# Multiplexer Element

Construct an output data flow using two input data flows a multiplexing rule.

There are the following multiplexing rules:

- 1 to 1 – for every message from the first input data flow it gets only one message from the second input data flow and puts them to the output.
- 1 to many, Many to 1 – for every message from the first input data flow it gets every message from the second input data flow and puts them to the output.
- Streaming mode – puts every message from the first and the second input data flows to the output.

Also see the *Find Substrings at Sequences*, *Search for TFBS* examples with *Multiplexer* element.

## Parameters in GUI

| Parameter | Description | Default value |
|---|---|---|
| **Multiplexing rule** | How to multiplex the input data flows.<br><br>Available values are:<br><br>• 1 to 1<br>• 1 to Many<br>• Many to 1<br>• Streaming mode | 1 to 1 |
| **If empty input** | Specifies how to multiplex the data if one of input ports produces no data. It can be used for 1 to 1 multiplexing rule.<br><br>Available values are:<br><br>• Fill by empty values (if one of input ports produces no data, get data from another port only and put them to the output.)<br>• Truncate (if one of input port produces no data, then do not output anything.) | Fill by empty values |

# Parameters in Workflow File

**Type:** multiplexer

| Parameter | Parameter in the GUI | Type |
|---|---|---|
| **multiplexing-rule** | **Multiplexing rule** | *string* |
| **empty-input-action** | **If empty input** | *string* |

# Input/Output Ports

The *Multiplexer* has ports but has not slots, because its use the whole data flow.

The element has 2 *input port*:

**Name in GUI:** *First input data flow*

**Name in Workflow File:** input-data-1

**Name in GUI:***Second input data flow*

**Name in Workflow File:** input-data-2

The element has 1 *output port*:

**Name in GUI:** *Multiplexed output data flow*

**Name in Workflow File:** output-data