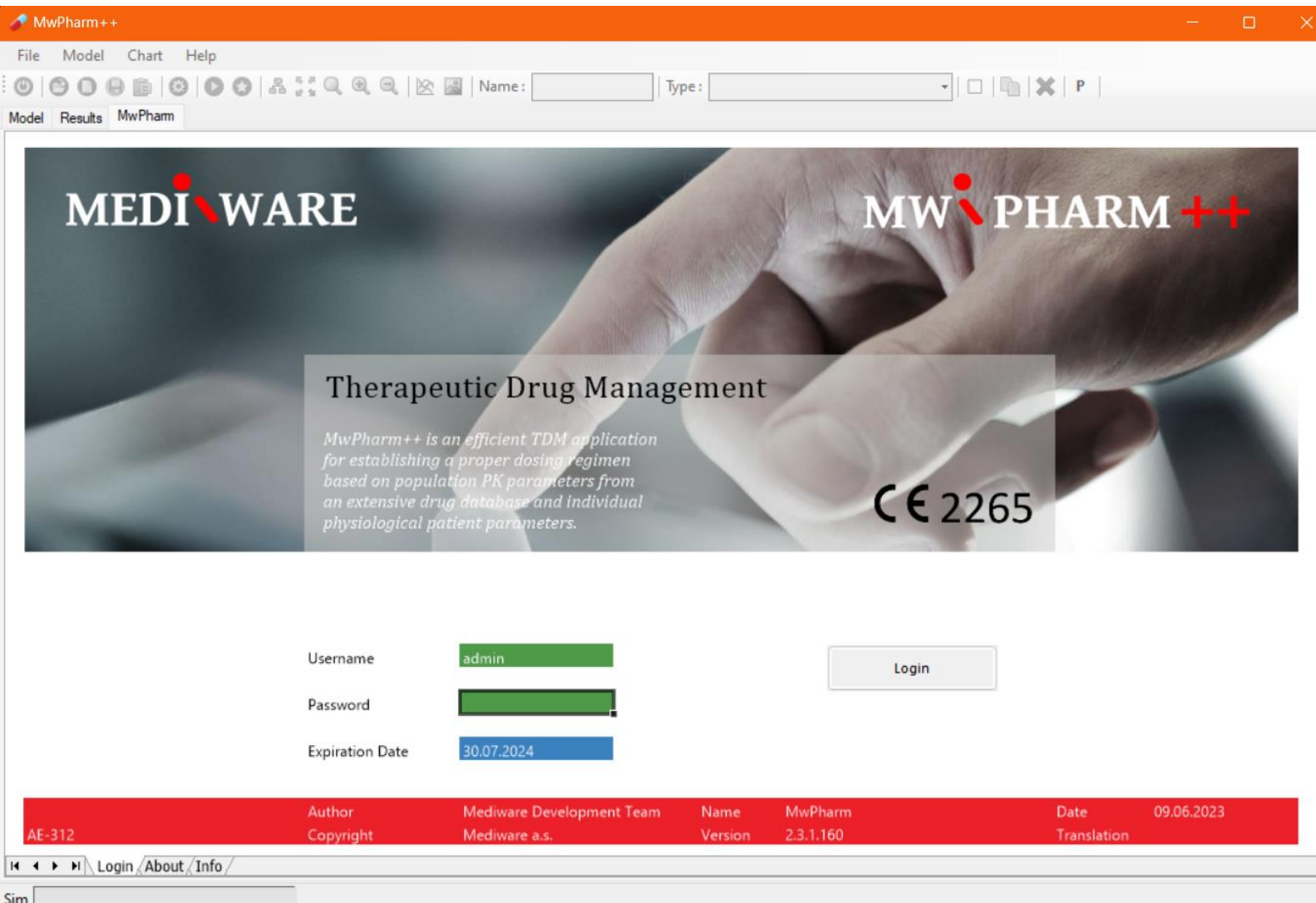# MWPHARM++ USER MANUAL

LOGIN SCREEN

After launching and loading the app, it is necessary to log in. By default (until the user changes it), the account logins are:

Administrator: Username: admin   Password: admin
Super user: Username: super   Password: super
Normal user: Username: user   Password: user
Guest: Username: guest   Password: guest

The application supports **multiple user accounts**.
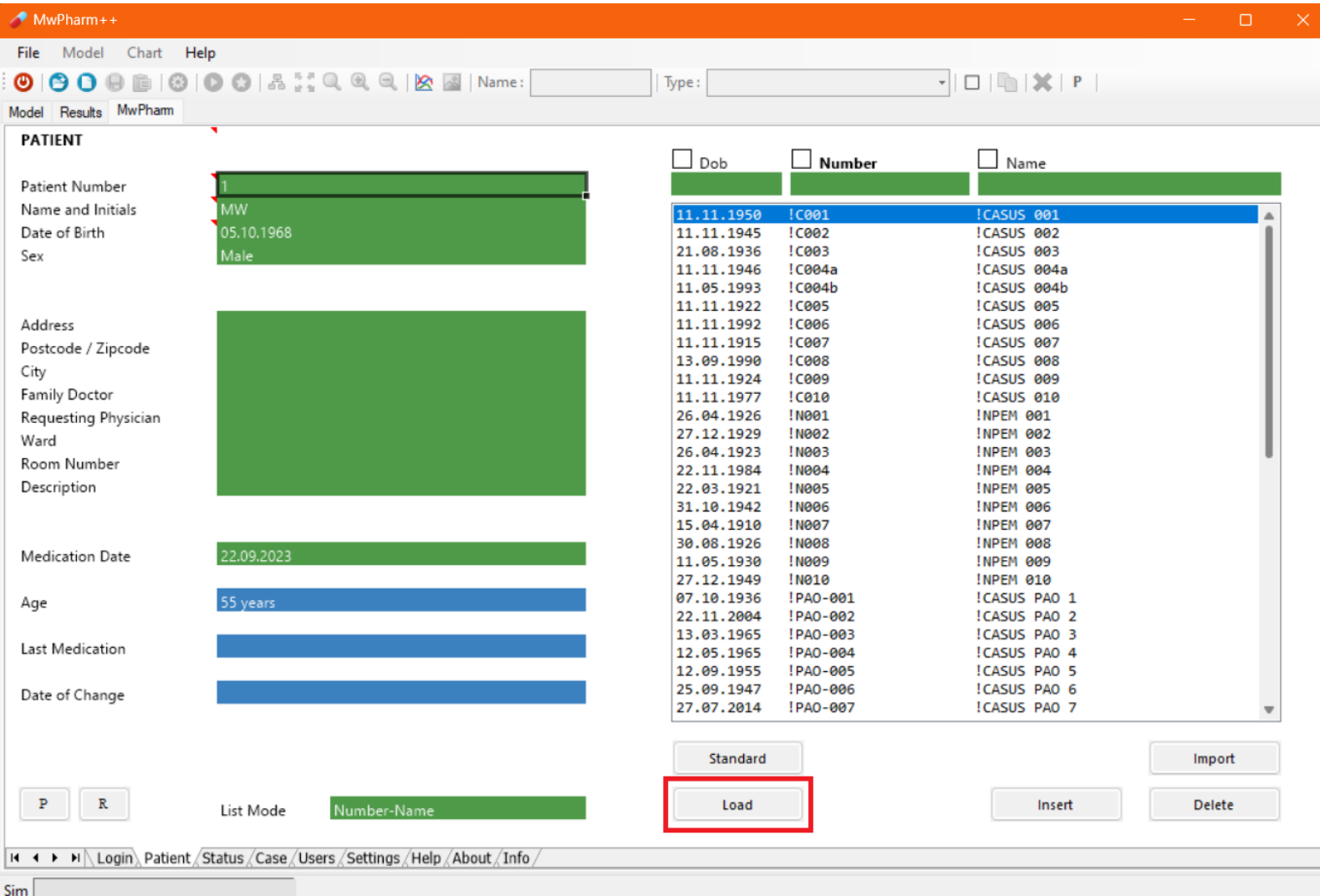
PATIENT SCREEN – CREATING A NEW RECORD

Click on **Standard** button to create a new record in the patient database. Fill the Patient Number, Name, Date of Birth and Sex and click on **Insert** button. New patient will be inserted into the database.

PATIENT SCREEN – SELECTING EXISTING PATIENT

Select the patient and click **Load** button to load existing patient from the database.

STATUS SCREEN

Specify the data of your patient: weight, height, sex, etc.

List of abbreviations (Status screen):

Bsa   Body surface area
Bmi   Body mass index
Lbm   Lean body mass
Lbmc   Corrected lean body mass
Ffm   Fat-free mass
CL   Total clearance

V1   Volume of distribution
fe   Fraction excreted unchanged
t½   Elimination half-life

Select apropriate renal function:

CASE SCREEN

To administer a drug to the patient, select appropriate one from the left column (1).

In the middle column, there are listed available models of the chosen drug for specific groups of patients (specific PK parameters). By selection of the appropriate model from the middle column (2) and clicking **Insert** button (3) is the drug assigned to the patient and the History screen is opened.

To edit or view an existing case, select the case in the right column (4) and click **Load** button (5).

HISTORY SCREEN

Fill the drug administration history: date, time, route of administration, and dosing.

When you move cursor over the red triangle, the help text describing function of the particular field appears.

To save the patient history, click **Store** button or get back to the Case screen and click on **Update** button under right column.

To perform the simulation, click **Sim** button or move forward to the Simulation screen.
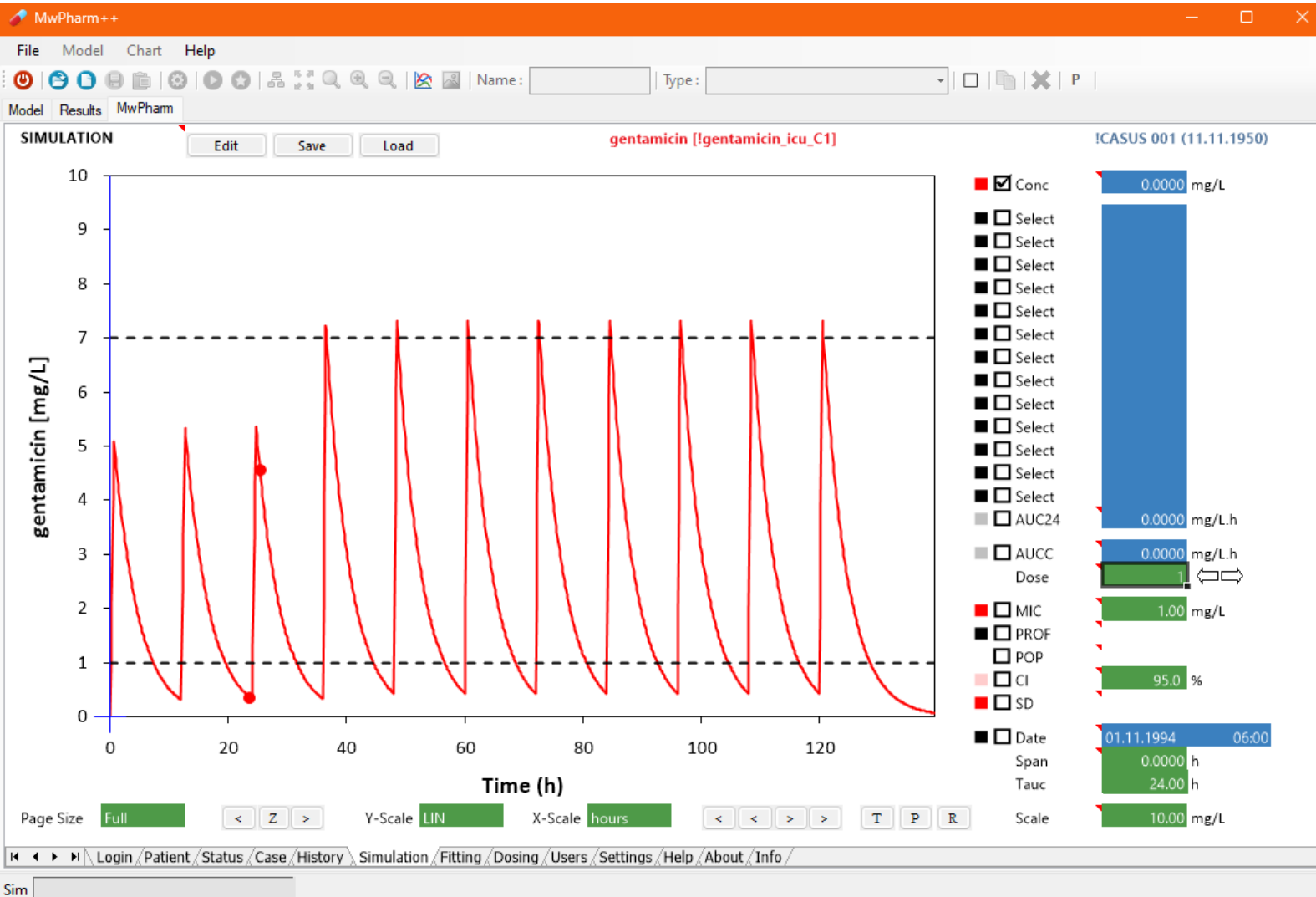

List of abbreviations (History screen):

Roa   Road of administration
No   Number of administrations or dialyses
Interv   Time interval between administrations or dialyses
T(inf)   Duration of adminitrations or dialyses
Conc.   Drug concentration
Creat.   Creatinine level

SIMULATION SCREEN

By checking the boxes, user can show different curves in the graph such as: concentration, AUC (under every peak), AUCC (from zero to the infinity), creatinine clearence confidence interval etc. By clicking the **Select** field, user can add additional observable curves to the right panel.
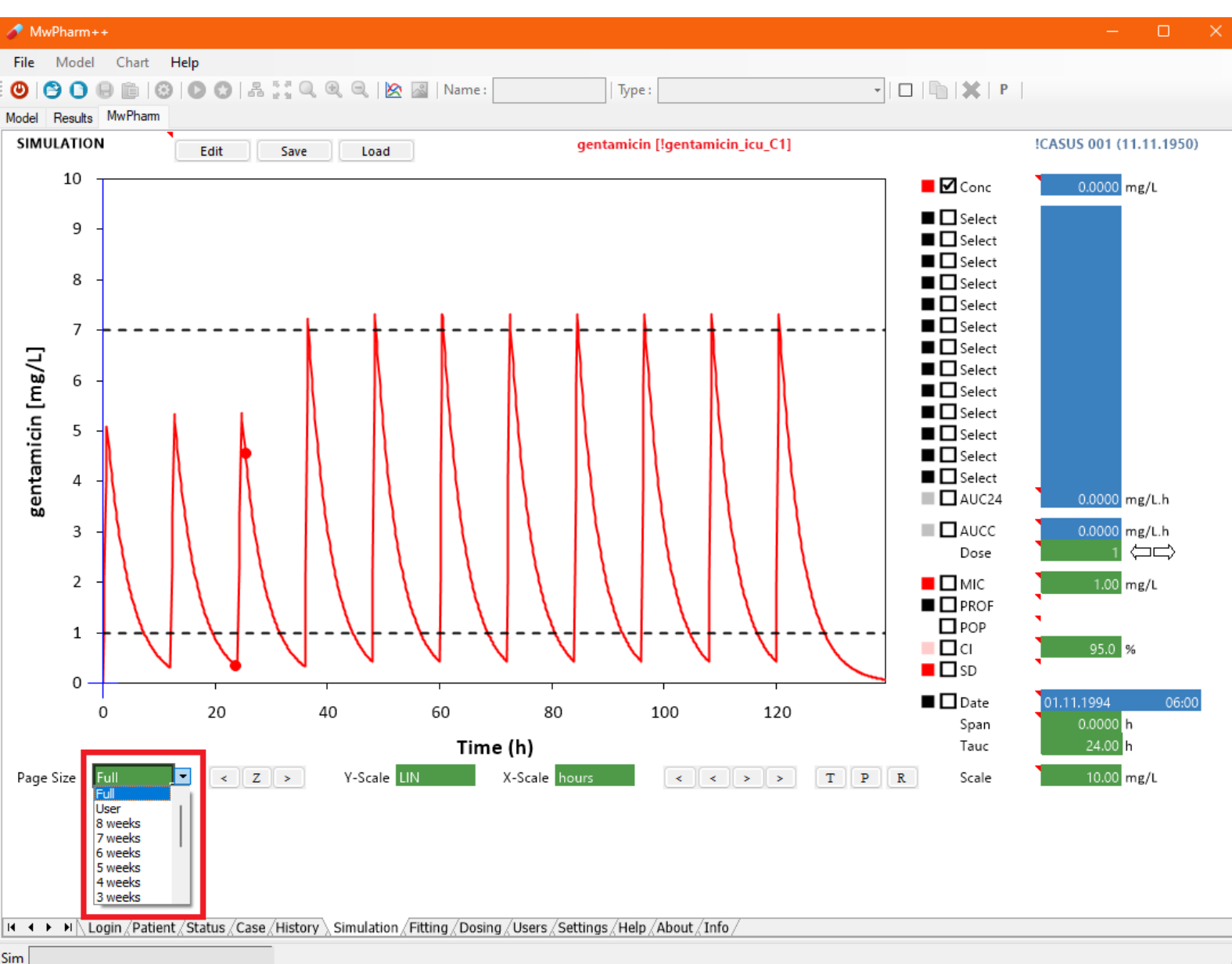
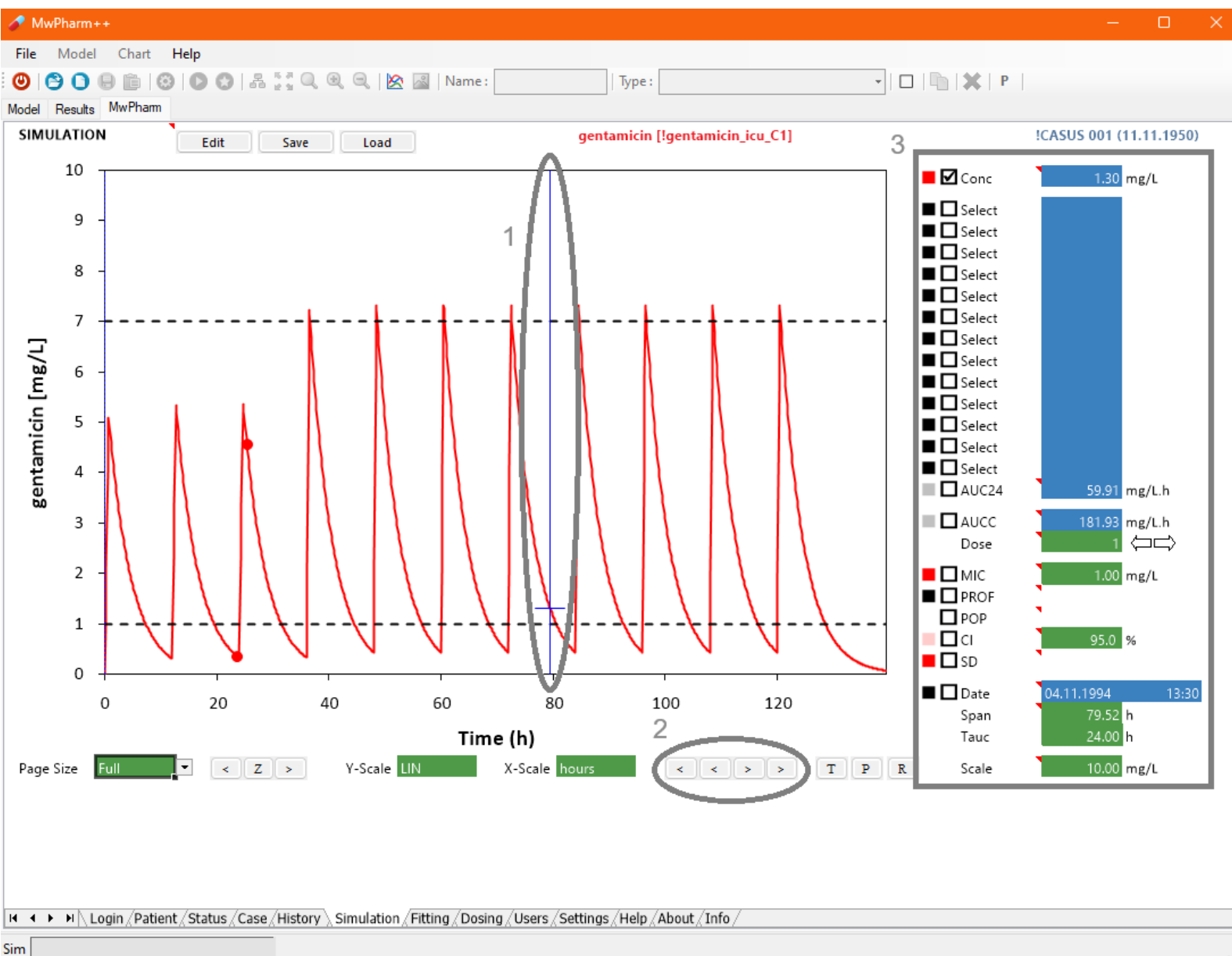To perform the fitting, move to the Fitting screen.

List of the main abbreviations (Simulation screen):

Conc	Concentration	CLcrN	Normalized creatinine clearence
Cave	Average concentration	Bsa	Body surface area
AUC	Area under curve	Lbmc	Corrected lean body mass
AUCC	Area under curve from zero to infinity	Bw	Body weight
Ccr	Creatinine concentration	CI	Confidence interval
CLcr	Creatinine clearence	INI	Initial prefit curve

To zoom the graph, select particular time interval.

To find out exact concentration, AUC etc. at specific time, use the **arrow** (1) buttons to move the blue indicator (2). Values will appear in the boxes on the right side of the screen (3).
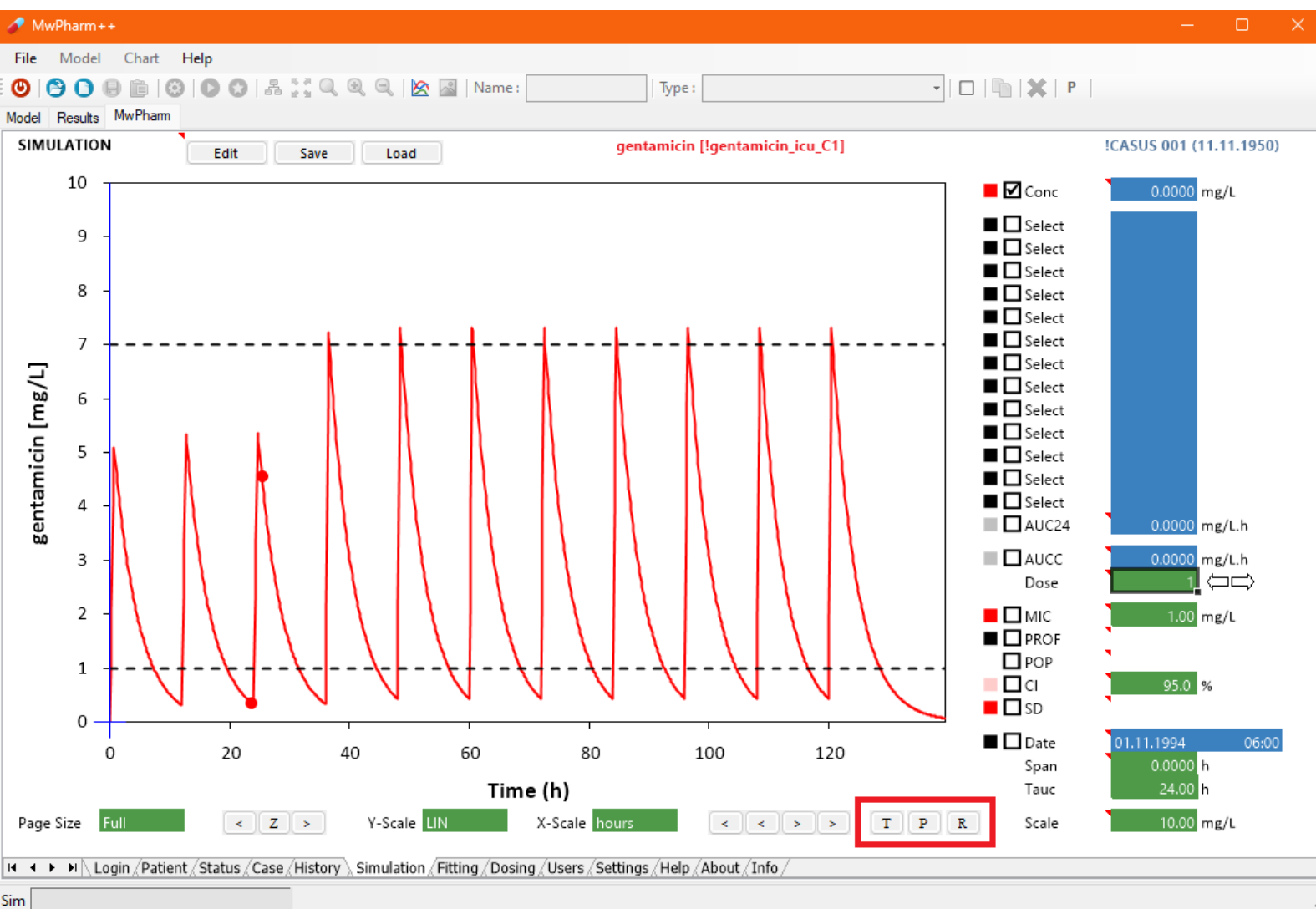
By clicking **T** button, you can add a **t**ext to the simulation graph.
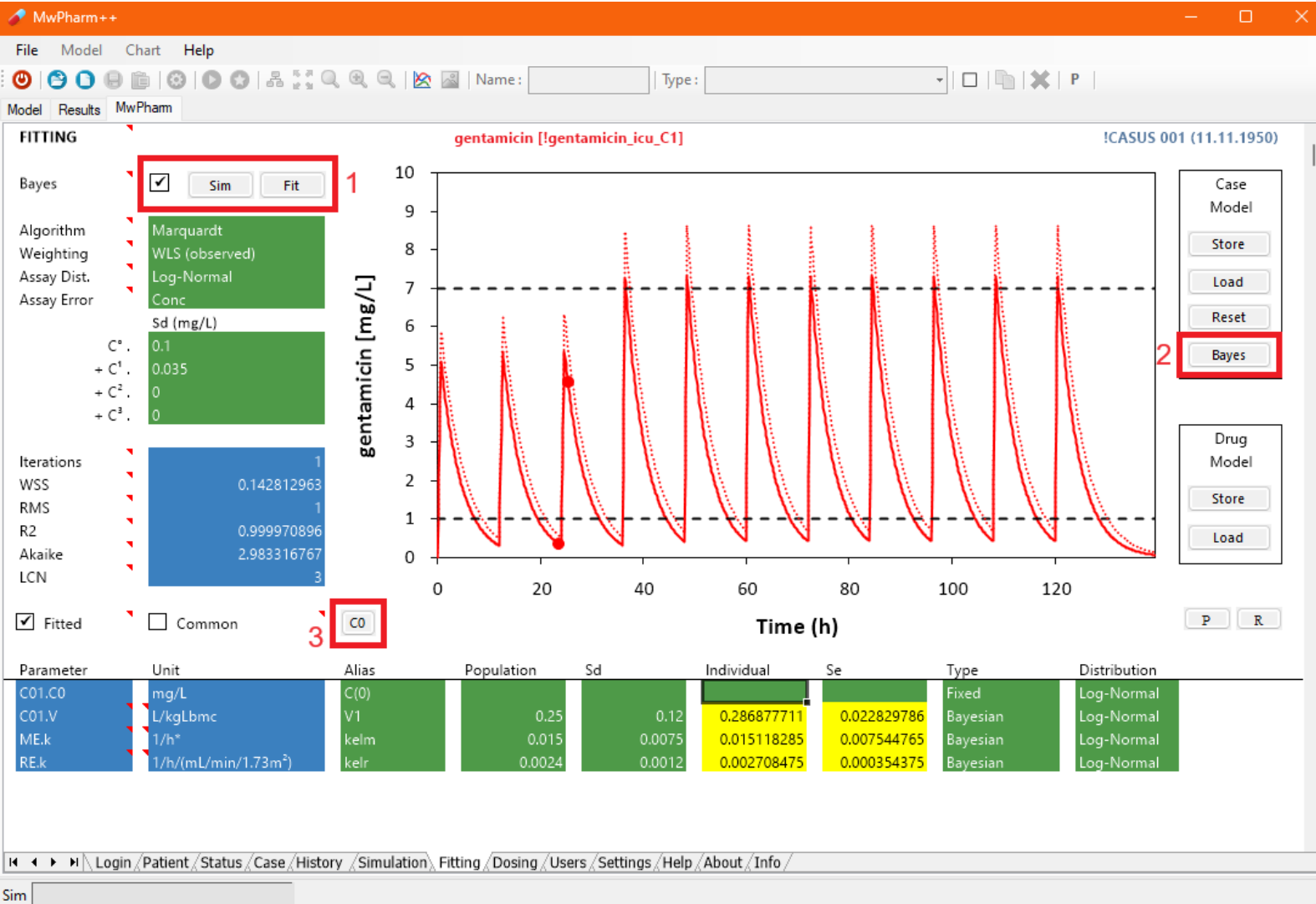By clicking **P** button, a **p**rinscreen is created.
By clicking **R** button, a new **r**eport is generated.

R and **P** buttons can be found on Patient, Status, History, Simulation, Fitting, and Dosing screen.

FITTING SCREEN

To fit the PK parameters, click on **Fit** button (1). To Bayes fitting, check the **Bayes** checkbox (1). If the Bayesian Parameters aren't already generated, you can set them by clicking the **Bayes** button (2). You can also use the **C0-Wizard** for the model adjusting (3).

List of abbreviations (Fitting screen):

WSS	Weighted sum of squares
RMS	Root mean squares
R2	Correlation coefficient
Akaike	Akaike information criterion
LCN	Number of lost significant digits (log10)
WSS	Weighted sum of squares
RMS	Root mean squares
R2	Coefficient of determination
Akaike	Duration of adminitrations or dialyses

After the fitting, there are the individual PK parameters on the Status screen. Individual parameters can be deleted by clicking on **POP** button.

DOSING SCREEN

On Dosing screen, you can compare different estimated dosing regimens by checking individual dosing regimens checkboxes and observing corresponding curves in the graph.

List of abbreviations (Fitting screen):

Load	Loading dose
Dose	Maintenance dose
Tint	Time interval between doses
Ndos	Number of doses

You can select appropriate route of administration and define different therapeutic range. **C** checkbox is for choosing continuous infusion.

By clicking the **arrow** button (1) next to the abbreviation of regimen, it is possible to load practical regimen to the User regimen. In the User regimen column (2), user can adjust the regimen parameters (loading dose, maintenance dose, time interval, and number of doses). User dosing regimen can be added to History screen by clicking on **Add to History** button (3).