set the bio-chemical waste degradation rates

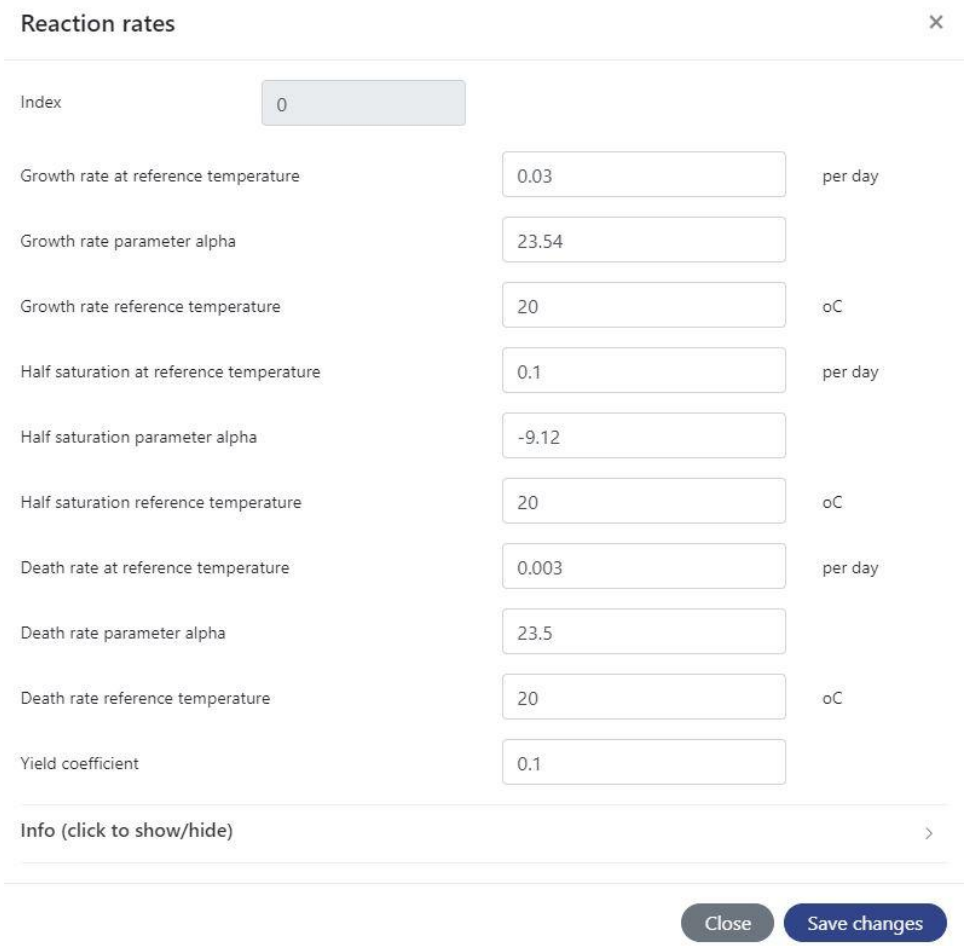
LDAT defines a set of chemical reaction pathways to numerically model the process of waste degradation.

The rate at which each of these chemical reactions takes place is calculated using the Monod equation. This equation has four main parameters, three of which can vary with temperature.

For each of these three temperature dependent parameters a value at a reference temperature is required, together with a temperature function parameter value alpha

As can be seen in the screen snip above the individual reaction rates may be edited by first clicking the **Model** Tab and then selecting a reaction rate index from the drop down in the **Reaction rates** group. Then click the Edit button.. This then leads to a text box editor in a popup dialog as shown below.





Further details about the role of Reaction rates in controlling the bio-chemical degradation pathways in Waste materials may be found by downloading the reference: **Development of the LDAT degradation algorithm**.