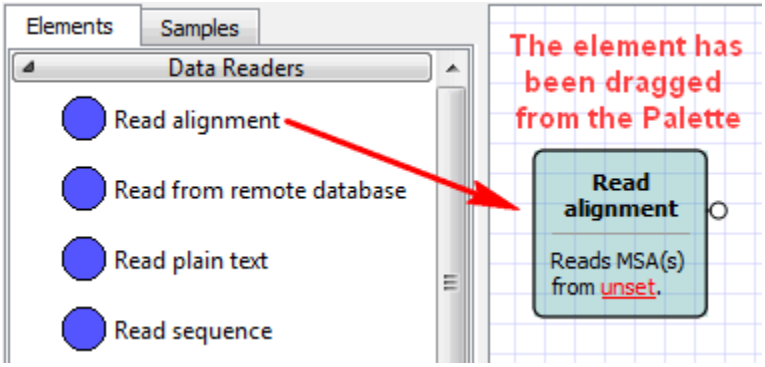
How to Create and Run Workflow

- Select *Tools –> Workflow Designer* or *File->New worflow* items in the main menu.

  Result: The Workflow Designer window appears.

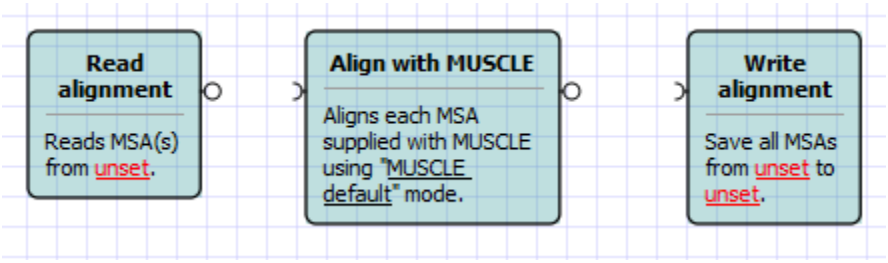
- On the *Elements* tab of the *Palette* find the *Read alignment* element. It is located in the *Data sources* group and drag it to the *Scene*.

  Result: The element is shown on the Scene.



- Repeat the previous step for the *Write Alignment* element from the *Data sinks* group and for the *Align with MUSCLE* element from the *Multiple sequence alignment* group.

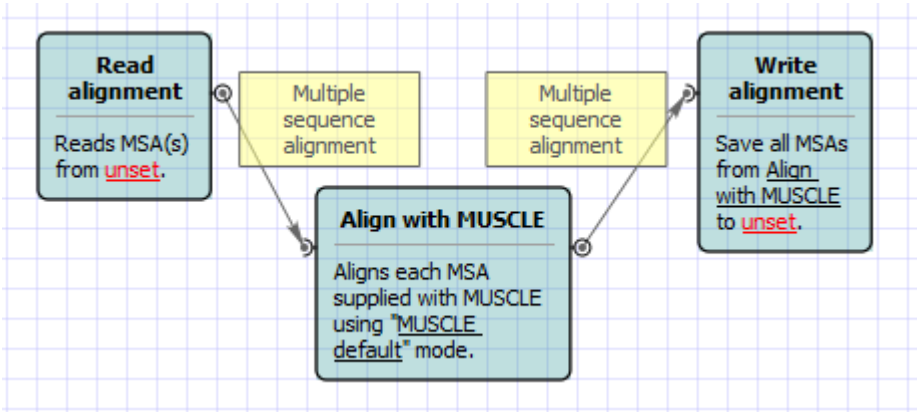
  Result: All three elements are on the Scene.



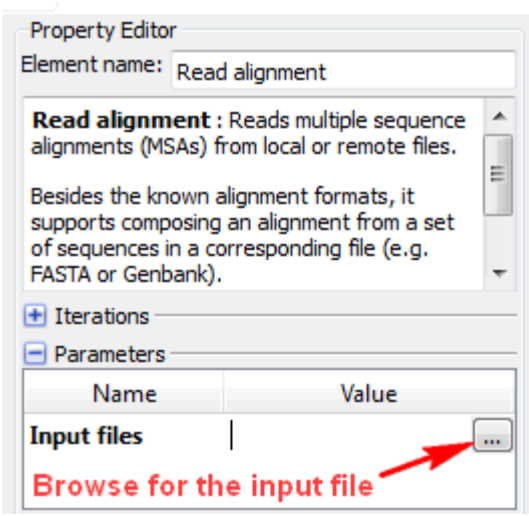
- Connect the elements:

  - Drag an arrow from the *output port* of the *Read alignment* element to the *Align with MUSCLE* element.
  - Drag an arrow from the output port of the *Align with MUSCLE* element to the *Write alignment* element.

  Result: The elements are connected with arrows.



- Select the *Read alignment* element. In the *Parameters* area of the *Property Editor* click on the *Value* column of the *Input files* parameter:



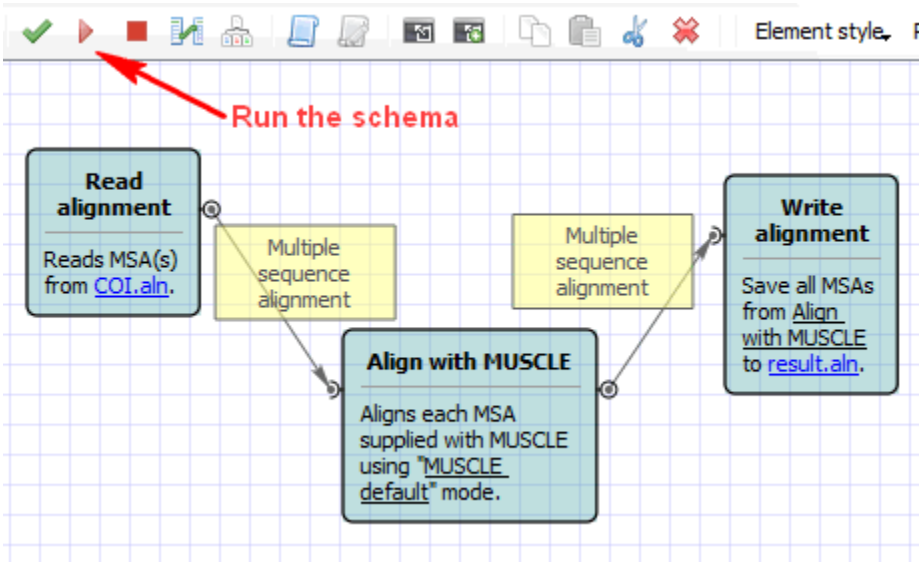
- And browse for an input file, e.g.Select the $UGENE\data\samples\CLUSTALW\COI.aln file.

  Result: The *Input files* value is set to the file's path.

- Select the *Write alignment* element and set the *Output file*, e.g. you can just enter result.aln.

  Result: All required workflow parameters are set.

- Click the *Run workflow* button on the toolbar.



  Result: After the workflow has run, a blue notification has pop up.

- Open the the result.aln file in UGENE.

  Result: The file has been opened. It contains the result of the alignment with MUSCLE.