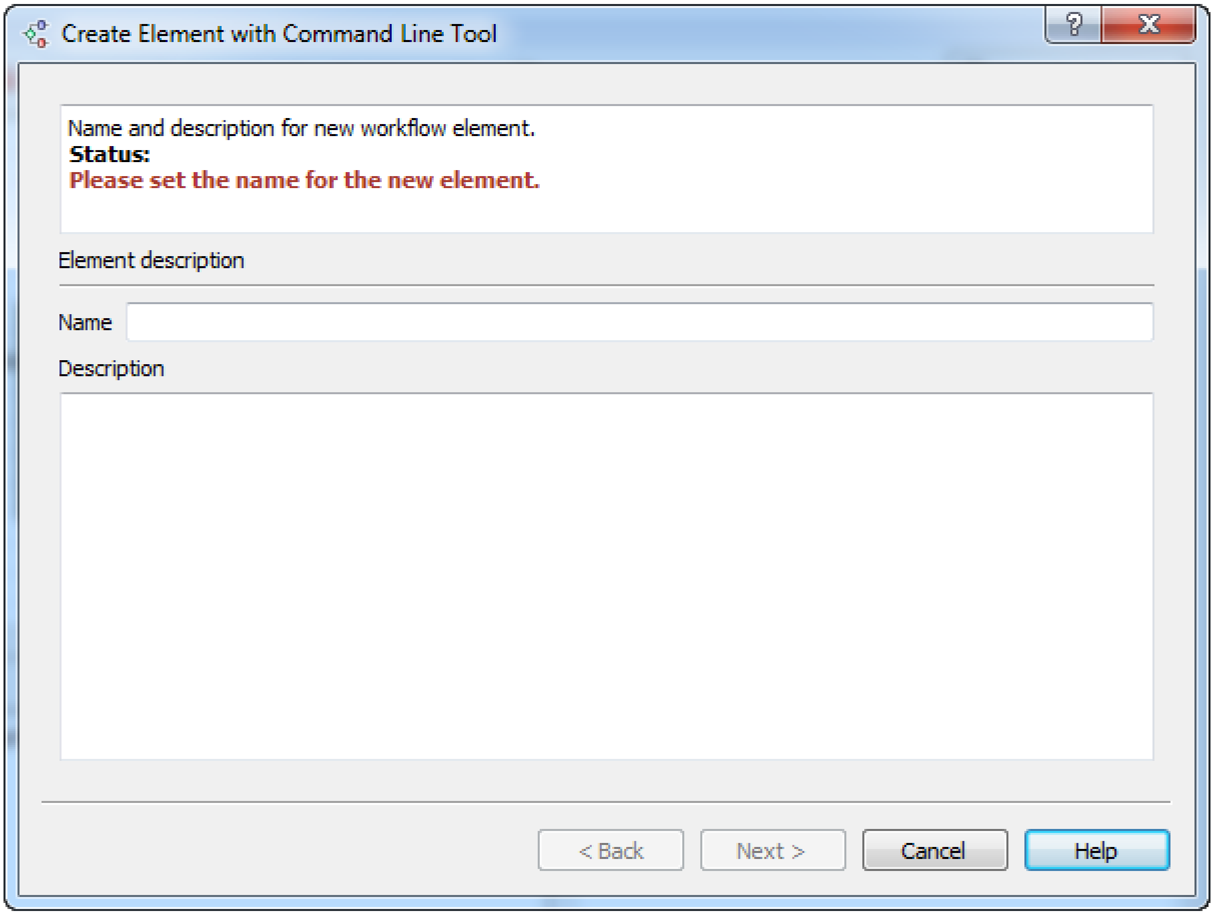
Creating Element

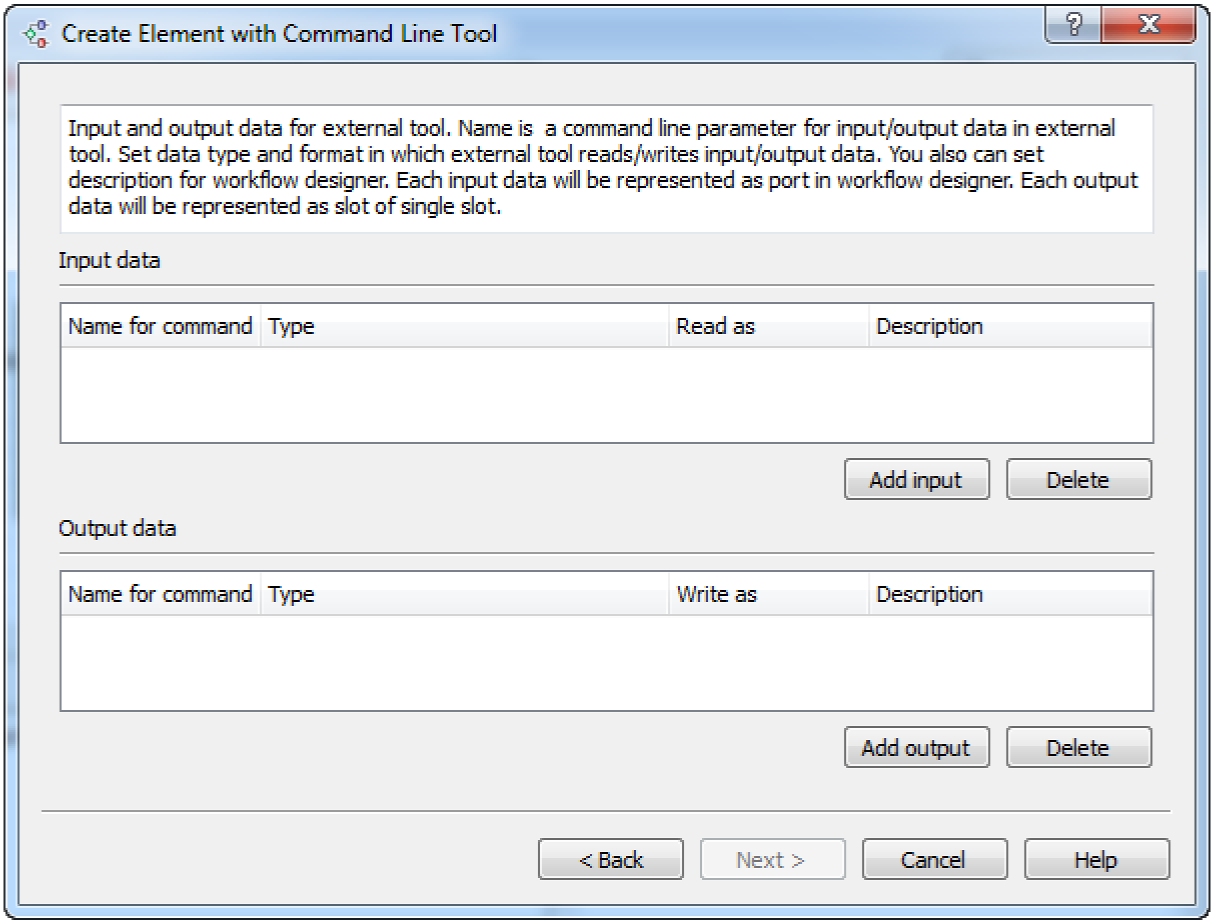
To create an element for a command line tool select either *Actions Create element with command line tool* in the main menu or the following icon on the toolbar:

The *Create Element with Command Line Tool* wizard appears. On the first page of the wizard input a name and a description of the element in the *Property Editor*. Letters, numbers and underscores are allowed in the name.



Name and description for new workflow element.
Status:
Please set the name for the new element.

On the second page add the required input and output data:



Input and output data for external tool. Name is a command line parameter for input/output data in external tool. Set data type and format in which external tool reads/writes input/output data. You also can set description for workflow designer. Each input data will be represented as port in workflow designer. Each output data will be represented as slot of single slot.

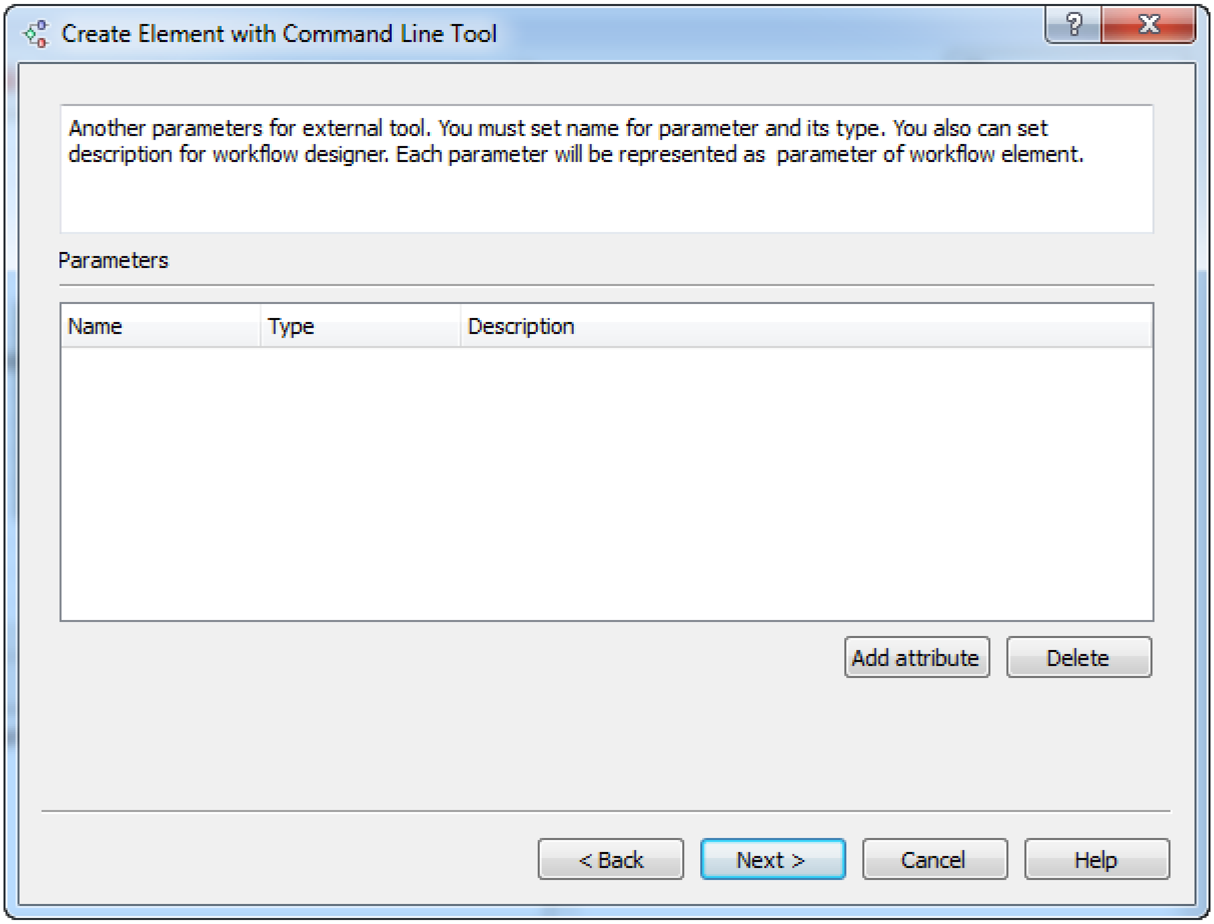
Name for command	Type	Read as	Description

Name for command	Type	Write as	Description

For each input or output you should:

- Input a name (letters, numbers and underscores are allowed in the name).
- Select a type: multiple alignment, sequence, sequence with annotations, a set of annotations or string.
- Specify how the input or output should be handled (for example, you can specify that a value of the input parameter should be handled as a FASTA file).
- Optionally input a description.

On the third page of the wizard you can add attributes for the command line tool. Later you would be able to set values for the attributes in the Property Editor, i.e. the attributes are actually the parameters of the new element.



Create Element with Command Line Tool

Another parameters for external tool. You must set name for parameter and its type. You also can set description for workflow designer. Each parameter will be represented as parameter of workflow element.

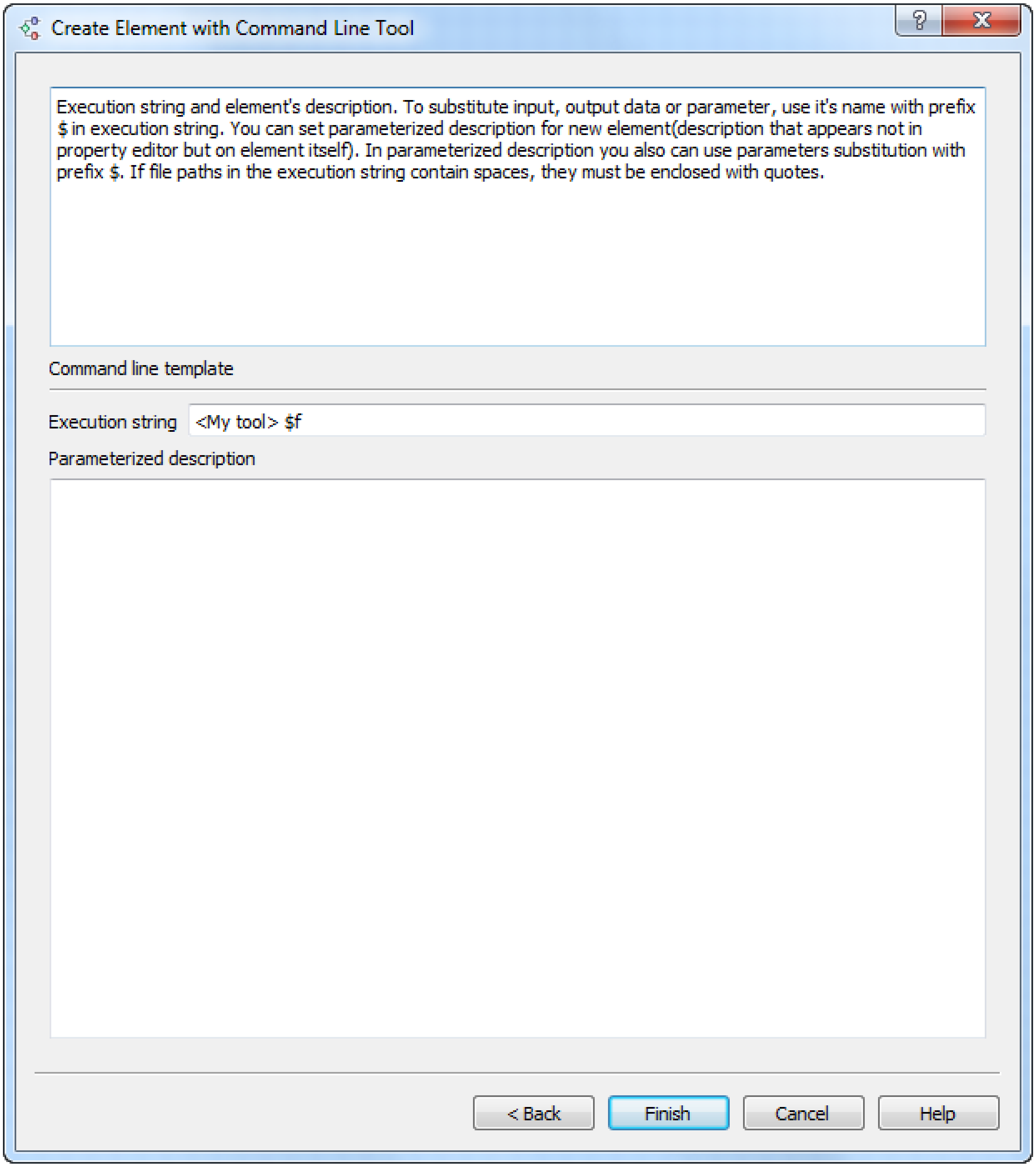
Parameters

Name	Type	Description

For each attribute added you should:

- Input a name (letters, numbers and underscores are allowed in the name).
- Select it's type: boolean, number, string or URL.
- Optionally input the description.

On the last page of the wizard you should input the execution string, i.e. the command that would be executed.



Execution string and element's description. To substitute input, output data or parameter, use it's name with prefix $ in execution string. You can set parameterized description for new element(description that appears not in property editor but on element itself). In parameterized description you also can use parameters substitution with prefix $. If file paths in the execution string contain spaces, they must be enclosed with quotes.

Command line template

Execution string <My tool> $f

Parameterized description

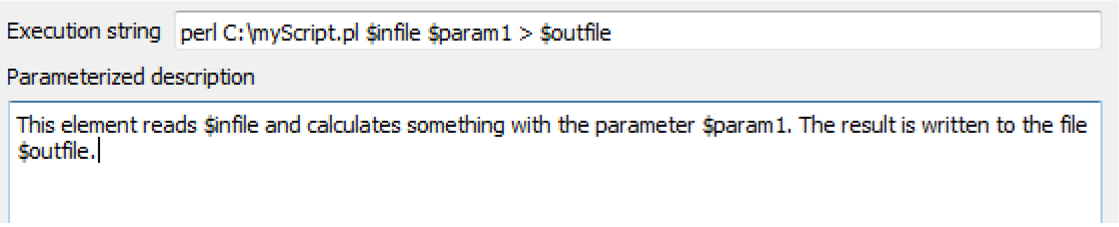
The signature of the execution string depends on the command that is launched. But the general rule is that input/output data and attributes have prefic $. For example let there be some perl script “myScript.pl” that accepts an input file as the first attribute and accepts the second attribute denoted as “param1”. The command may look as follows:

```
perl [path_to_script]myScript.pl $infile $param1 > $outfile
```

Here *infile* and *outfile* are input and output data set on the step 2, *param1* is an attribute set on the step 3.

On the same wizard page you can optionally input the description of the element. It would be shown on the element on the *Scene*. The description can be parameterized. This means that if you input e.g. an attribute name (with prefix $), the name on the element would be substituted with the value of the corresponding parameter.

For example input the following parameters:

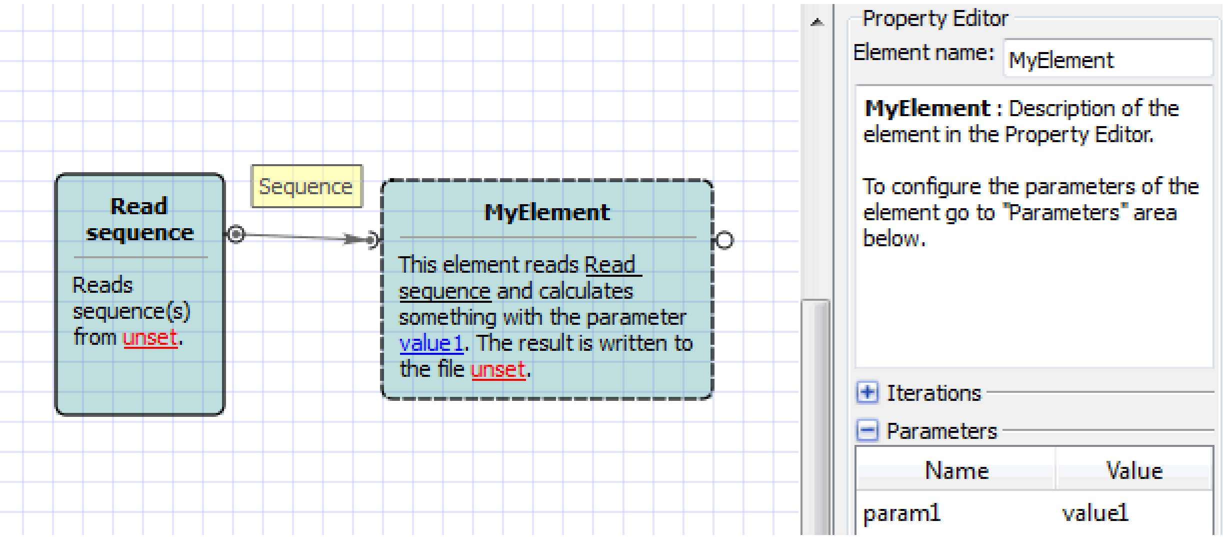


Execution string: perl C:\myScript.pl $infile $param1 > $outfile

Parameterized description

This element reads $infile and calculates something with the parameter $param1. The result is written to the file $outfile.

The element created looks as follows:



Read sequence

Reads sequence(s) from unset.

MyElement

This element reads Read sequence and calculates something with the parameter value1. The result is written to the file unset.

Property Editor

Element name: MyElement

MyElement : Description of the element in the Property Editor.

To configure the parameters of the element go to "Parameters" area below.

Name	Value
param1	value1