

Unindex One-way 2 Columns

In the Statistical Transforms, there are functions to Index/Unindex variables in a worksheet (One Way and Two Way).

- Unindexing spreads the values of one indexed variable into separate columns, depending on a factor variable.
- Indexing stacks all values from "one column per factor value" into one column, with an index column showing "where each row value belongs".

1. Indexed and unindexed variables

The Statistics Samples.JNB notebook (open it from the Help menu), Paired t-test data worksheet shows you an example for both Unindexed (Raw) and Indexed values.

Unindexed: col 1 and 2, Indexed: col 3 to 5

Paired t-test Data						
	1-Before Class	2-After Class	3-Student	4-Education	5-Score	
1	55,0000	69,0000	John	Before	55,0000	
2	51,0000	76,0000	John	After	69,0000	
3	64,0000	88,0000	Scott	Before	51,0000	
4	72,0000	82,0000	Scott	After	76,0000	
5	66,0000	70,0000	Emma	Before	64,0000	
6	48,0000	91,0000	Emma	After	88,0000	
7	72,0000	68,0000	Yvonne	Before	72,0000	
8			Yvonne	After	82,0000	
9			Dick	Before	66,0000	
10			Dick	After	70,0000	
11			Pam	Before	48,0000	
12			Pam	After	91,0000	
13			Oliver	Before	72,0000	
14			Oliver	After	68,0000	
15						

2. Unindex a pair of columns

If you want to unindex a pair of columns, e.g. XY values, based on a factor variable, you can do this with a User-Defined Transform. The following transform creates multiple pairs of XY columns, starting at col 6. These column pairs can then be used in a Many XY Pairs Line/Scatter plot, for detailed control of symbols in each segment.

2.1 Sample data

Enter the values from col 1 to 3 (below) into a data worksheet. The user-defined transform in (2.2) will create the unindexed column pairs.

	1-factor	2-x	3-y	4	5	6-A	7	8-B	9	10-C	11
1	A	1,0000	1,5000	A		1,0000	1,5000	13,0000	13,2000	100,0000	100,0100
2	A	2,0000	2,8000	B		2,0000	2,8000	11,0000	11,5000	300,0000	300,3300
3	B	13,0000	13,2000	C		5,0000	5,3000	16,0000	16,4000	200,0000	200,2500
4	B	11,0000	11,5000			4,0000	4,3000				
5	A	5,0000	5,3000								
6	C	100,0000	100,0100								
7	C	300,0000	300,3300								
8	C	200,0000	200,2500								
9	B	16,0000	16,4000								
10	A	4,0000	4,3000								
11											

2.2 User-Defined Transform

From the Analysis ribbon > User-Defined, open a new empty transform edit window (or press F10). Copy the following lines, and paste them into the edit window with Ctrl-V, or with Rightclick > Paste. Click the Run button, and the values in col 4–11 will be written.

```
'unindex oneway, 2 columns
'Oneway-unindex XY data into column pairs per factor value.
'If the factor variable type is text, the factor values are written as column
titles.
```

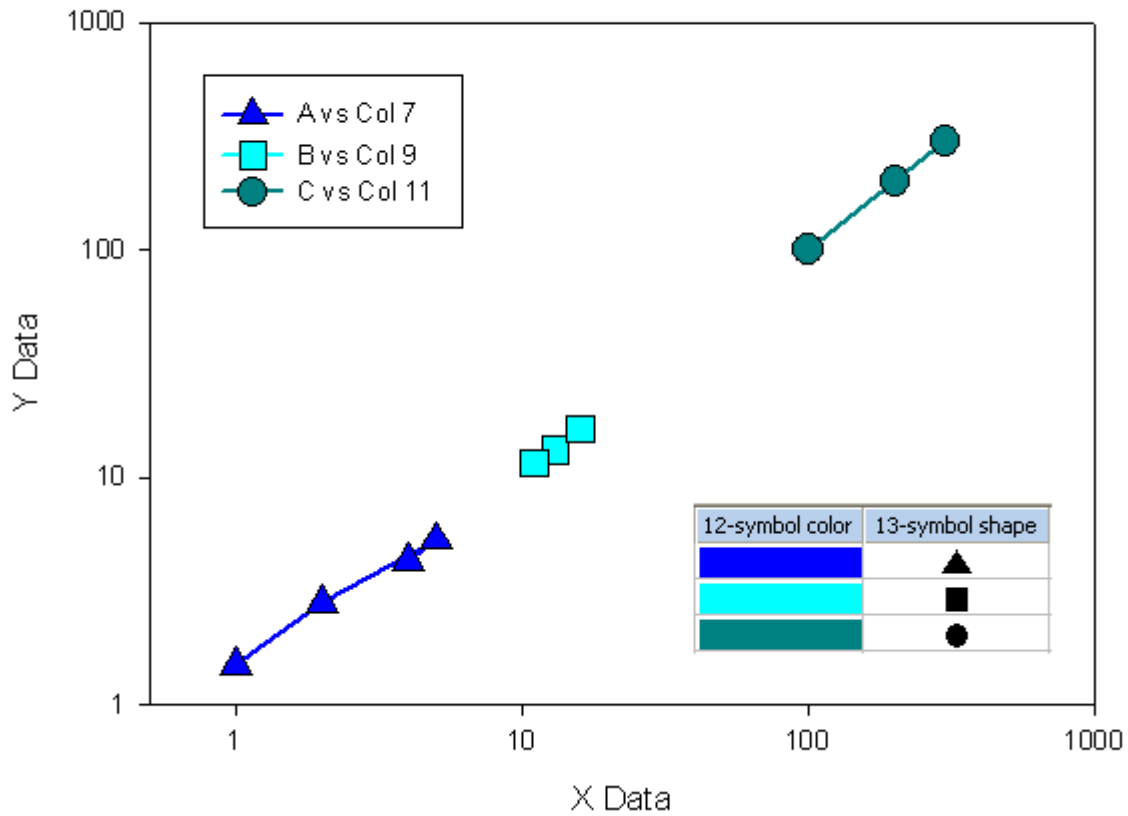
```
'2. unindex_xy
'columns
factor = 1
x = 2
y = 3
o = 5 'Output
factorcolumn = col(factor)
xcolumn = col(x)
ycolumn = col(y)
```

```
unique(X) = if( sort(X) > {""; sort(X)}; sort(X) )
factors = unique(col(factor))
put factors into col(y+1)
```

```
for i=1 to size(factors) do
  cell(o+2*i-1;0) = factors[i]
  col(o+i*2-1) = if(factorcolumn = factors[i]; xcolumn)
  col(o+i*2) = if(factorcolumn = factors[i]; ycolumn)
end for
```

2.3. Many XY Pairs Scatter Plot, with Symbols from Column

Many XY Pairs, Symbol Color from Column



a) Create a Many XY Pairs Scatter Plot, from column pairs 6 and 7, 8 and 9, 10 and 11.

b) With the Graphic Cells dialog in the Worksheet ribbon, enter graphic cells into col 12 and 13 (see the screenshot added to the graph). Then in the Graph Properties dialog, for Plot > Symbols, these columns are listed at the end of the Type and Color dropdown listboxes. Select the columns, and the settings will be applied to the graph.