## `@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
```

# `@derived`: post-processing

```
1 @derived begin
2     dv ~ @. Normal(conc,sqrt(conc^2 *Σ.diag[1] + Σ.diag[end])+eps())
3 end
```

The derived block specifies variables that can be used for post-processing of results. It can be an continuous distribution shown above or a discrete one like

```
1 @derived begin
2     dv ~ @. Poisson(baseline*(1-dose/(dose + d50)))
3 end
```