@pre: pre-processing

```
1 @pre begin
2     Ka = θ1*exp(η[1])
3     K  = θ2
4     CL = θ3*wt*exp(η[2])
5     V  = CL/K
6     SC = V/wt
7 end
```

This determines how the model parameters, random effects and covariates are combined before the differential equations solver.

@init: Initial values (optional)

```
1 @init begin
2     Depot   = 0.0
3     Central = 0.0
4 end
```

Specifies the starting values of the differential equations at the time of first dose.

`@covariates`: Covariates

```
1 @covariates sex wt
```

Specifies the covariate terms from the dataset.

`@dynamics`: ODE specification

```
1 @dynamics begin
2     dDepot   = -Ka*Depot
3     dCentral =  Ka*Depot - K*Central
4 end
```

Specifies the system of differential equations. Differential variables are declared by having a line defining their derivative.

Also provide special cases for known closed-form solutions, e.g.

```
1 @dynamics OneCompartmentModel
```