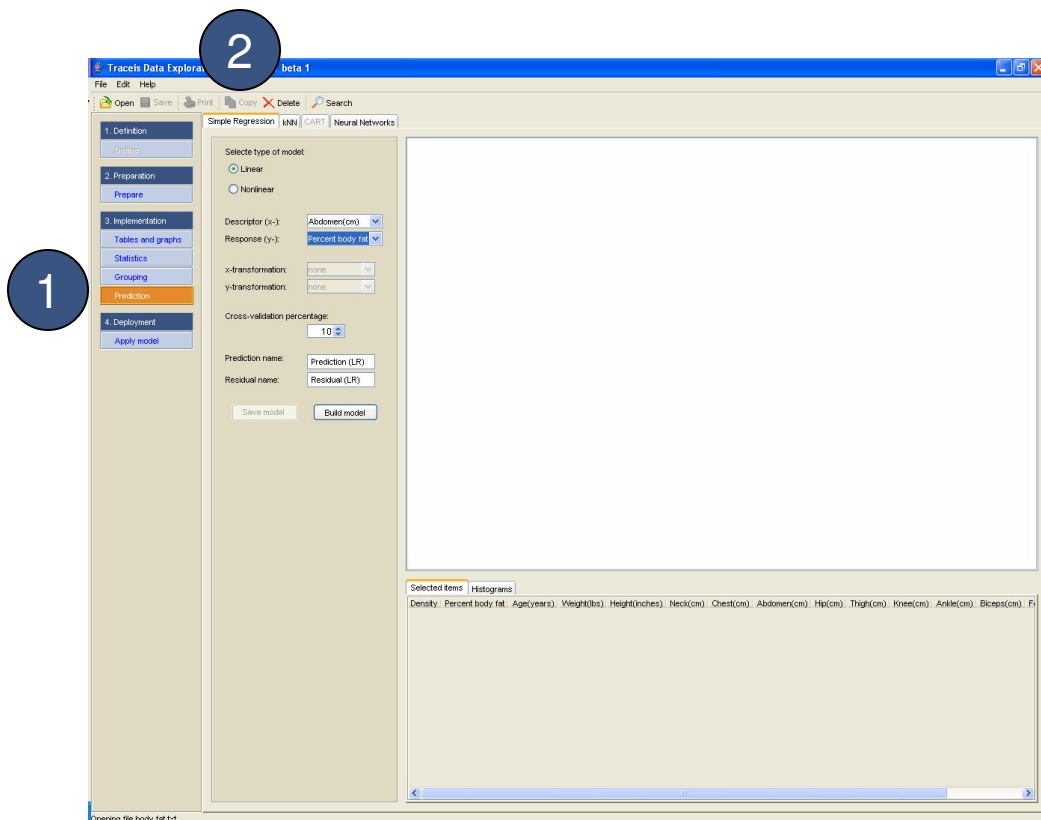


Traceis™ Data Exploration Studio Regression

1 Select the prediction step

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

2 Select the regression tab



MAKING SENSE OF DATA

1 Select linear or nonlinear regression

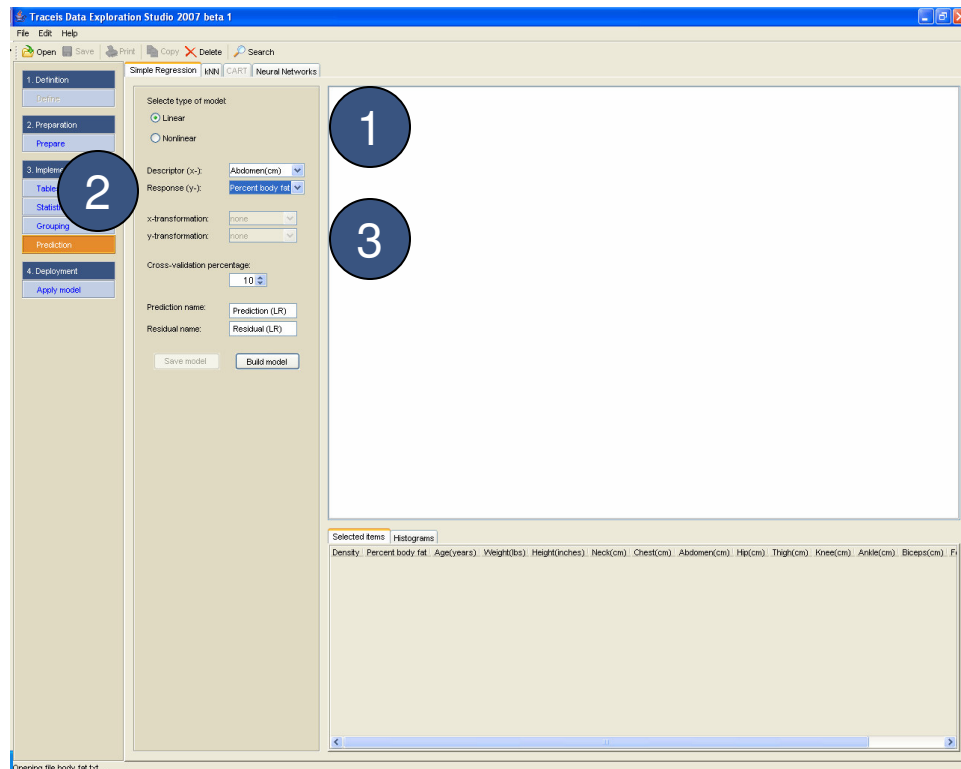
In this example, a linear regression model was selected.

2 Select descriptor and response

In this example, the abdomen(cm) variable was selected as the descriptor and the percent body fat was selected as the response.

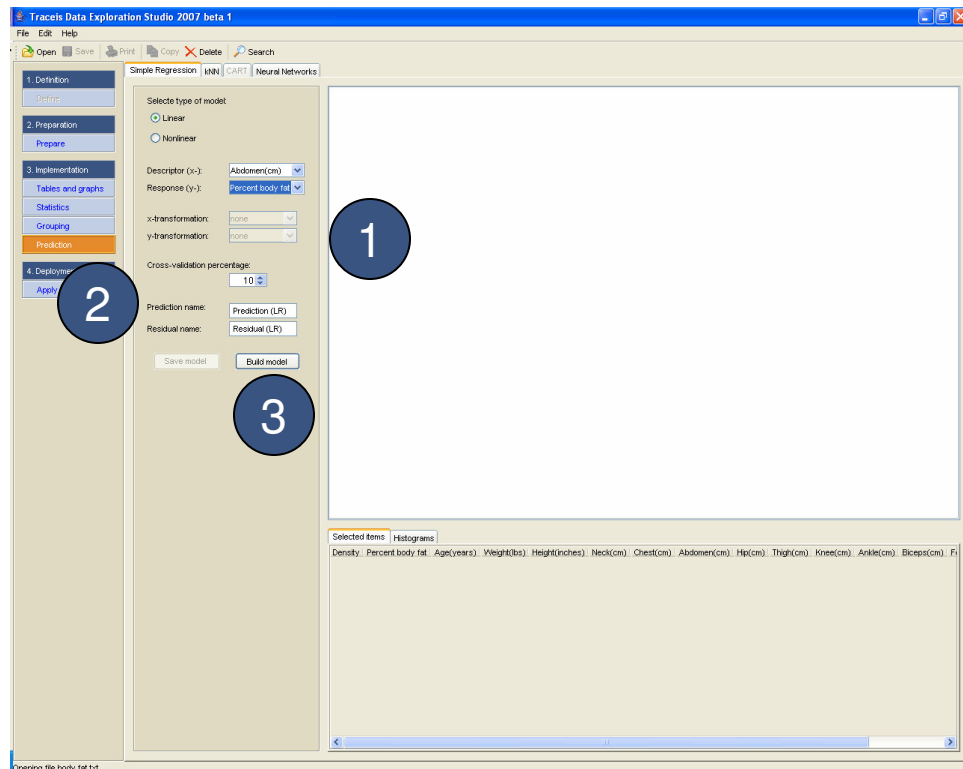
3 Select nonlinear transformation

Mathematical transformations to the descriptor, response or both variables can be made for nonlinear regression.



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 formula
- 2 View original data

A scatterplot of the response versus the descriptor is presented.

- 3 View model assessment graphs
- 4 Save model

Once a model is built, it can be saved and used later applied to a different dataset.

The screenshot displays the Tracels Data Exploration Studio 2007 beta 1 interface. The left sidebar shows the workflow steps: 1. Definition, 2. Preparation, 3. Implementation, and 4. Deployment. The central workspace is divided into four quadrants, each with a numbered callout:

- 1**: Model equation: $\text{Percent body fat} = 0.629 \times \text{Abdomen(cm)} - 39.068$
- 2**: Scatterplot titled "Abdomen(cm) vs Percent body fat" showing the original data points.
- 3**: Assessment graphs including "Percent body fat vs Prediction (LR)", "Percent body fat vs Residual (LR)", and "Residual (LR)".
- 4**: "Save model" button.

The bottom section shows a table of selected items:

Density	Percent body fat	Age(years)	Weight(lbs)	Height(inches)	Neck(cm)	Chest(cm)	Abdomen(cm)	Hip(cm)	Thigh(cm)	Knee(cm)	Ankle(cm)	Boops(cm)	F
1.0101	40.1	49	191.75	65	39.4	118.5	113.1	113.8	61.9	38.3	21.9	32	25
1.0202	35.2	46	363.15	72.25	51.2	136.2	148.1	147.7	87.3	49.1	29.6	45	26
1.0217	34.5	45	262.75	68.75	43.2	128.3	126.2	125.6	72.5	39.6	26.6	36.4	33
1.018	34.3	35	228.25	69.5	40.4	114.9	115.9	111.9	74.4	40.6	24	36.1	31
1.014	38.1	42	244.25	76	41.8	115.2	113.7	112.4	68.5	45	25.5	37.1	31
1.0209	34.8	44	323	69.75	40.9	121.6	113.9	107.1	63.5	40.3	21.9	34.8	36
0.995	47.5	51	219	64	41.2	119.8	122.1	112.8	62.5	36.9	23.6	34.7	26
1.0207	35	65	224.5	68.25	38.8	119.6	118	114.3	61.3	42.1	23.4	34.9	30