

Should be able to use t for time in differential equations. ^M 2PP

Modeler: should be able to type "t" in the equation textbox that should be recognized as time.

If the user has defined a parameter and should get an error if he tries to redefine it as a state ^M 2PP

Actor: Modeler

The user can add an algebraic eq. ^M 4PP

Actor: modeller

An algebraic equation can change at any point in time but should be solved differently from an ODE.

Algebraic equations should work in ^M 6PP
Runtime

$$\frac{dx}{dt} = -k_2 \cdot x \quad (I)$$

$$\frac{dy}{dt} = a$$
$$a = -k_2 \cdot x \quad (II)$$

these should evaluate the same.

Save model default by modelname as modeller ^M 1PP

the model has a name, so saving must be modelname.model

Save data as CSV ^M 2PP

Experimenter: should be able to save the data as a csv file.

The user can plot a phase plane ^S 4PP
Actor: Experimenter

A phase plane plots one state against another state

Simulate Results algebraic EQ ^S 6PP

As a Modeler I want to be able to show results of algebraic equations added to the model.