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 1.1 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 and default RoadRunner Simulation values.
TestDataWithNoise	TelluriumData	Simulated data, with applied noise.

Table 1.1: Plugin Properties

1.3 Plugin Events

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 teplugins 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.