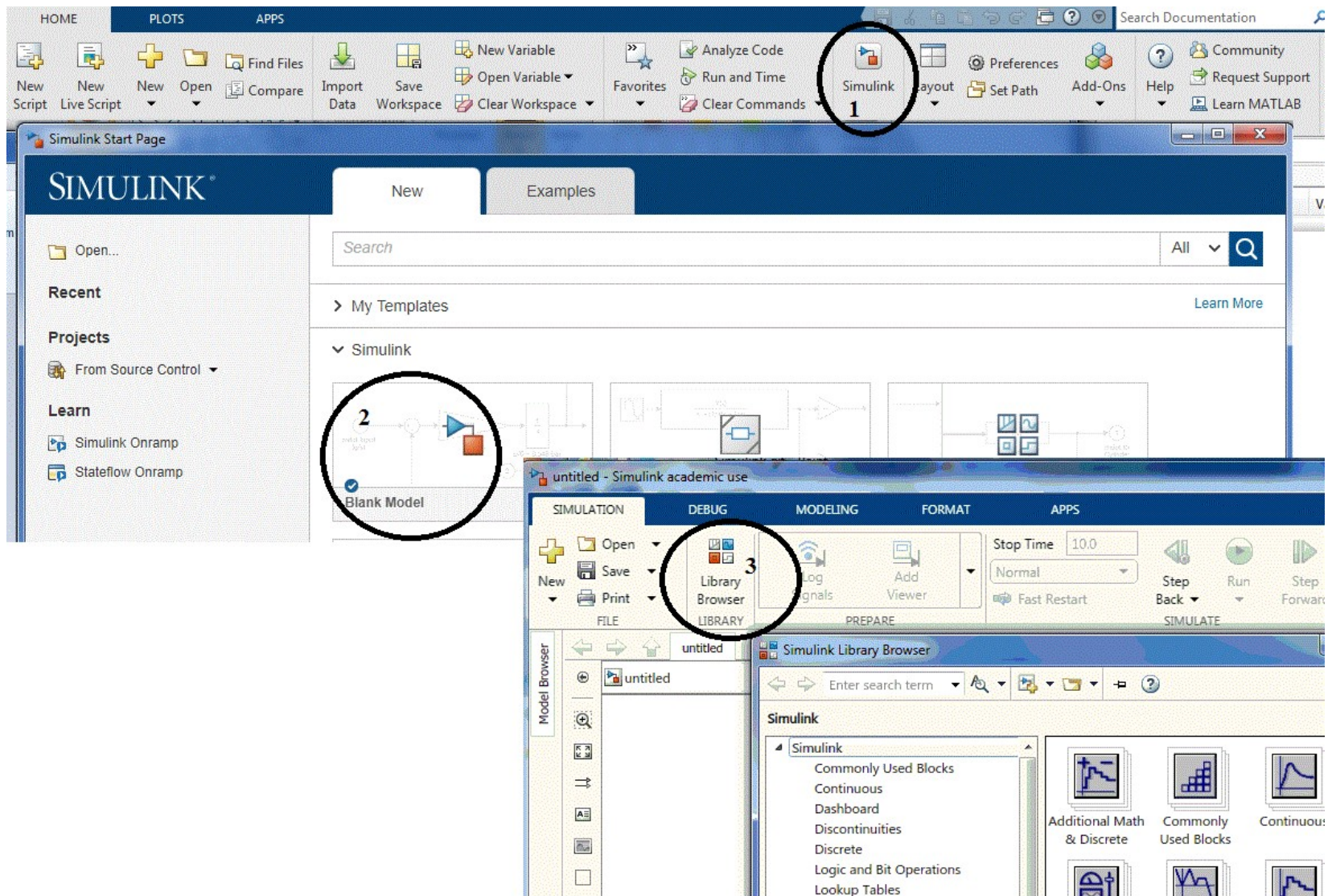
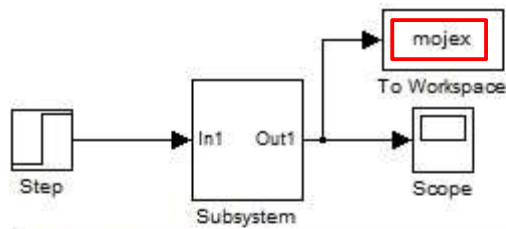


Simulink (zmiany 2019) - uruchomienie



Przed 2019



Sink Block Parameters: To Workspace

To Workspace

Write input to specified array or structure in a workspace. For menu based simulation, data is written in the MATLAB base workspace. Data is not available until the simulation is stopped or paused. For command line simulation using sim command, the workspace is specified using DstWorkspace field in the option structure.

Parameters

Variable name:

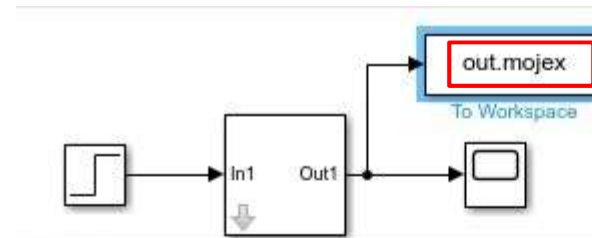
Limit data points to last:

Decimation:

Sample time (-1 for inherited):

Save format: Array

Log fixed-point data as an fi object



Block Parameters: To Workspace

To Workspace

Write input to specified timeseries, array, or structure in a workspace. For menu-based simulation, data is written in the MATLAB base workspace. Data is not available until the simulation is stopped or paused.

To log a bus signal, use "Timeseries" save format.

Parameters

Variable name:

Limit data points to last:

Decimation:

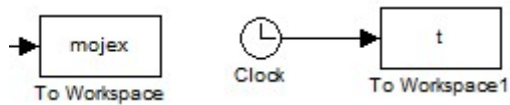
Save format: Array

Save 2-D signals as: 3-D array (concatenate along third dimension)

Log fixed-point data as a fi object

Sample time (-1 for inherited):

Przed 2019



Po uruchomieniu na schemacie:

plot(t, mojex)

Od 2019

Po uruchomieniu na schemacie
- powstaje zmienna domyślna: **out**

Property	Value
mojex	53x1 double
tout	53x1 double
SimulationMetadata	1x1 SimulationMetad...
ErrorMessage	"

Name	Value
a0	1
a1	2
b0	1
out	1x1 SimulationOutput

```

out =
  Simulink.SimulationOutput:
    mojex: [53x1 double]
    tout: [53x1 double]
  SimulationMetadata: [1x1 Simulink.SimulationMetadata]
  ErrorMessage: [0x0 char]
    
```

Czas (dodawany automatycznie)

Zmienna z Workspace

```
plot(out.tout, out.mojex)
```


Przed 2019



Po uruchomieniu wsadowo (funkcja sim): `plot(t, mojex)`

Po uruchomieniu wsadowo (funkcja sim)
- powstaje zmienna domyślna: **ans**

Workspace

Name	Value
a0	1
a1	2
ans	1x1 SimulationOutput
b0	1

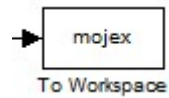
```

>> sim('nowy')
ans =
    Simulink.SimulationOutput:
        mojex: [53x1 double]
        tout: [53x1 double]
    SimulationMetadata: [1x1 Simulink.SimulationMetadata]
    ErrorMessage: [0x0 char]
>> plot(ans.tout, ans.mojex)
    
```

Czas (dodawany automatycznie)

Zmienna z Workspace

Przed 2019



```
[t] = tsim('nowy')
```

(Zapamiętanie wektora czasu *t* zamiast bloku na schemacie)

Po uruchomieniu wsadowo (funkcja *sim*): plot(*t*, *mojex*)

Po uruchomieniu wsadowo (funkcja *sim*) powstaje zmienna wybrana: *t* (zmienna *t* jest strukturą!)

The screenshot shows the MATLAB/Simulink environment. On the left, the Command Window displays the execution of the following commands:

```
>> [t]=sim('nowy')
```

```
t =
```

```
Simulink.SimulationOutput:
```

```
    mojex: [53x1 double]
```

```
    tout: [53x1 double]
```

```
SimulationMetadata: [1x1 Simulink.SimulationMetadata]
```

```
ErrorMessage: [0x0 char]
```

```
>> plot(t.tout,t.mojex)
```

On the right, the Workspace window shows the following variables:

Name	Value
a0	1
a1	2
ans	1x1 SimulationOutput
b0	1
t	1x1 SimulationOutput

At the bottom right, a Simulink model diagram is shown, enclosed in a blue box. It features a square wave input block connected to a block labeled 'In1' with an 'Out1' port. The output of 'In1' is connected to a block labeled 'out.mojex'. A red arrow points from the 't.tout' field in the Command Window to the 'In1' block in the diagram. Another red arrow points from the 't.mojex' field in the Command Window to the 'out.mojex' block in the diagram.

Zmienna z Workspace
Czas (dodawany automatycznie)

Workspace – wyłączenie nowej (domyślnej) opcji na schemacie

The screenshot shows the Simulink Model Settings dialog box for a configuration named 'Weryfikacja1/Configuration (Active)'. The 'Data Import/Export' section is expanded, and the 'Single simulation output' checkbox is highlighted with a red box. The 'Load from workspace' section has 'Input' and 'Initial state' checkboxes. The 'Save to workspace or file' section has several checked options: 'Time', 'Output', 'Signal logging', and 'Data stores'. The 'Simulation Data Inspector' section has an unchecked 'Record logged workspace data in Simulation Data Inspector' checkbox.

Model Settings

Insert Subsystem Atomic Subsystem Variant Subsystem Subsystem Reference Referenced Model

Update Model Stop Time: CzasSym Normal Run Stop

Fast Restart

Configuration Parameters: Weryfikacja1/Configuration (Active)

Search

Solver

Data Import/Export

Math and Data Types

▶ Diagnostics

Hardware Implementation

Model Referencing

Simulation Target

Load from workspace

Input: [t, u] Connect Input

Initial state: xInitial

Save to workspace or file

Time: tout

States: xout Format: Dataset

Output: yout

Final states: xFinal Save final operating point

Signal logging: logstdout Configure Signals to Log...

Data stores: dsmout

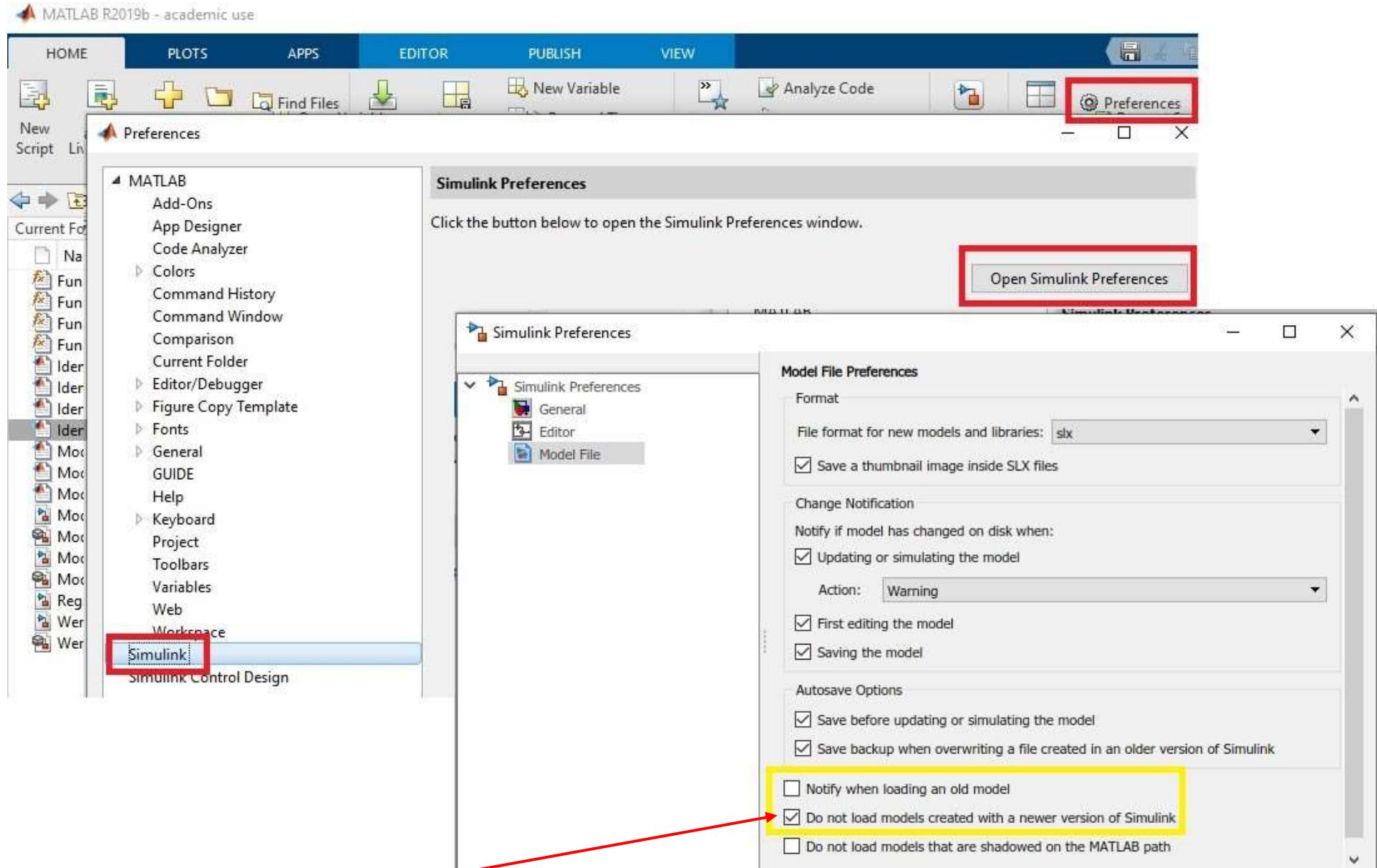
Log Dataset data to file: out.mat

Single simulation output: out Logging intervals: [-inf, inf]

Simulation Data Inspector

Record logged workspace data in Simulation Data Inspector

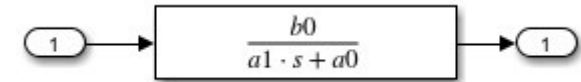
▶ Additional parameters



Można wyłączyć blokadę wczytywania schematów utworzonych w nowszej wersji Simulinka

Przed 2019

#	Prompt	Variable	Type	Evaluate	Tunable	Tab ...
1	Mianownik: a0	a0	edit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2	Mianownik: a1	a1	edit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3	Licznik: b0	b0	edit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	



Type	Prompt	Name
	%<MaskType>	DescGroupVar
A	%<MaskDescription>	DescTextVar
	Parameters	ParameterGroupVar
#1	Mianownik: a0	a0
#2	Mianownik: a1	a1
#3	Licznik: b0	b0

Property editor	
Properties	
Name	a0
Value	2
Prompt	Mianownik: a0
Type	edit
Attributes	
Evaluate	<input checked="" type="checkbox"/>
Tunable	on

Block Parameters: Subsystem

Subsystem (mask)

Parameters

Mianownik: a0

Mianownik: a1

Licznik: b0

OK Cancel Help Apply


```

model = 'NazwaPliku';
opcje = simget(model);
opcje = simset('MaxStep', tmax, 'RelTol', terr);
czas=2000;
%symulacja
[t]=sim(model,czas,opcje);

```

```

model = 'NazwaPliku';
opcje = simget(model);
opcje.MaxStep = tmax;
opcje.RelTol = terr;
czas=2000;
%symulacja
[out]=sim(model,czas,opcje);

```

