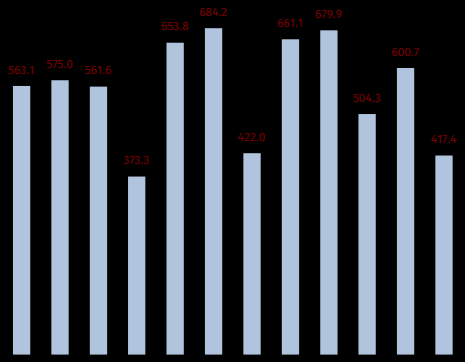
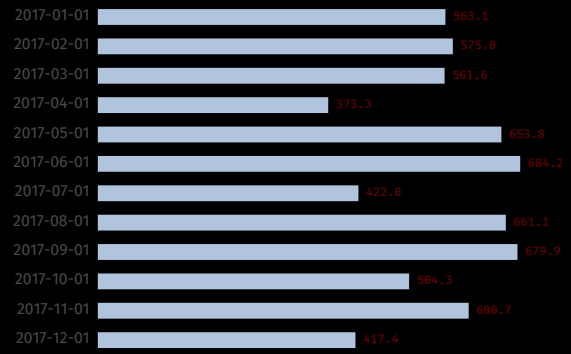
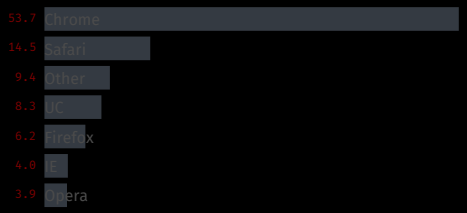
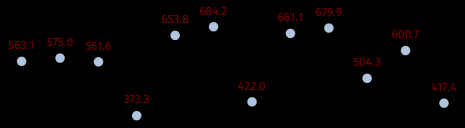
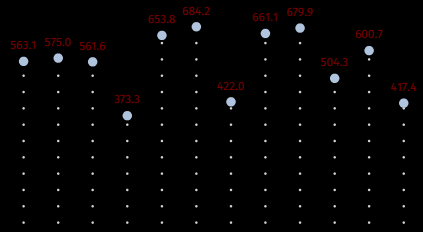


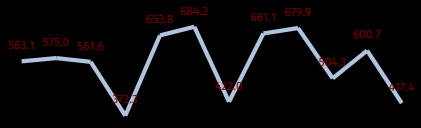


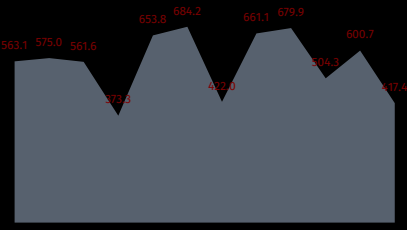


dchart

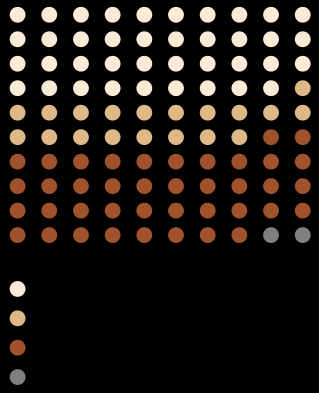


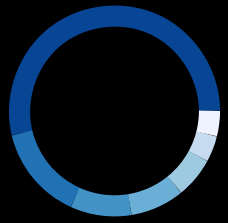


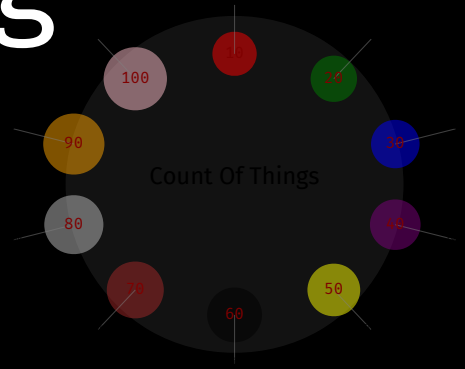


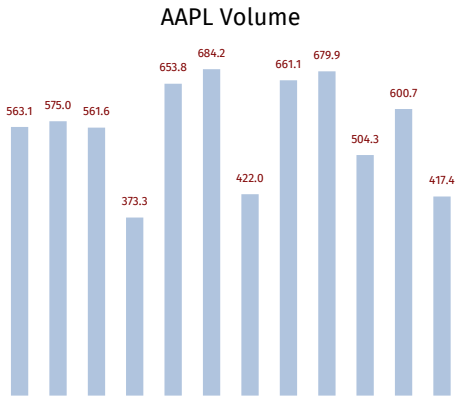


deck/decksh charting

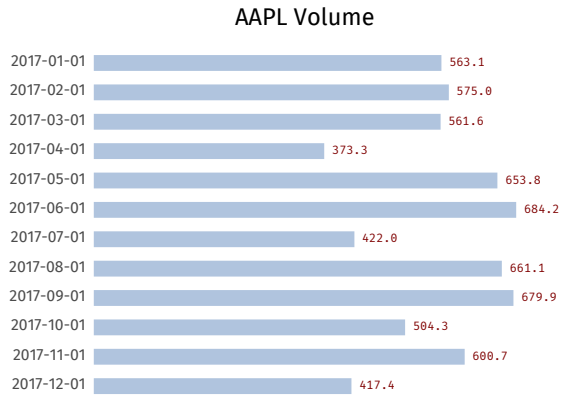




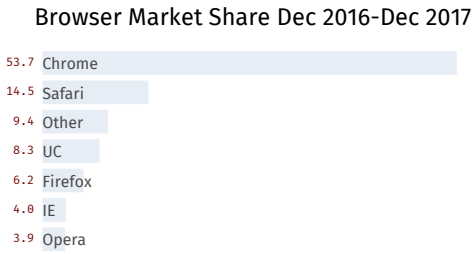




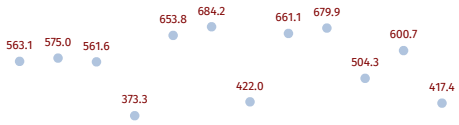
Column



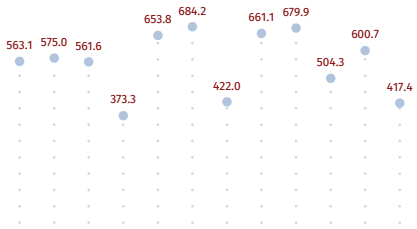
Bar



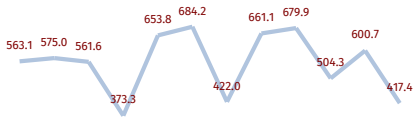
Word Bar



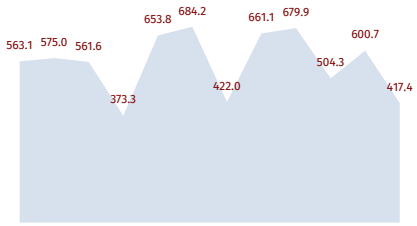
Dot



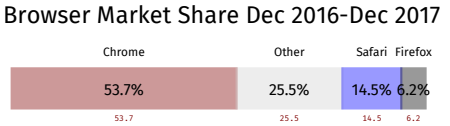
Scatter



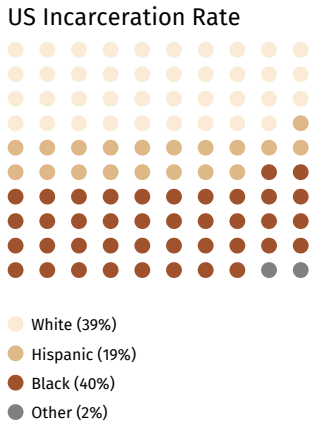
Line



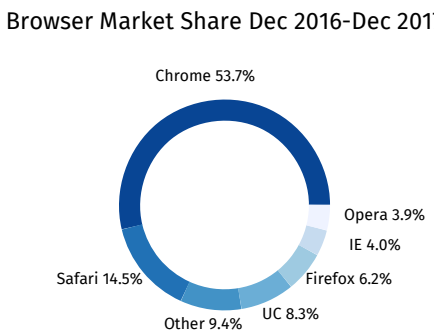
Area



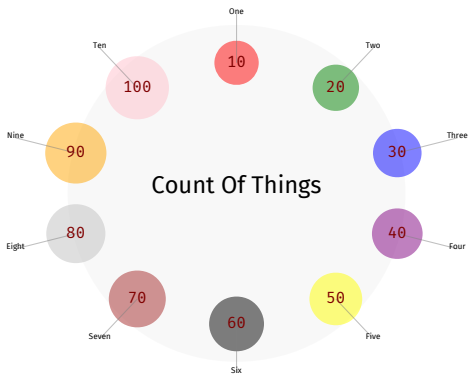
Proportional Map



Proportonal Grid



Donut/Pie



Radial

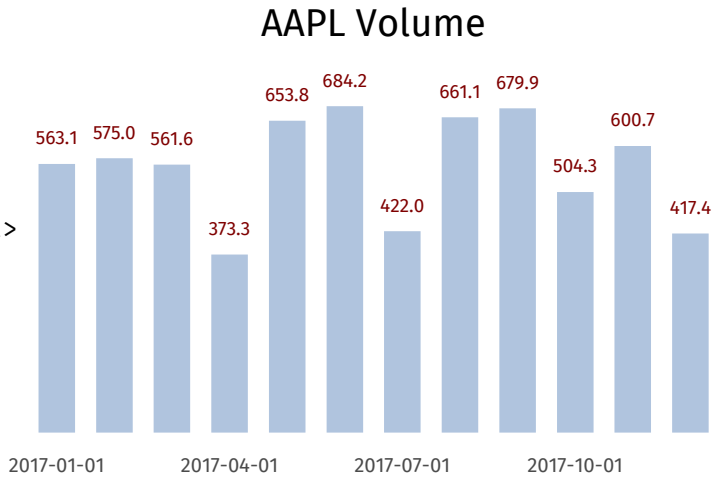
Data

```
# AAPL Volume
2017-01-01    563.122
2017-02-01    574.969
2017-03-01    561.628
2017-04-01    373.304
2017-05-01    653.755
2017-06-01    684.178
2017-07-01    421.992
2017-08-01    661.069
2017-09-01    679.879
2017-10-01    504.291
2017-11-01    600.663
2017-12-01    417.354
```

Markup

```
<deck>
  <canvas width="0" height="0" />
  <slide bg="white">
    <text ...> AAPL Volume</text>
    <line ... color="lightsteelblue" />
    <text ... color="rgb(127,0,0)">563.1</text>
    <text ... color="rgb(75,75,75)">2017-01-01</text>
    .
    .
    .
  </slide>
</deck>
```

PDF Rendition



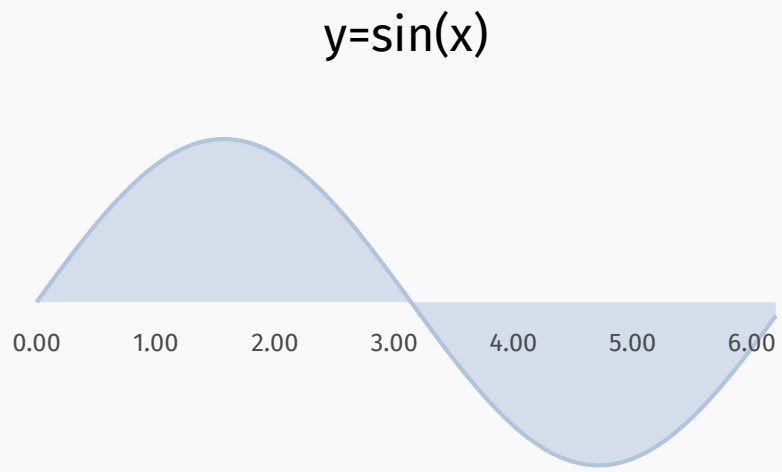

```
data | dchart | pdf
```

Generating Data for charts

```
package main

import (
    "fmt"
    "math"
)

func main() {
    fmt.Println("# y=sin(x)")
    for x := 0.0; x < math.Pi*2; x += 0.1 {
        fmt.Printf("%.2f\t%.4f\n", x, math.Sin(x))
    }
}
```




```
# y=sin(x)
0.00    0.0000
0.10    0.0998
0.20    0.1987
0.30    0.2955
0.40    0.3894
0.50    0.4794
0.60    0.5646
0.70    0.6442
0.80    0.7174
.
.
5.80    -0.4646
5.90    -0.3739
6.00    -0.2794
6.10    -0.1822
6.20    -0.0831
```

```
go run sine.go |
dchart -bar=f -val=f -xlabel=10 -line -vol -bottom=50 |
pdfdeck -stdout - > sine.pdf
```

Chart Types

-bar	true	bar chart
-wbar	false	word bar chart
-hbar	false	horizontal bar chart
-donut	false	donut chart
-dot	false	dot plot
-line	false	line chart
-pgrid	false	proportional grid
-pmap	false	proportional map
-radial	false	radial chart
-scatter	false	scatter chart
-vol	false	volume plot

Position and Scaling

-top	80	top of the chart
-bottom	30	bottom of the chart
-left	20	left margin
-right	80	right margin
-min	data min	set the minimum data value
-max	data max	set the maximum data value

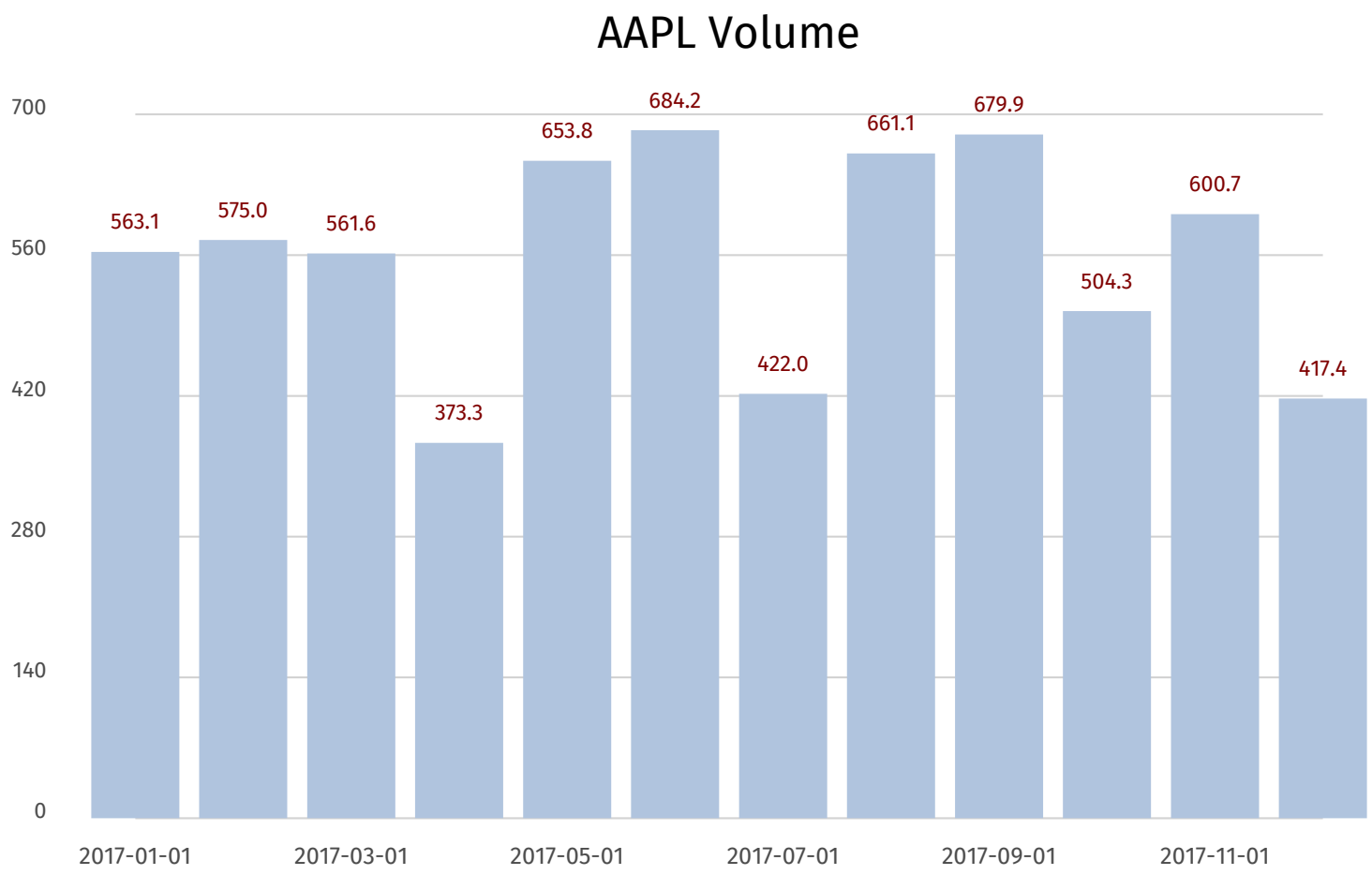
Chart Elements

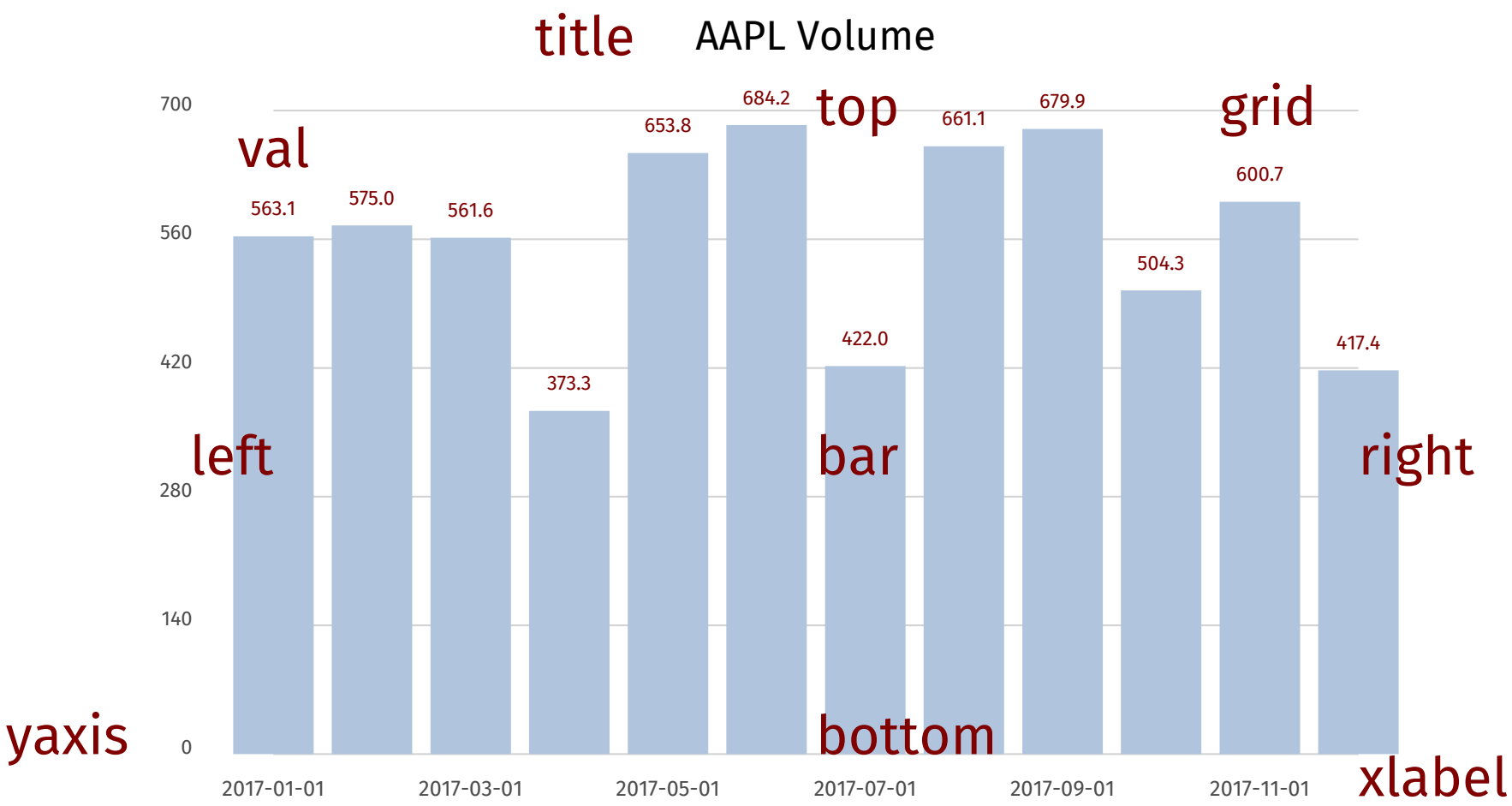
-csv	false	read CSV files
-frame	false	show a colored frame
-fulldeck	true	generate full deck markup
-grid	false	show gridlines on the y axis
-note	true	show annotations
-pct	false	show computed percentage
-rline	false	show a regression line
-solidpmap	false	show solid pmap colors
-spokes	false	show spokes in radial chart
-title	true	show the title
-val	true	show values
-xlast	false	show the last x label
-yaxis	false	show a y axis
-chartitle	override title in data	specify the title
-datacond	low,high,color	conditional data colors
-hline	value,label	label horizontal line at value
-valpos	t=top, b=bottom, m=middle	value position
-xlabel	default=1, 0 to suppress	x axis label interval
-yrange	min,max.step	specify the y axis label range

Measures and Attributes

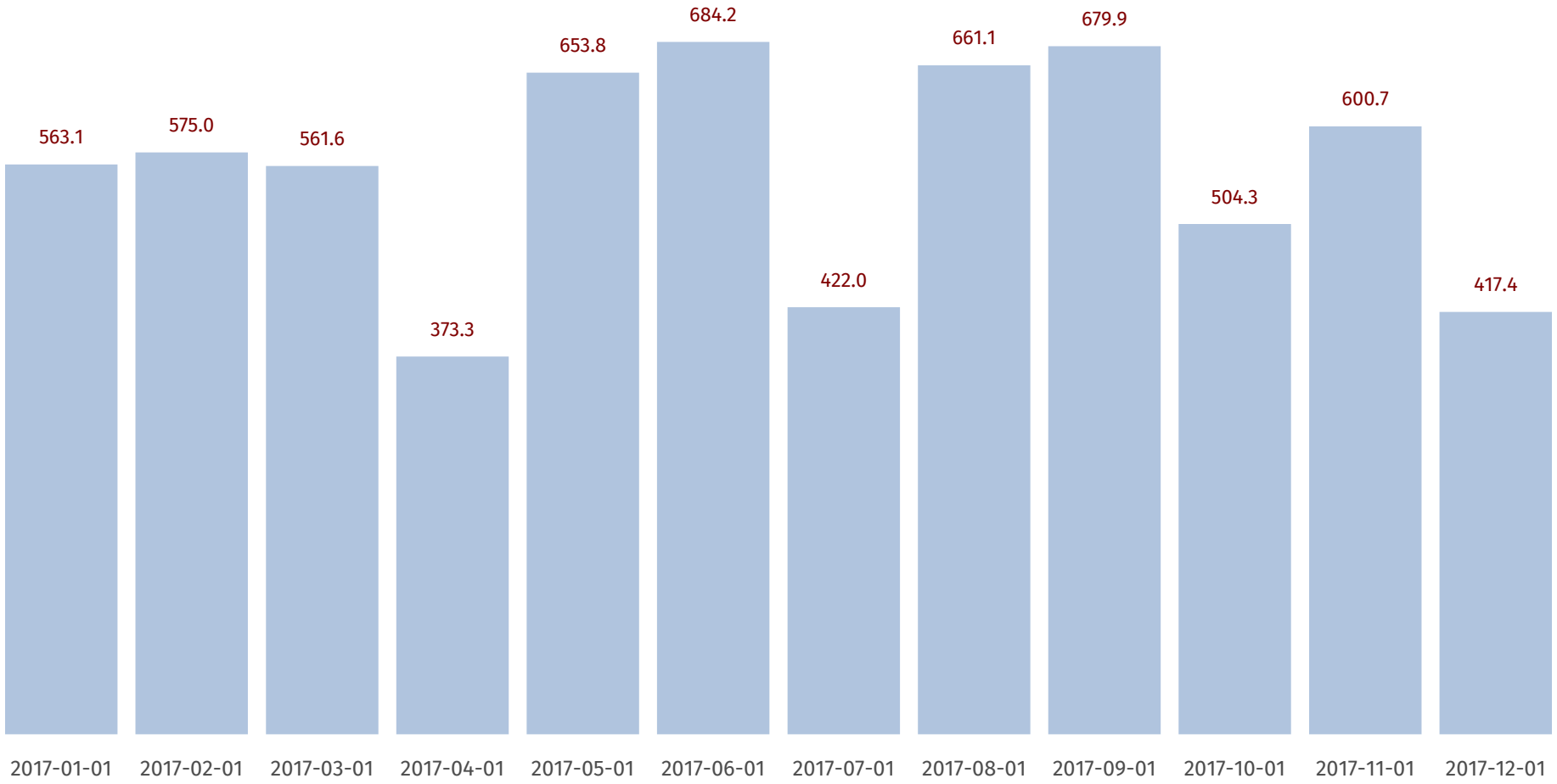
-bgcolor	white	background color
-barwidth	computed from data size	barwidth
-color	lightsteelblue	data color
-csvcol	labe1,label2	specify csv columns
-datafmt	%.1f	data format for values
-dmin	false	use data minimum, not zero
-framecolor	rgb(127,127,127)	frame color
-lcolor	rgb(75,75,75)	label color
-linewidth	0.2	linewidth
-ls	2.4	linespacing
-noteloc	c=center, r=right, l=left	annotation location
-pmlen	20	pmap label length
-psize	30	diameter of the donut
-pwidth	3	width of the donut or pmap
-rlcolor	rgb(127,0,0)	regression line color
-textsize	1.5	text size
-xlabrot	0	xlabel rotation (deg.)
-vcolor	rgb(127,0,0)	value color
-volop	50	volume opacity %

Command Option Examples


AAPL Volume
700
560
420
280
140
0
563.1
575.0
561.6
373.3
653.8
684.2
422.0
661.1
679.9
504.3
600.7
417.4
2017-01-01
2017-03-01
2017-05-01
2017-07-01
2017-09-01
2017-11-01

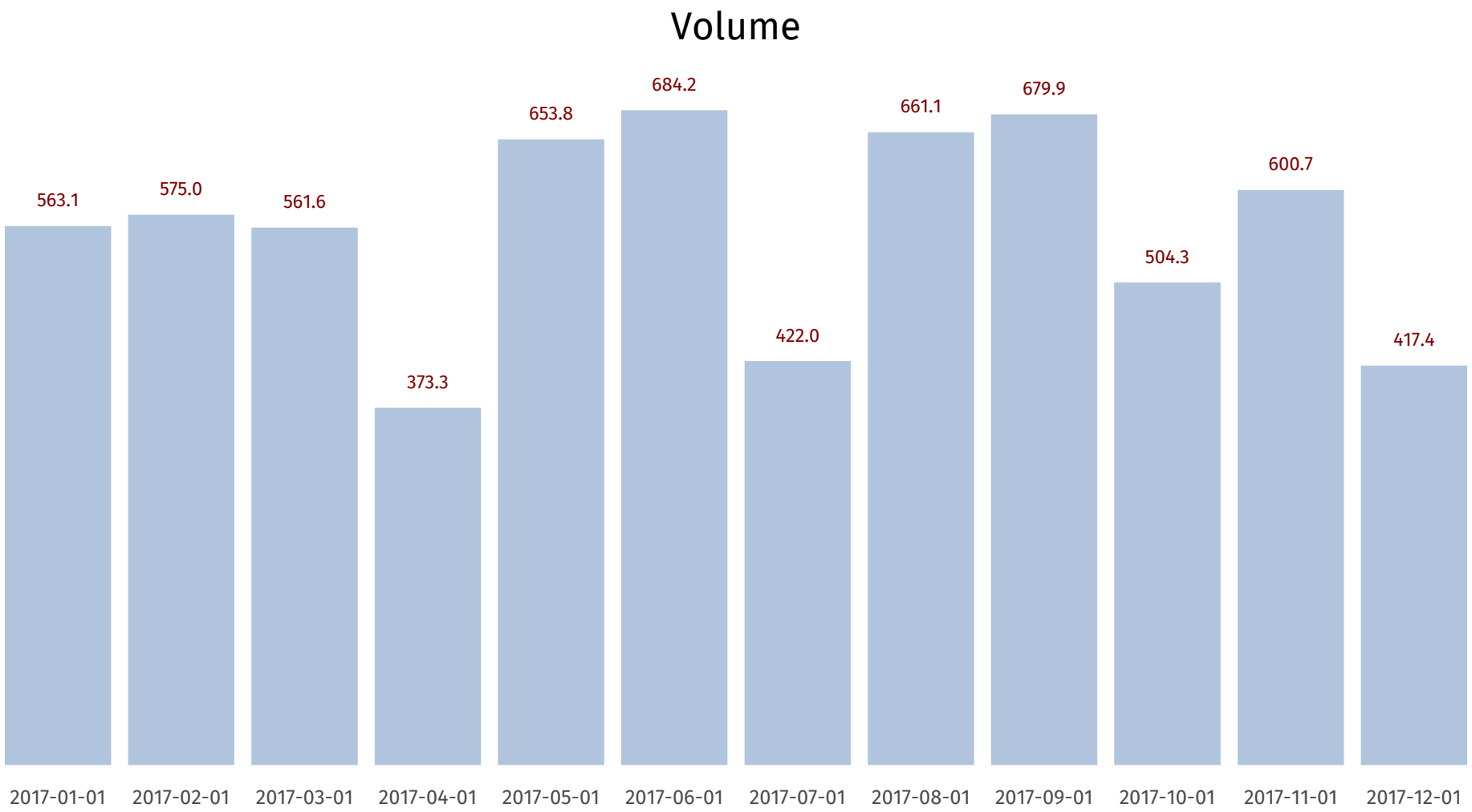



```
dchart -left=20 -right=80 -top=75 -bottom=30 -yaxis -grid -xlabel=2 -val AAPL.d
```



Default Bar Chart

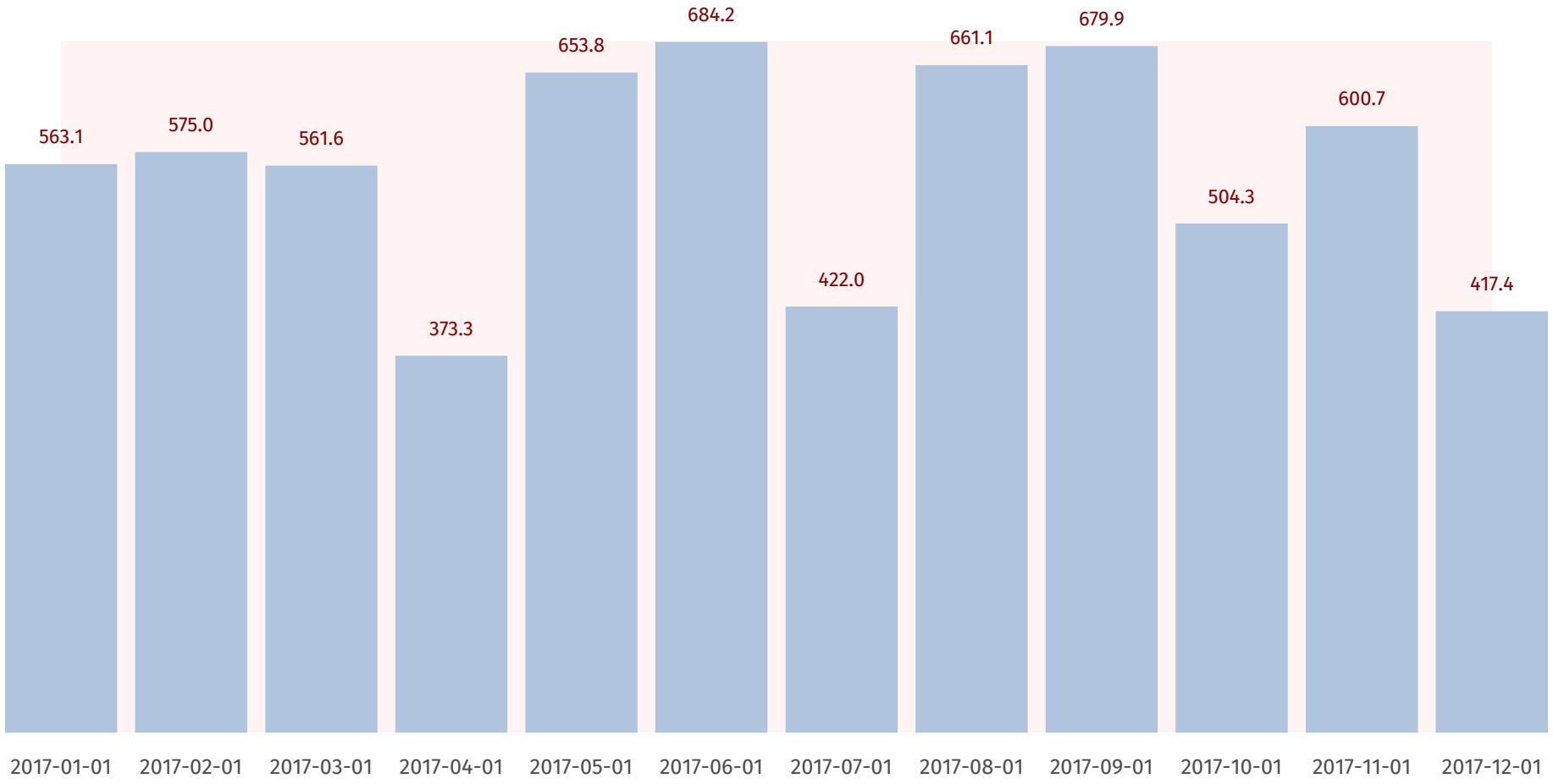
```
dchart AAPL.d
```



Reading CSV files

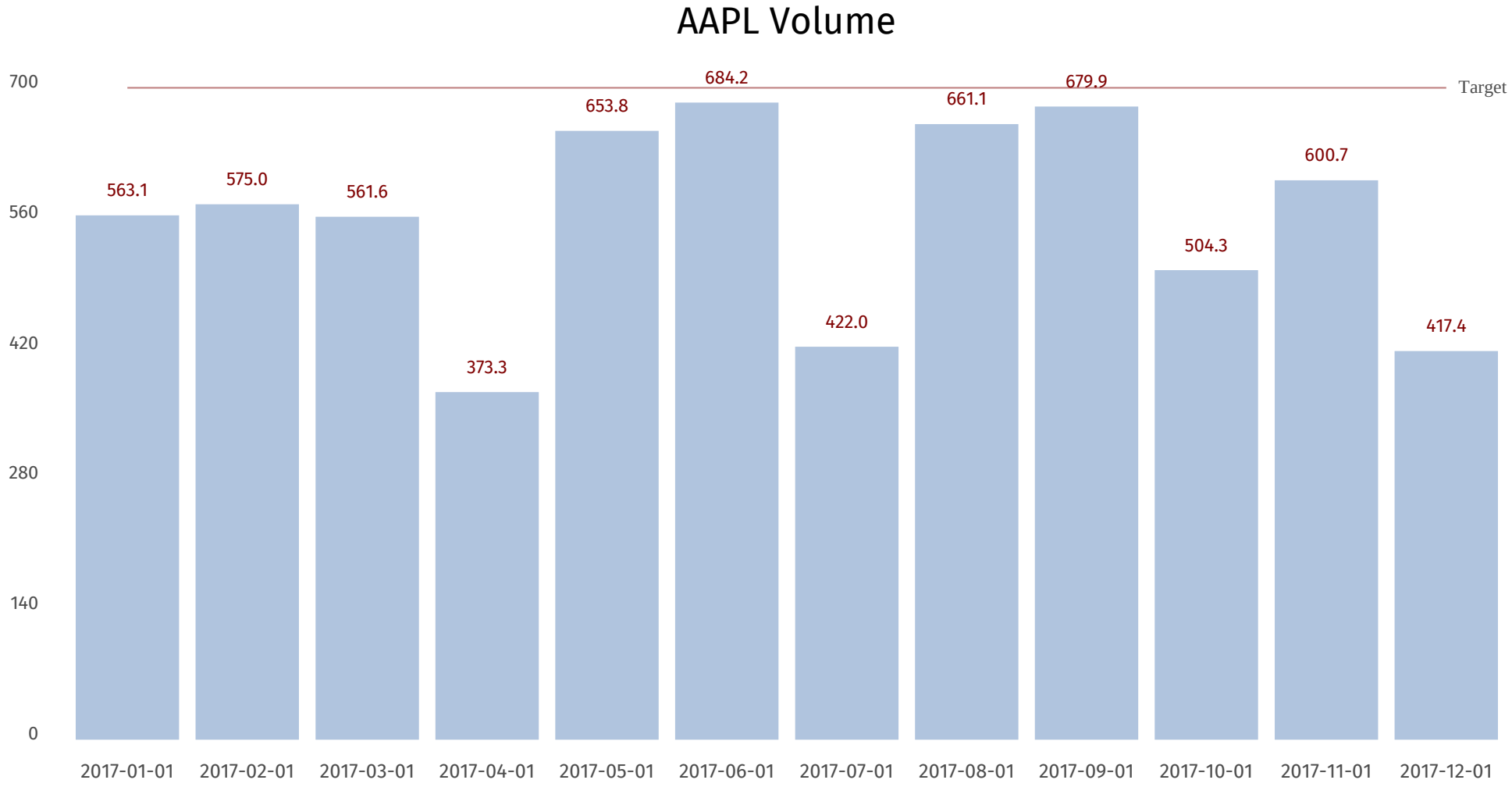
```
Date,Volume
2017-01-01,563.122
2017-02-01,574.969
2017-03-01,561.628
2017-04-01,373.304
2017-05-01,653.755
2017-06-01,684.178
2017-07-01,421.992
2017-08-01,661.069
2017-09-01,679.879
2017-10-01,504.291
2017-11-01,600.663
2017-12-01,417.354
```

```
dchart -csv -csvcol=Date,Volume AAPL.csv
```



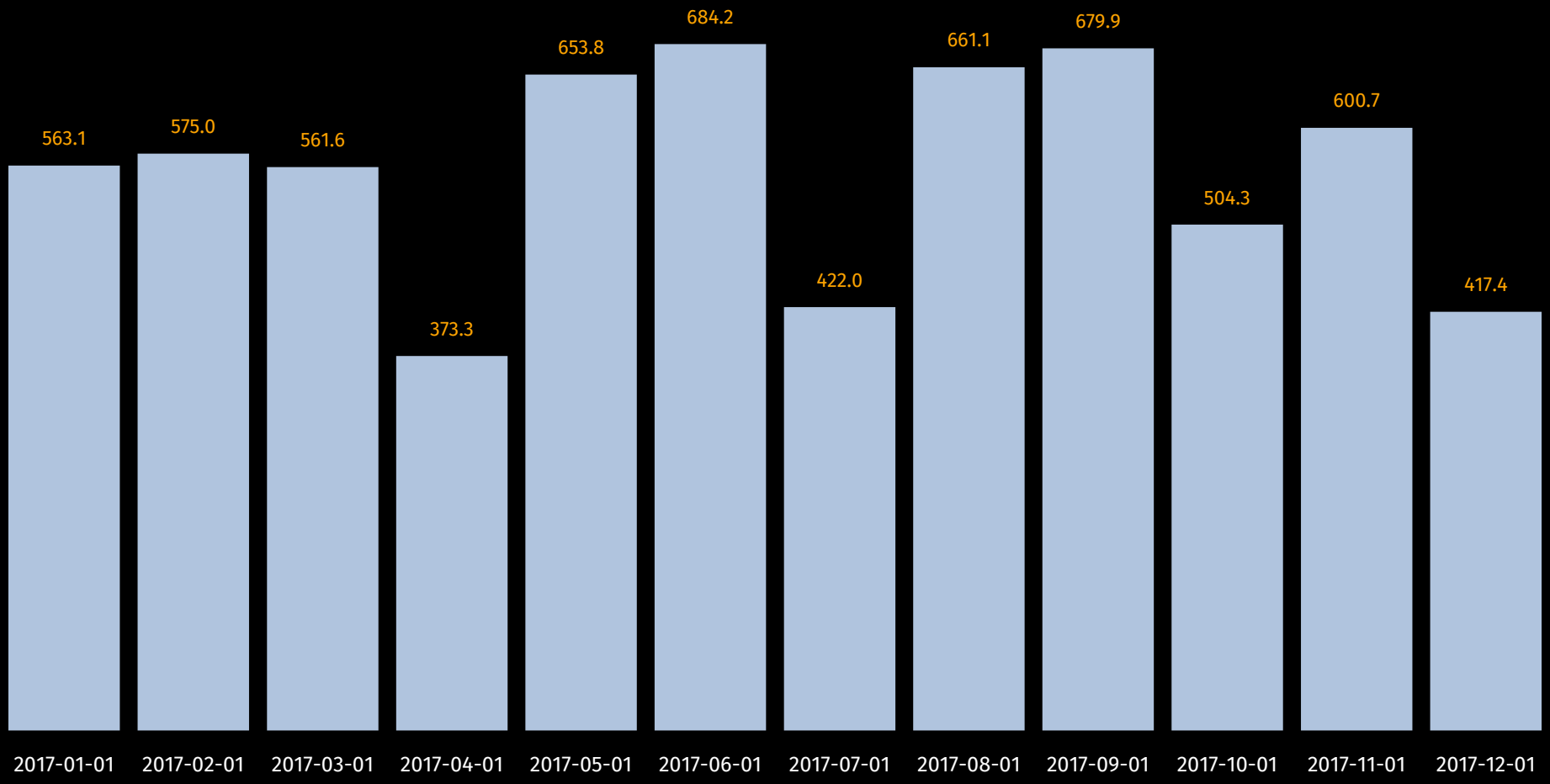
Frame, Frame Color

```
dchart -frame=t -framecolor=red AAPL.d
```



Target Line, Y-Axis

```
dchart -hline=700,Target -yaxis AAPL.d
```



Background, Label, Value Color

```
dchart -bgcolor=black -lcolor=white -vcolor=orange AAPL.d
```

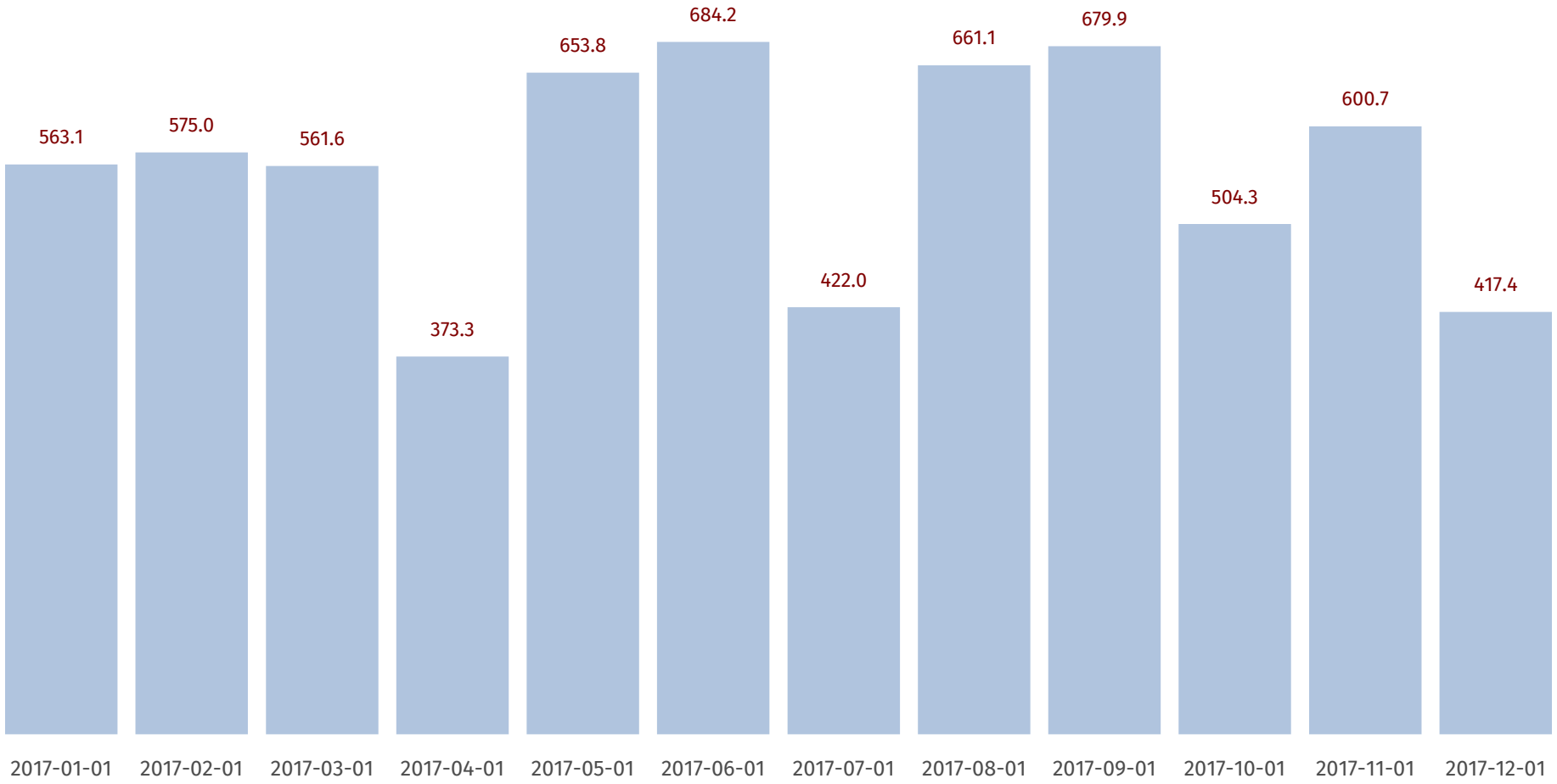
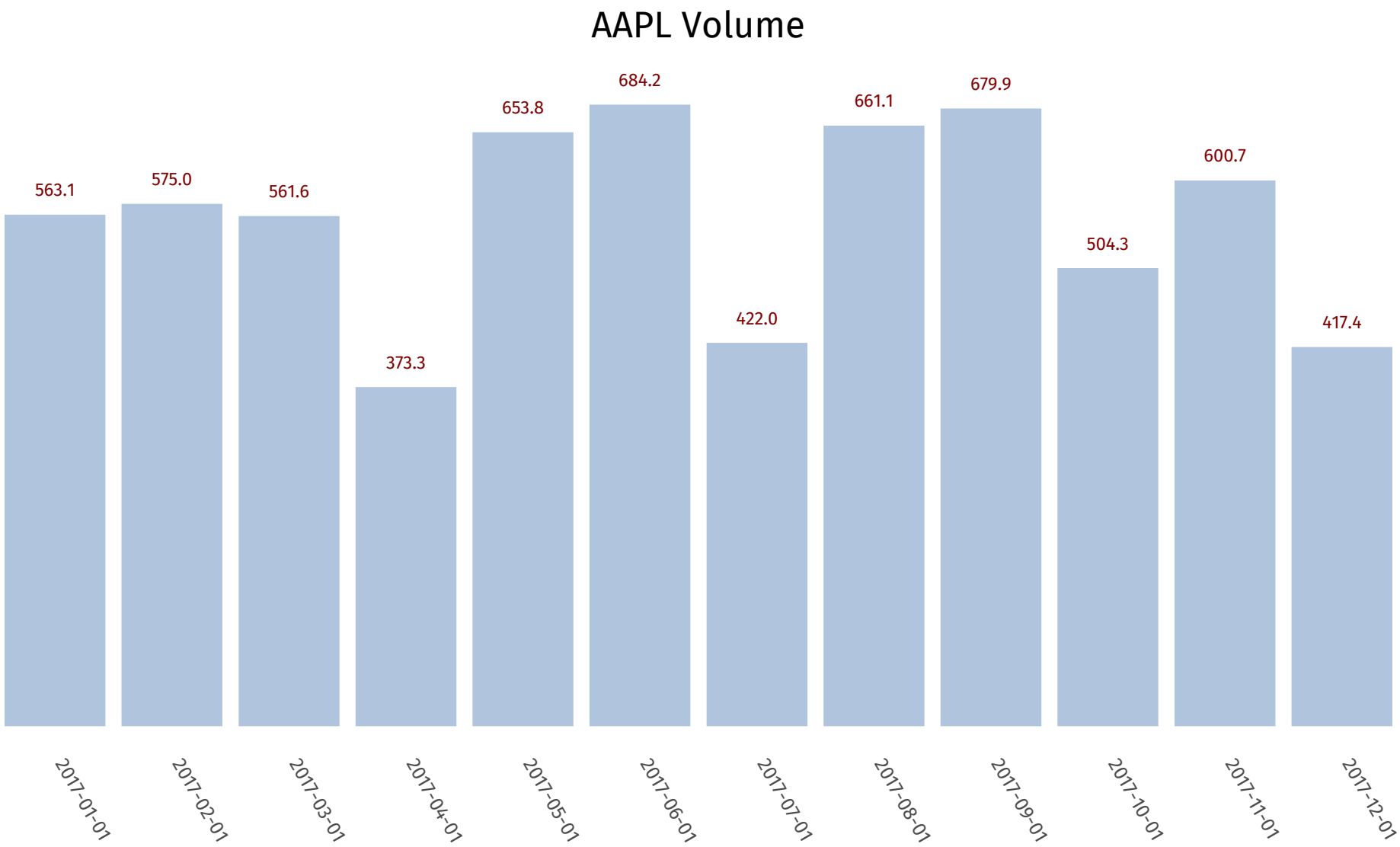


Chart Title

```
dchart -chartitle="Apple-Volume-2017" AAPL.d
```

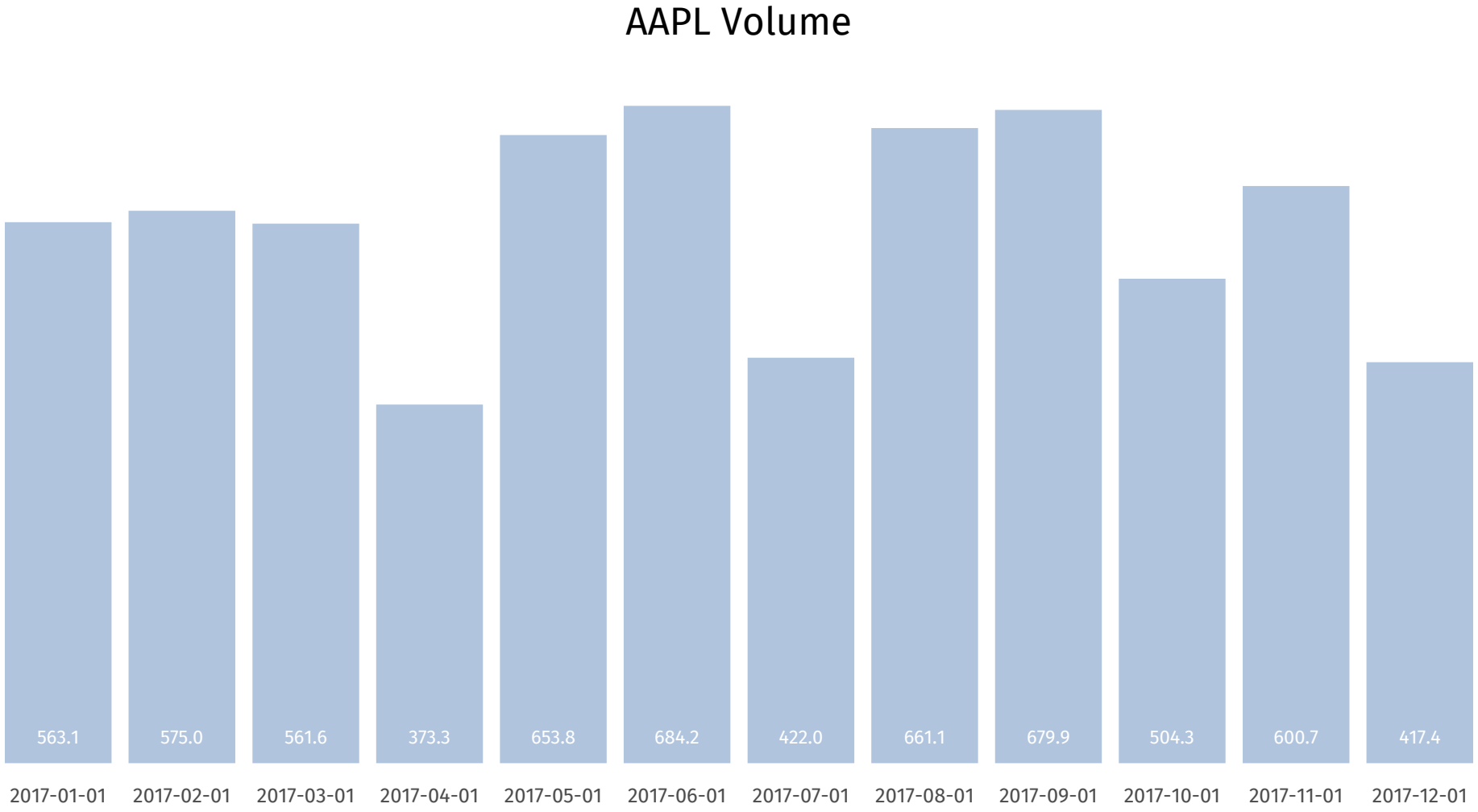
Data Conditions

```
dchart -datacond=300,450,orange AAPL.d
```



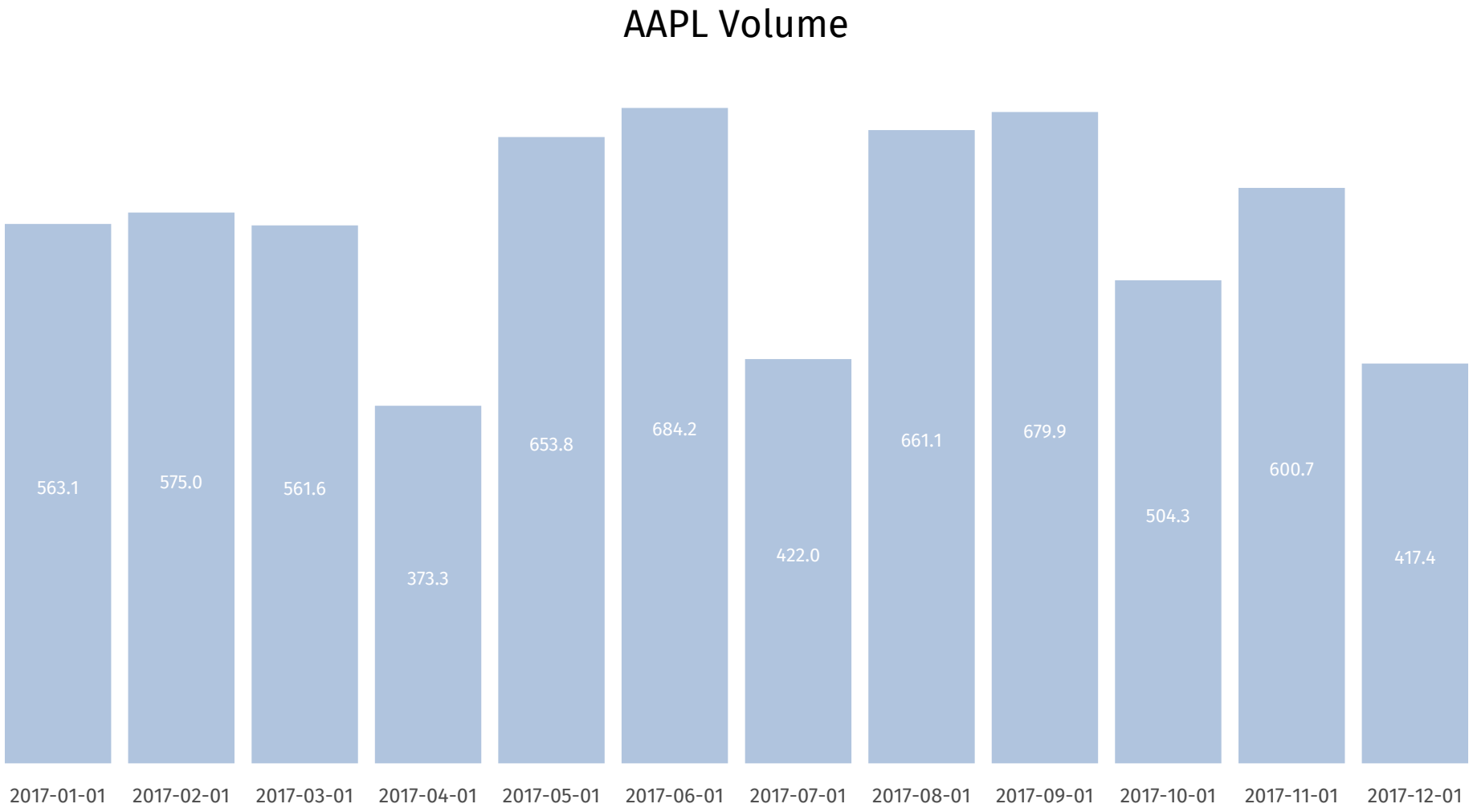
X-Axis Label Rotation

```
dchart -xlabrot=300 AAPL.d
```



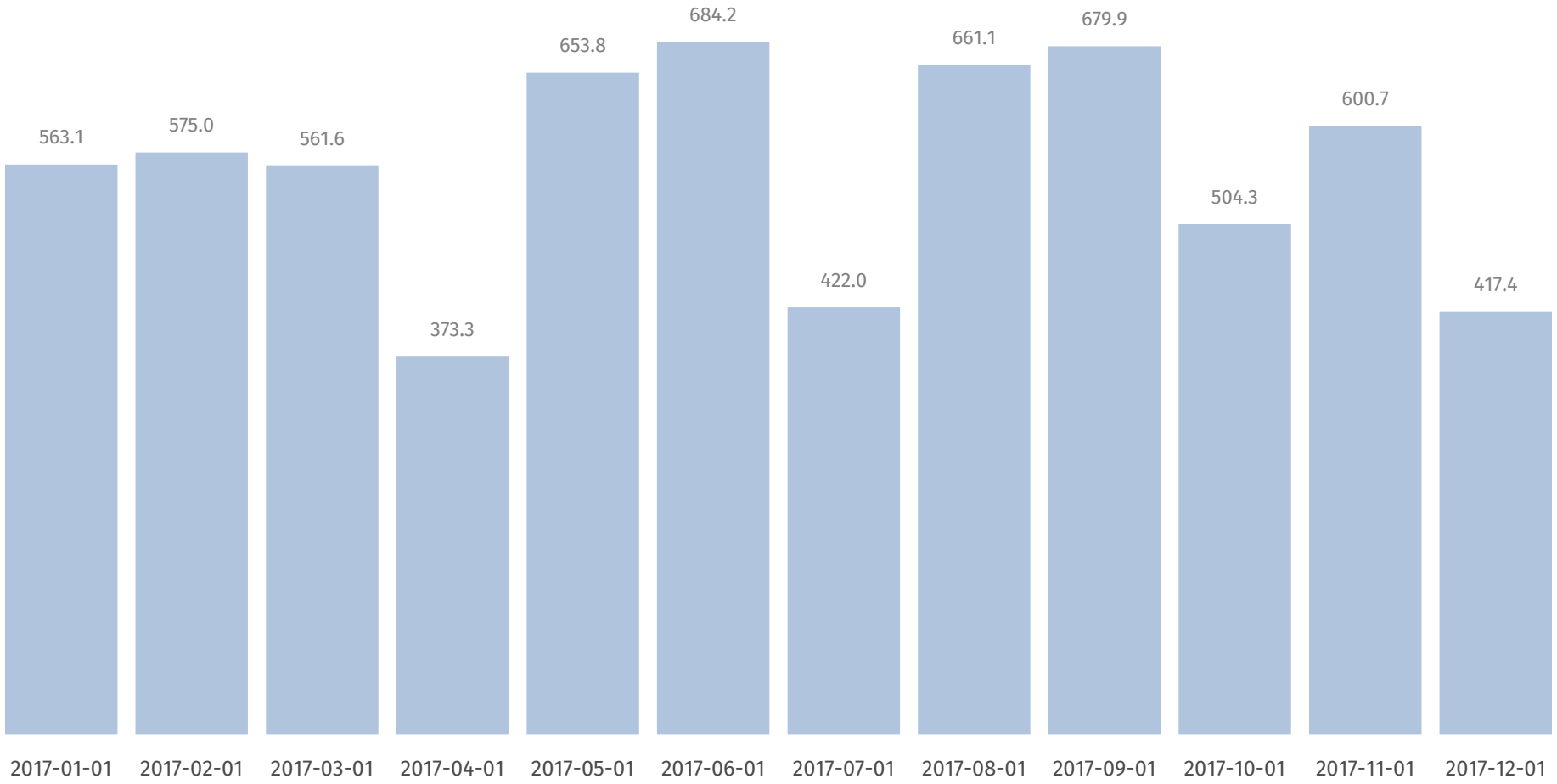
Value Color, Value Position Bottom

```
dchart -vcolor=white -valpos=b AAPL.d
```



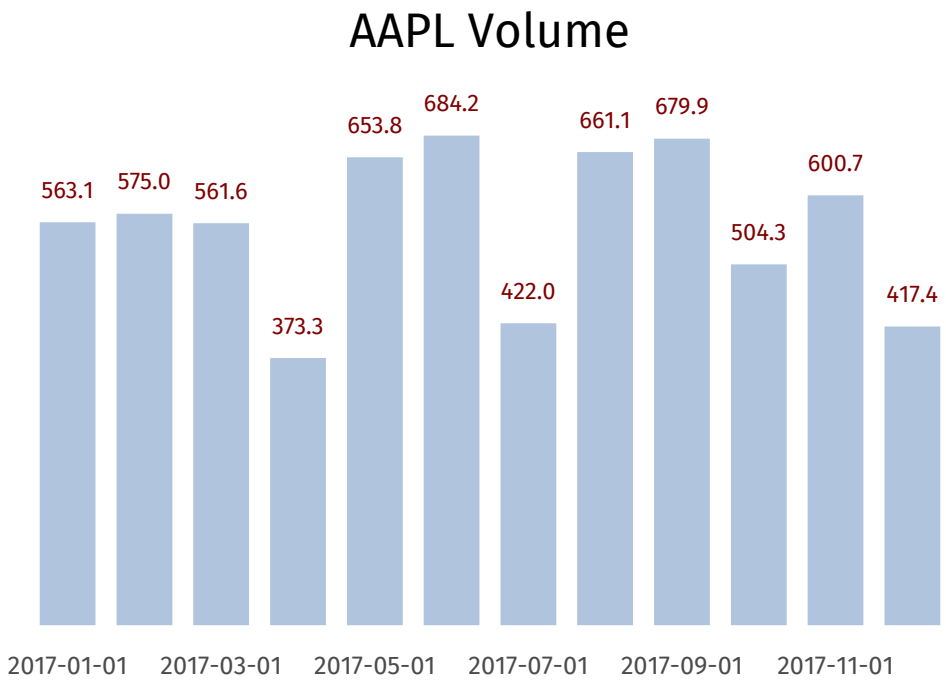
Value Color, Value Position Middle

```
dchart -vcolor=white -valpos=m AAPL.d
```



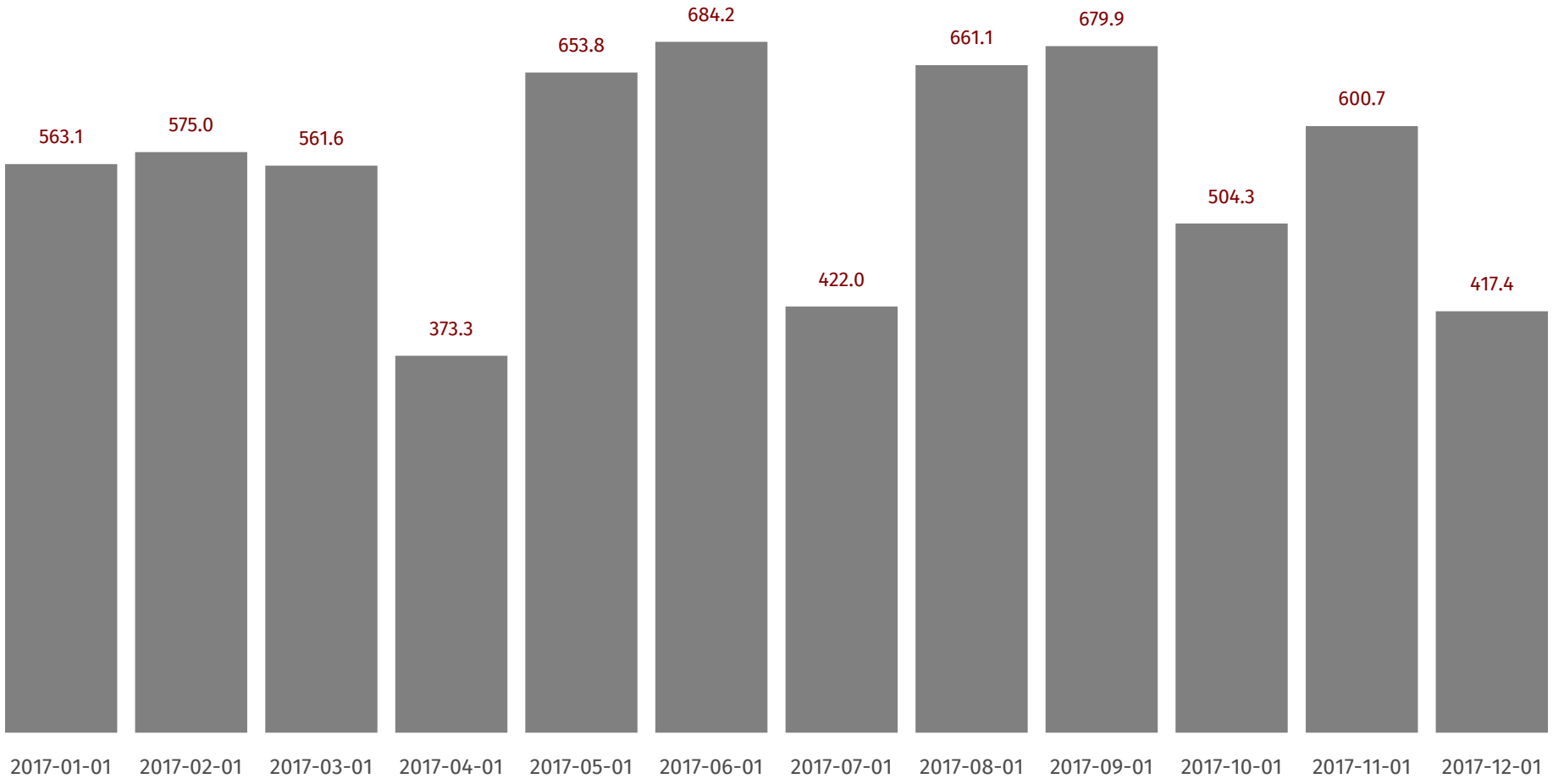
Value Color, Value Position Top

```
dchart -vcolor=gray AAPL.d
```



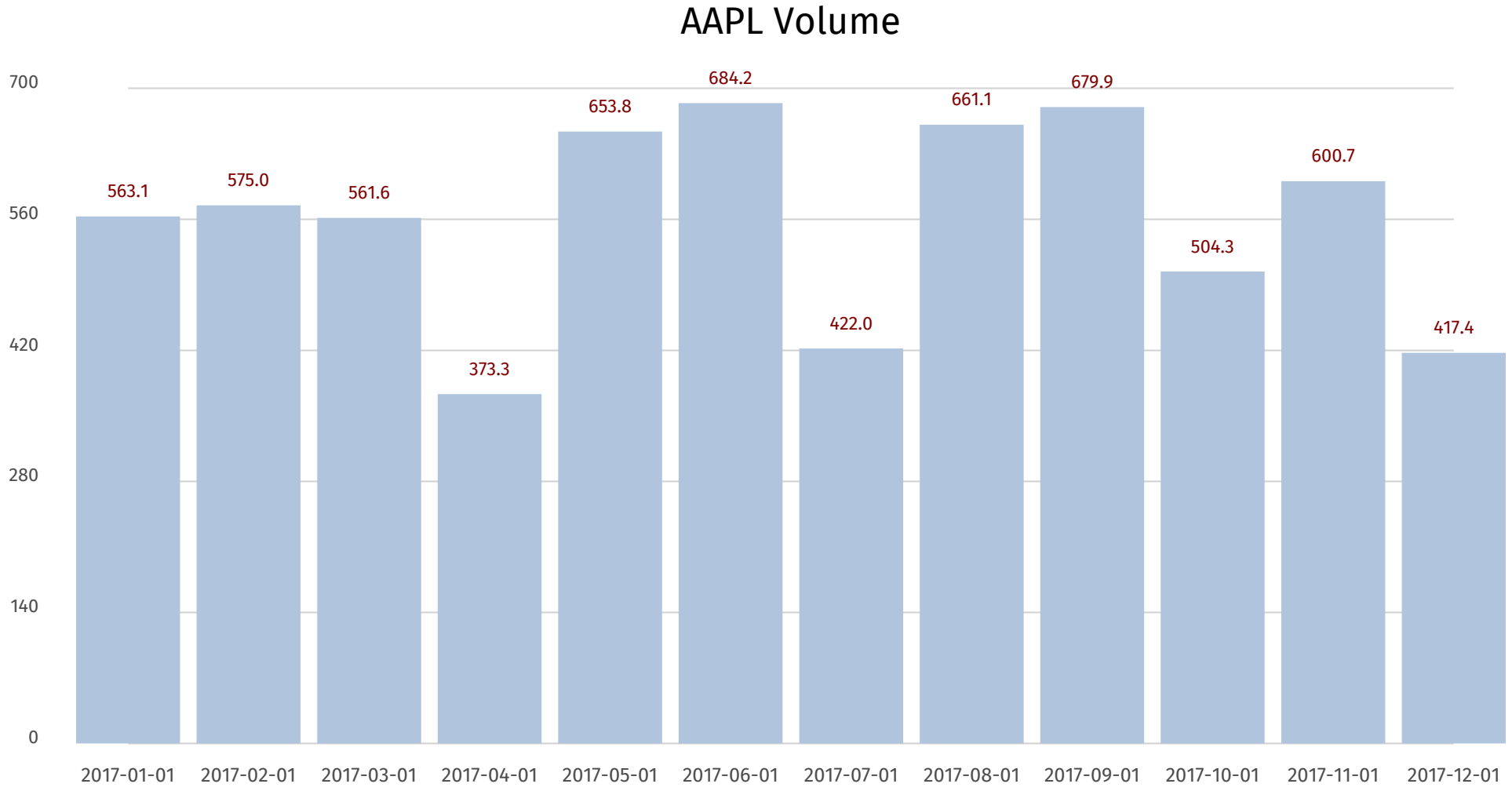
Scaling, X-Axis Labels

```
dchart -xlabel=2 -left 30 -right 70 -top 70 -bottom 40 AAPL.d
```



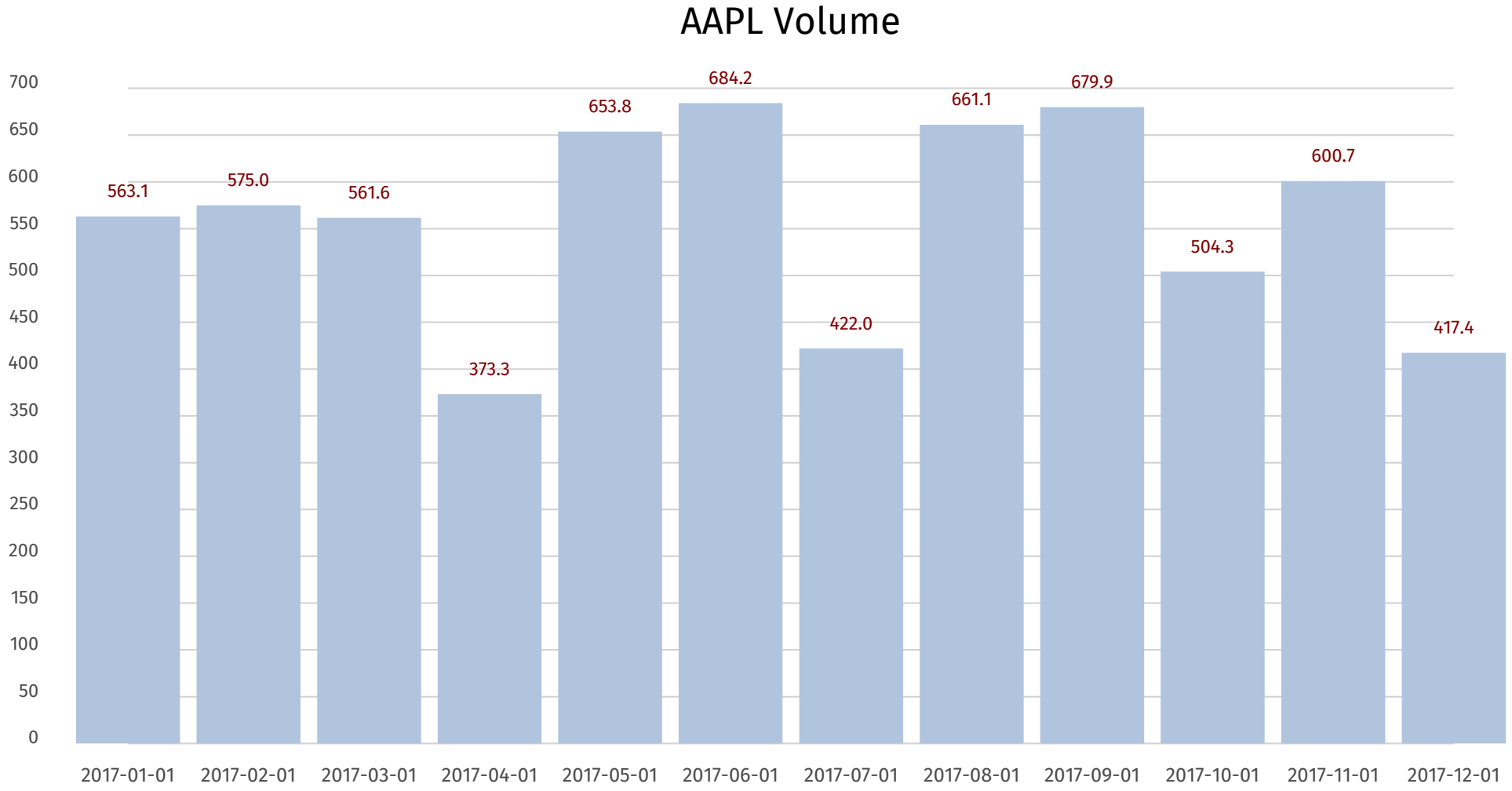
Color

```
dchart -color gray AAPL.d
```



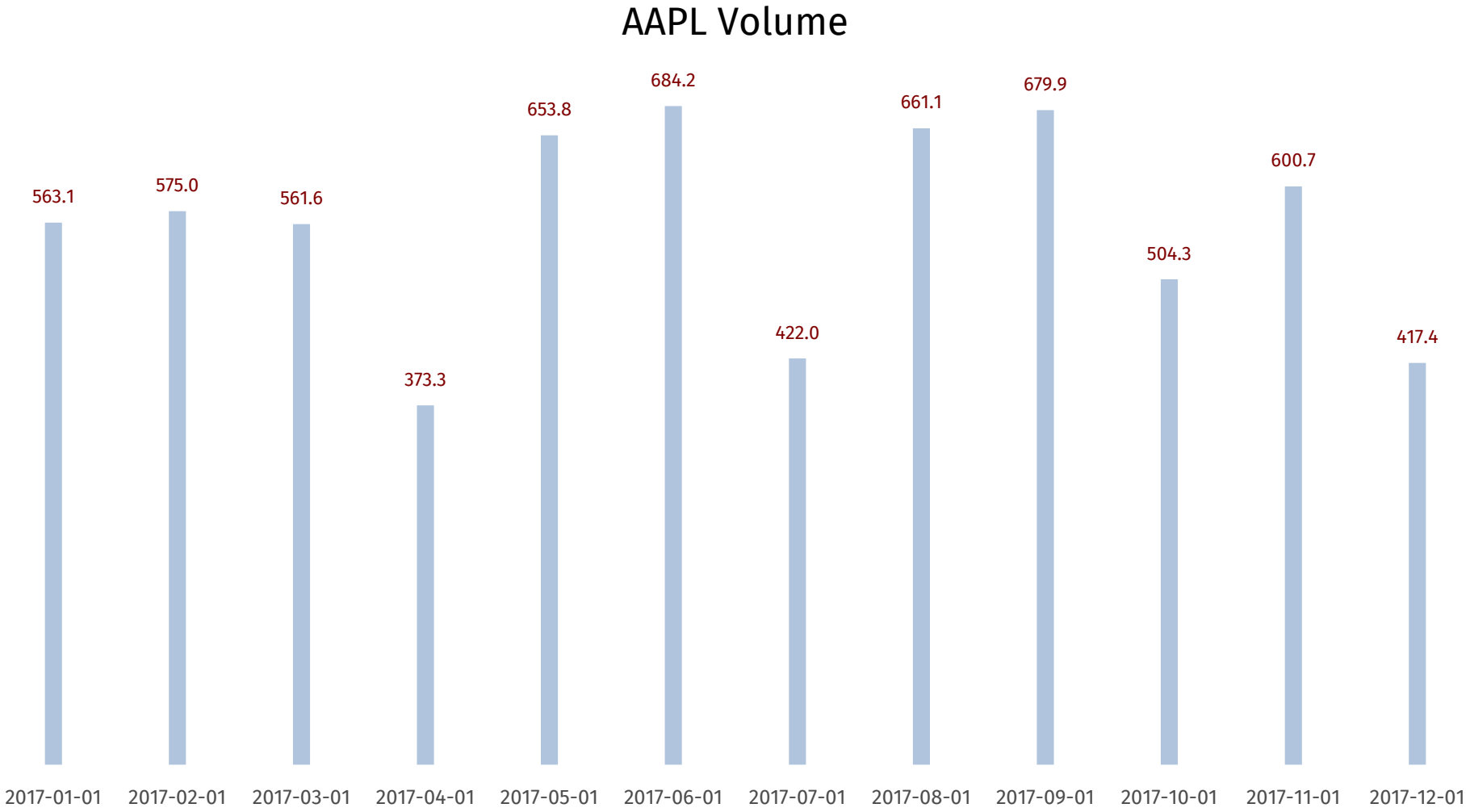
Y-Axis, Grid

```
dchart -grid -yaxis AAPL.d
```



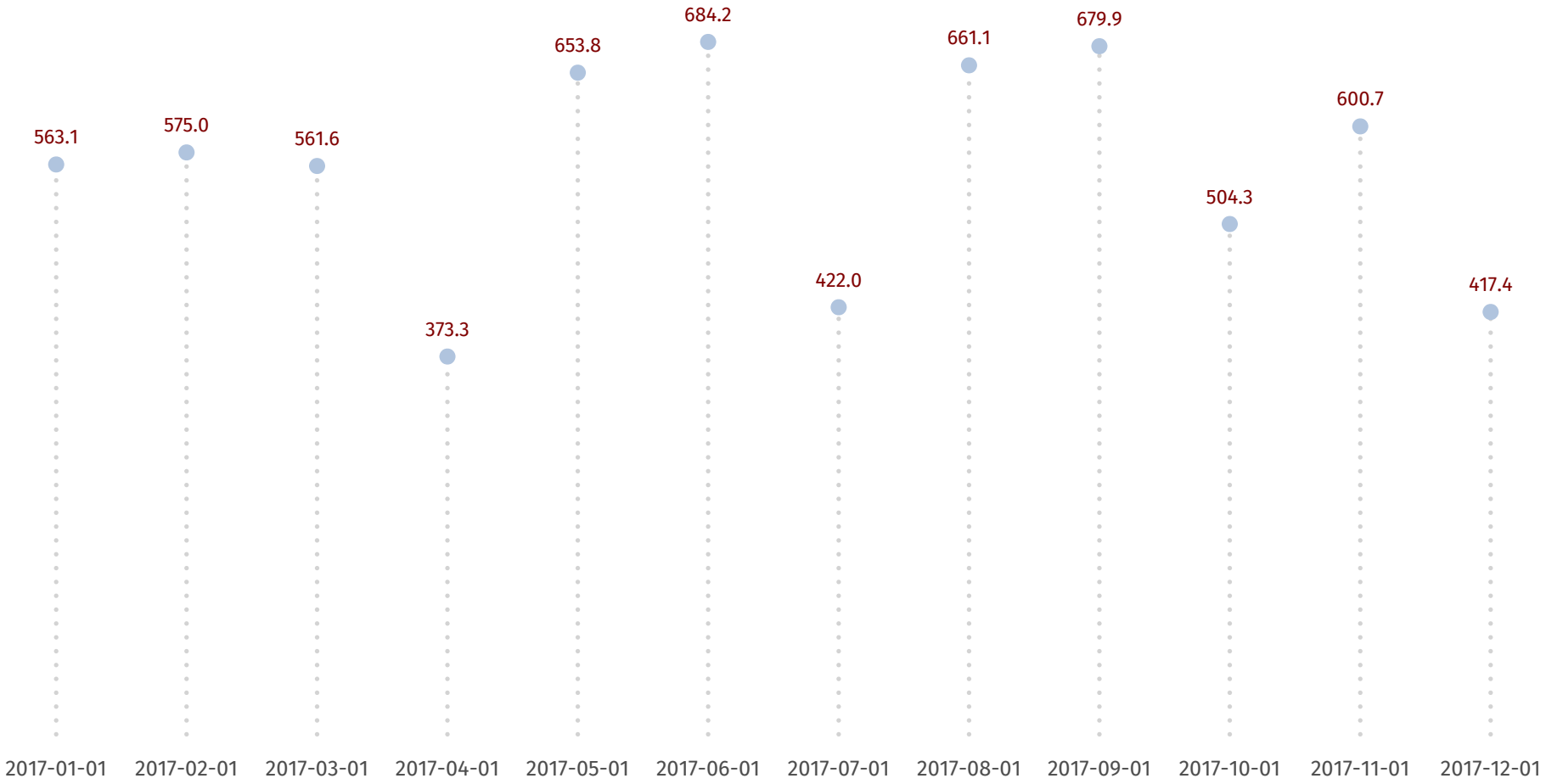
Y-Range

```
dchart -yrange=0,700,50 -grid -yaxis AAPL.d
```



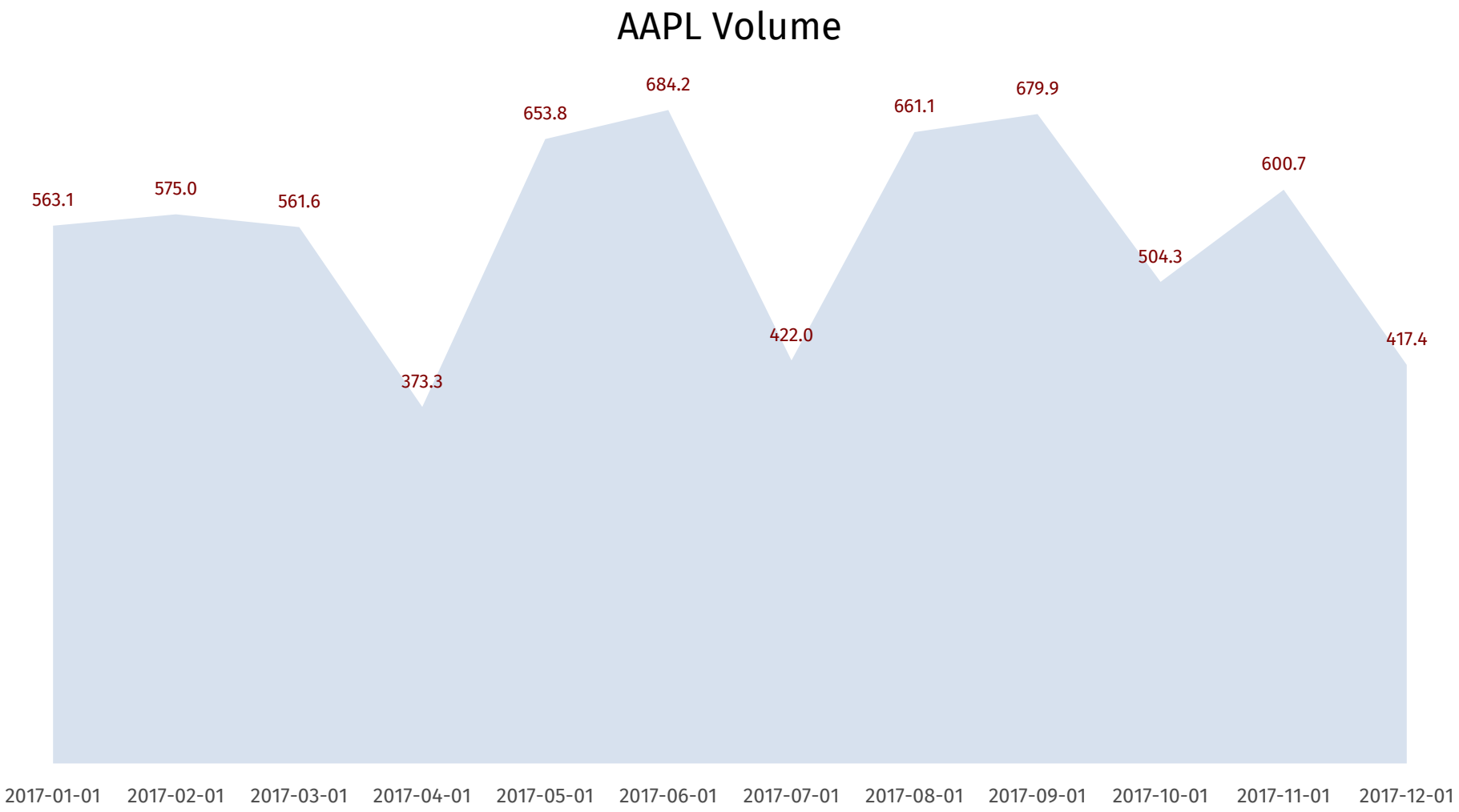
Adjusting Bar Width

```
dchart -barwidth=1 AAPL.d
```



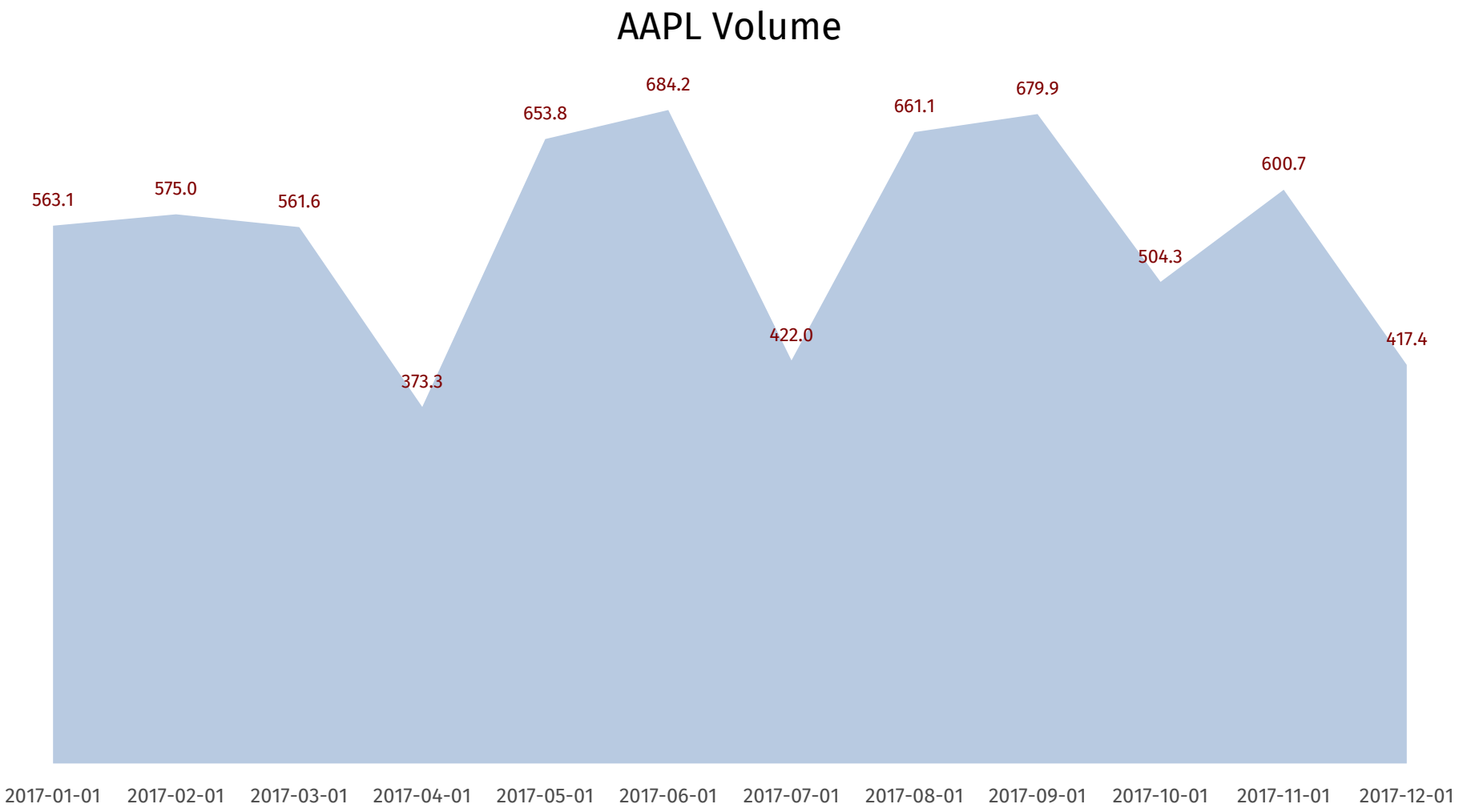
Dot Chart

```
dchart -bar=f -dot AAPL.d
```



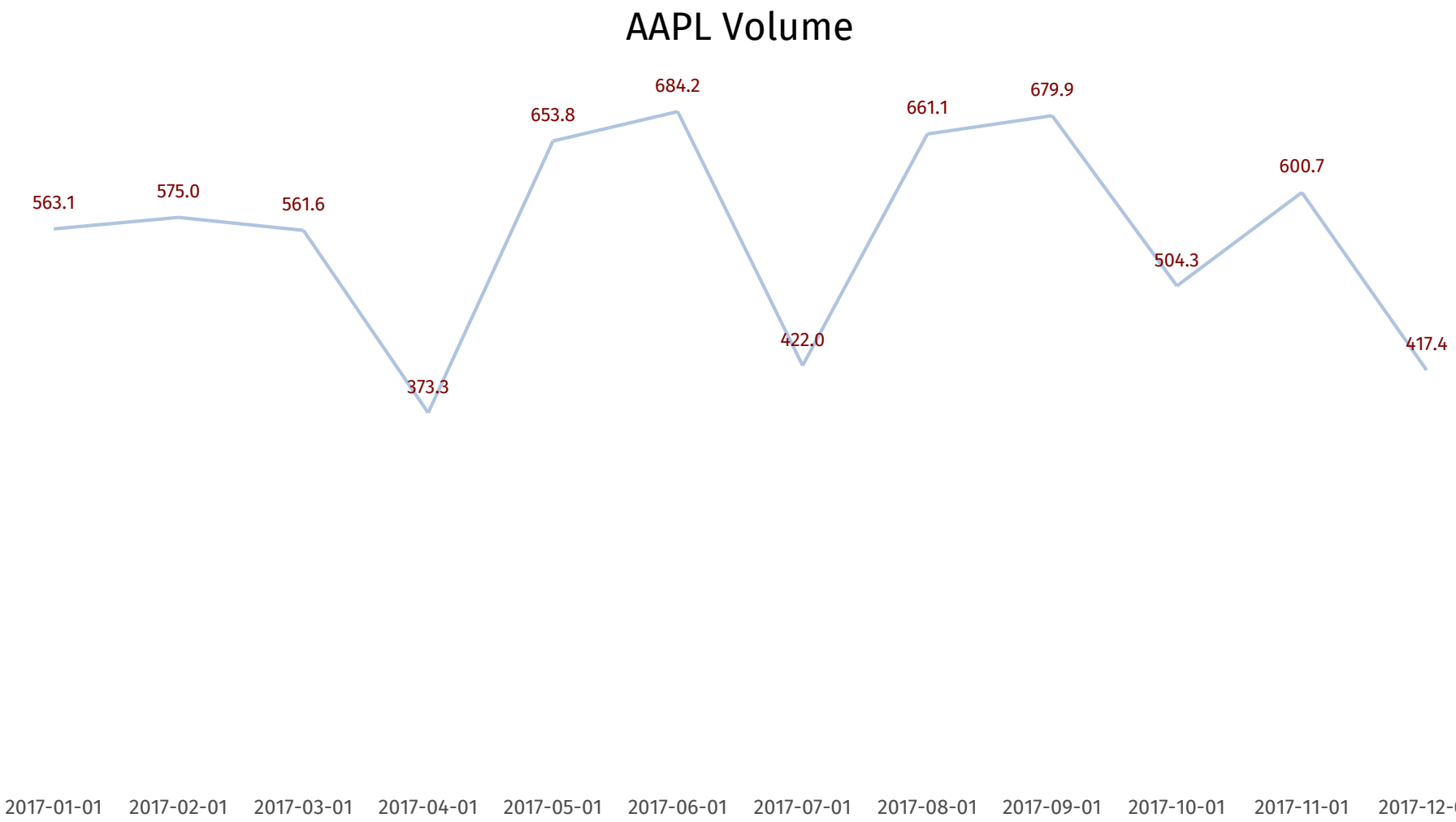
Area Chart

```
dchart -bar=f -vol AAPL.d
```



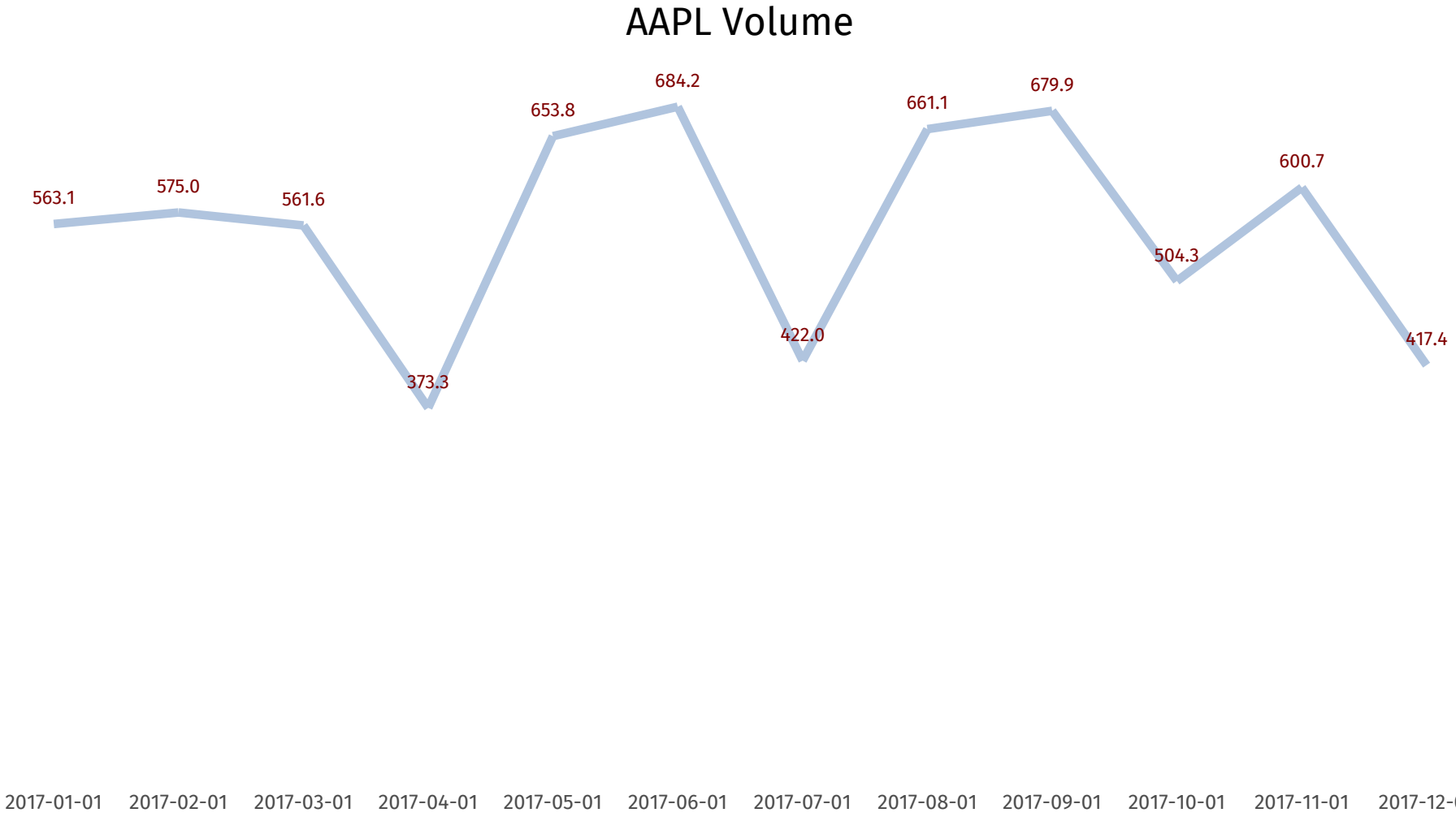
Area Chart, Opacity

```
dchart -bar=f -vol -volop=90 AAPL.d
```



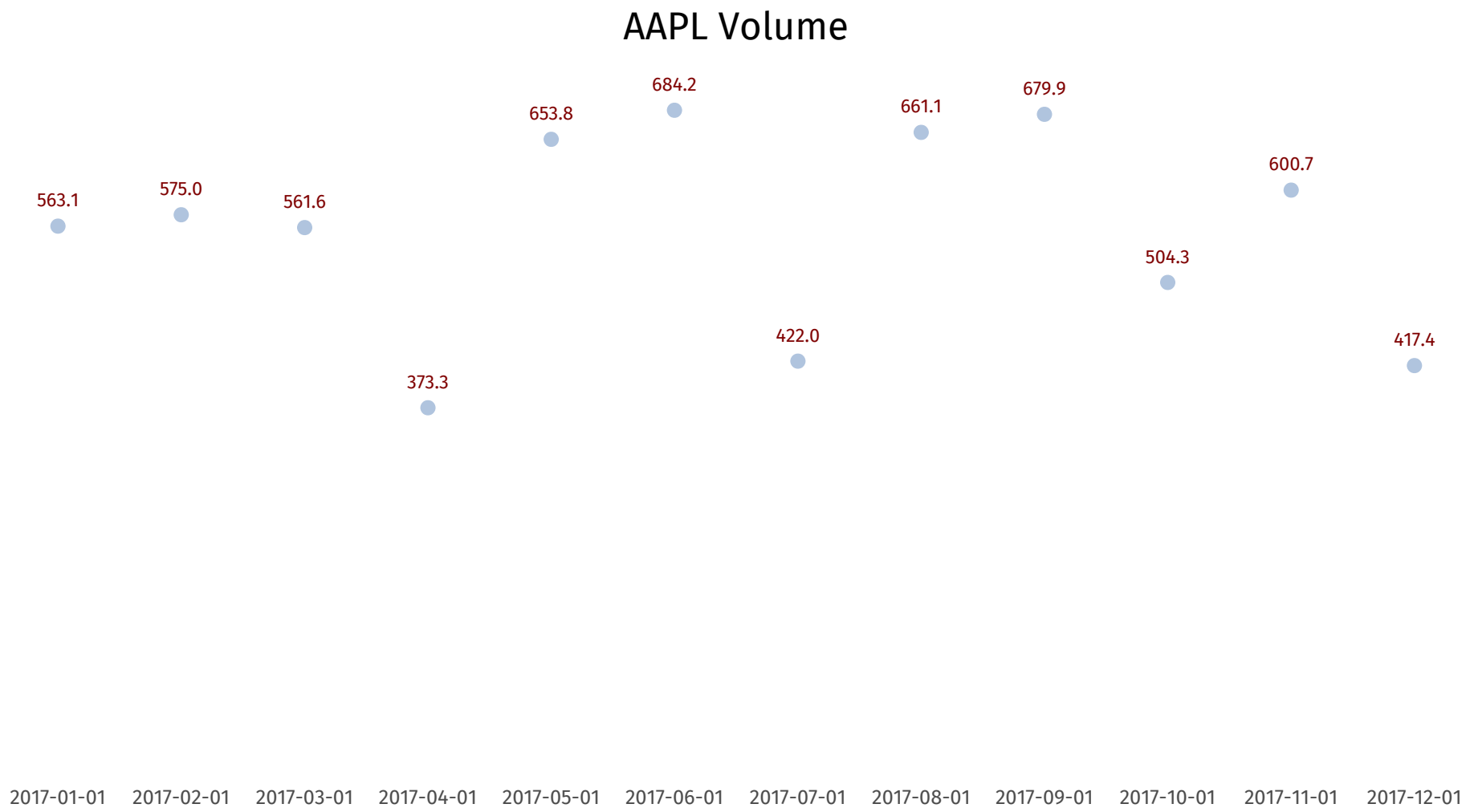
Line Chart

```
dchart -bar=f -line AAPL.d
```



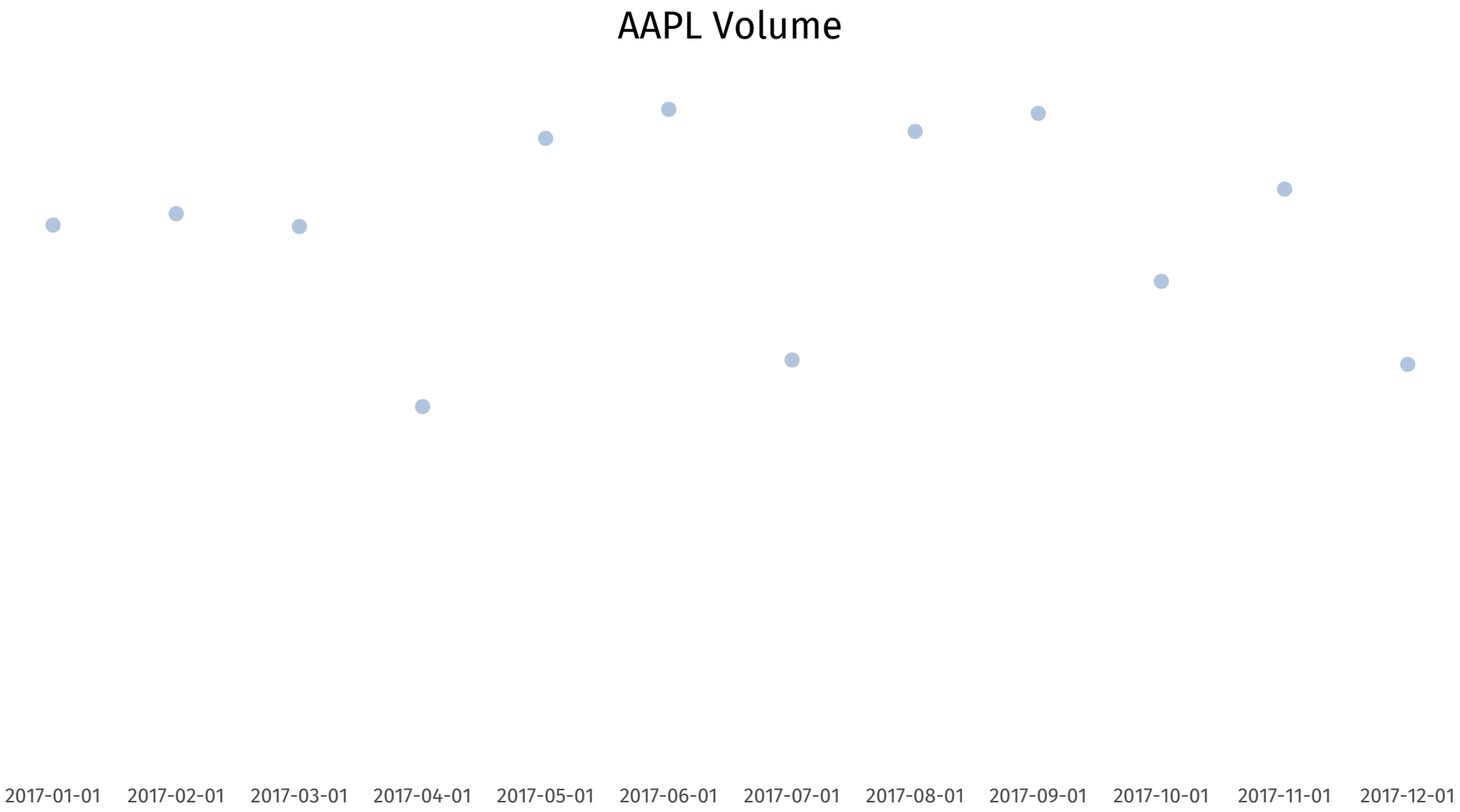
Line Chart, Line Width

```
dchart -bar=f -line -linewidth=0.5 AAPL.d
```



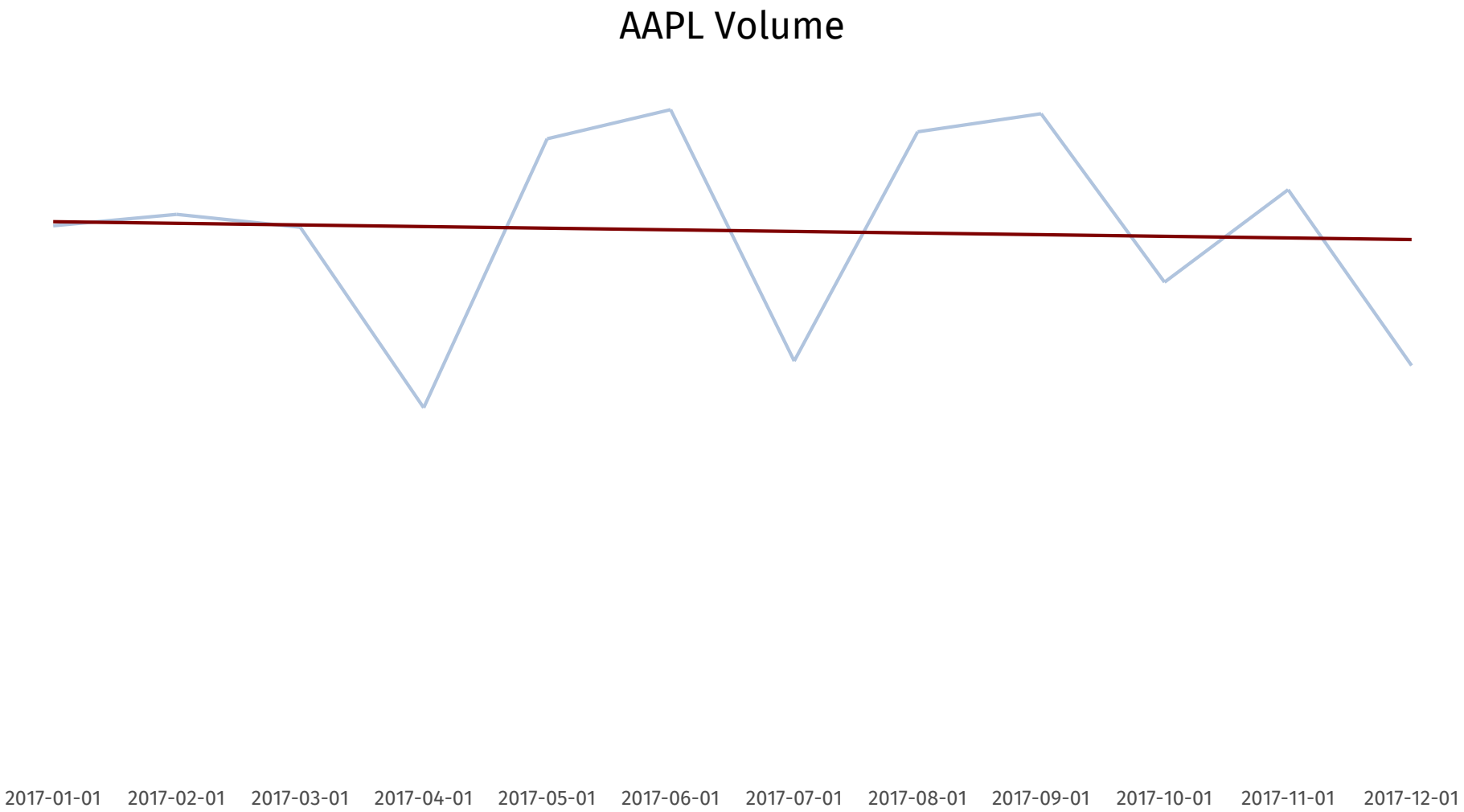
Scatter Chart

```
dchart -bar=f -scatter AAPL.d
```



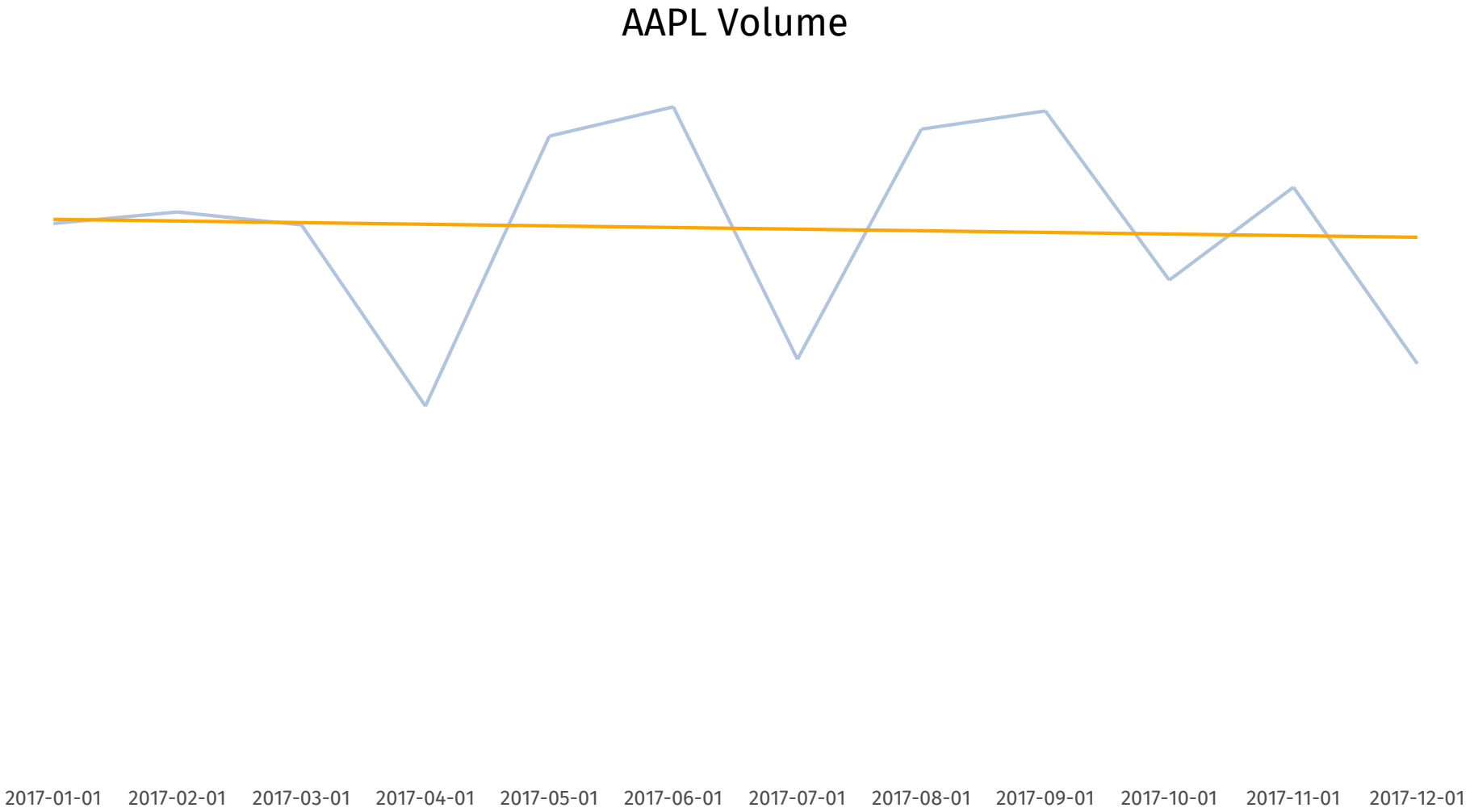
Scatter Chart, No Values

```
dchart -bar=f -scatter -val=f AAPL.d
```



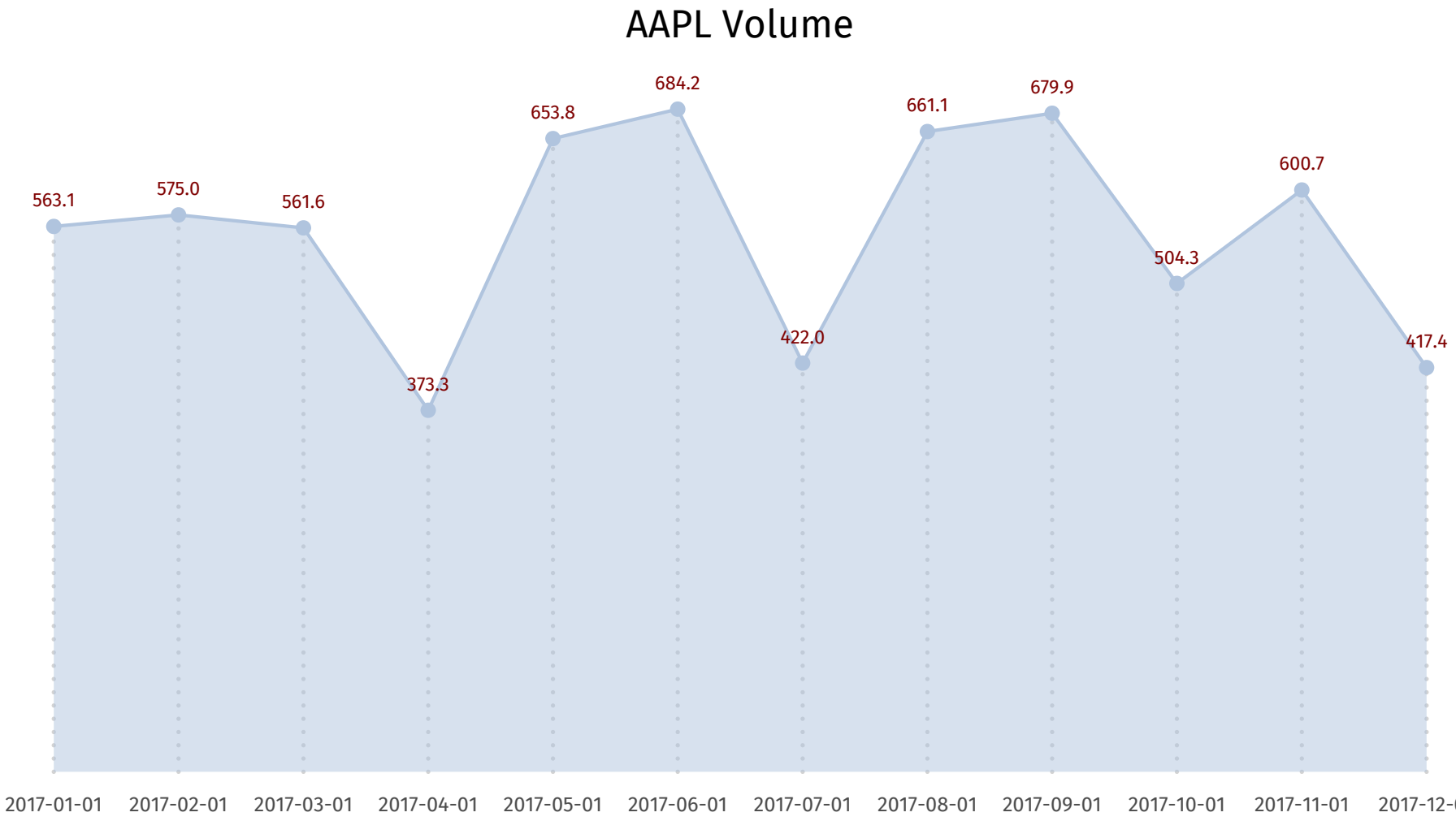
Line Chart, No Values, Regression Line

```
dchart -bar=f -line -val=f -rline AAPL.d
```



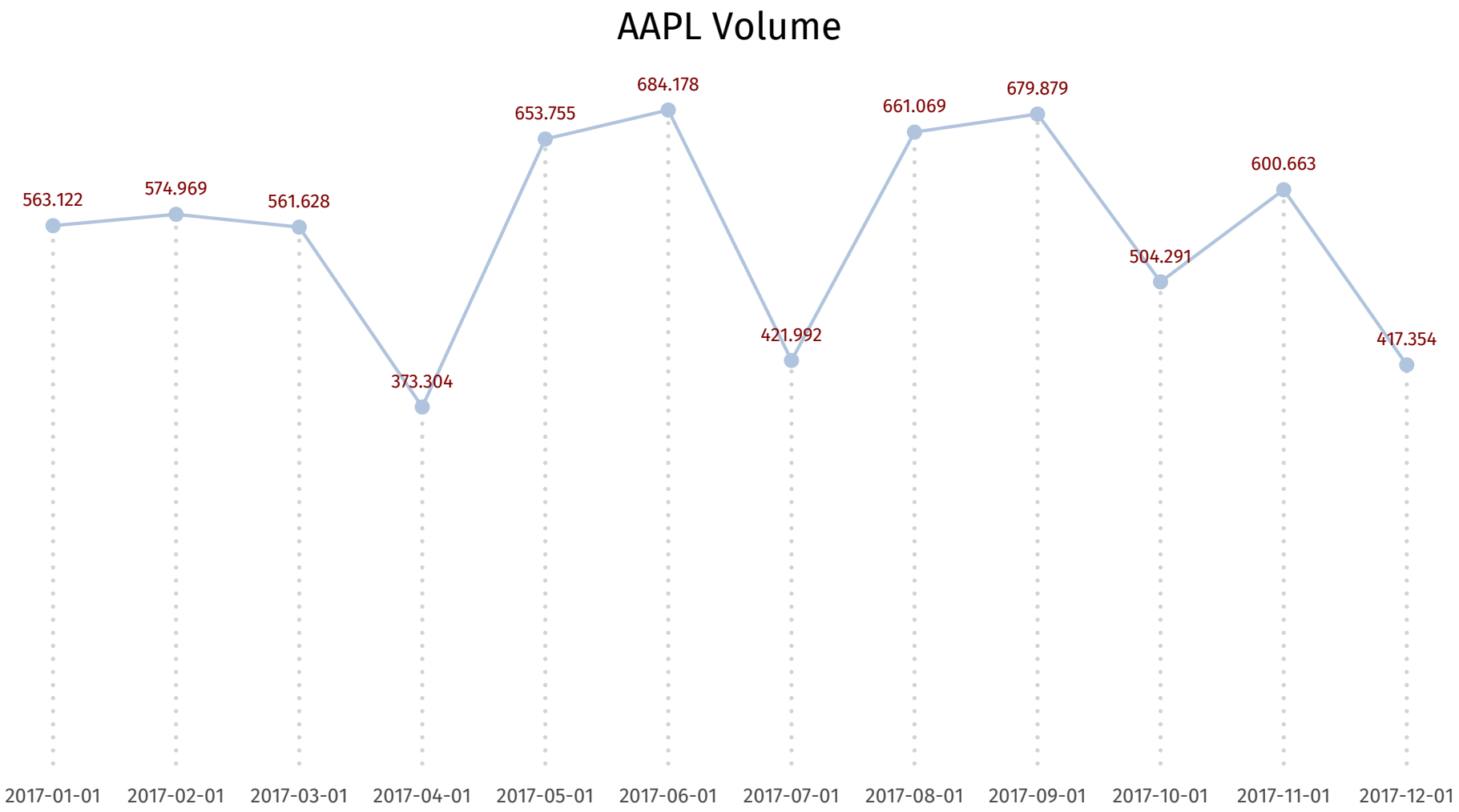
Line Chart, No Values, Regression Line Color

```
dchart -bar=f -line -val=f -rline -rlcolor=orange AAPL.d
```



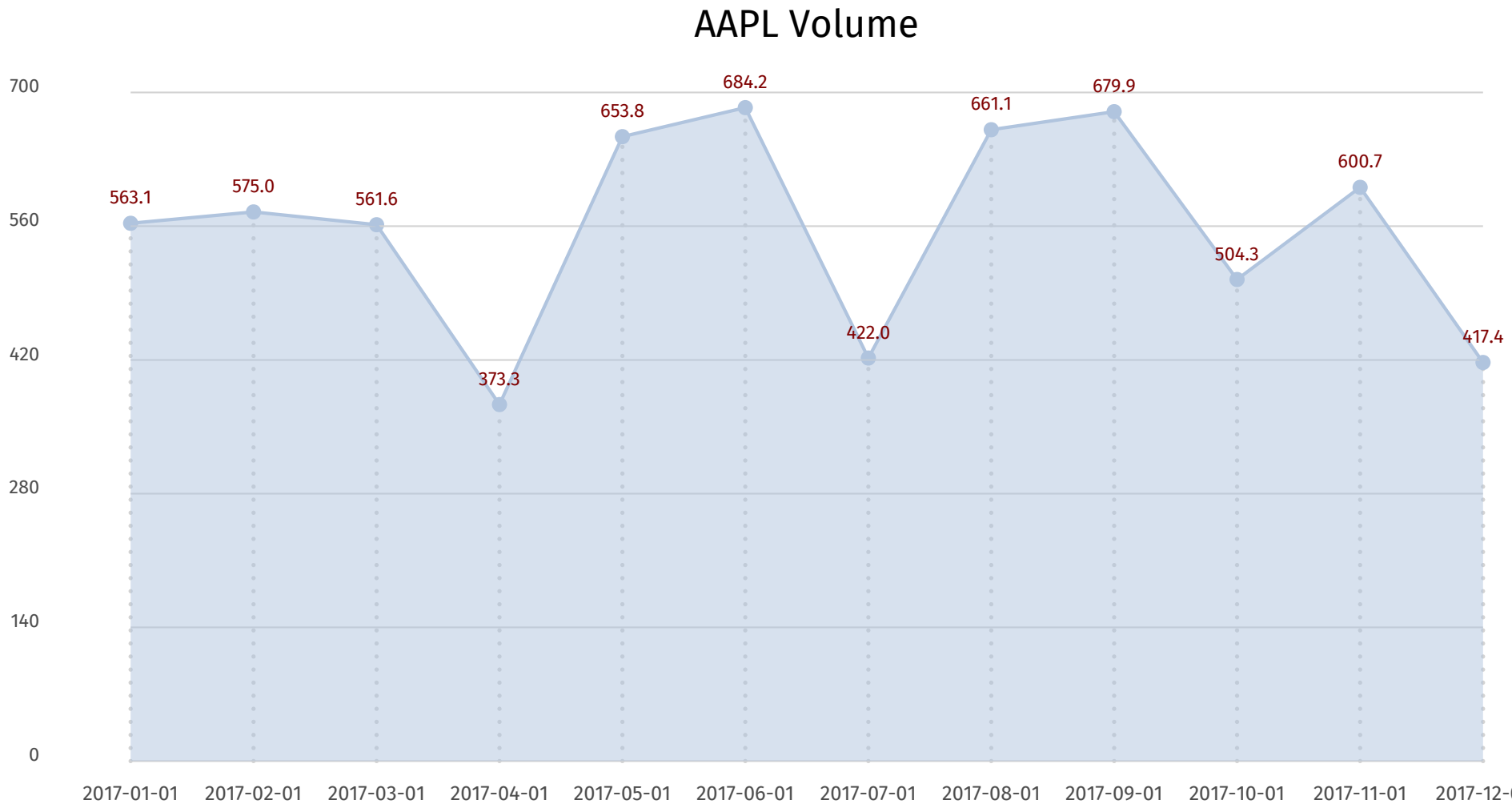
Volume, Line, Dot

```
dchart -bar=f -line -vol -dot AAPL.d
```



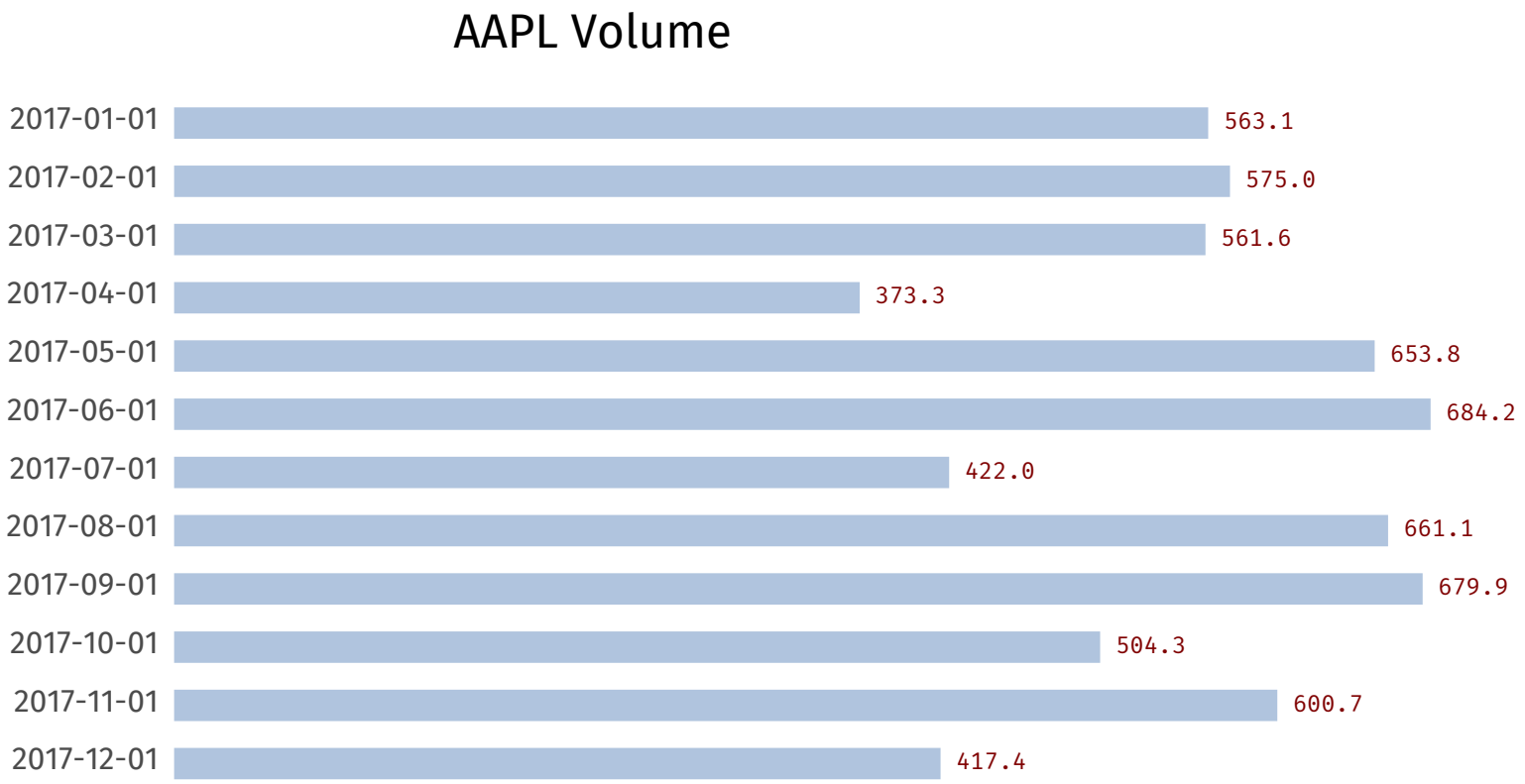
Dot, Line, Data Format

```
dchart -datafmt %0.3f -bar=f -dot -line AAPL.d
```



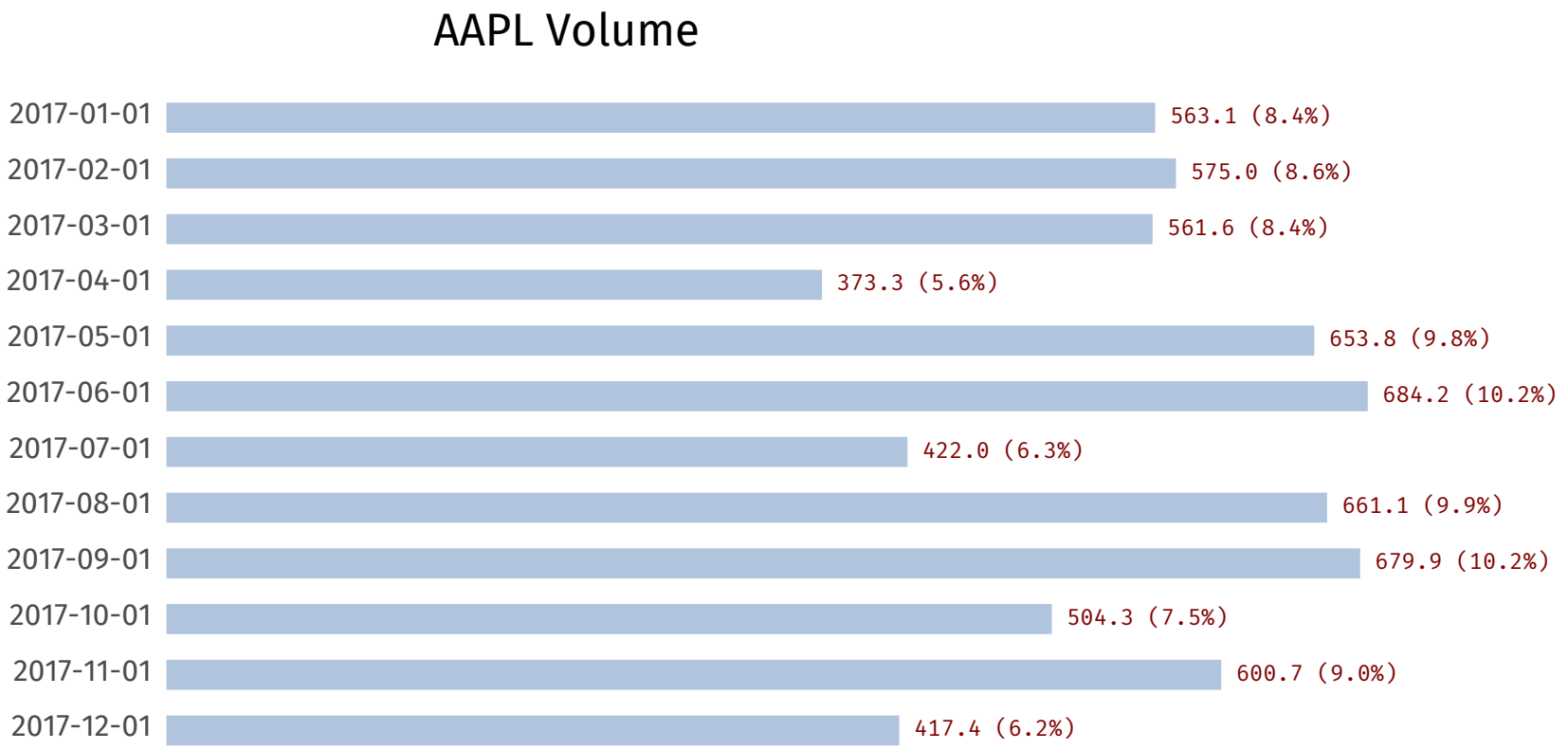
Line, Area, Dot, Y-Axis, Grid

```
dchart -bar=f -line -vol -dot -grid -yaxis AAPL.d
```



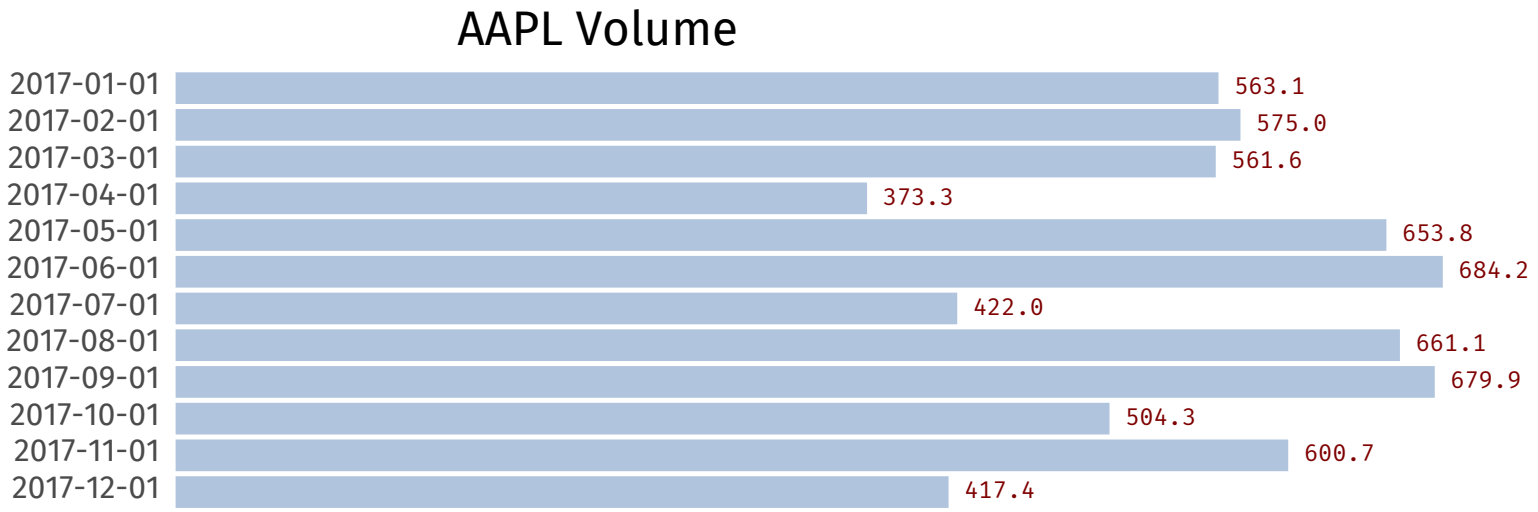
Horizontal Bar

```
dchart -hbar AAPL.d
```



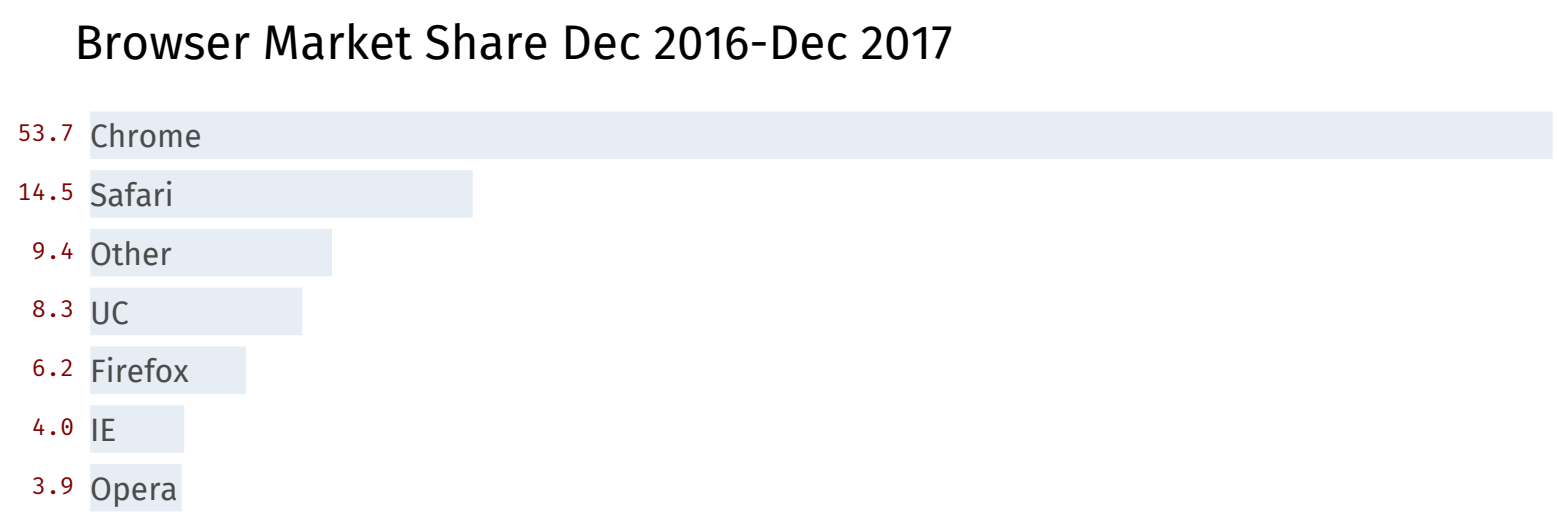
Horizontal Bar, Show Percentages

```
dchart -hbar -pct AAPL.d
```



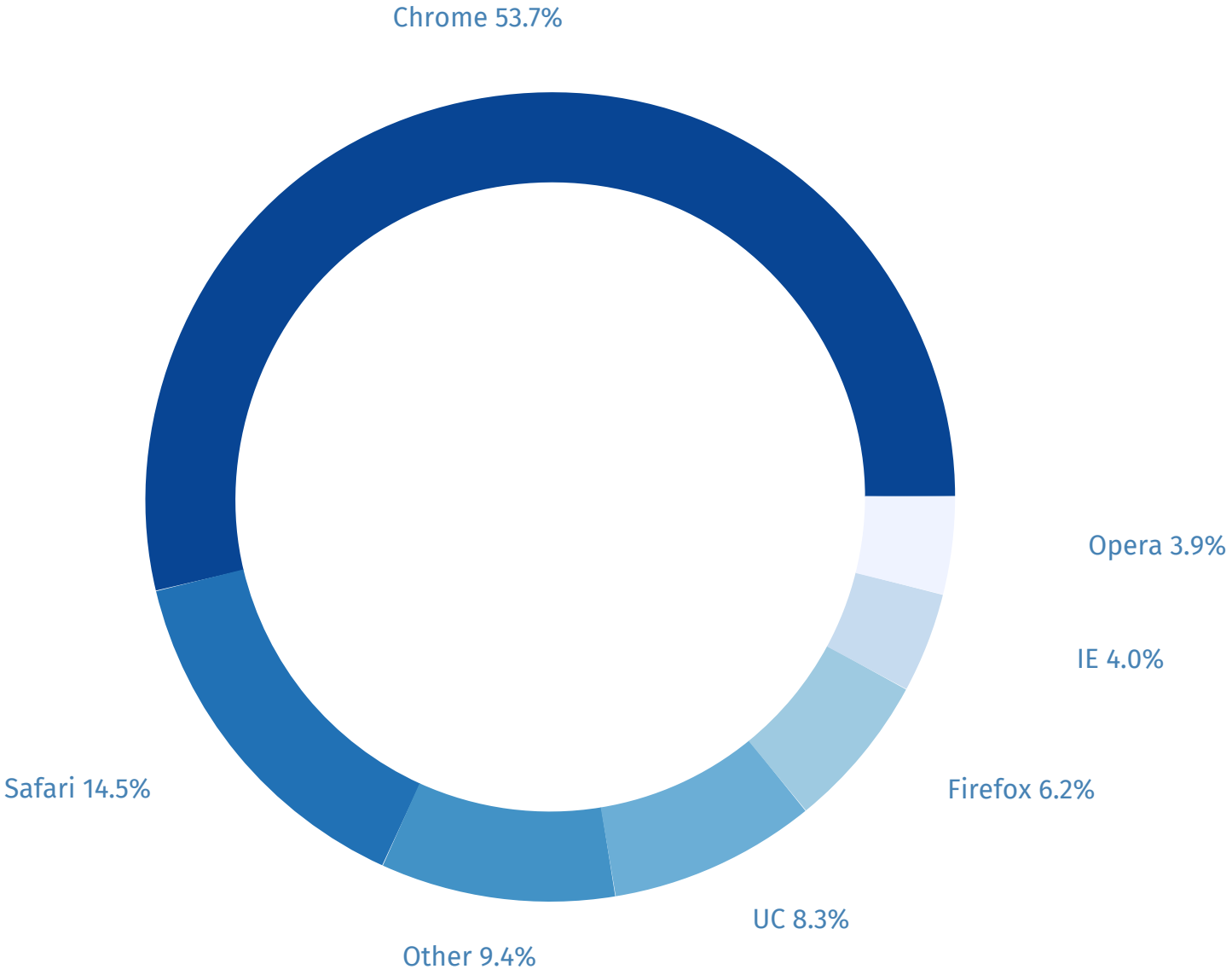
Horizontal Bar, Line Spacing

```
dchart -hbar -ls 1.5 AAPL.d
```



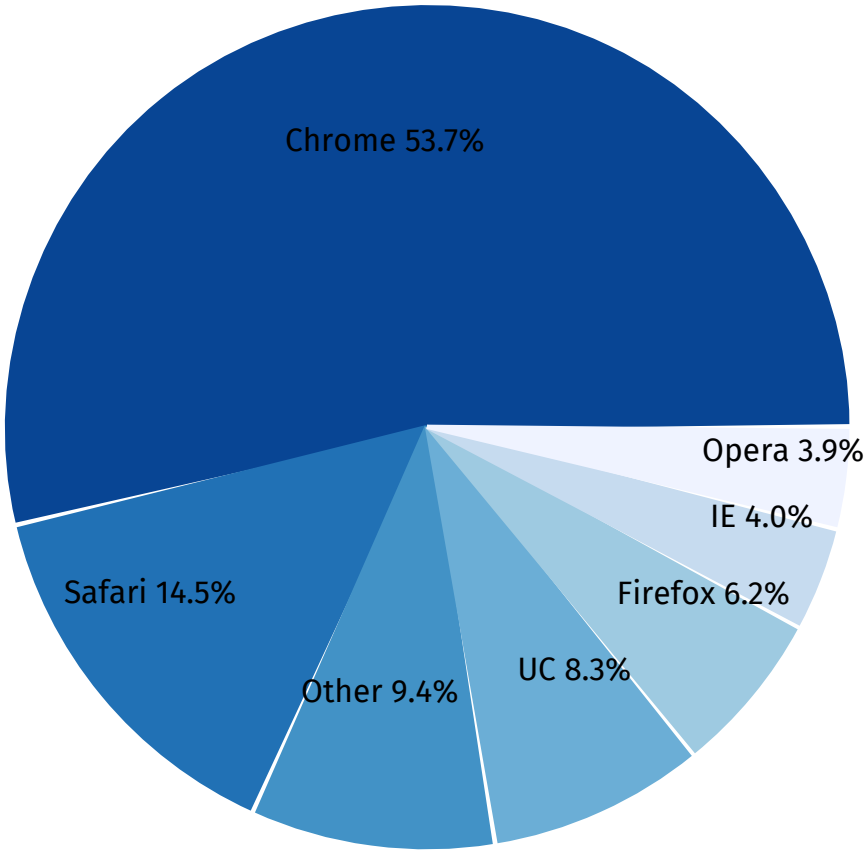
Word Bar

```
dchart -wbar AAPL.d
```



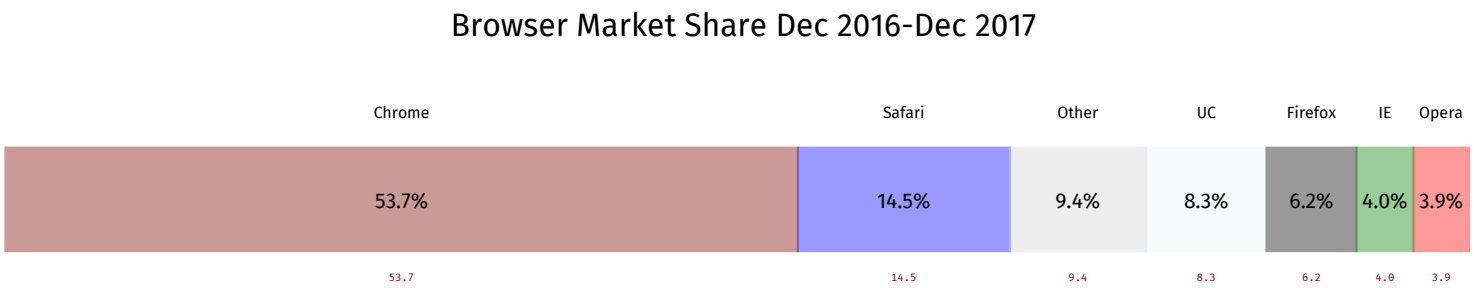
Donut

```
dchart -donut -color=std -pwidth=5 browser.d
```



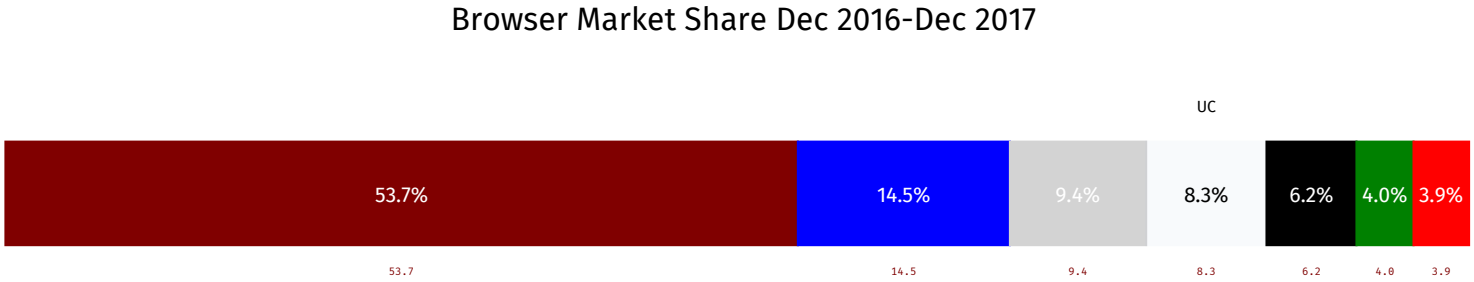
Pie

```
dchart -donut -color=std -title=f -top=70 -pwidth=20 -psize=20 browser.d
```



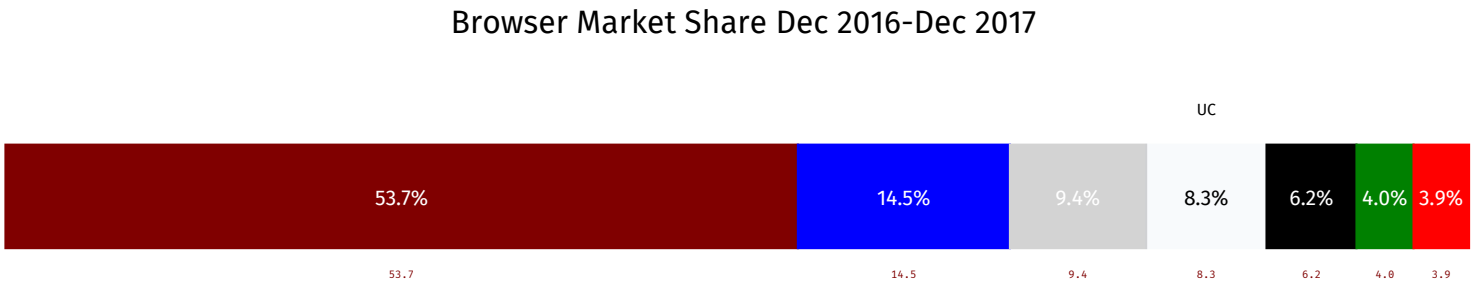
Pmap

```
dchart -pmap -pwidth=5 -textsize=1 browser.d
```



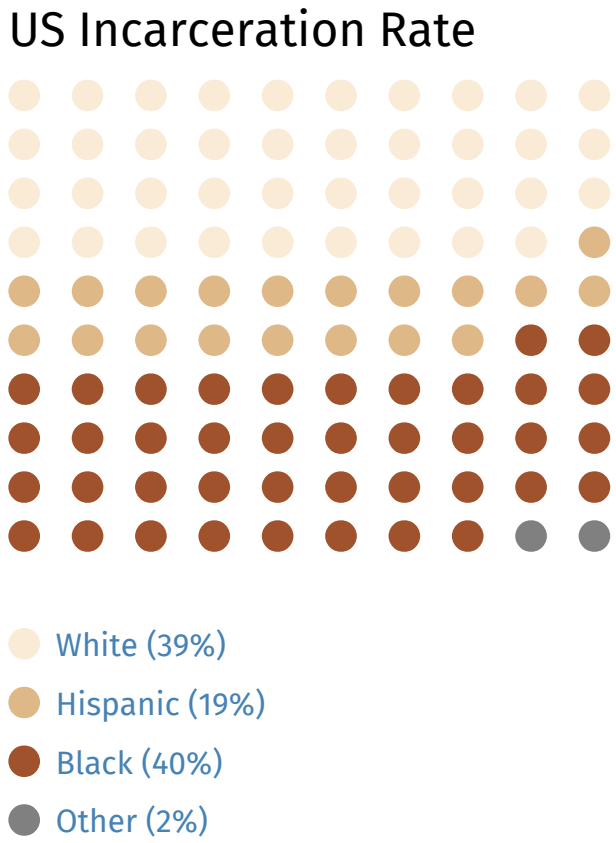
Pmap with Solid Colors

```
dchart -pmap -pwidth=5 -textsize=1 -solidpmap browser.d
```



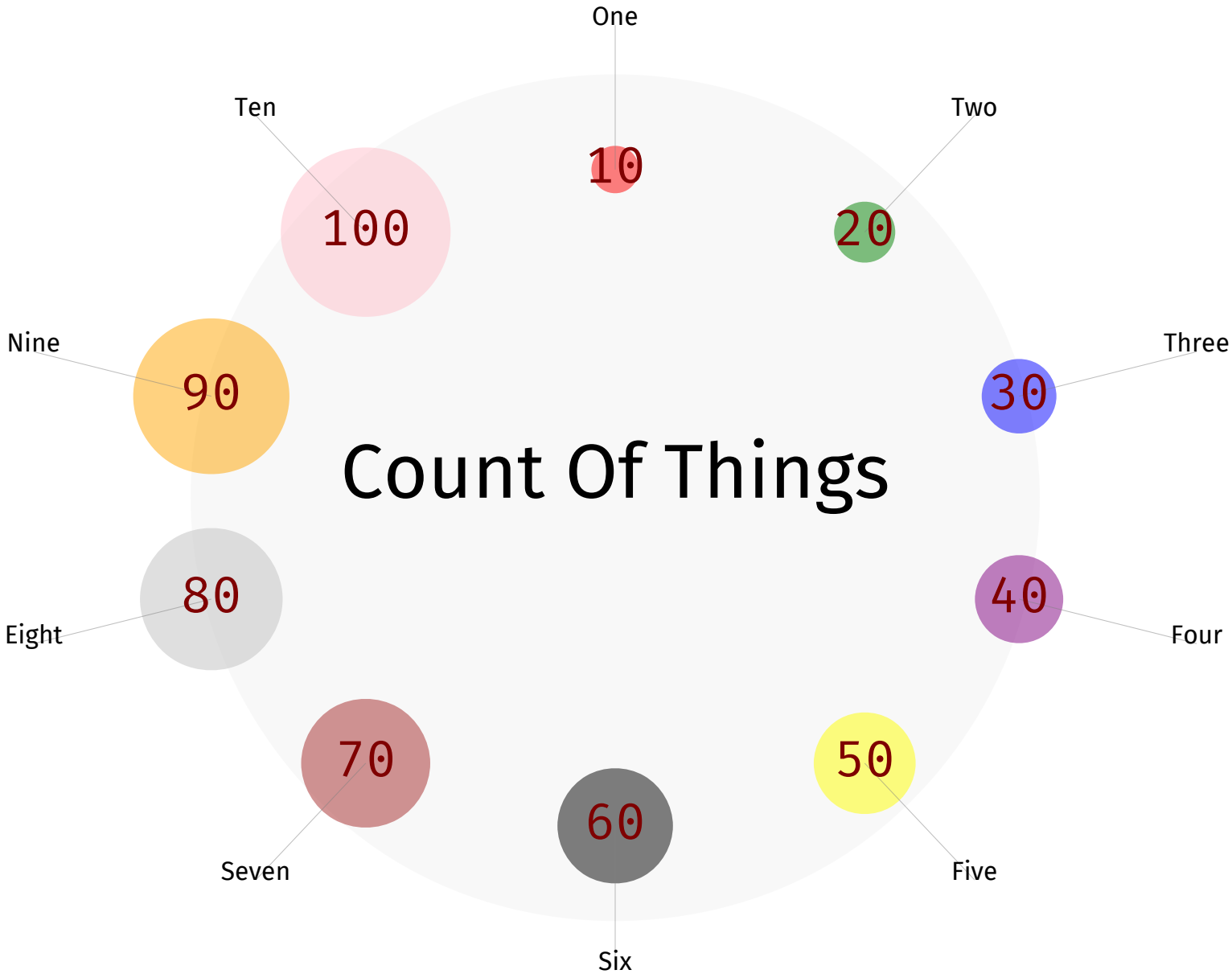
Pmap with Solid Colors, Length Threshold

```
dchart -pmap -pwidth=5 -textsize=1 -solidpmap -pmlen=30 browser.d
```



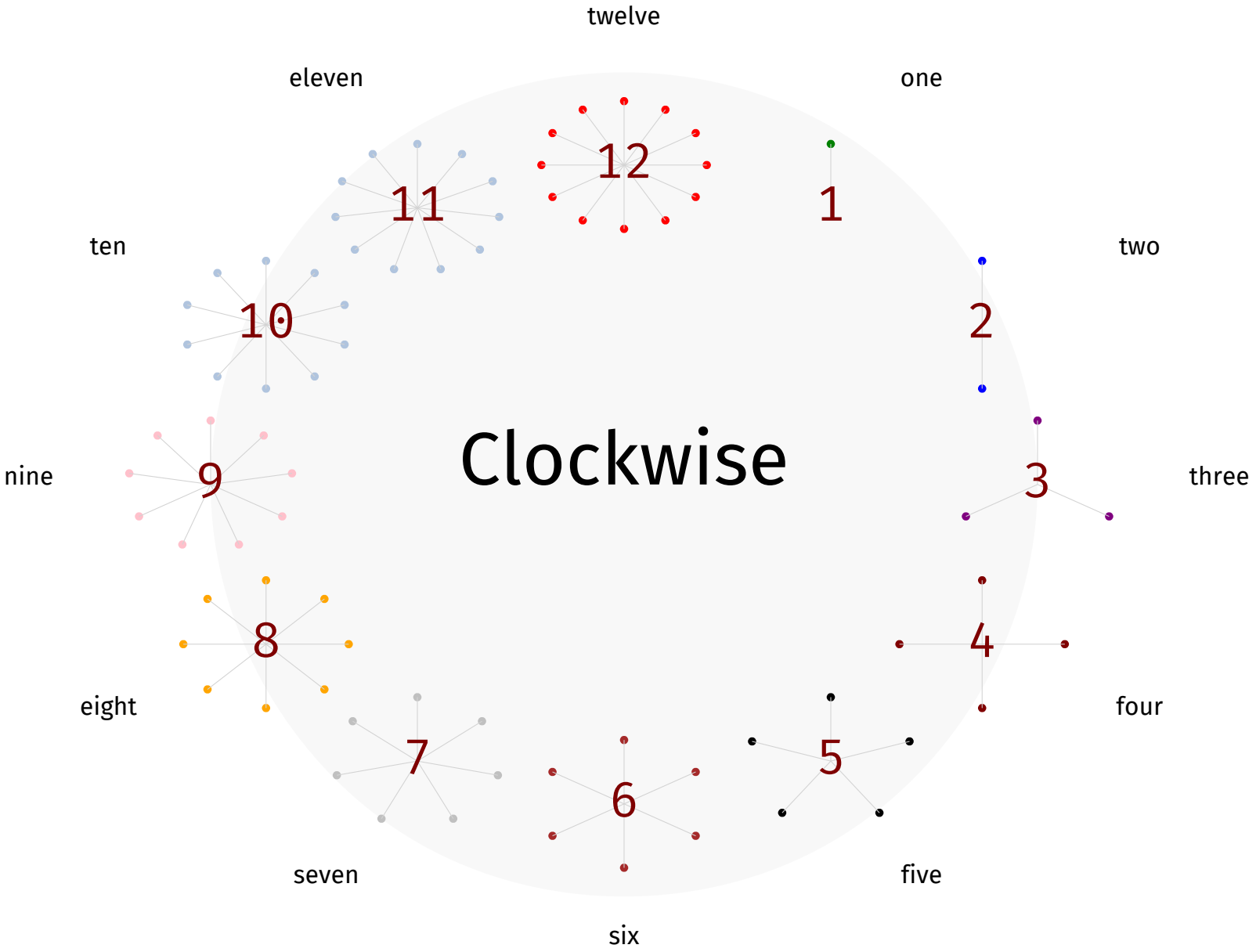
Pgrid

```
dchart -left 35 -top 80 -ls 3 -pgrid -val=f incar.d
```



Radial

```
dchart -radial -psize=10 -pwidth=25 -top=60 -textsize=3 count.d
```



Radial with Spokes

```
dchart -radial -psize=10 -pwidth=25 -top=60 -textsize=3 -spokes clock.d
```

Data Files

AAPL.d

```
# AAPL Volume
2017-01-01    563.122
2017-02-01    574.969
2017-03-01    561.628
2017-04-01    373.304
2017-05-01    653.755
2017-06-01    684.178
2017-07-01    421.992
2017-08-01    661.069
2017-09-01    679.879
2017-10-01    504.291
2017-11-01    600.663
2017-12-01    417.354
```

AAPL.csv

```
Date,Volume
2017-01-01,563.122
2017-02-01,574.969
2017-03-01,561.628
2017-04-01,373.304
2017-05-01,653.755
2017-06-01,684.178
2017-07-01,421.992
2017-08-01,661.069
2017-09-01,679.879
2017-10-01,504.291
2017-11-01,600.663
2017-12-01,417.354
```

incar.d

```
# US Incarceration Rate
White    39    antiquewhite
Hispanic    19    burlywood
Black    40    sienna
Other    2    gray
```

browser.d

```
# Browser Market Share Dec 2016-Dec 2017
Chrome    53.72    maroon
Safari    14.47    blue
Other    9.36    lightgray
UC    8.28    purple
Firefox    6.23    bluegray
IE    3.99    green
Opera    3.9    red
```

count.d

```
# Count Of Things
One    10    red
Two    20    green
Three    30    blue
Four    40    purple
Five    50    yellow
Six    60    black
Seven    70    brown
Eight    80    silver
Nine    90    orange
Ten    100    pink
```

clock.d

```
# Clockwise
twelve    12    red
one    1    green
two    2    blue
three    3    purple
four    4    maroon
five    5    black
six    6    brown
seven    7    silver
eight    8    orange
nine    9    pink
ten    10
eleven    11
```