

# MAKING SENSE OF DATA

## Traceis™ Data Exploration Studio Searching

### 1 Select the prepare step

This example uses the body fat dataset. To search the dataset, first select the prepare step.

### 2 Select the search tab

### 3 Set number of terms

It is possible to search by one or more search terms. The number of search terms should be specified. In this example, it was set to 3.

The screenshot displays the Traceis Data Exploration Studio interface. On the left, a vertical menu shows the workflow steps: 1. Definition, 2. Preparation (highlighted with a blue circle and the number 1), 3. Implementation, 4. Deployment, and 5. Apply model. The main window is divided into several sections. The top section, labeled 'Search' (highlighted with a blue circle and the number 2), contains a 'Number of search terms' field set to 3, a 'Boolean operator' dropdown set to 'AND', and a 'Search' button. Below this, the 'Search results' section shows a list of data points with columns for various body measurements. The bottom section, labeled 'Selected items' (highlighted with a blue circle and the number 3), shows a list of selected items with columns for 'Density', 'Percent body fat', 'Age(years)', 'Weight(lbs)', 'Height(inches)', 'Neck(cm)', 'Chest(cm)', 'Abdomen(cm)', 'Hip(cm)', 'Thigh(cm)', 'Knee(cm)', 'Ankle(cm)', and 'Biceps(cm)'. The status bar at the bottom indicates 'Status information ...'.

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## 1 Select Boolean operator

Where more than one search term is selected, a boolean operator must be defined (OR, AND). In this example, the AND operator was chosen.

## 2 Define individual search terms

For each of the search terms, a specific search should be defined. Each search terms includes the variable to search on as well as the value or range of values. The following search is specified in this example:  
(Percent body fat < 20) AND (Age(years) < 50) AND (Abdomen(cm) > 85).

## 3 Search results column option

Once a search has been run, a column is optionally generated where the individual values are 1 (satisfying the query) and 0 (not satisfying the query).

## 4 Initiate the search

Click on the search button to execute the query.

The screenshot displays the TraceIt Data Exploration Studio 2007 beta 1 interface. The left sidebar contains a navigation pane with sections: 1. Definition, 2. Preparation, 3. Implementation, and 4. Deployment. The main window is divided into a search configuration area and a results table.

**Search Configuration:**

- Number of search terms:** 3
- Boolean operator:** AND
- Search terms:**
  - Percent body fat < 20
  - Age(years) < 50
  - Abdomen(cm) > 85
- Save results as a new variable:** ☒
- Search results:** (empty text box)
- Search button:** A button labeled "Search" is located at the bottom of the configuration area.

**Results Table:**

Density	Percent body fat	Age(years)	Weight(lbs)	Height(inches)	Neck(cm)	Chest(cm)	Abdomen(cm)	Hip(cm)	Thigh(cm)	Knee(cm)	Ankle(cm)	Biceps(cm)
1.076	12.3	23	154.25	67.75	36.2	93.1	65.2	94.5	59	37.3	21.9	32
1.072	6.1	22	173.25	72.25	38.5	93.6	83	98.7	58.7	37.3	23.4	30.5
1.072	25.3	22	154	66.25	34	95.8	67.9	98.2	59.6	38.9	24	28.6
1.074	10.4	26	184.75	72.25	37.4	101.8	86.4	101.2	60.1	37.3	22.8	32.4
1.072	28.7	24	184.25	71.25	34.4	97.3	100	101.9	63.2	42.2	24	32.2
1.0502	20.9	24	210.25	74.75	39	104.5	94.4	107.8	66	42	25.6	30.7
1.0546	19.2	26	191	69.75	36.4	105.1	90.7	100.3	58.4	38.3	22.9	31.9
1.0704	12.4	25	176	72.5	37.8	98.6	88.5	97.1	60	39.4	23.2	30.5
1.09	4.1	25	191	74	38.1	100.9	82.5	99.9	62.9	38.3	23.8	35.9
1.0722	11.7	23	180.25	73.5	42.1	99.6	88.6	104.1	63.1	41.7	25	35.5
1.083	7.1	26	186.25	74.5	38.5	101.5	83.6	98.2	59.7	39.7	25.2	32.6
1.0812	7.8	27	216	76	39.4	103.6	90.9	107.7	66.2	39.2	25.9	37.2
1.0513	20.8	32	180.5	69.5	38.4	102	91.6	103.9	63.4	38.3	21.5	32.5
1.0505	21.2	30	205.25	71.25	39.4	104.1	101.8	108.6	66	41.5	23.7	36.9
1.0455	15.2	35	187.75	69.5	40.5	101.3	96.4	100.1	69	39	23.1	36.1
1.055	35	162.75	66	36.4	99.1	92.8	99.2	63.1	38.7	21.7	31.1	
1.054	34	195.75	71	38.9	101.9	96.4	105.2	64.8	40.8	23.1	36.2	
1.054	32	209.25	71	42.1	107.6	97.5	107	66.9	40	24.4	38.2	
1.054	28	183.75	67.75	38	106.8	89.6	102.4	64.2	38.7	22.9	37.2	
1.054	33	211.75	73.5	40	108.2	100.5	109	65.8	40.6	24	37.1	
1.054	28	179	68	39.1	103.3	95.9	104.9	63.5	38	22.1	32.5	
1.0631	15.6	29	200.5	69.75	41.3	111.4	99.8	104.8	63.4	40.6	24.6	33
1.0584	17.7	32	149.75	70	35.5	86.7	80	83.4	54.9	36.2	22.1	29.8
1.0668	14	28	151.25	67.75	34.5	90.2	76.3	85.8	58.4	35.5	22.9	31.1
1.0911	3.7	27	159.25	71.5	35.7	89.8	79.7	96.5	55	36.7	22.5	29.9
1.0811	7.9	34	131.5	67.5	36.2	88.8	74.6	85.3	51.7	34.7	21.4	28.7
1.0488	22.9	31	148	67.5	38.8	97.4	88.7	94.7	57.5	36	21	29.2
1.091	3.7	27	133.25	64.75	36.4	80.5	73.9	88.5	50.1	34.5	21.3	30.5
1.079	8.8	29	160.75	69	36.7	97.4	83.5	98.7	58.9	35.3	22.6	30.1
1.0716	11.9	32	182	73.75	38.7	100.5	88.7	99.8	57.5	38.7	33.9	32.5
1.0682	5.7	29	160.25	71.25	37.3	93.5	84.5	100.6	58.5	38.9	21.5	30.1
1.0719	11.8	27	168	71.25	36.1	93	79.1	94.5	57.3	36.2	24.5	29
1.0502	21.3	41	218.5	71	39.8	111.7	100.5	108.3	67.1	44.2	25.2	37.5

**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), Biceps(cm), F.

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1

## Selected observations highlighted

The individual observations resulting from a search are highlighted in the main display window.

2

## View selected observations

These observations are also displayed in the selected items window and displayed as a table or highlighted on histograms. In addition, the selected observations can be seen throughout all other views.

