

Percentage Histogram

- 1- Generate sample data
- 2- Compute the percentages
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How do I calculate a histogram of raw data based on the percent of total?

Here is an example that generates the percentages from the raw data with a user-defined transform.

1. Generate sample data

These transform rows create 100 gaussian random numbers in column 1, and write a column title.

```
'generate sample data
col(1)=gaussian(100;1;50;20)
cell(1;0)="Sample Data"
```

Note:

To run the transform, open the transform edit window: Select Analysis > User-Defined

You can copy the transform lines from this page, and paste them into the Transform Edit window with Ctrl-V.

2. Compute the percentages

The next transform rows set the number of buckets = intervals to use, create the series of bucket values (col 2), compute the raw count per bucket (col 3), and compute the percentages (col 4). To change the number of buckets, edit the "NumBuckets=15" row.

```
'Change the below for the number of bins
NumBuckets=15
cell(2;0)="Bucket"
col(2)=data(1;NumBuckets)/NumBuckets
cell(3;0)="Raw Count"
col(3)=histogram(col(1);NumBuckets)
cell(4;0)="Percent Count"
col(4)=col(3)/total(col(3))
```

This is the start of worksheet after running the transform:

	1-Sample Data	2-Bucket	3-Row Count	4-Percent Count	5
1	33,2629	0,0667	3,0000	0,0300	
2	46,5544	0,1333	1,0000	0,0100	
3	53,7423	0,2000	3,0000	0,0300	
4	82,3088	0,2667	6,0000	0,0600	
5	46,4645	0,3333	10,0000	0,1000	
6	63,0629	0,4000	9,0000	0,0900	
7	39,0727	0,4667	12,0000	0,1200	
8	53,8829	0,5333	19,0000	0,1900	
9	68,5142	0,6000	7,0000	0,0700	
10	74,0864	0,6667	12,0000	0,1200	
11	80,6111	0,7333	7,0000	0,0700	
12	22,8888	0,8000	3,0000	0,0300	
13	51,0298	0,8667	6,0000	0,0600	
14	70,4036	0,9333	1,0000	0,0100	
15	25,4768	1,0000	1,0000	0,0100	
16	64,1699				
17	67,4335				
18	34,2056				
19	56,6416				
20	54,1121				
21	46,6127				
22	43,6317				
23	44,0871				
24	60,4458				
25	5,3790				

3. Create and customize a bar graph

After running the transform, create a bar graph with column 2 as X and column 4 as Y.

You can then modify the plot, changing bar width to 100% in the Plot > Bar Width section of the Graph Properties, and there also change the Bar alignment to Left.

In the Axis > Major Labels, add a Suffix of %, and in the Axis > Major Tick Labels, change the Factor out to 0,01.

