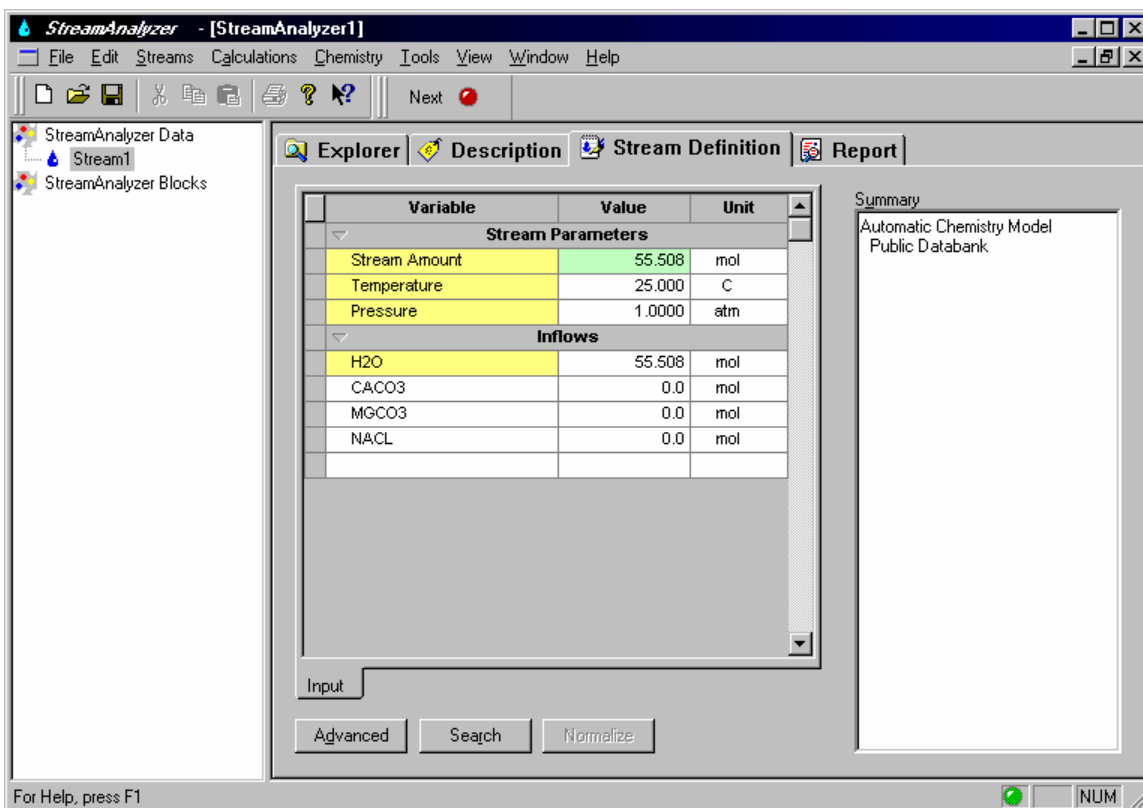


OLI Tip # 04

How to Select Solids and turn on Scaling Tendencies?

You can eliminate solids from the chemistry if you want to speed up the calculation or to prevent a solid that is known not to form. You can obtain a scaling tendency for the eliminated solid if you so require.

First, enter some chemistry into the grid. In our example we are entering calcium carbonate, magnesium carbonate and sodium chloride



Variable	Value	Unit
Stream Parameters		
Stream Amount	55.508	mol
Temperature	25.000	C
Pressure	1.0000	atm
Inflows		
H2O	55.508	mol
CaCO3	0.0	mol
MgCO3	0.0	mol
NaCl	0.0	mol

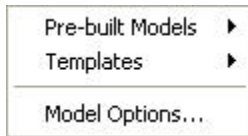
Summary
Automatic Chemistry Model
Public Databank

Input
Advanced Search Normalize

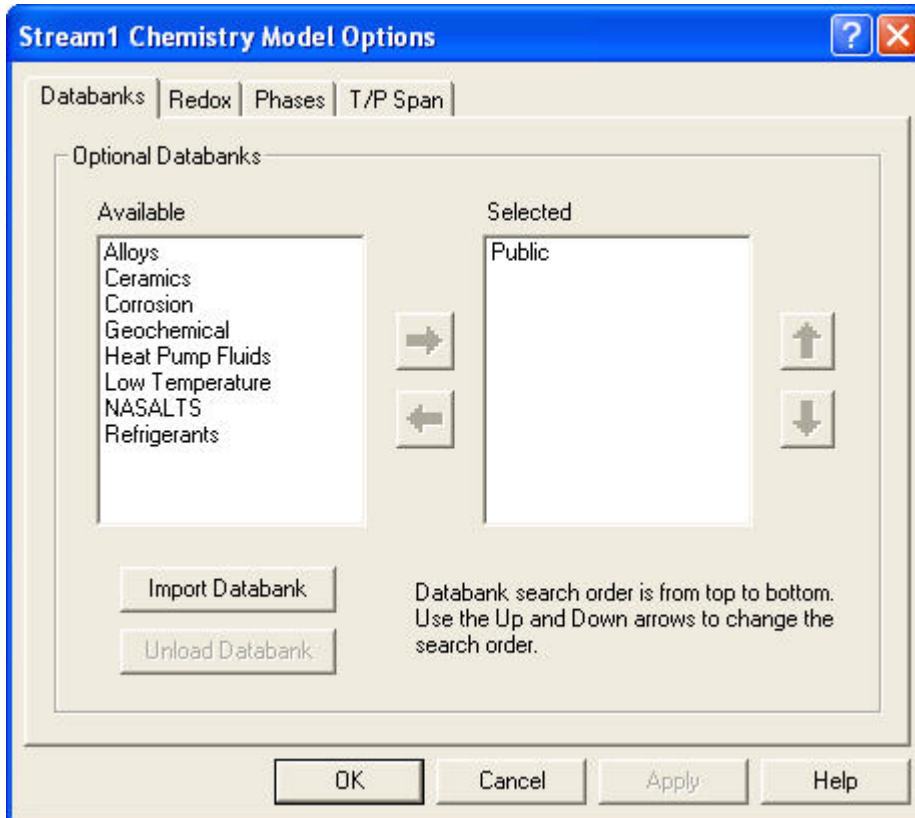
For Help, press F1

Select ***Chemistry*** from the menu items.

This will display a list of choices.

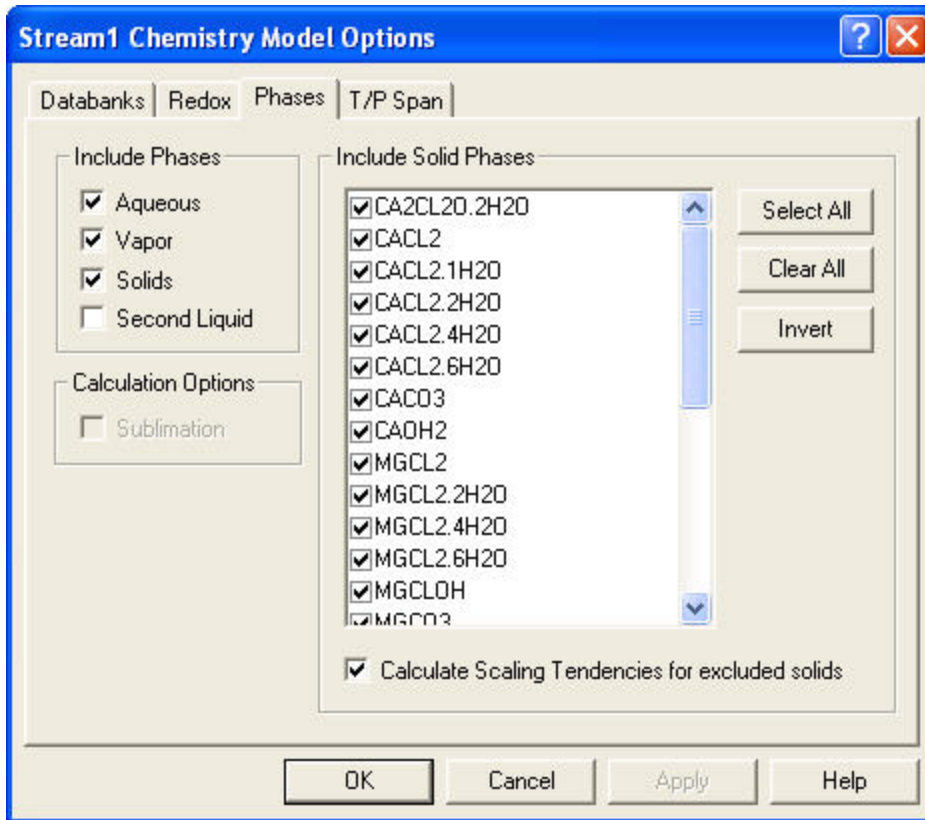


Choose *Model Options...*



Click on the *Phases* Tab.

By default, the OLI/Analyzer will consider an aqueous phase, a vapor phase and multiple solid phases. The solid phases considered are based on the input values chosen above.



A list of solid phases will be displayed. Unchecking a box next to a solid will remove the solid from consideration. If the **“Calculate Scaling Tendencies for excluded solids”** Check box is selected, then a Scaling tendency for the solid will be calculated but the solid will not be allowed to form regardless of the scaling tendency value.

If you have eliminated selected solids phases, a message will be displayed in the *Summary* box to remind you.

The screenshot shows a software interface with a main table and a summary box on the right. The table has three columns: Variable, Unit, and Value. It is divided into 'Stream Parameters' and 'Inflows' sections. The 'Stream Parameters' section includes 'Stream Amt - Total Inflow' (55.5082 mol), 'Temperature' (25.0000 °C), and 'Pressure' (1.00000 atm). The 'Inflows' section lists 'H2O' (1.00000 kg), 'CACO3' (0.0 kg), 'MGCO3' (0.0 kg), and 'NACL' (0.0 kg). The summary box on the right contains the text: 'Unit Set: Default', 'Automatic Chemistry Model', 'Aqueous (H+ ion) Databanks: Public', and 'Excluding 2 solid phases'. At the bottom of the interface are buttons for 'Advanced', 'Search', 'Add as Stream', and 'Export'.

Variable	Unit	Value
Stream Parameters		
Stream Amt - Total Inflow	mol	55.5082
Temperature	°C	25.0000
Pressure	atm	1.00000
Inflows		
H2O	kg	1.00000
CACO3	kg	0.0
MGCO3	kg	0.0
NACL	kg	0.0

Summary

Unit Set: Default

Automatic Chemistry Model

Aqueous (H+ ion) Databanks: Public

Excluding 2 solid phases

Advanced Search Add as Stream Export