

# Test Model Plugin

*Do some testing*

## 1.1 Introduction

The purpose of the *TestModel* plugin is to conveniently embed a SBML test model in a plugin. In addition, the plugin provide the user with simulated data, with and without applied artificial Gaussian noise.

Currently no settings are exposed for the actual simulation of the test model.

The TestModel plugin do depend on the AddNoise plugin.

## 1.2 Plugin Parameters

Table ?? lists available plugin property names, along with their data type and purpose.

Parameter Name	Data Type	Purpose
Model	string	The actual test model, in XML format.
TestData	TelluriumData	Simulated data, using the TestModel as input.
TestDataWithNoise	TelluriumData	Simulated data, with applied noise.

Table 1.1: Plugin Properties

## 1.3 Plugin Callbacks

The plugin are not using any plugin events.

## 1.4 The `execute()` function

The `execute()` function will generate simulated data, and simulated data with noise. The data will be available in the properties, `TestData` and `TestDataWithNoise` respectively.

## 1.5 Python examples

### 1.5.1 Usage of the `TestModel` plugin

The python script below shows how to use the `TestModel` plugin.

```
1 import telplugins as tel
2
3 try:
4     modelPlugin = tel.Plugin("tel_test_model")
5
6     #Test model plugin depends on the add_noise plugin
7     noisePlugin = tel.Plugin("tel_add_noise")
8
9     #Generate internal test data
10    modelPlugin.execute()
11    test_data = modelPlugin.TestData
12    test_data_with_noise = modelPlugin.TestDataWithNoise
13
14    test_data.plot()
15    test_data_with_noise.plot()
16
17 except Exception as e:
18     print 'Problem: ' + 'e'
```

Listing 1.1: `TestModel` plugin example.