

Traceis™ Data Exploration Studio Neural networks

1 Select the prediction step

In this example, the body fat dataset was used. First, click on the prediction step

2 Select the neural networks tab

The screenshot displays the Traceis Data Exploration Studio 2007 beta 1 interface. The window title is "Traceis Data Exploration Studio 2007 beta 1". The menu bar includes "File", "Edit", and "Help". The toolbar contains "Open", "Save", "Print", "Copy", "Delete", and "Select". The main interface is divided into several sections:

- Left Panel (Step 1):** A vertical navigation pane with four main steps: "1. Definition", "2. Preparation", "3. Implementation", and "4. Deployment". Under "3. Implementation", there are sub-steps: "Tables and graphs", "Statistics", "Grouping", "Prediction" (highlighted with a blue bar and a circled "1"), and "Apply model".
- Right Panel (Step 2):** The "Neural Networks" configuration window. It has a tabbed interface with "Simple Regression", "ANN", "CART", and "Neural Networks" (selected).
 - Select variables (descriptors):** A list box containing "Density", "Percent body fat", "Age(years)", "Weight(lbs)", "Height(inches)", "Neck(cm)", "Chest(cm)", and "Abdomen(cm)". "Percent body fat" is selected.
 - Select variables (response):** A dropdown menu showing "Percent body fat".
 - Number of cycles (epochs):** A text box with "50,000".
 - Number of hidden layers:** A spin box with "2".
 - Learning rate:** A spin box with "0.2".
 - Cross-validation percentage:** A spin box with "10".
 - Prediction name:** A text box with "Prediction (NN)".
 - Residual name:** A text box with "Residual (NN)".
 - Buttons: "Save model" and "Build model".
- Bottom Panel:** A "Selected Items" list showing a list of variables: "Age(years)", "Weight(lbs)", "Height(inches)", "Neck(cm)", "Chest(cm)", "Abdomen(cm)", "Hip(cm)", "Thigh(cm)", "Knee(cm)", "Ankle(cm)", "Biceps(cm)", "Forearm(cm)", and "Wrist(cm)".

MAKING SENSE OF DATA

1 Select descriptors

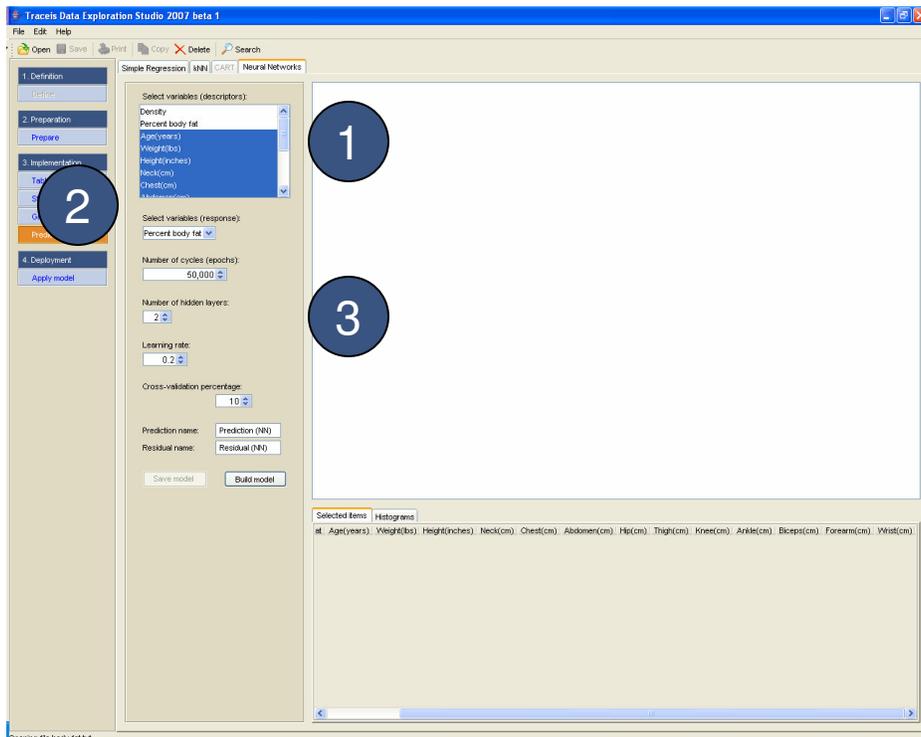
In this example, all descriptors were selected except density and percent body fat.

2 Select response

In this example, percent body fat was selected as the response value.

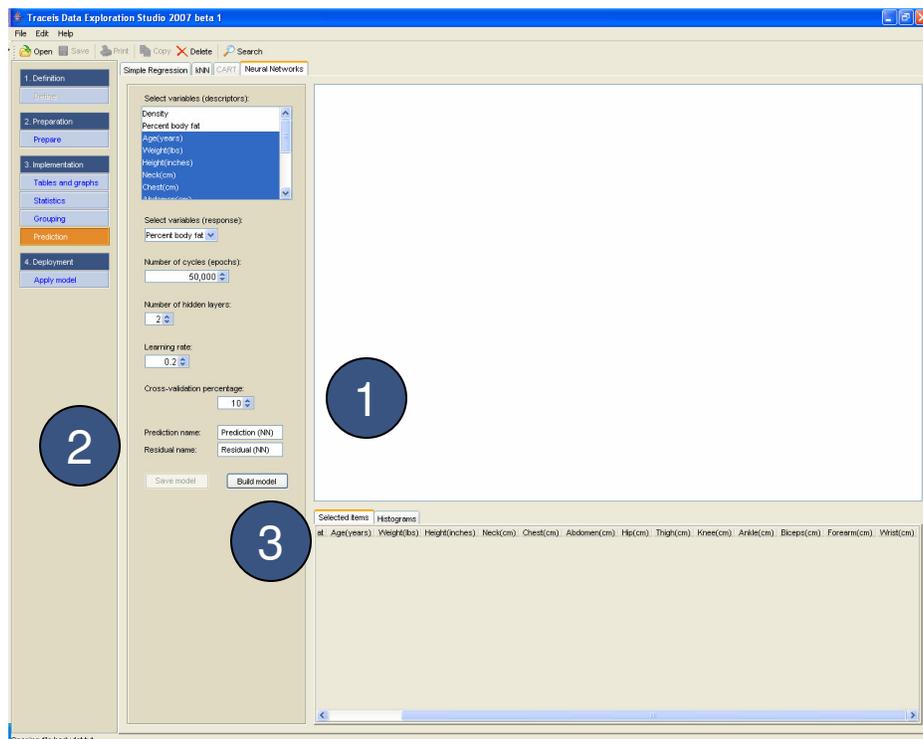
3 Model parameters

Values for the number of cycles, the number of hidden layers and the learning rate should be set. In this example, the number of cycles was set to 50,000, the number of hidden layers was set to 2 and the learning rate was set to 0.2.



MAKING SENSE OF DATA

- 1 Enter the cross-validation percentage
In this example, a model is to be built using a 10% cross-validation.
- 2 Enter names for the prediction and residual variables
- 3 Display the model



MAKING SENSE OF DATA

1 View model summary

2 View model assessment

An assessment of the model is presented. The assessment of a model built where the response is continuous is shown. When the model is built using a categorical response, a contingency table of actual values versus predicted value is presented.

