

|                   |                        |                         |                |                         |                       |                                  |     |
|-------------------|------------------------|-------------------------|----------------|-------------------------|-----------------------|----------------------------------|-----|
| Model Definition  | Variability Model      | Parameter Variability   |                |                         |                       |                                  |     |
|                   |                        | Residual Variability    |                |                         |                       |                                  |     |
|                   | Parameter Model        | Fixed Effects           | Random Effects | Gaussian Model          |                       | Linear/Nonlinear Covariate Model |     |
|                   |                        |                         |                | General                 |                       |                                  |     |
|                   |                        | Correlation Structure   |                | Pair-wise Matrix        |                       |                                  |     |
|                   | Covariate Model        | Continuous              |                | Interpolation           |                       |                                  |     |
|                   |                        |                         |                | Transformation          |                       |                                  |     |
|                   |                        | Discrete                |                | Distribution            |                       |                                  |     |
|                   |                        |                         |                |                         |                       |                                  |     |
|                   | Structural Model       | Algebraic Eqs           |                |                         |                       |                                  |     |
|                   |                        | PK Macros               |                |                         |                       |                                  |     |
|                   |                        | ODE                     |                | Initial Condition       |                       |                                  |     |
|                   |                        | DDE                     |                | History                 |                       |                                  |     |
|                   | Observation Model      | Continuous              |                | Residual Error          |                       |                                  |     |
|                   |                        | Discrete                |                | Count                   |                       |                                  | PMF |
|                   |                        |                         |                | Categorical             |                       |                                  |     |
|                   |                        |                         |                | Time-To-Event           |                       | Hazard/Survival Fct              |     |
|                   |                        |                         |                |                         |                       | Censoring                        |     |
|                   | Trial Design           | Structure               | Arm            |                         |                       |                                  |     |
|                   |                        |                         | Cell           |                         |                       |                                  |     |
| Epoch             |                        |                         |                |                         |                       |                                  |     |
| Segment           |                        |                         |                |                         |                       |                                  |     |
| Activity          |                        |                         | Bolus          |                         | Dosing Times/ Amounts |                                  |     |
|                   |                        |                         | Infusion       |                         |                       |                                  |     |
|                   |                        |                         | Washout        |                         |                       |                                  |     |
|                   |                        | Lookup Table            |                |                         |                       |                                  |     |
| Observation Event |                        | Epoch Ref/Period        |                |                         |                       |                                  |     |
| Population        |                        | Demographics            |                |                         |                       |                                  |     |
| Individual Dosing | Dosing Times/ Amounts  |                         |                |                         |                       |                                  |     |
| Modelling Steps   | MONOLIX/NONMEM Dataset | Mapping/ Transformation |                | Column/Target/ Category |                       |                                  |     |
|                   | Simulation Step        | Observations            |                | Continuous              | Discrete              | Time Points                      |     |
|                   |                        | Operation               |                | Algorithm               |                       |                                  |     |
|                   | Estimation Step        | Parameter Estimation    |                | Property                |                       |                                  |     |
|                   |                        |                         |                | Intitial Estimate       |                       |                                  |     |
|                   |                        |                         |                | Lower/Upper Bound       |                       |                                  |     |
| Step Dependencies | Objective Data         |                         |                |                         |                       |                                  |     |