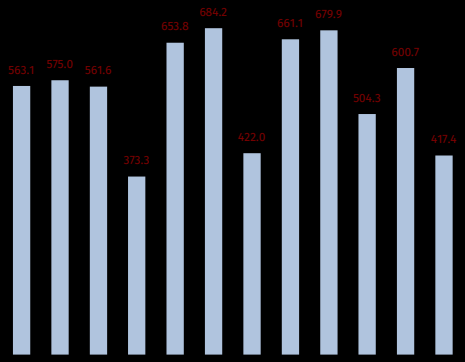
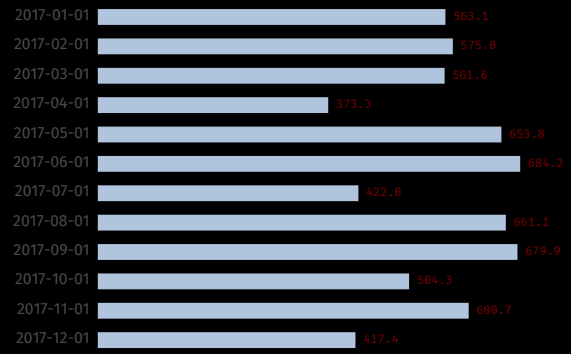
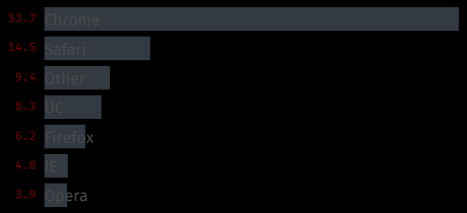
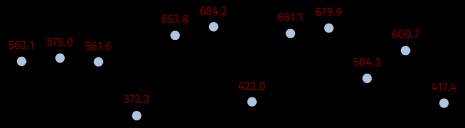
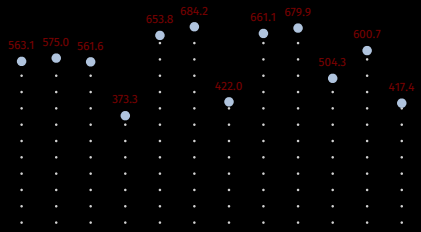


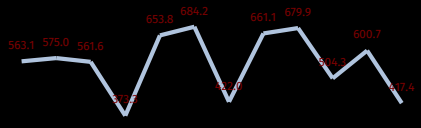


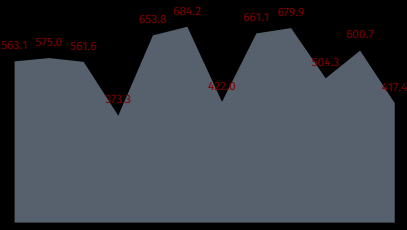


dchart

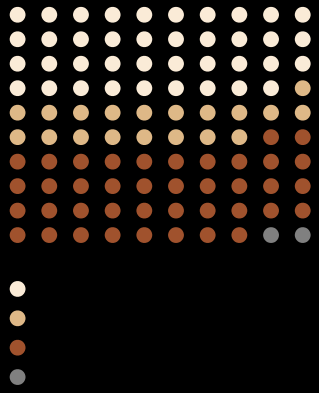


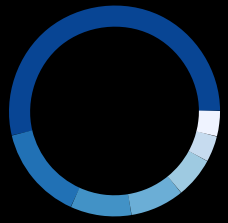


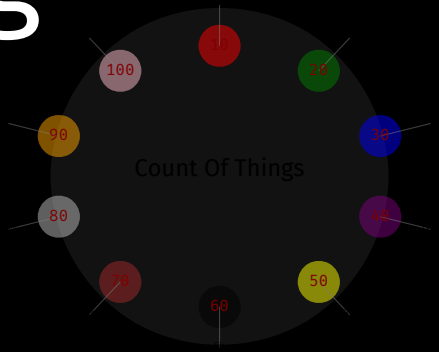


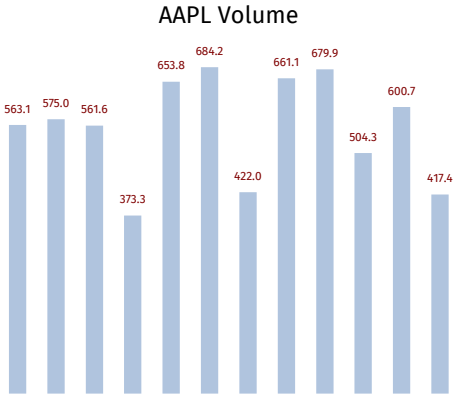


deck/decksh charting

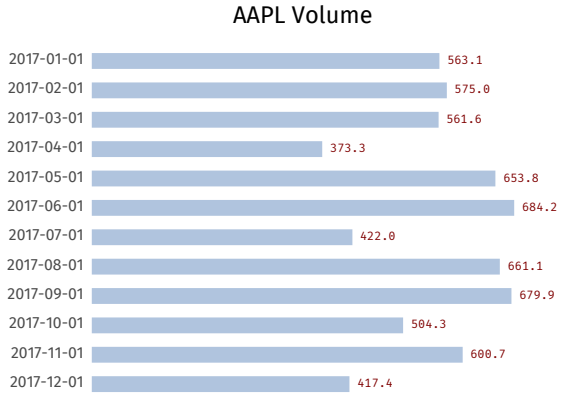




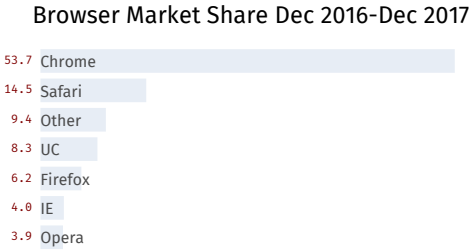




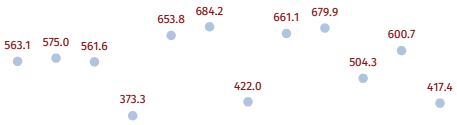
Column



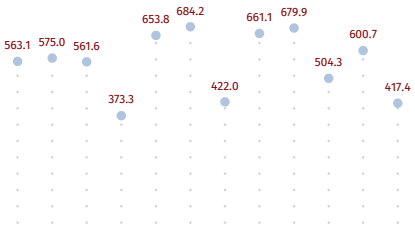
Bar



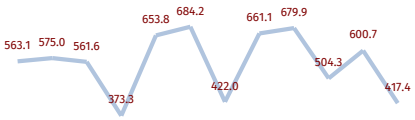
Word Bar



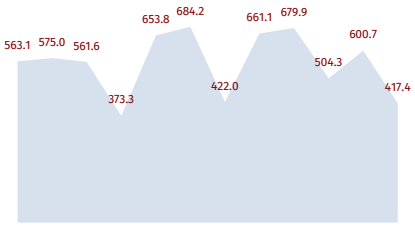
Dot



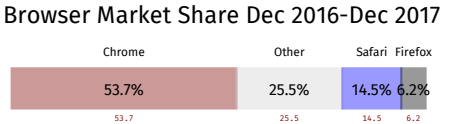
Scatter



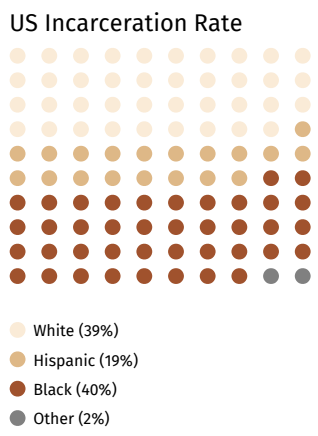
Line



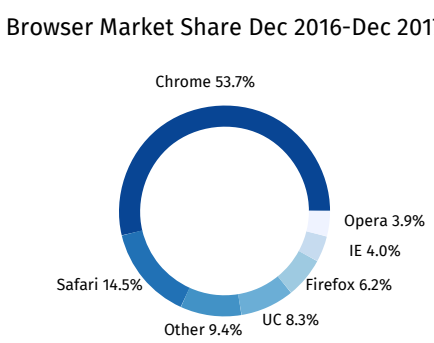
Area



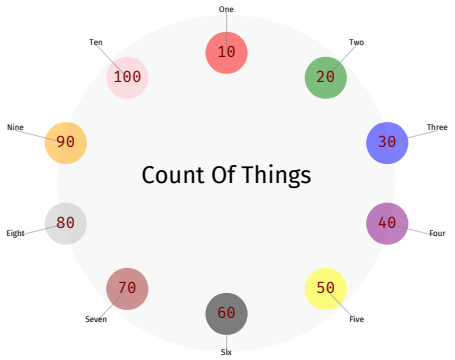
Proportional Map



Proportonal Grid



Donut/Pie

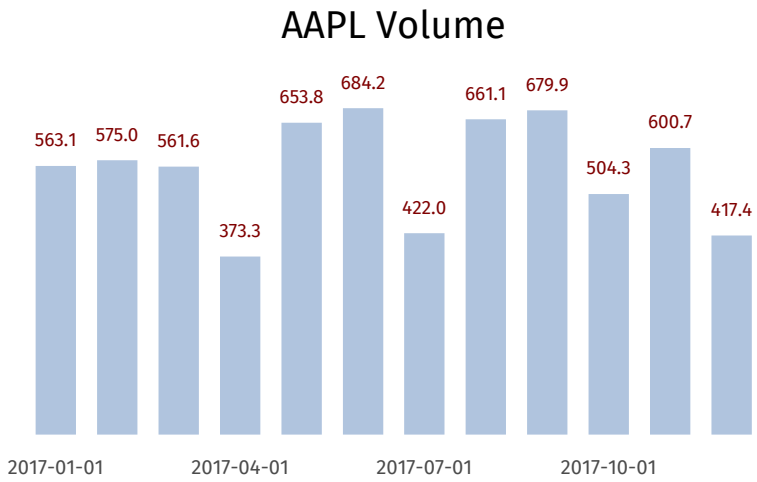


Radial

Data to Chart

```
# 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
```

```
<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>
```



Data

Markup

PDF Rendition

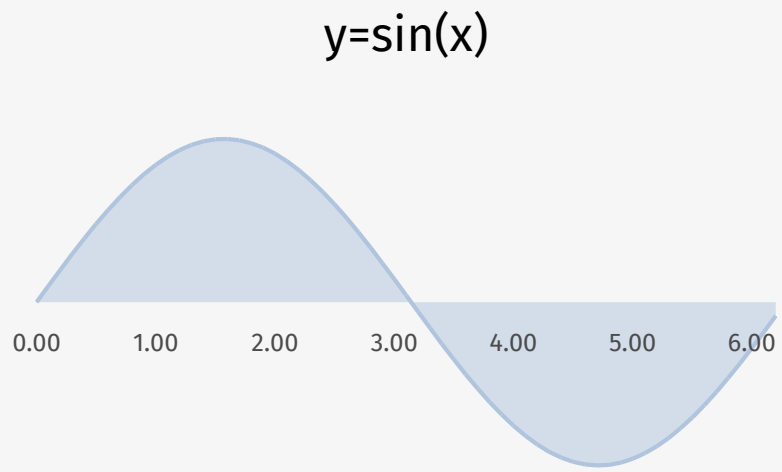
```
dchart AAPL.d | pdf
```

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

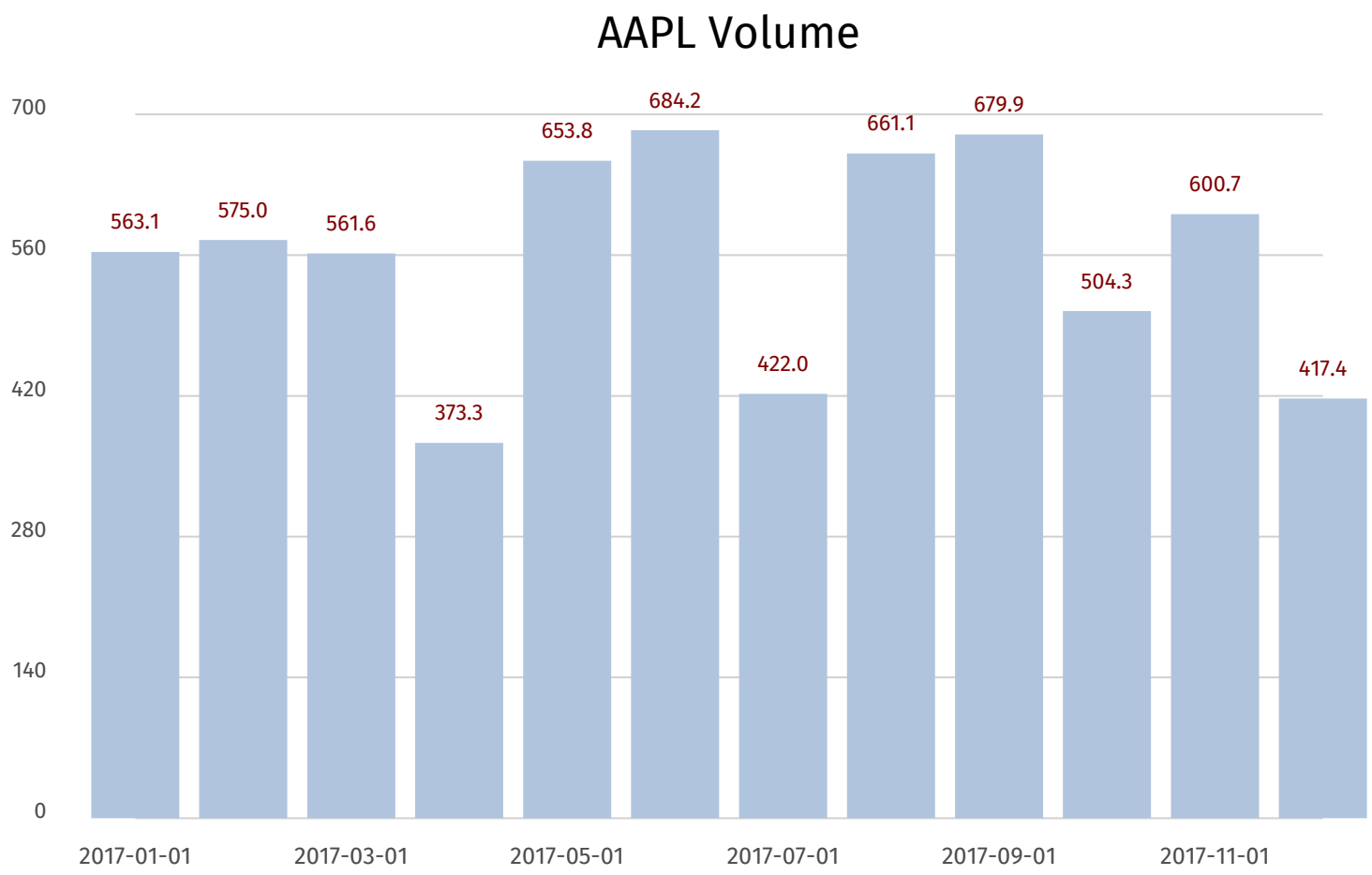
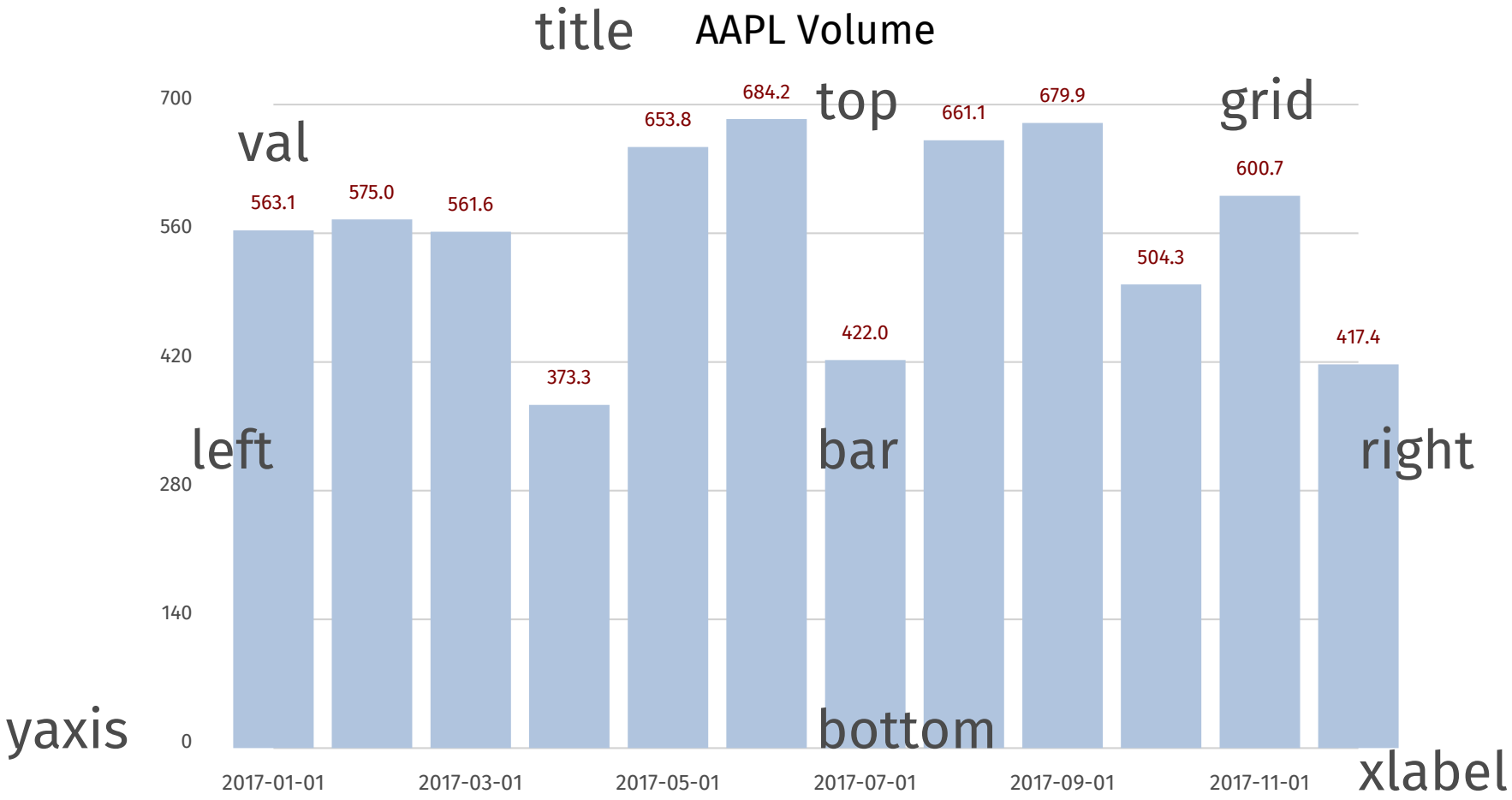
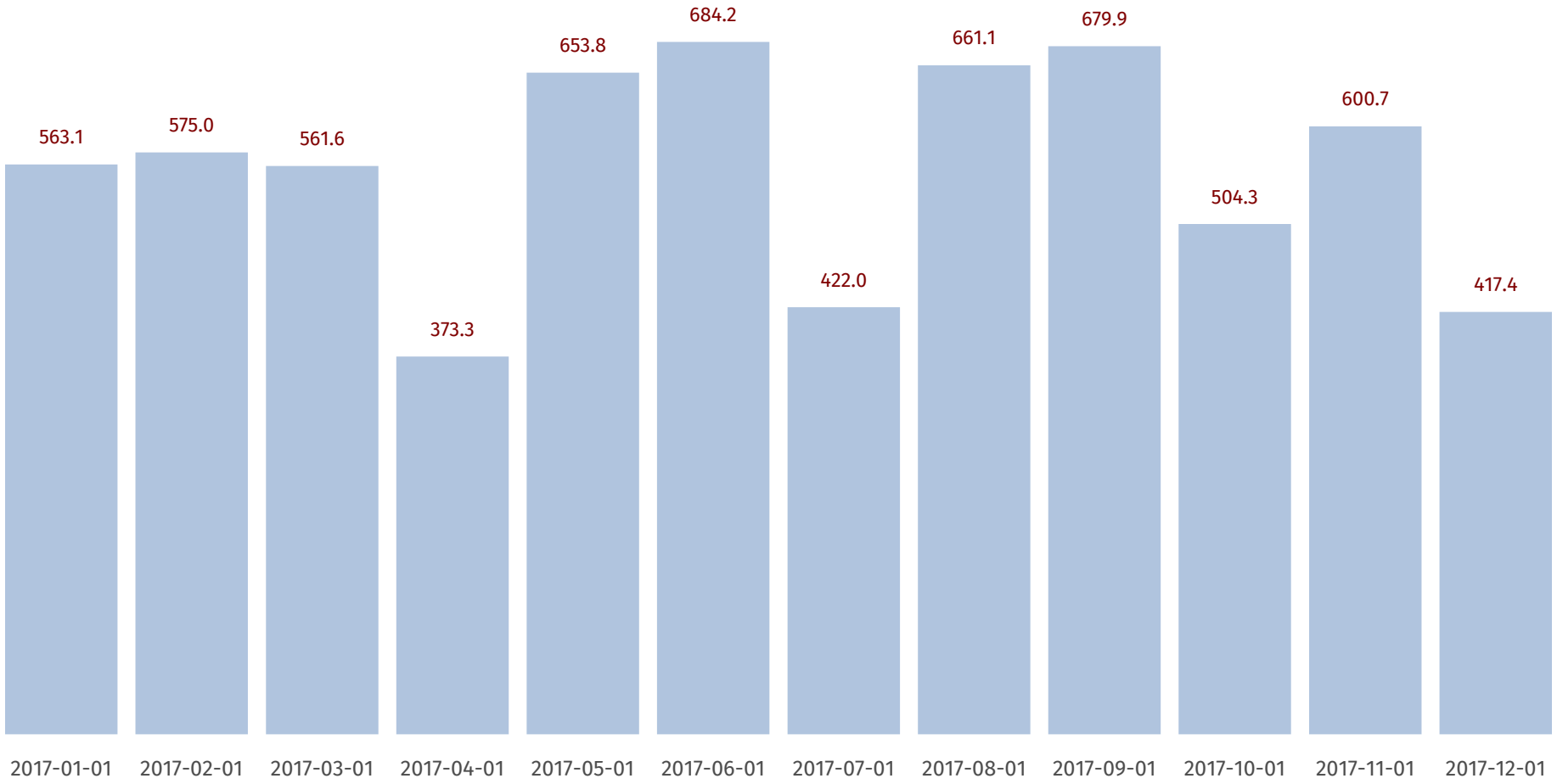

AAPL Volume
700
560
420
280
140
0
563.1
575.0
561.6
373.3
653.8
684.2
422.0
661.1
679.9
504.3
600.7
417.4
2017-01-01
2017-03-01
2017-05-01
2017-07-01
2017-09-01
2017-11-01

Chart Attributes

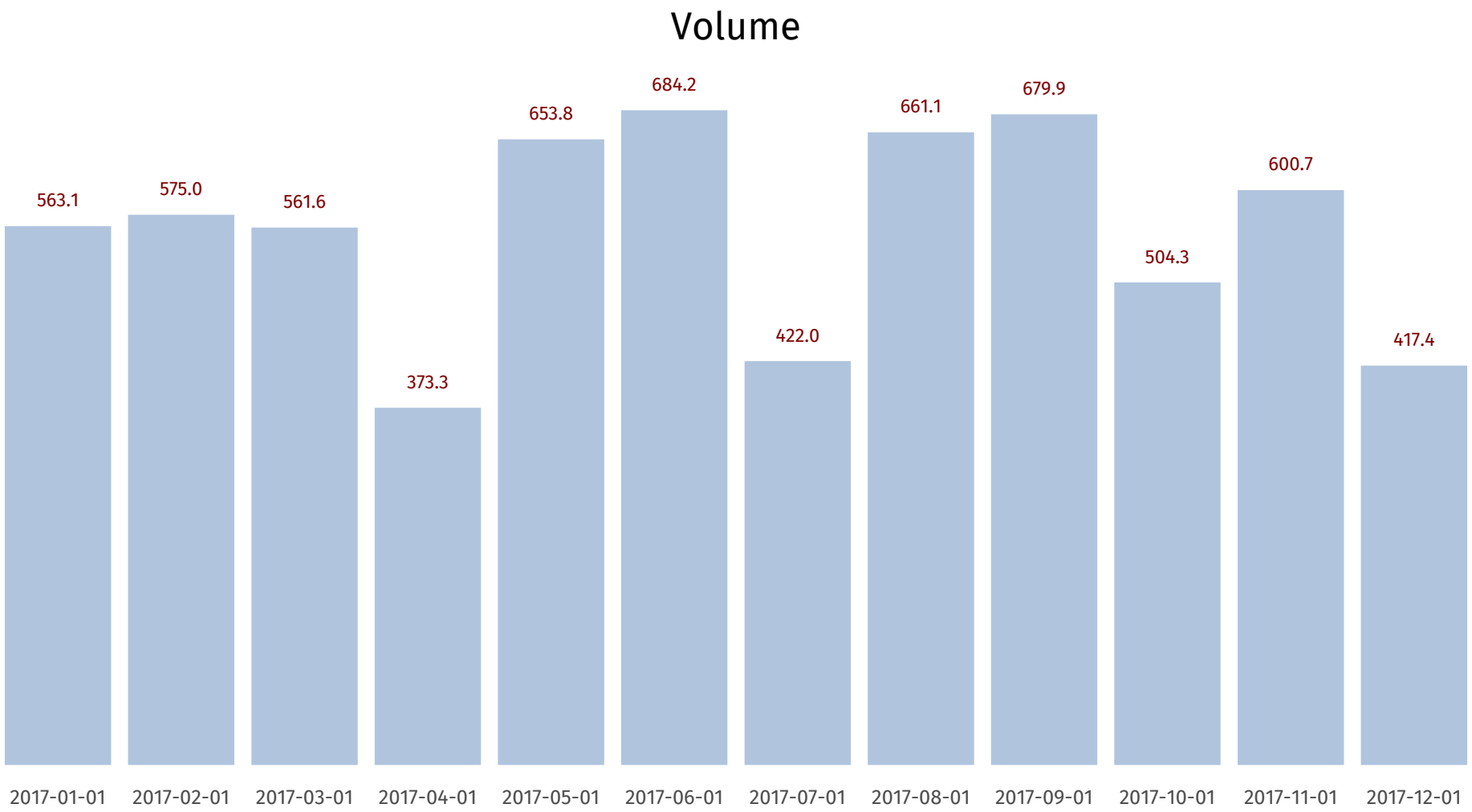



```
dchart -left=20 -right=80 -top=75 -bottom=30 -yaxis -grid -xlabel=2 -val AAPL.d
```



Default Bar Chart

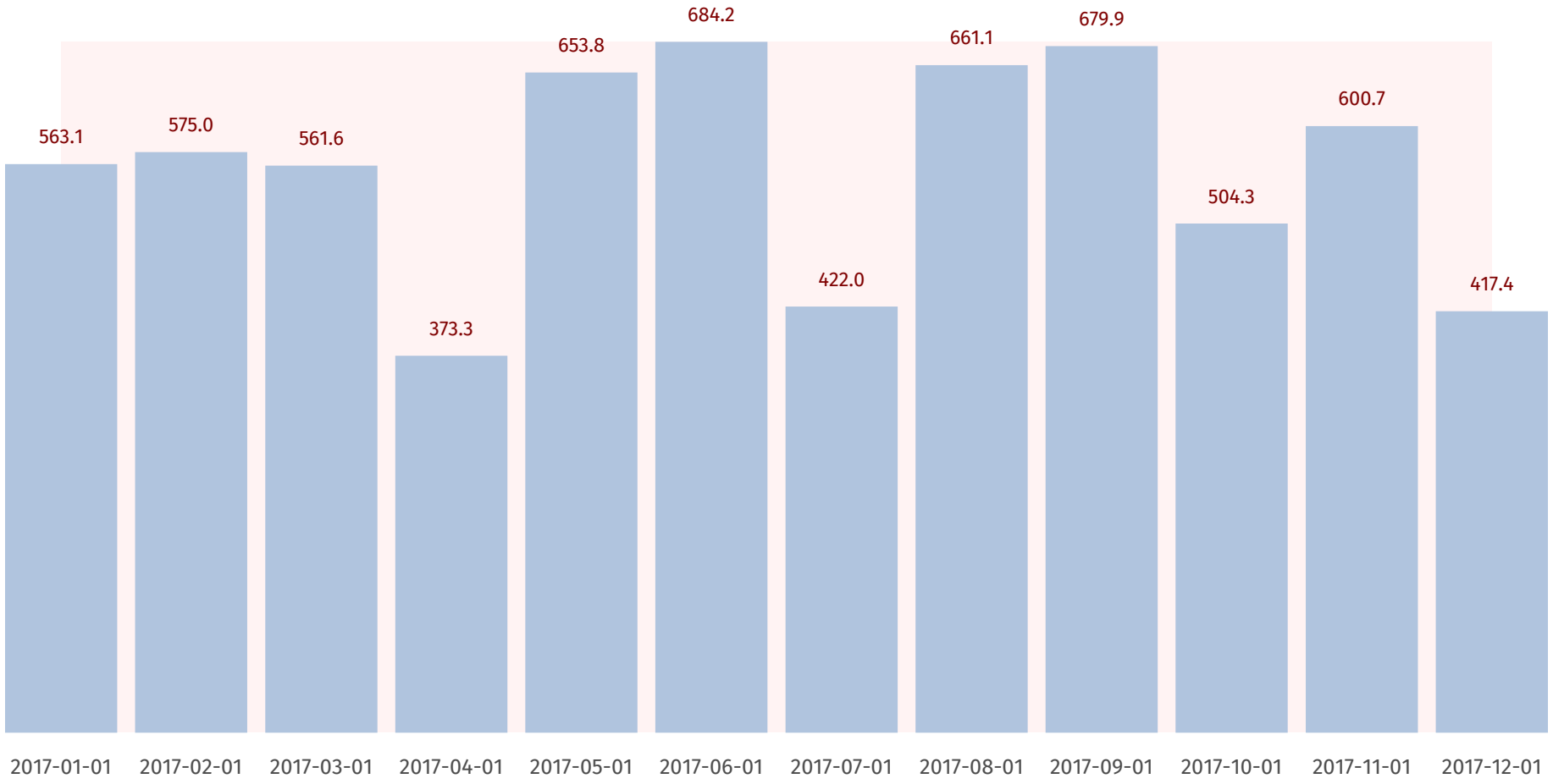
```
dchart AAPL.d
```



Reading CSV files

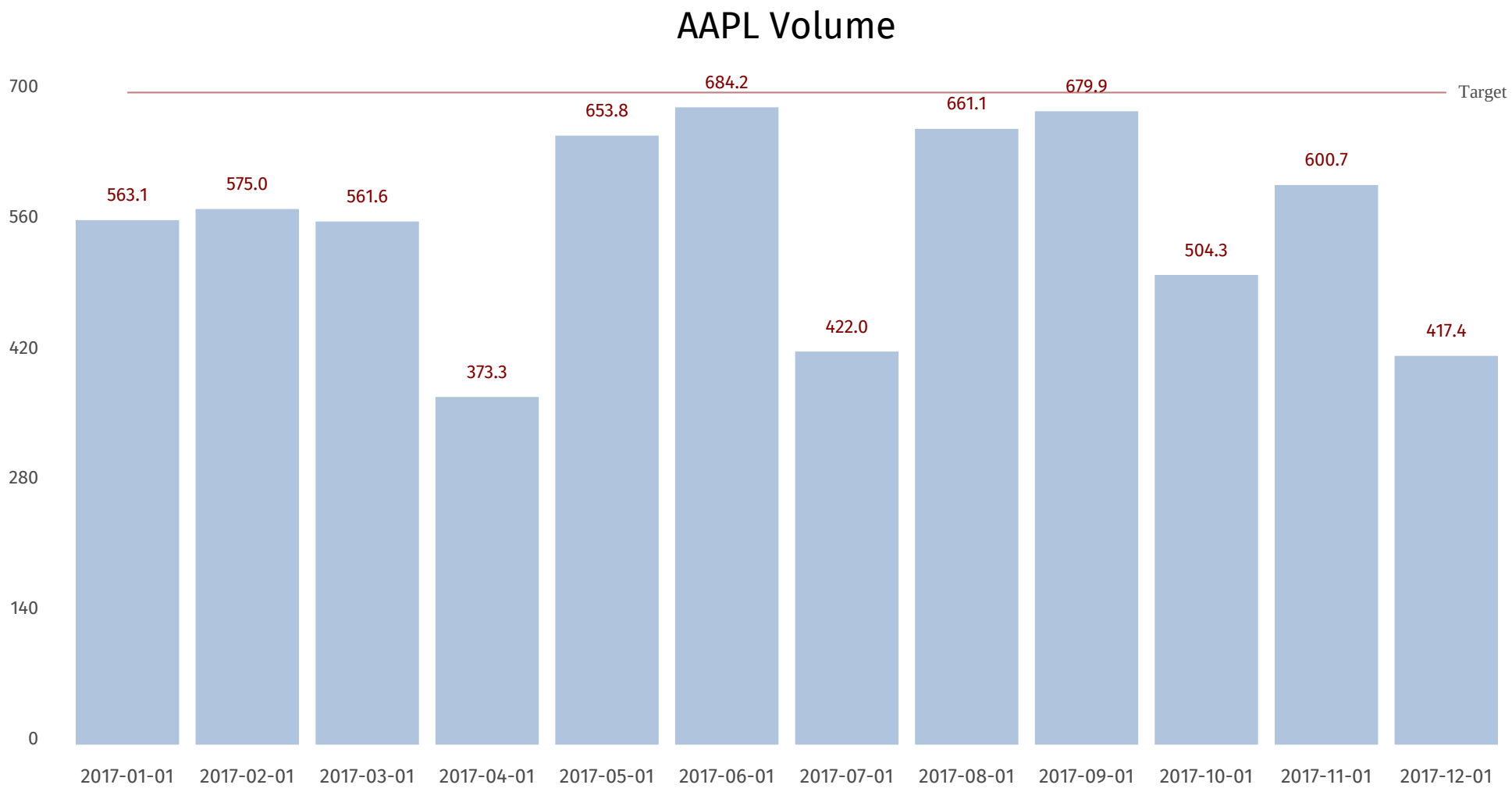
```
Date,Volume
2017-01-01,563.122
2017-02-01,574.969
2017-03-01,561.628
2017-04-01,373.304
2017-05-01,653.755
2017-06-01,684.178
2017-07-01,421.992
2017-08-01,661.069
2017-09-01,679.879
2017-10-01,504.291
2017-11-01,600.663
2017-12-01,417.354
```

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



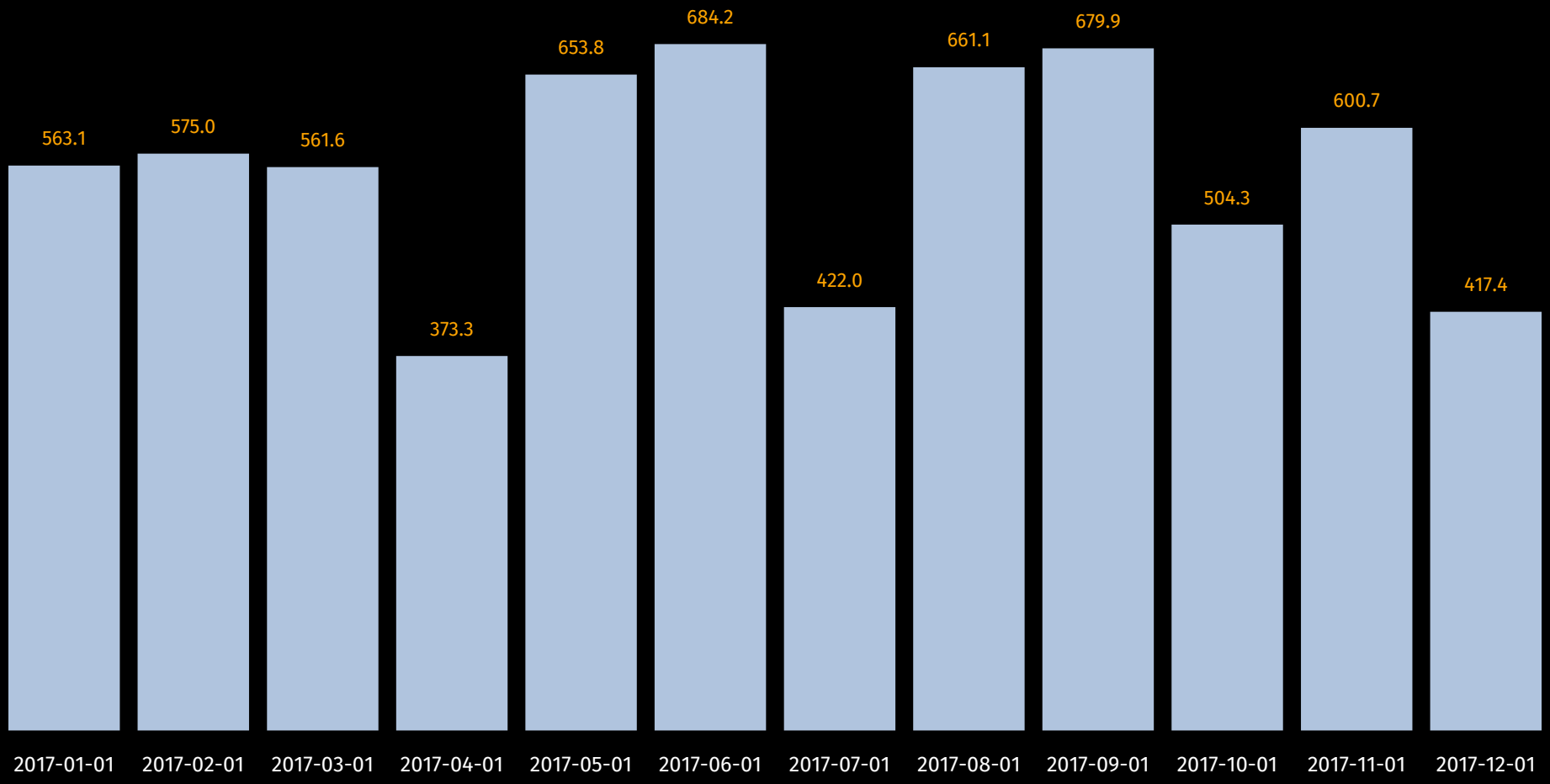
Frame, Frame Color

```
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
```

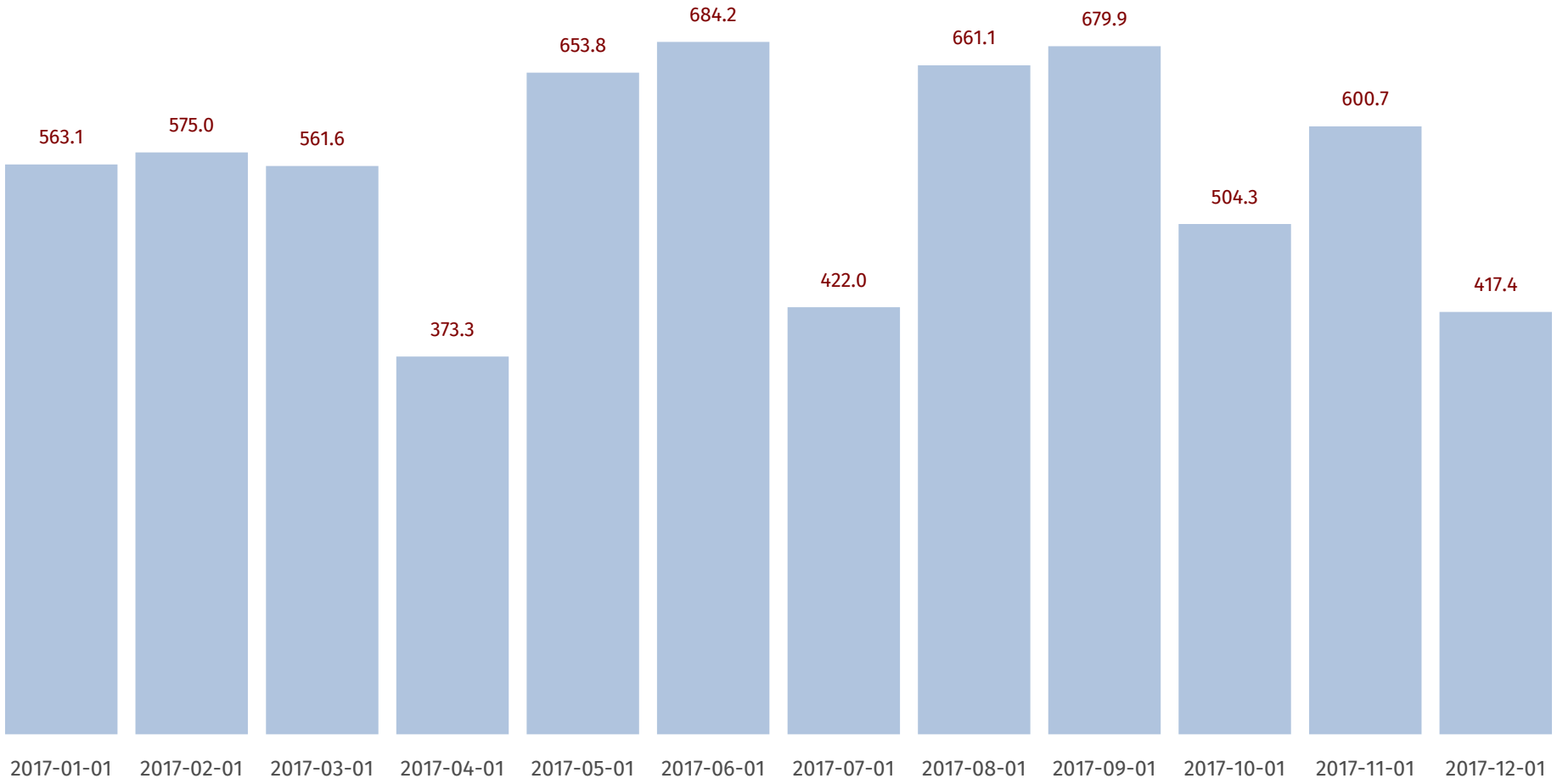
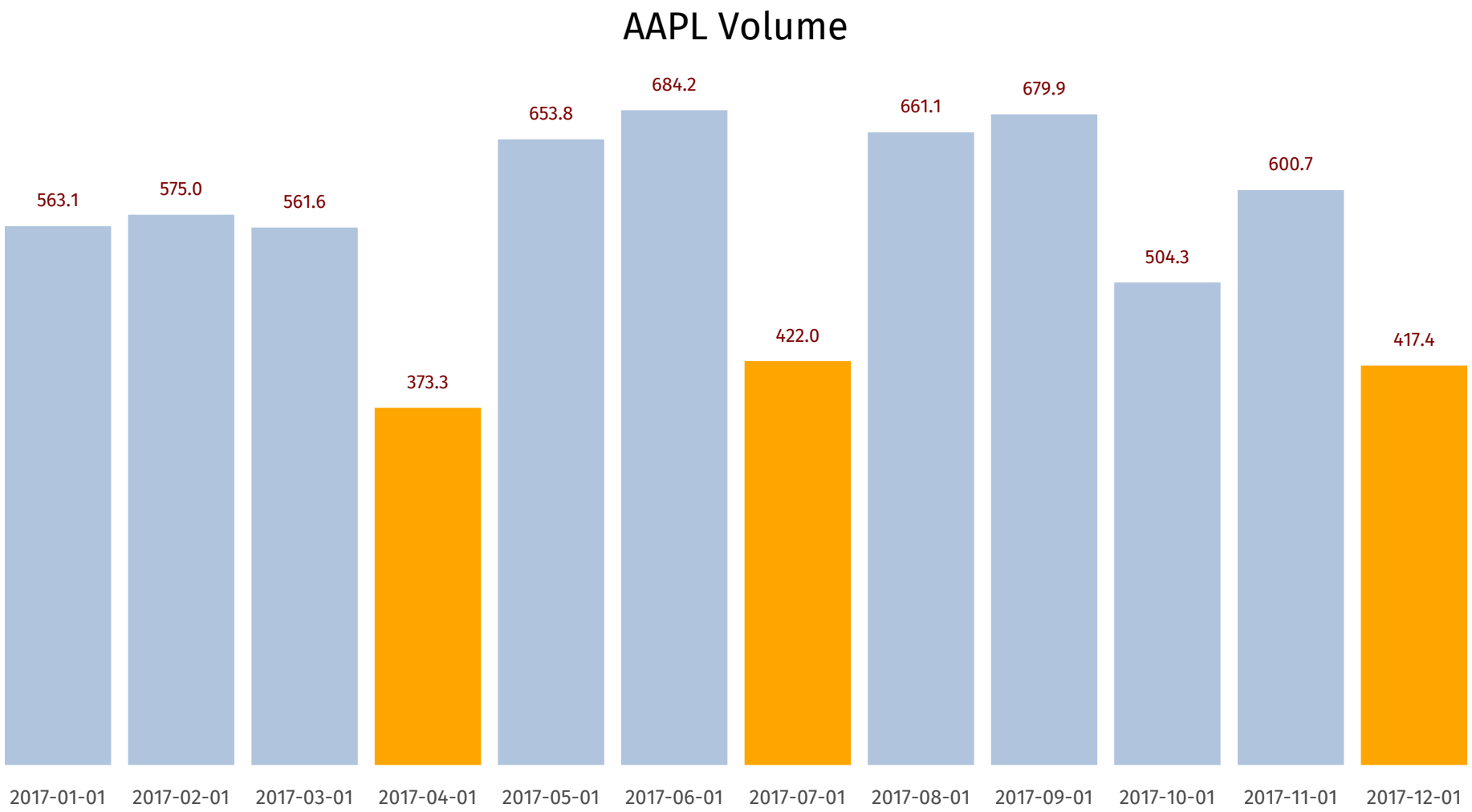


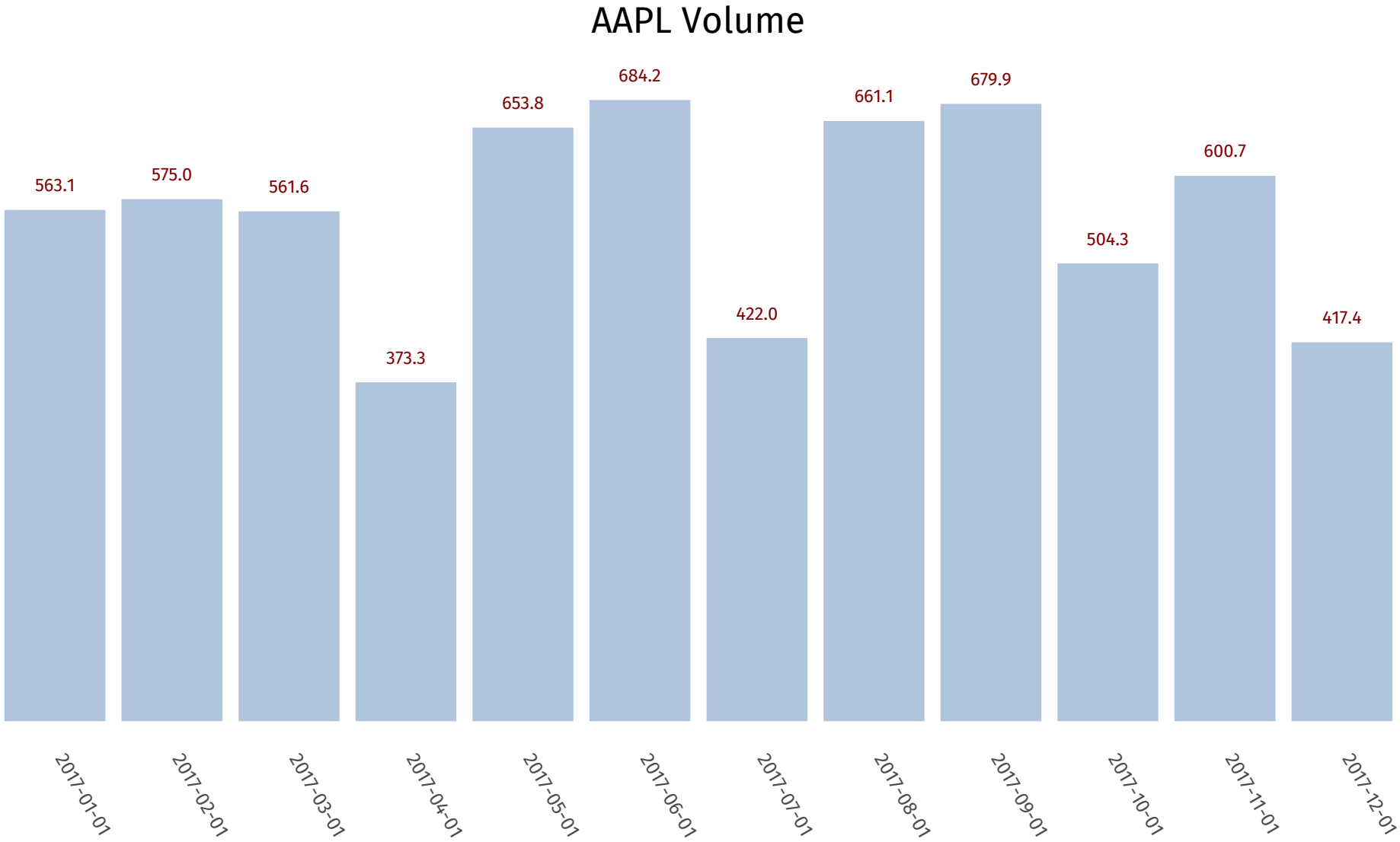
Chart Title

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



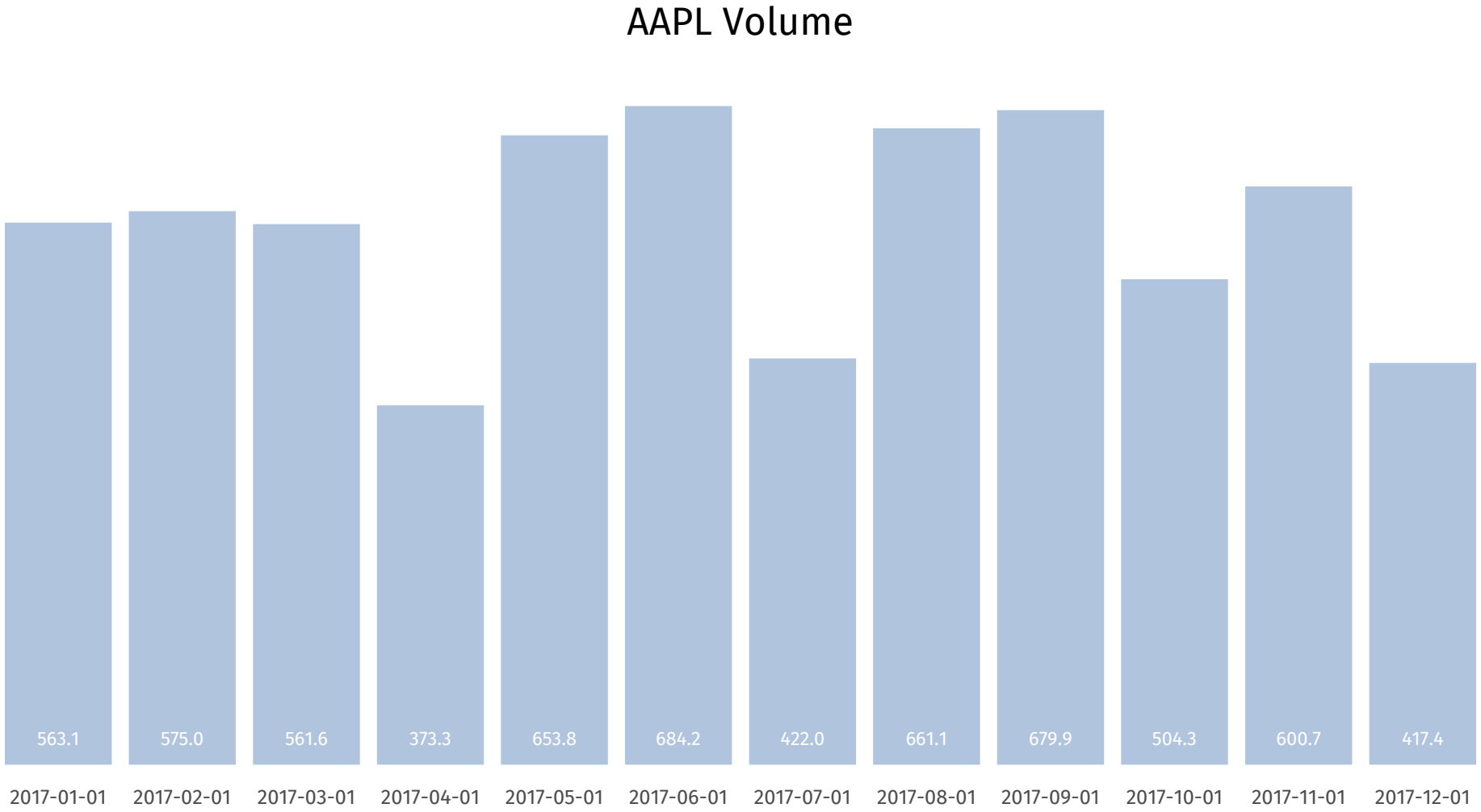
Data Conditions

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



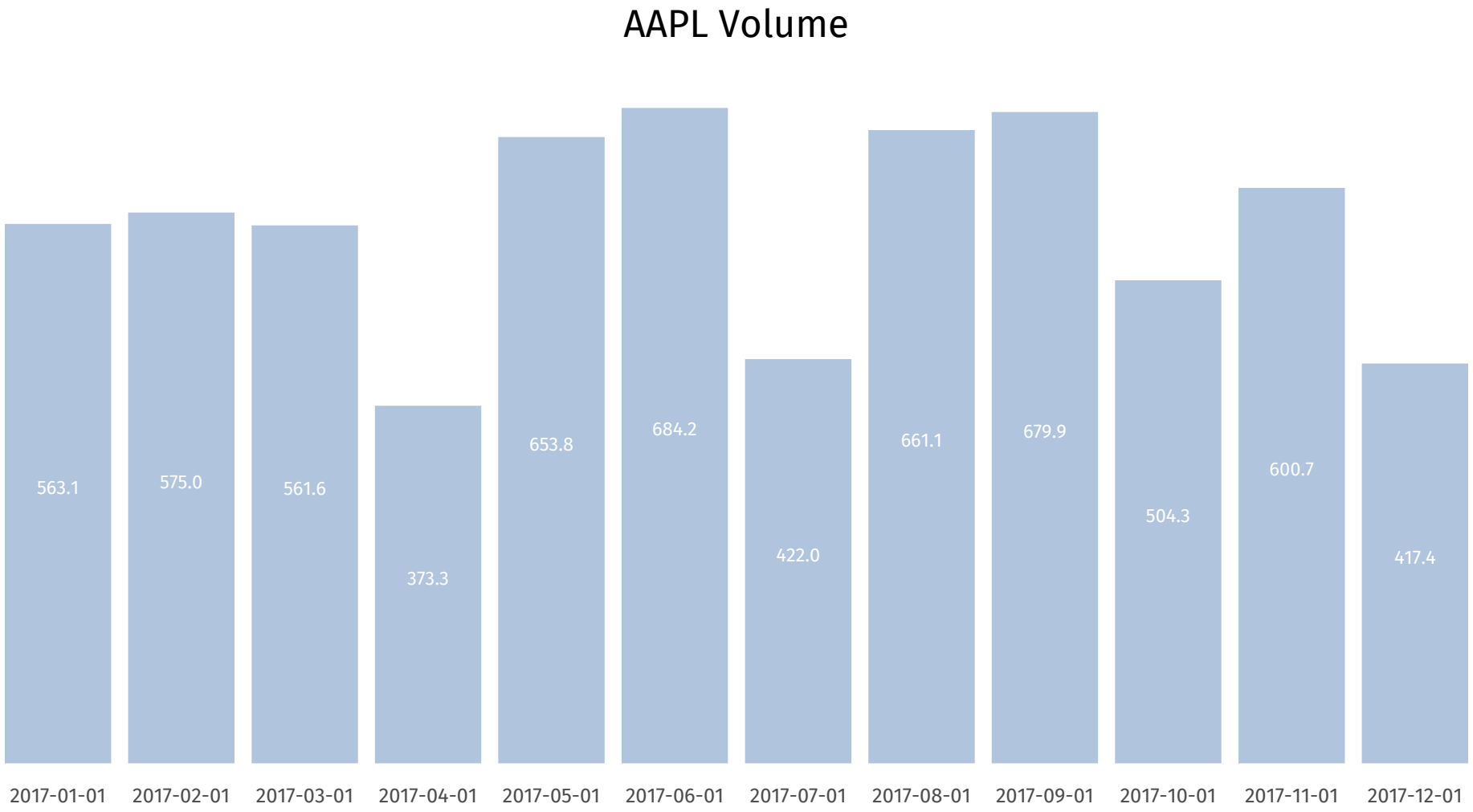
X-Axis Label Rotation

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



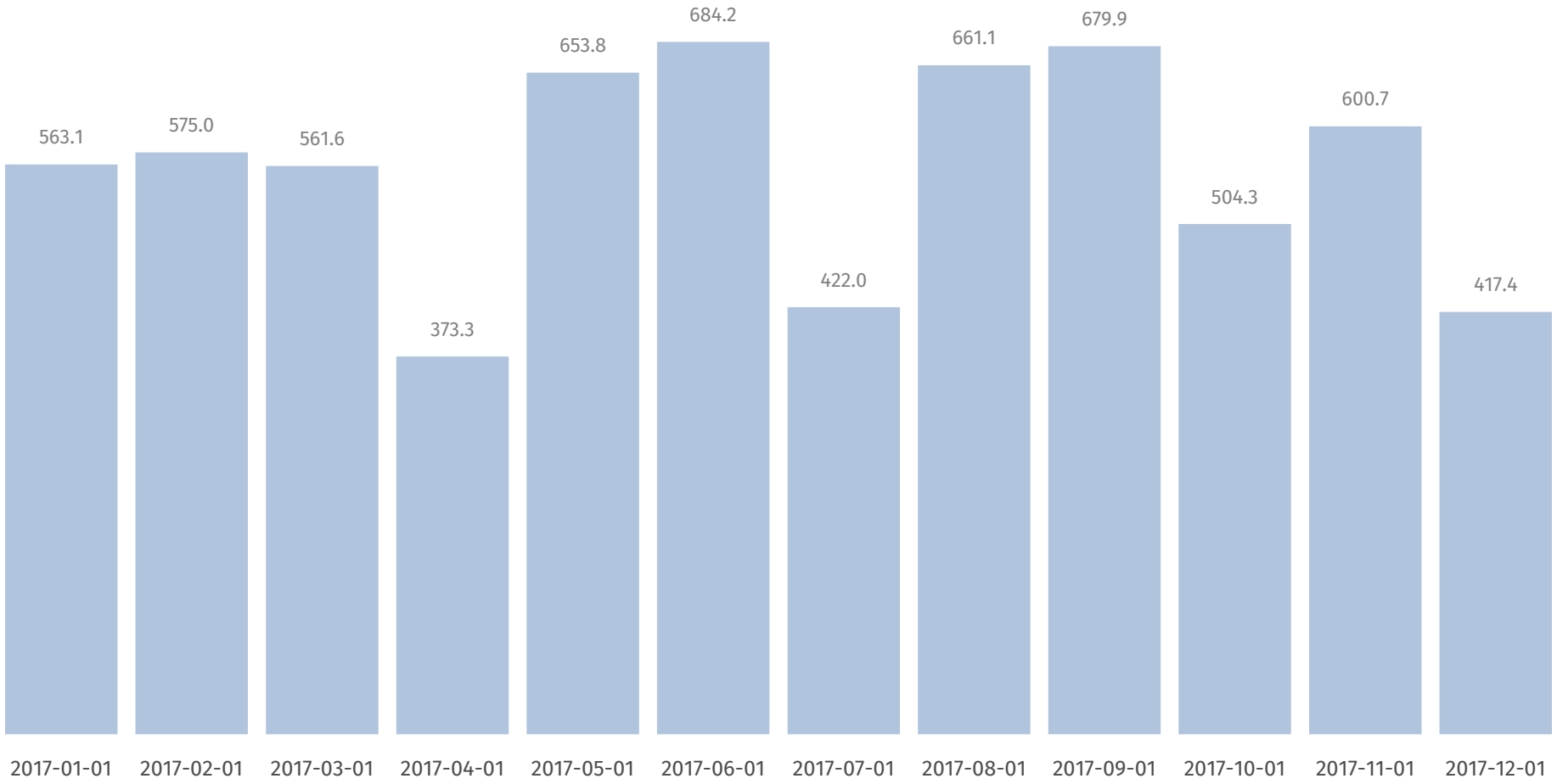
Value Color, Value Position Bottom

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



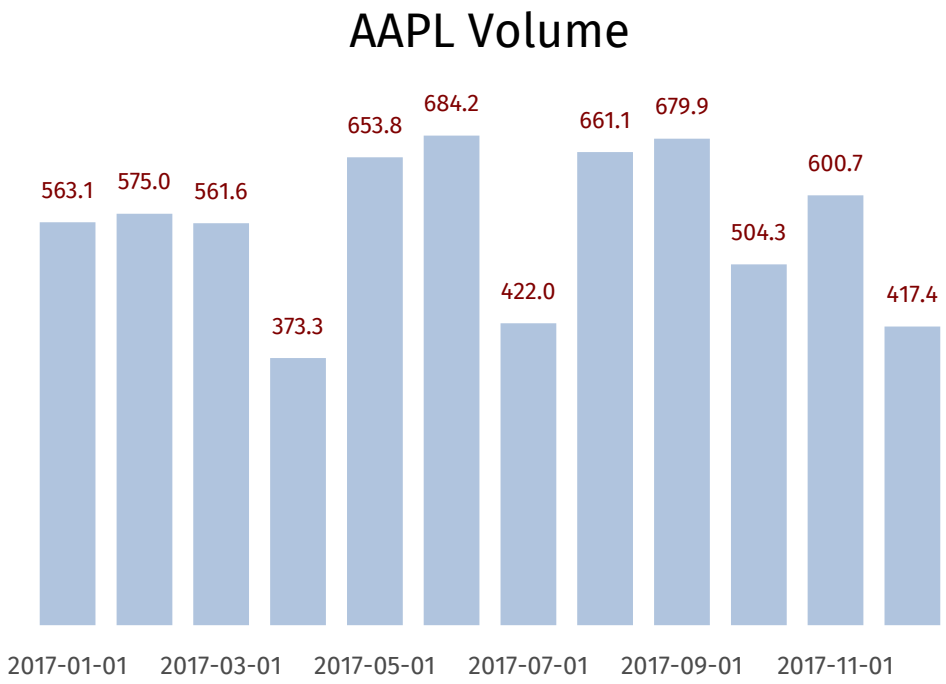
Value Color, Value Position Middle

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



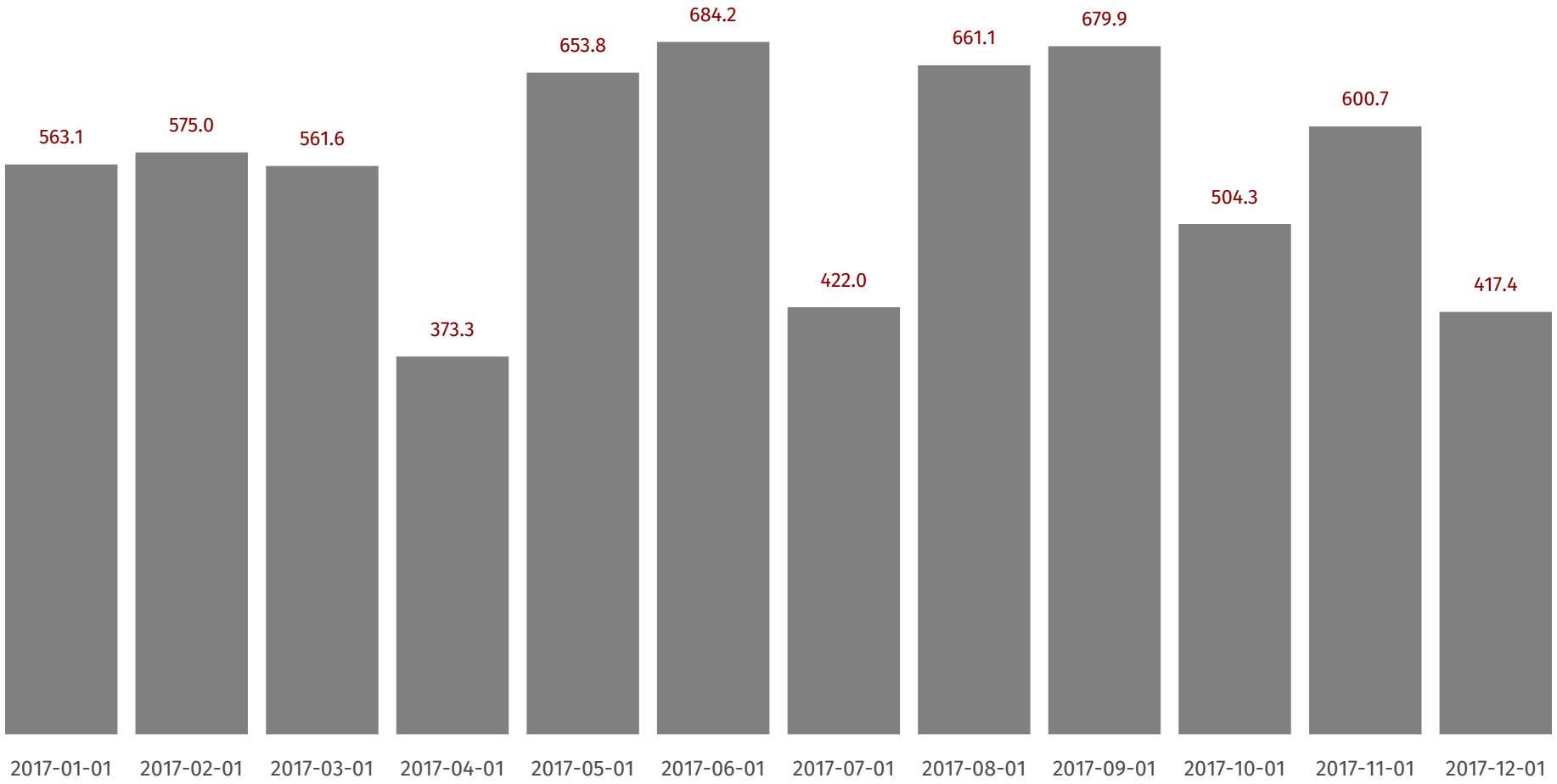
Value Color, Value Position Top

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



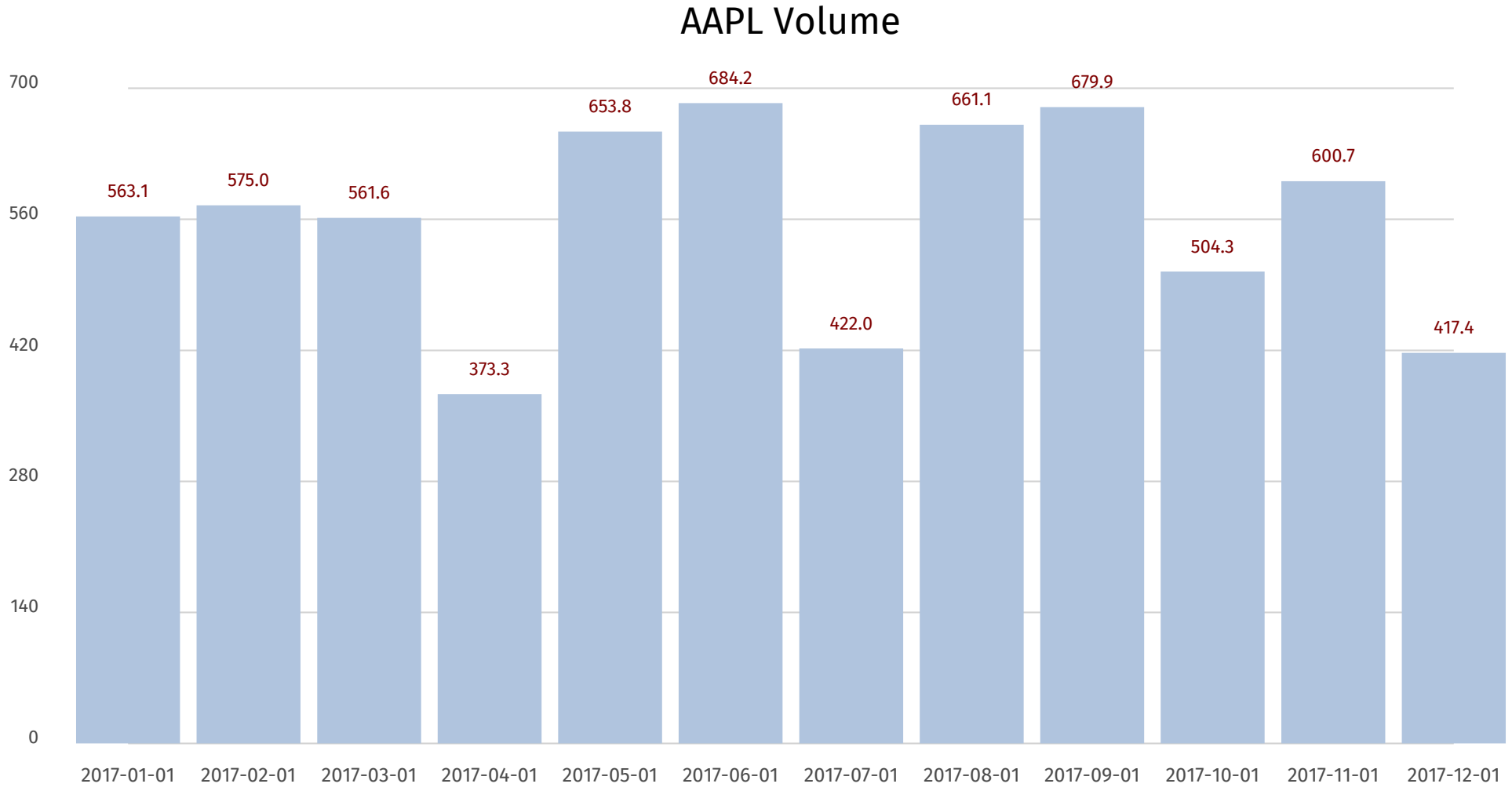
Scaling, X-Axis Labels

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



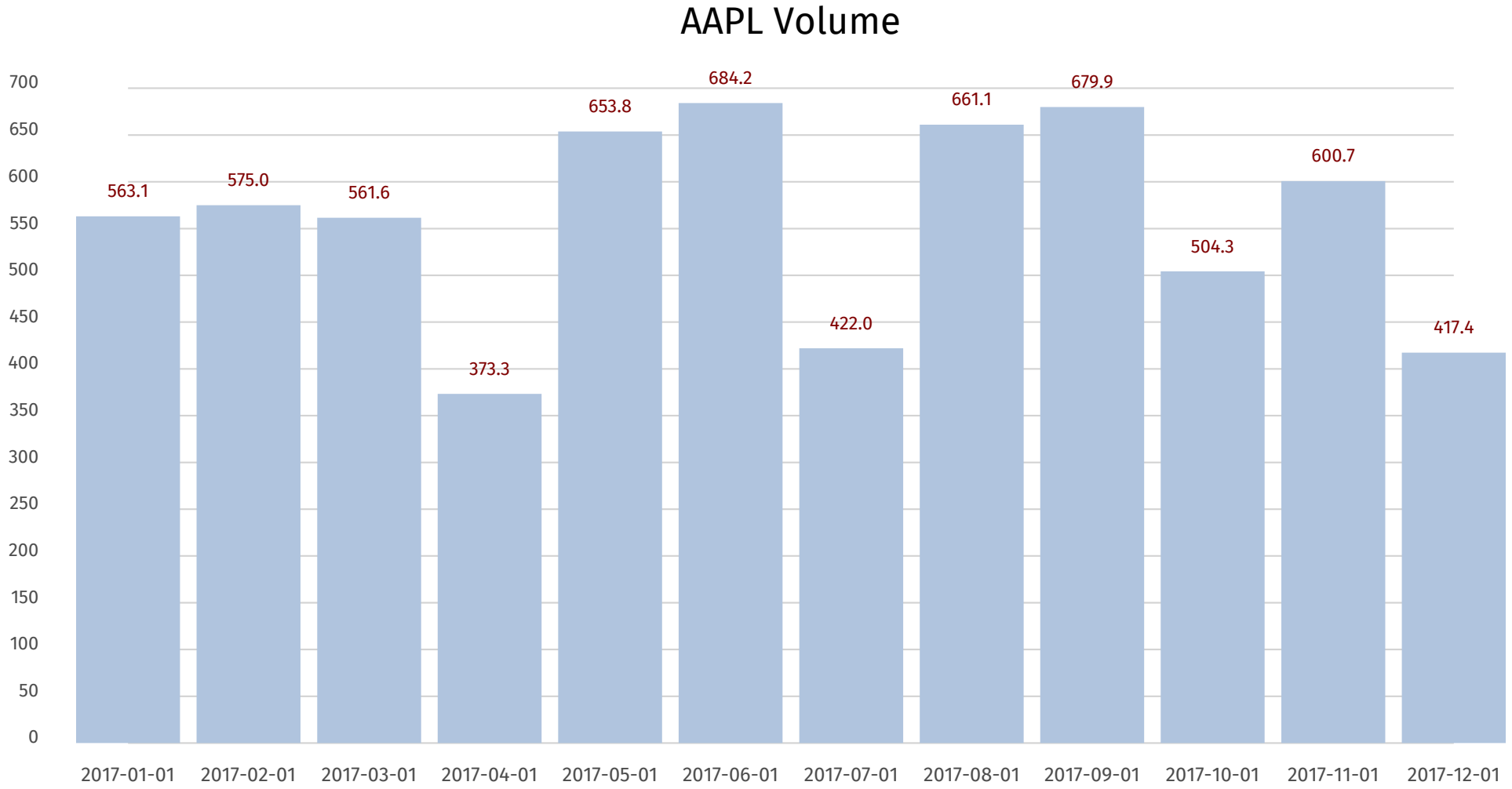
Color

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



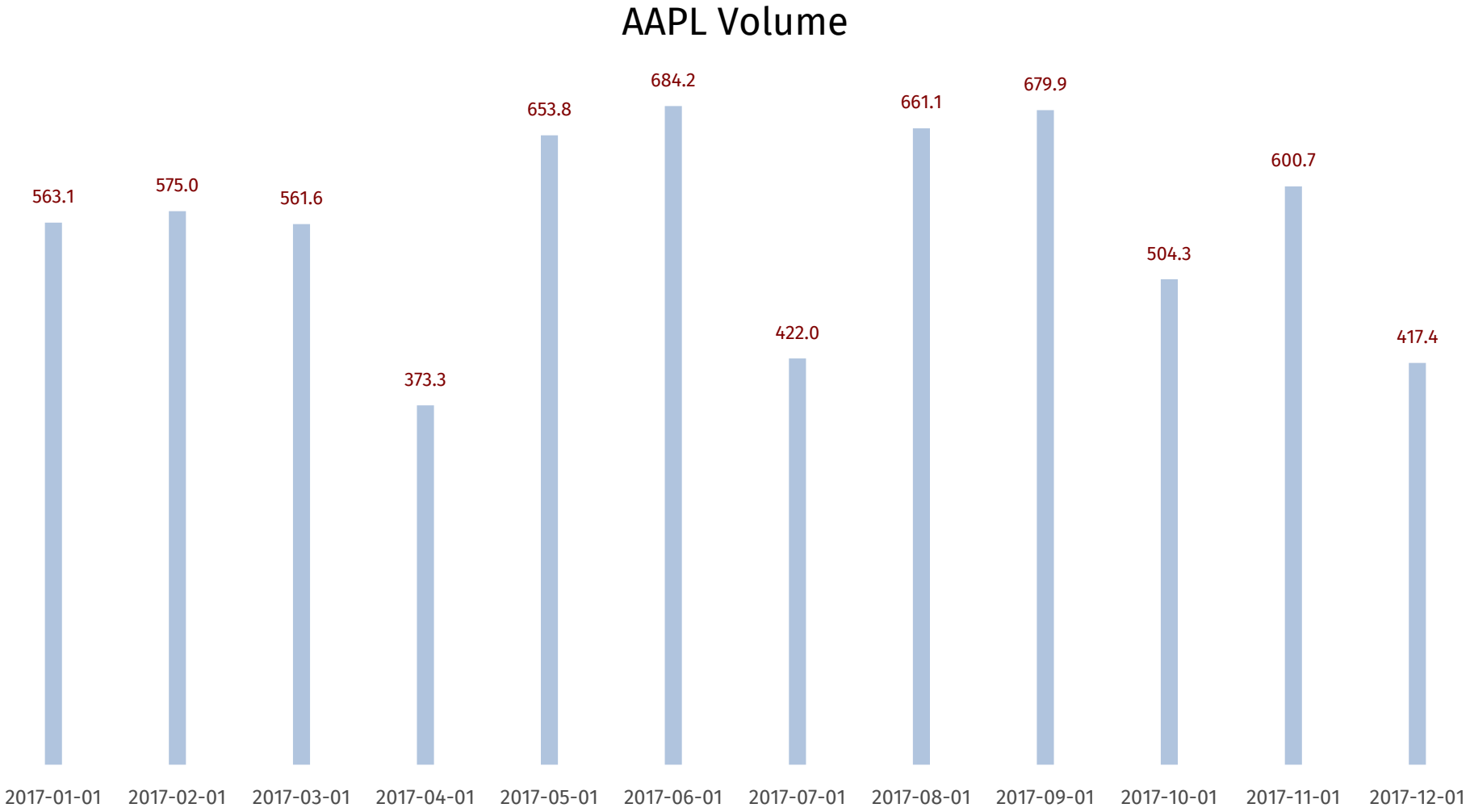
Y-Axis, Grid

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



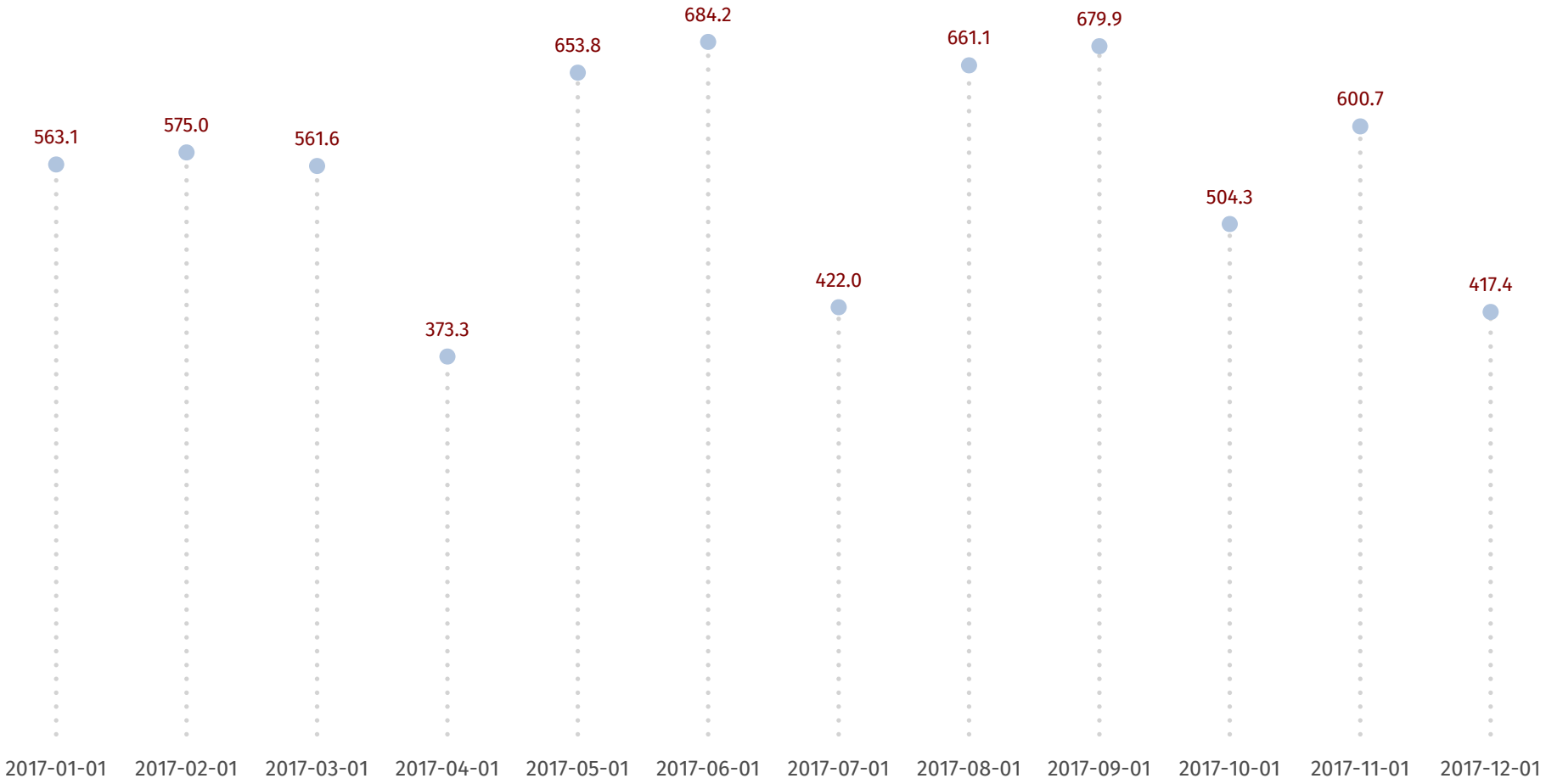
Y-Range

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



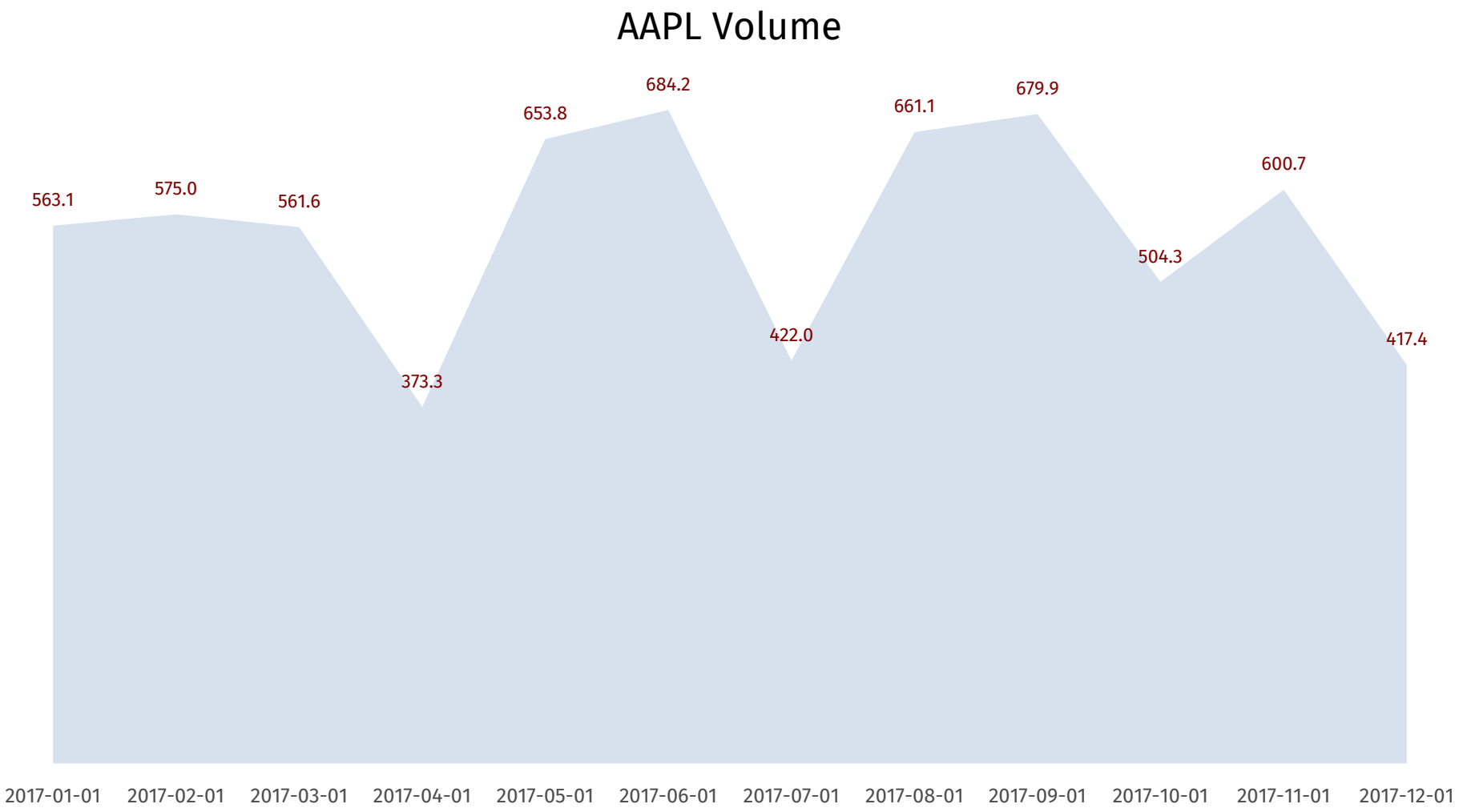
Adjusting Bar Width

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



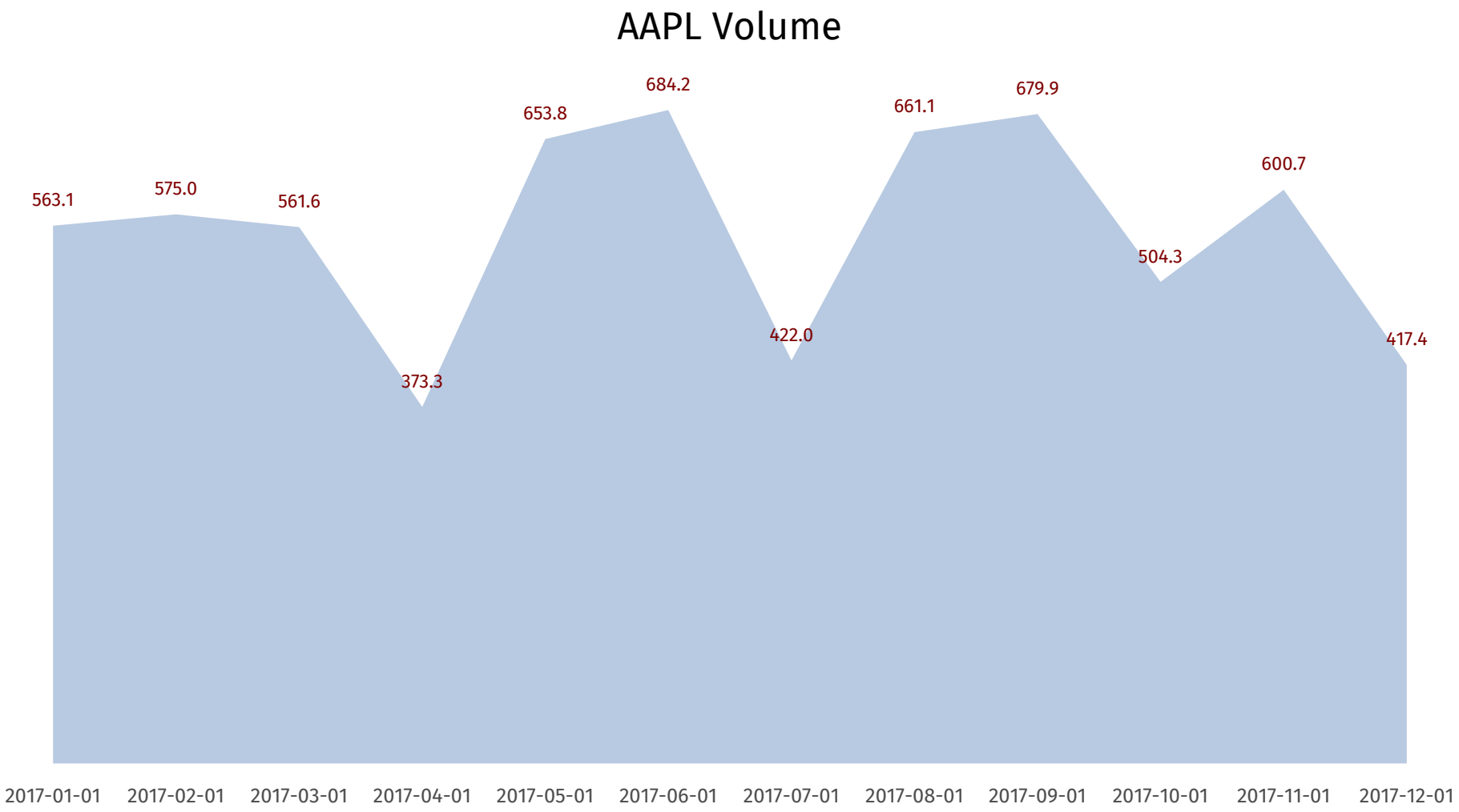
Dot Chart

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



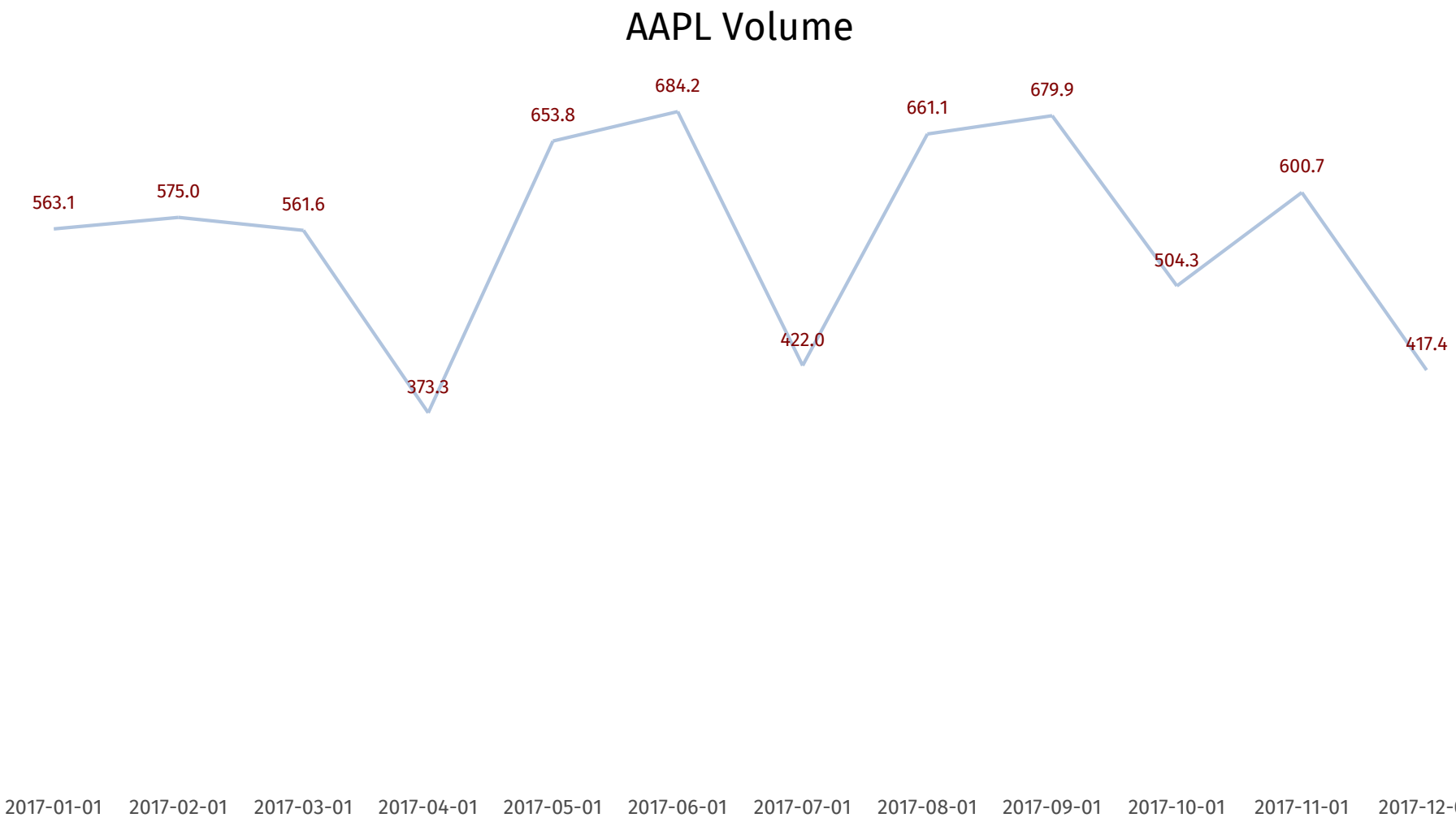
Area Chart

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



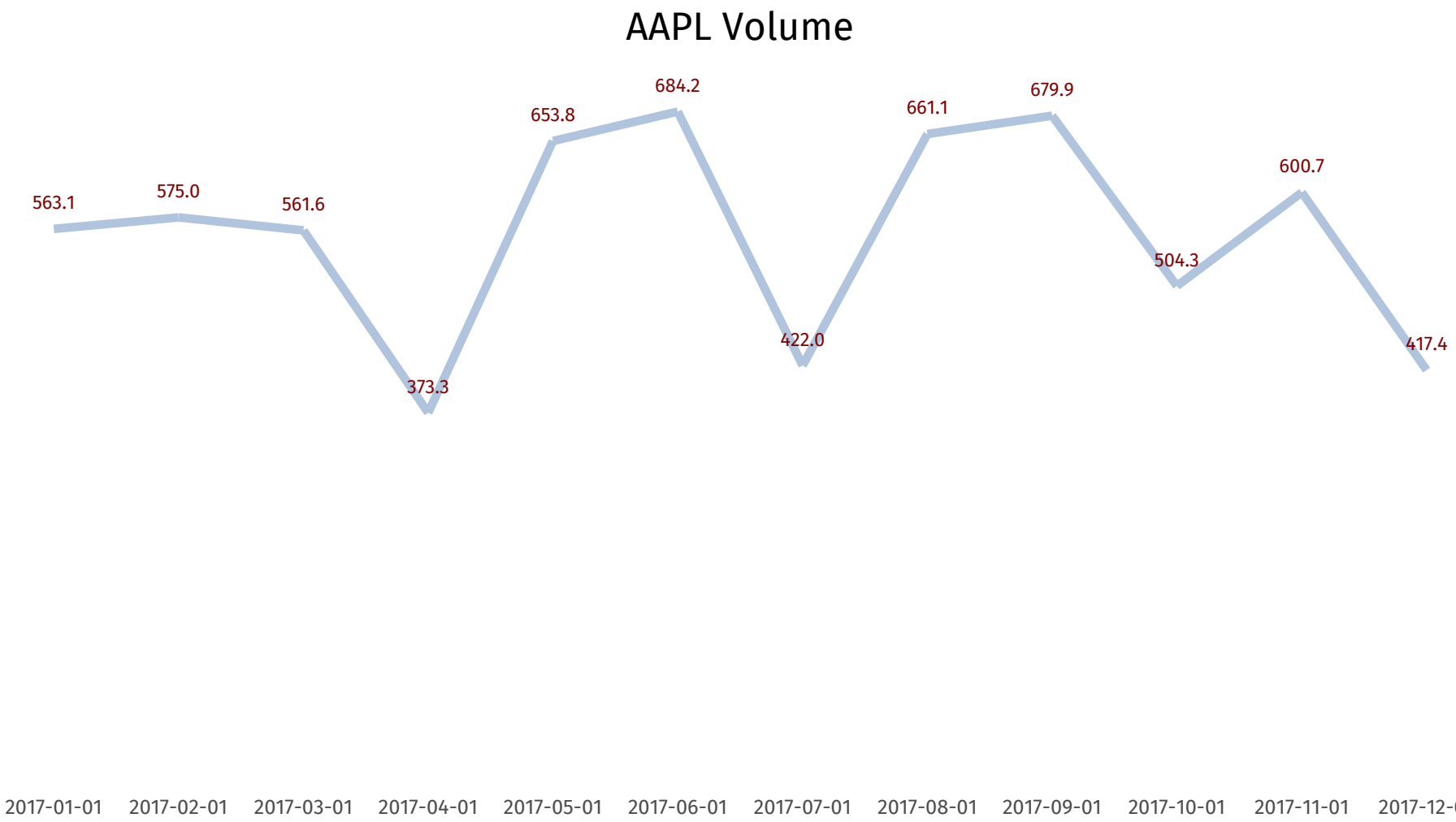
Area Chart, Opacity

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



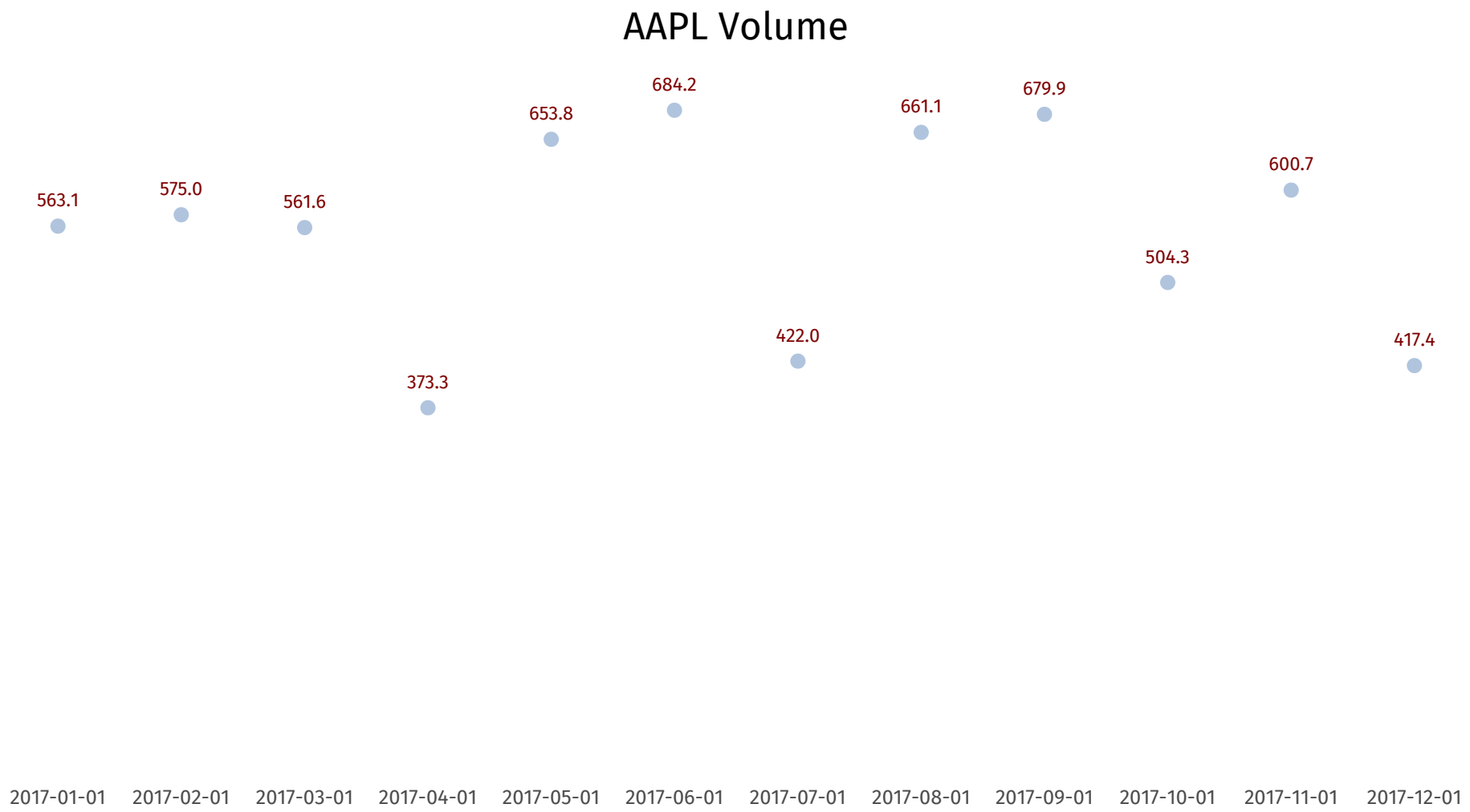
Line Chart

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



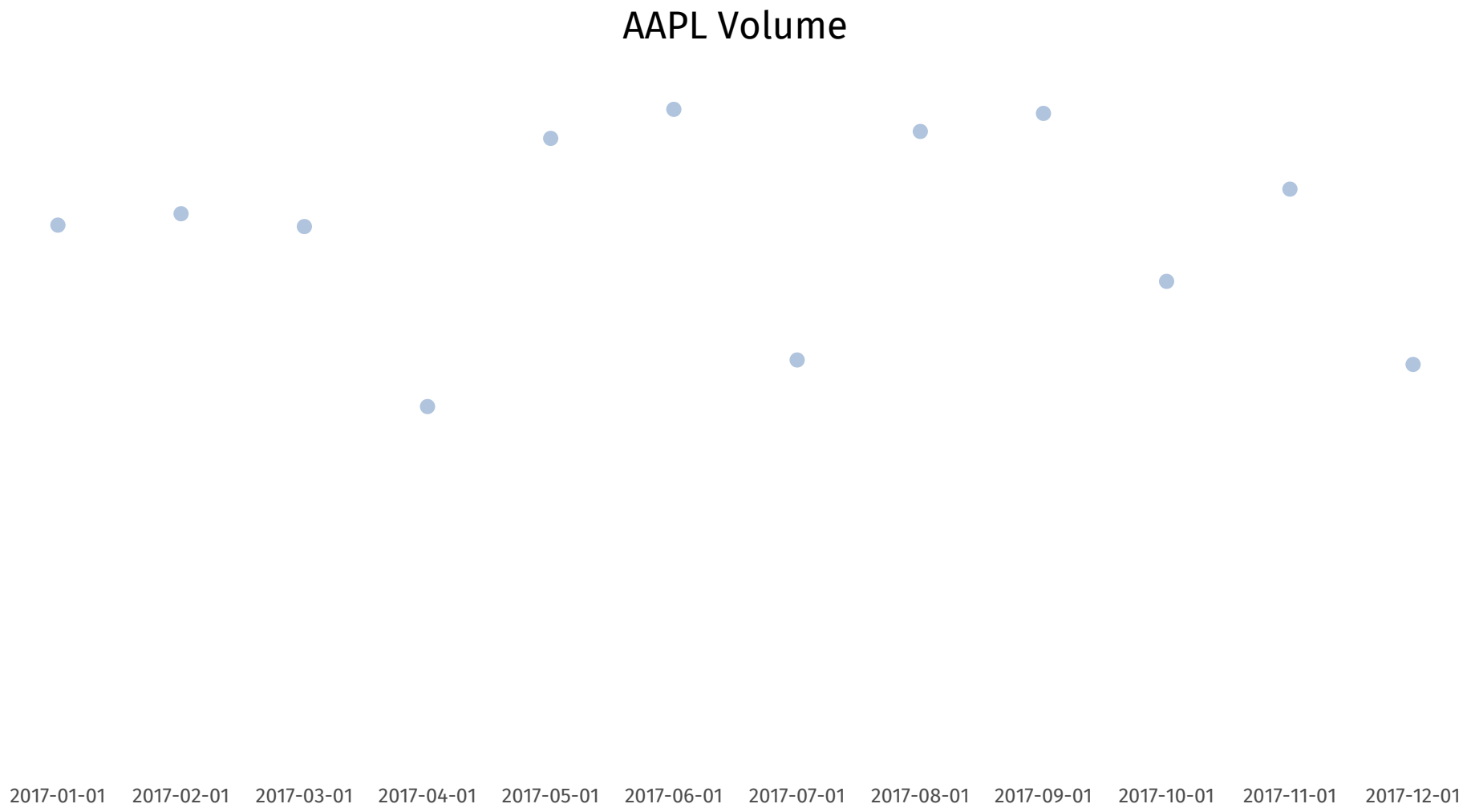
Line Chart, Line Width

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



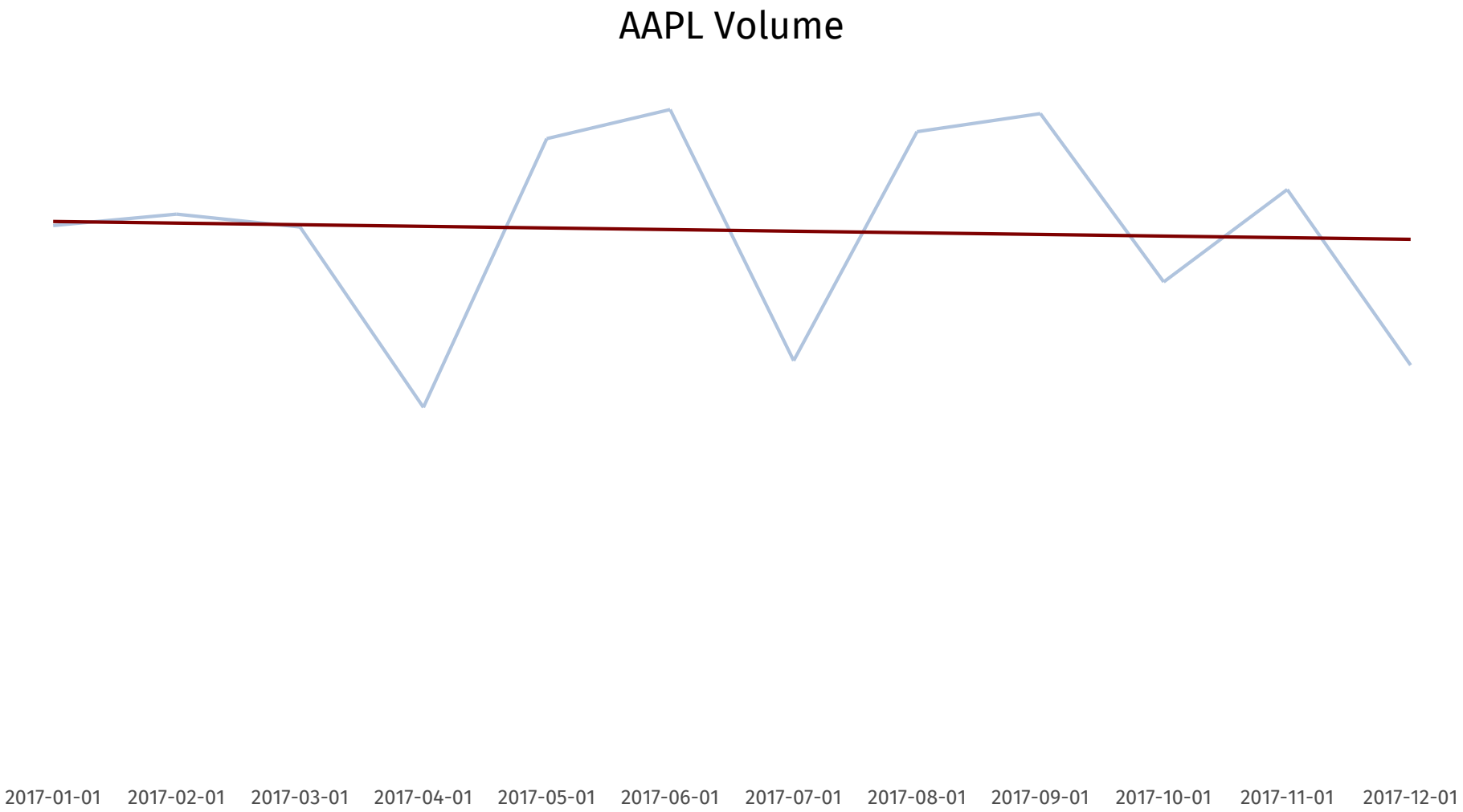
Scatter Chart

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



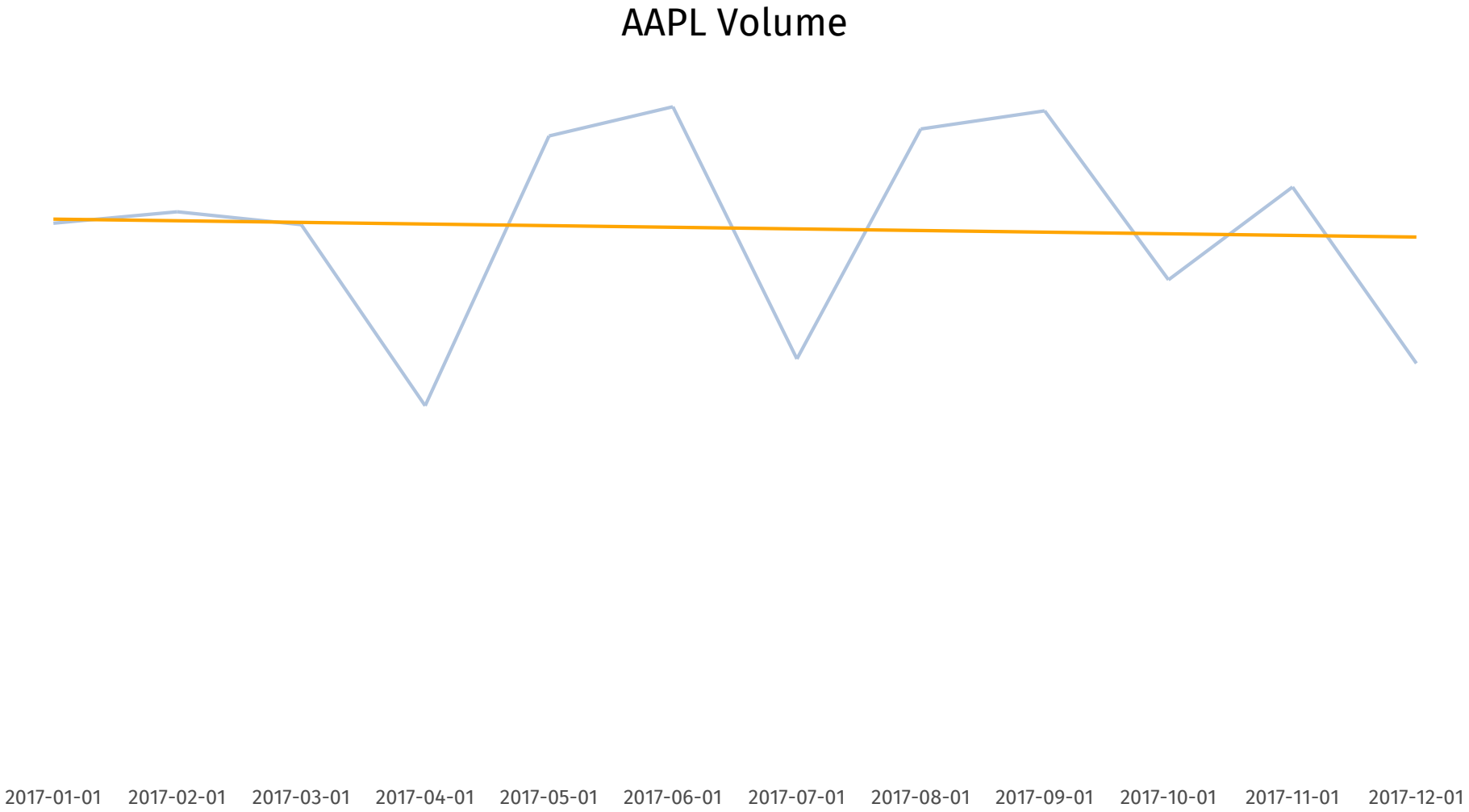
Scatter Chart, No Values

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



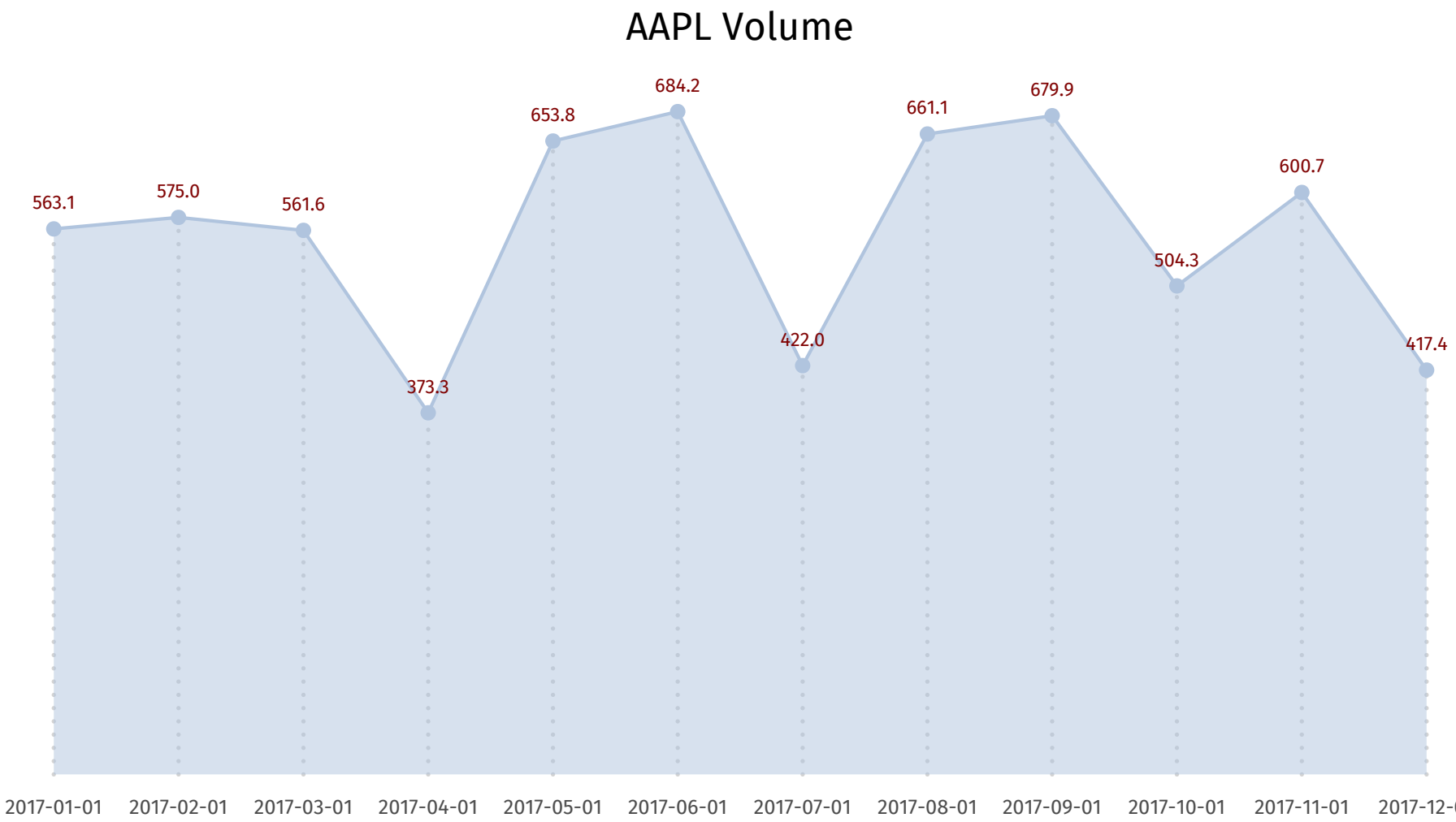
Line Chart, No Values, Regression Line

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



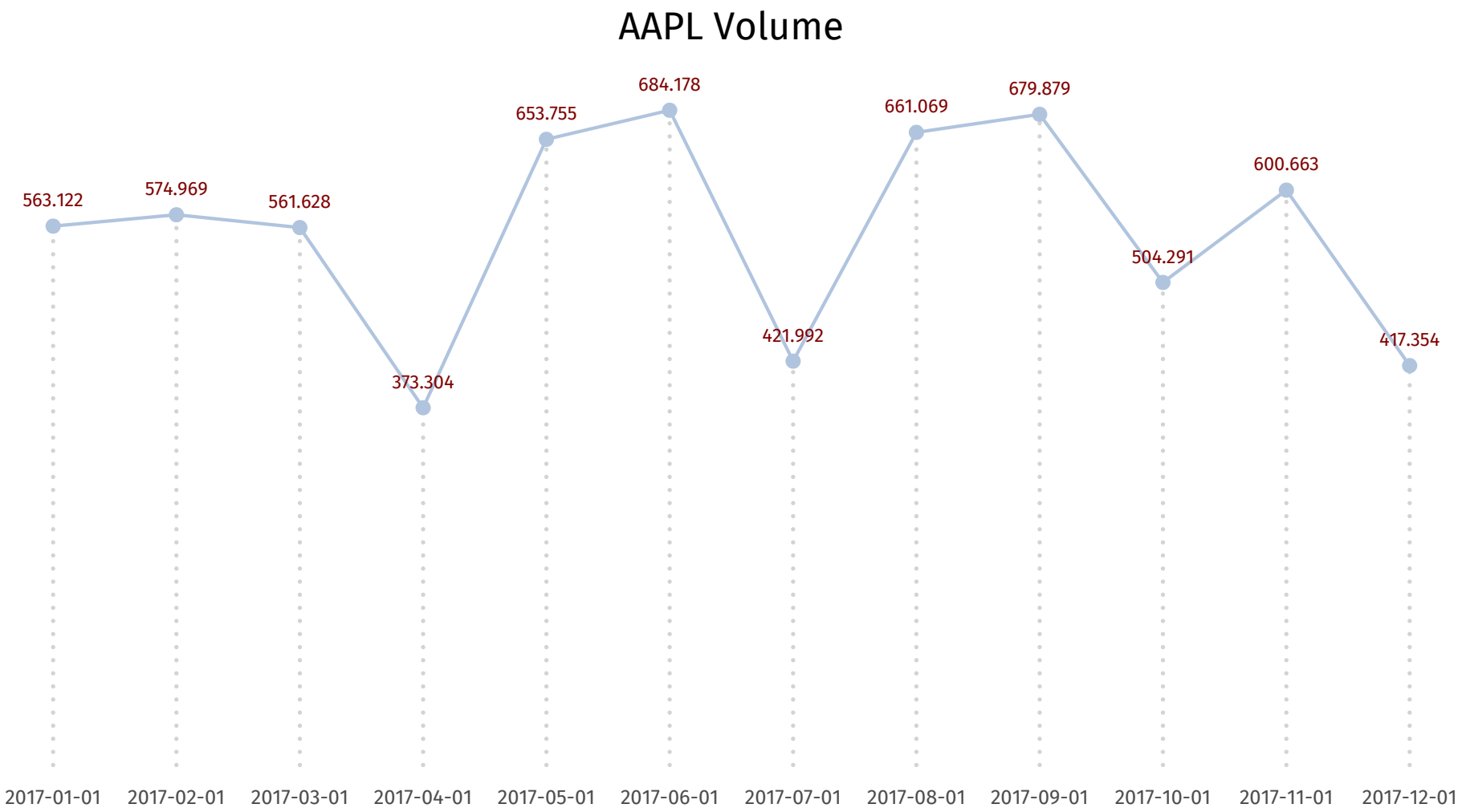
Line Chart, No Values, Regression Line Color

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



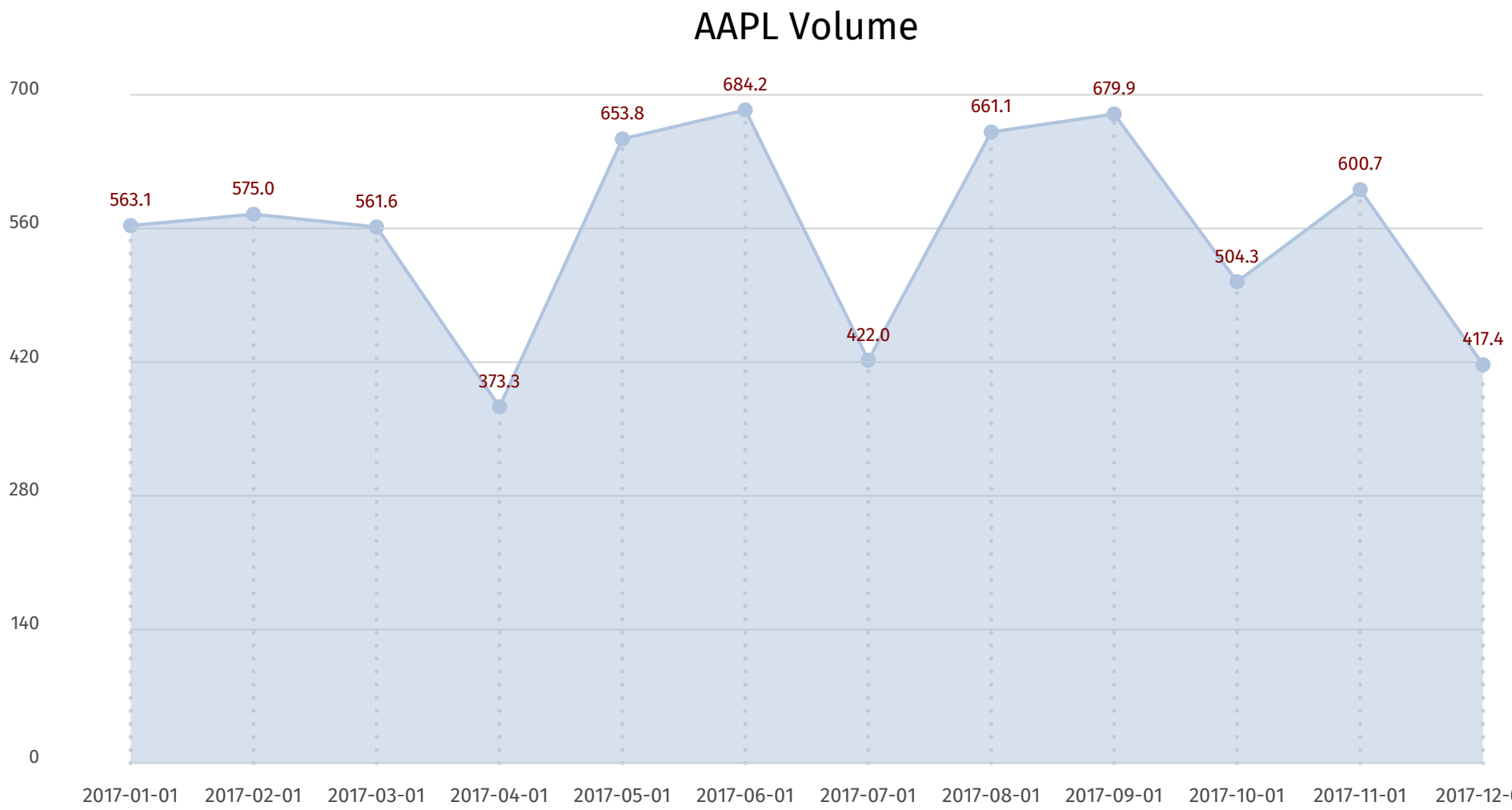
Volume, Line, Dot

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



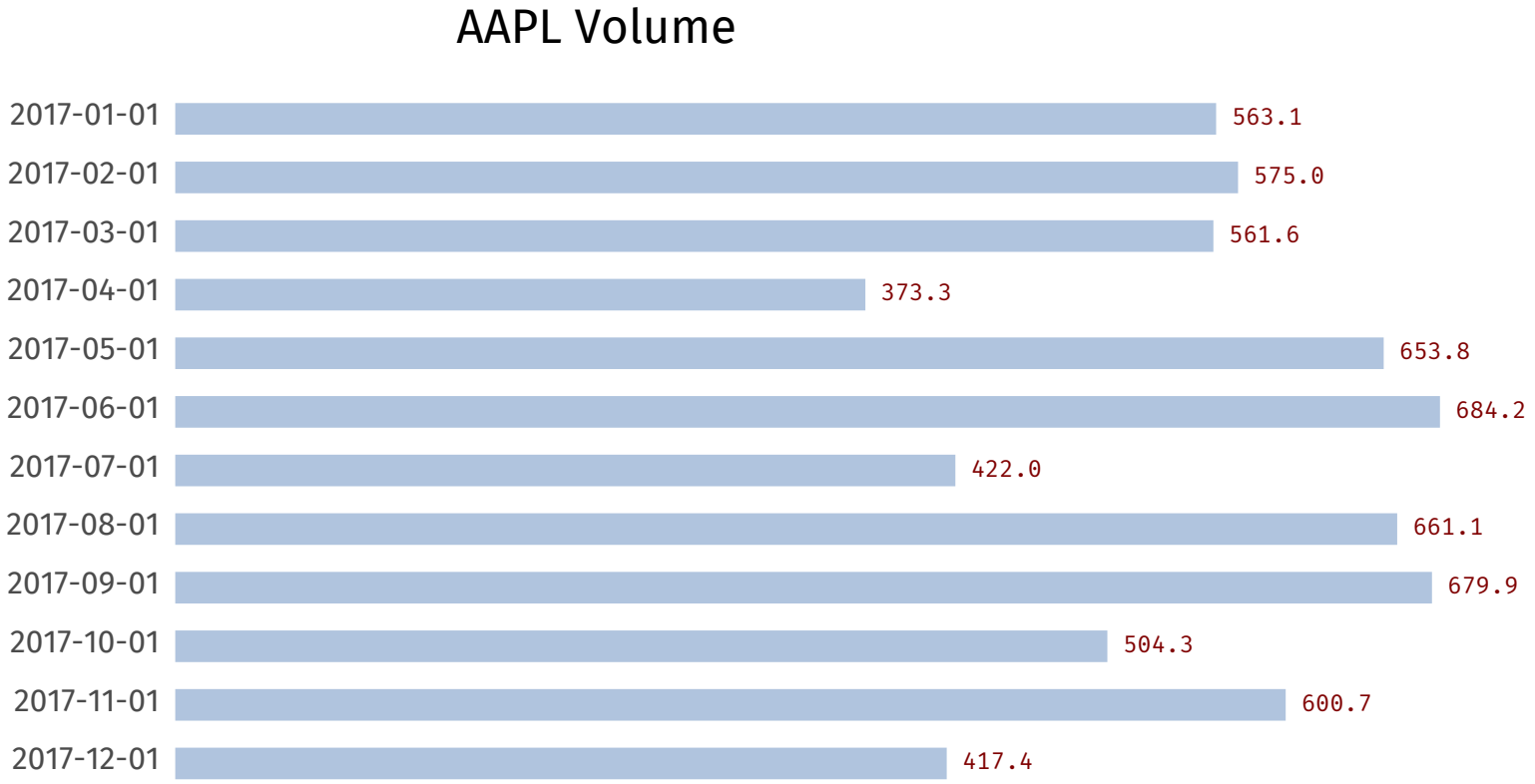
Dot, Line, Data Format

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



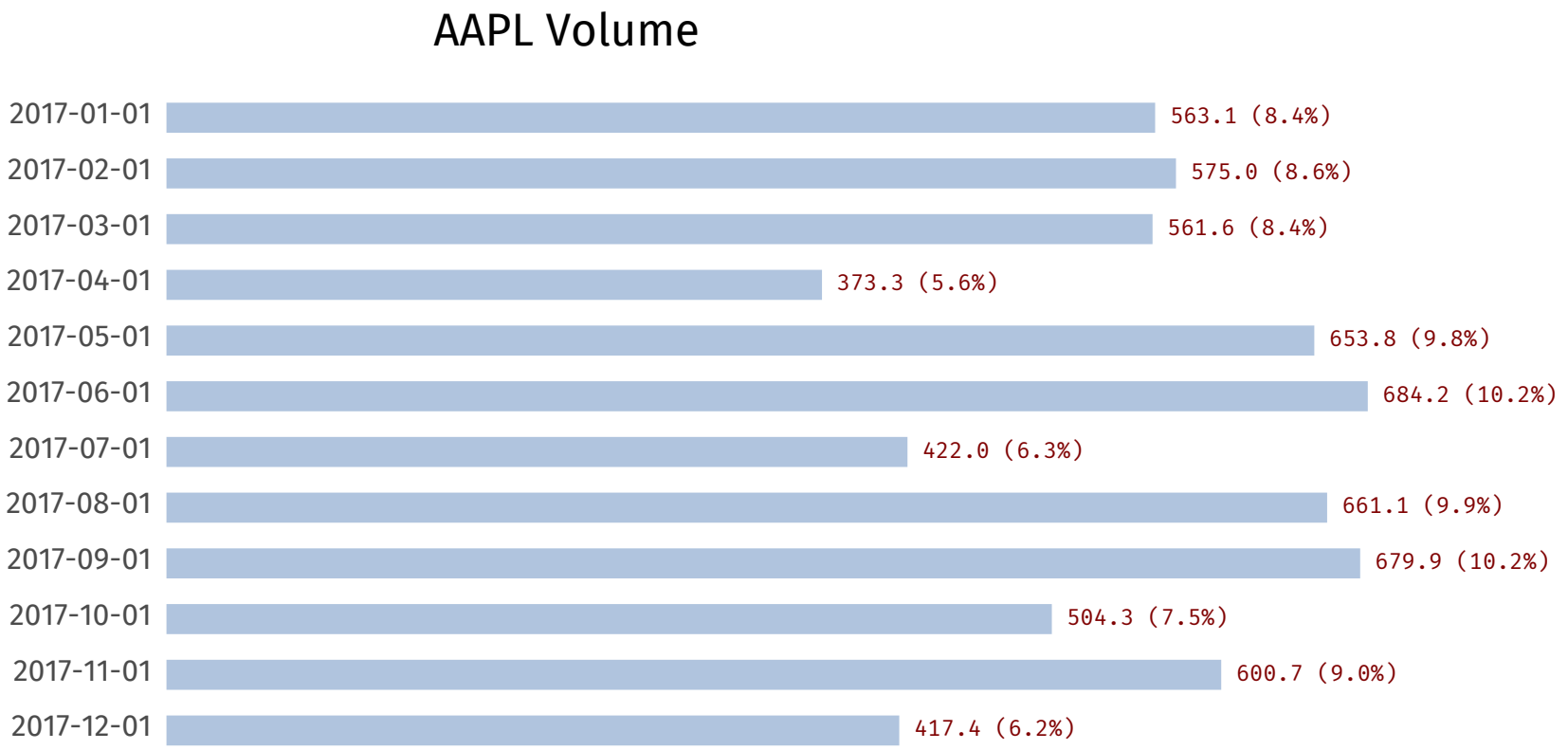
Line, Area, Dot, Y-Axis, Grid

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



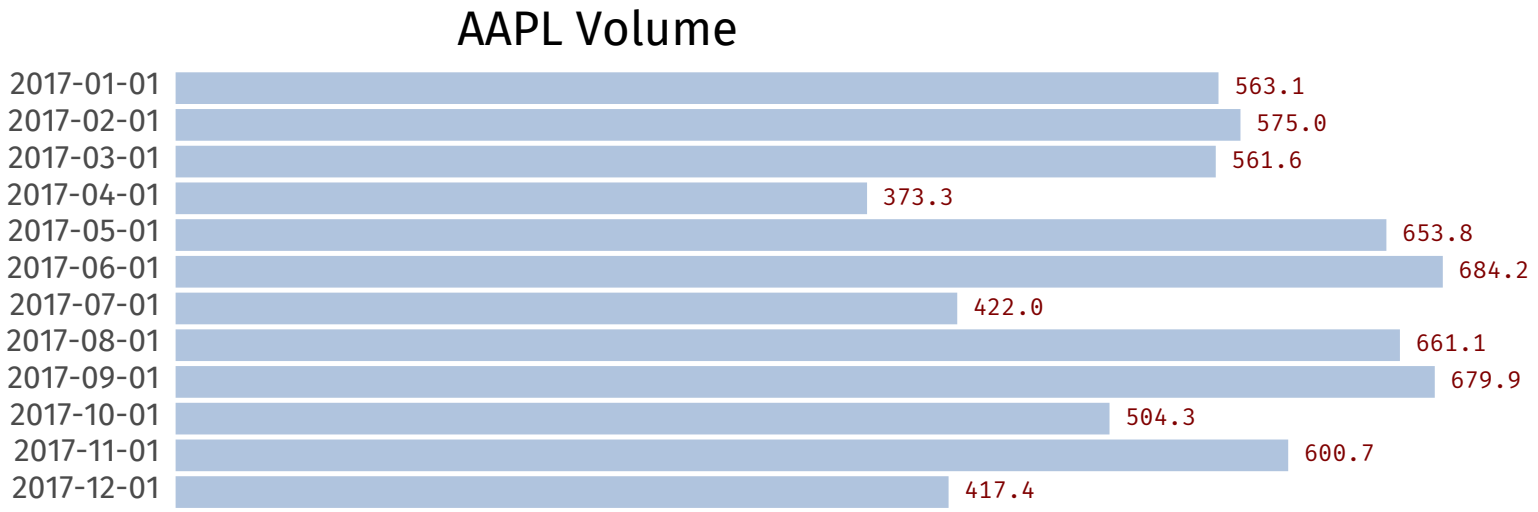
Horizontal Bar

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



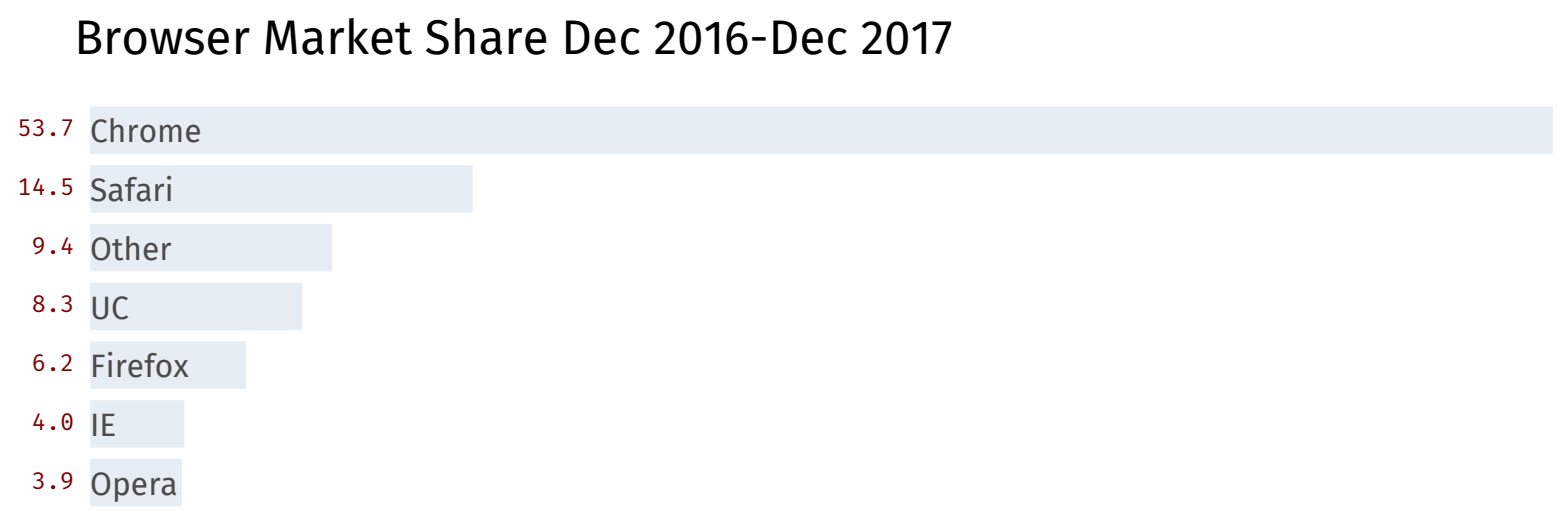
Horizontal Bar, Show Percentages

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



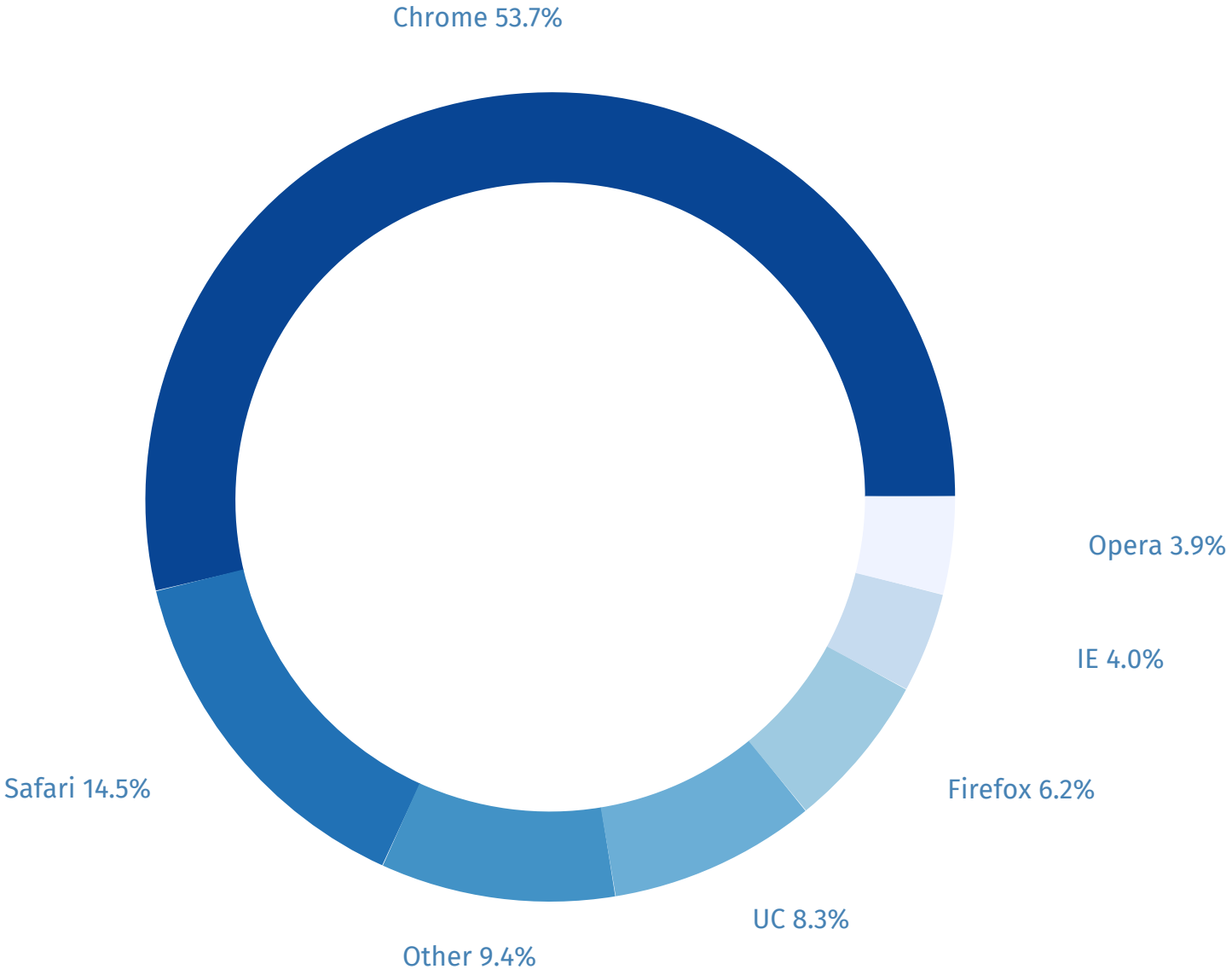
Horizontal Bar, Line Spacing

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



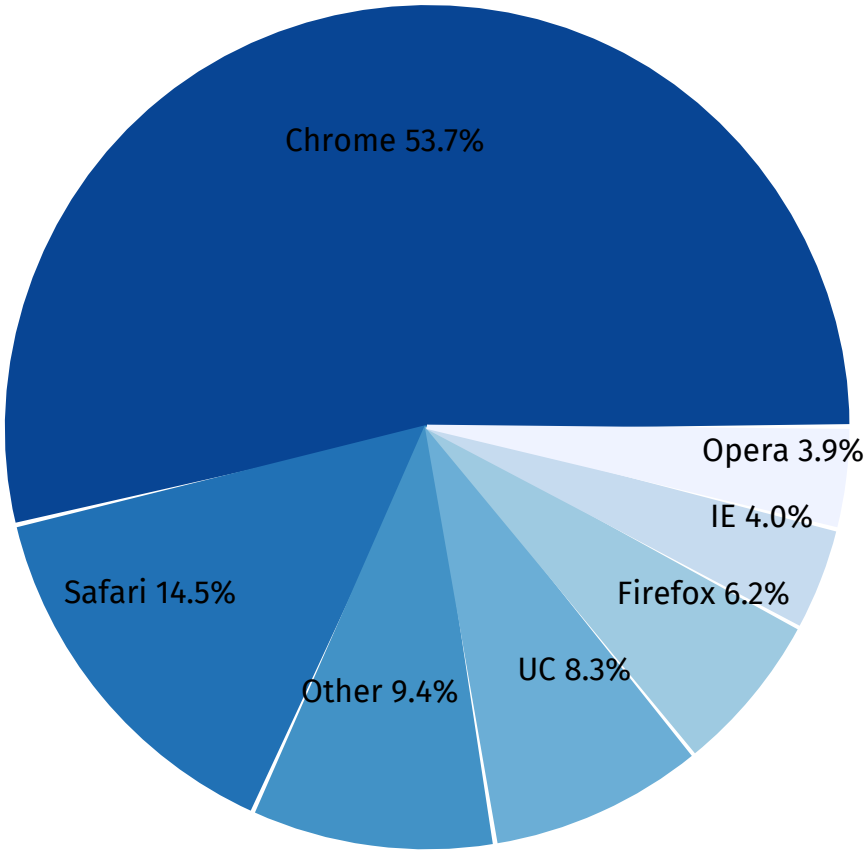
Word Bar

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



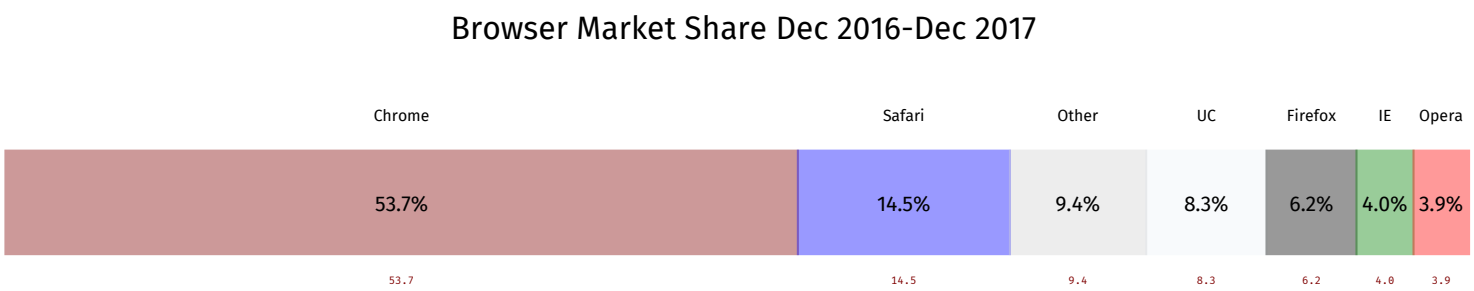
Donut

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



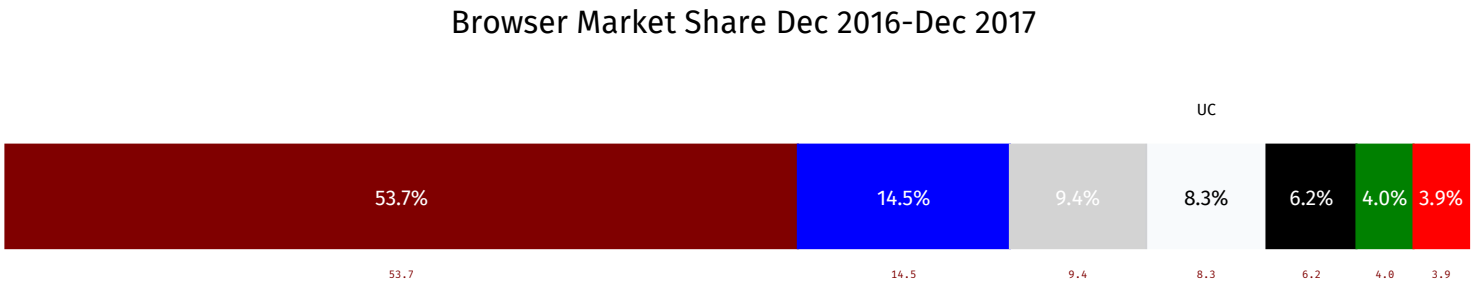
Pie

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



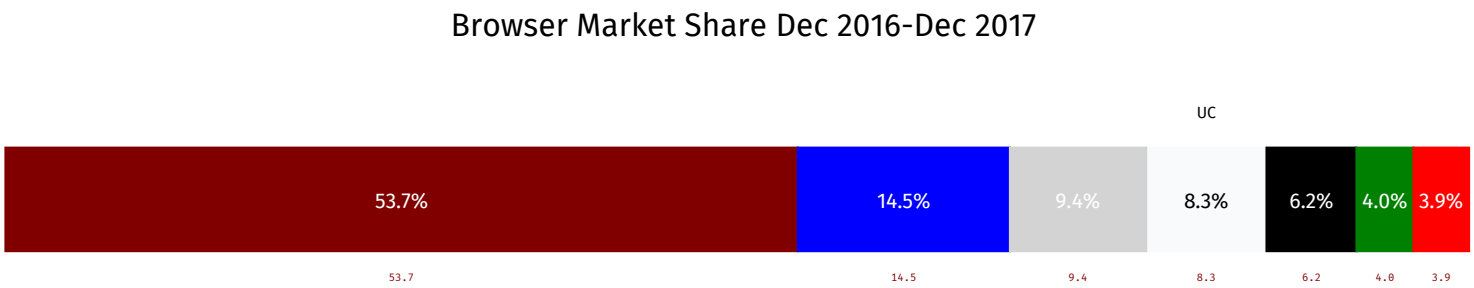
Pmap

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



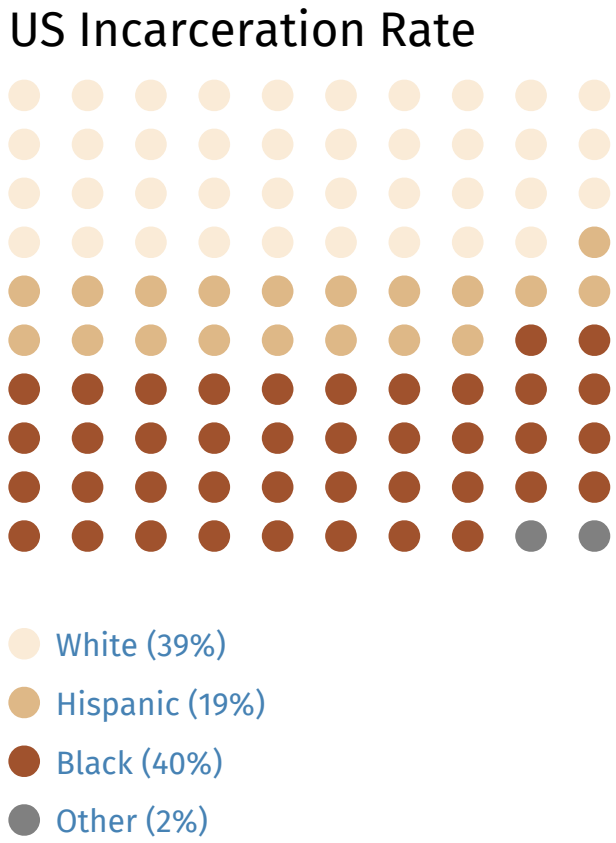
Pmap with Solid Colors

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



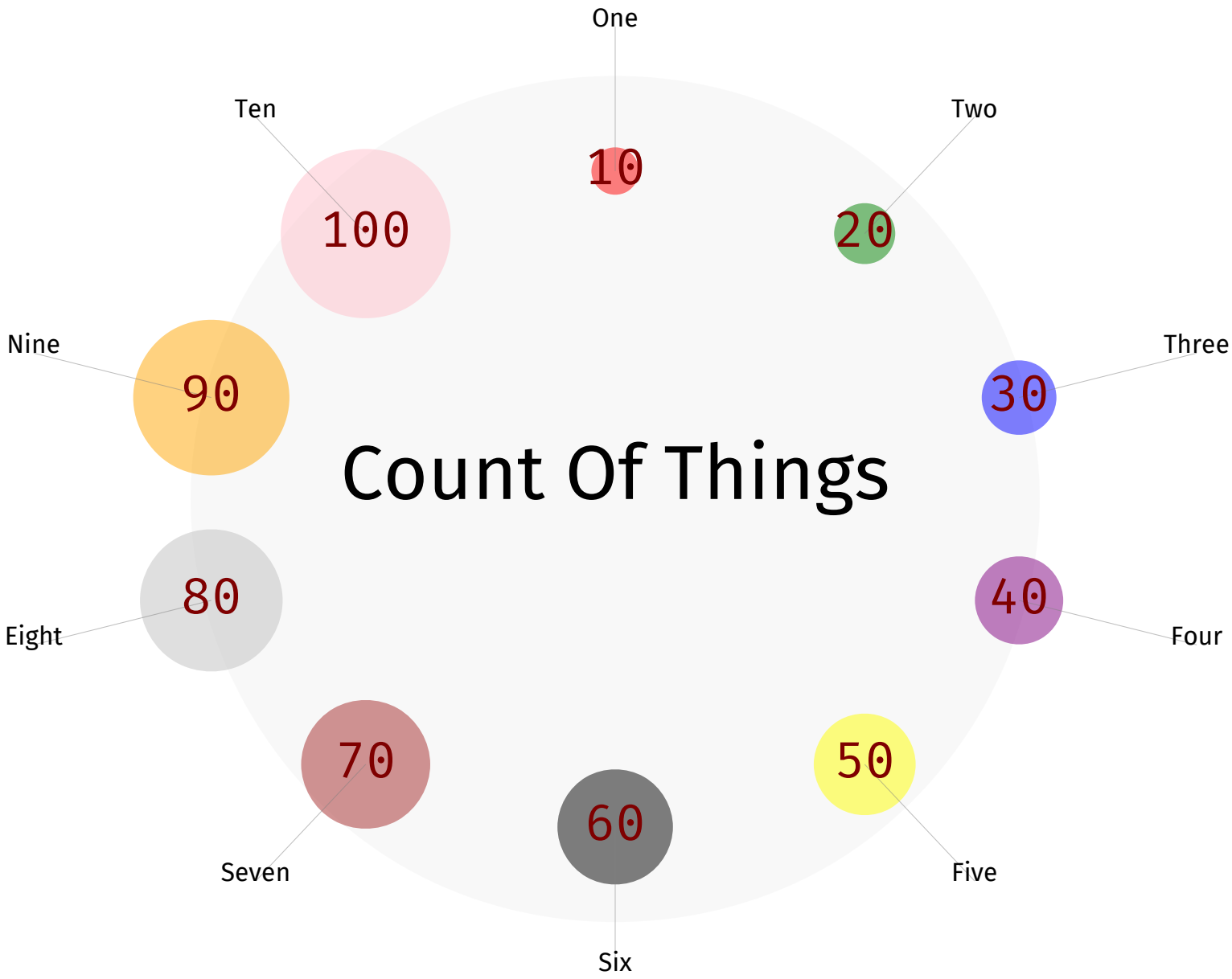
Pmap with Solid Colors, Length Threshold

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



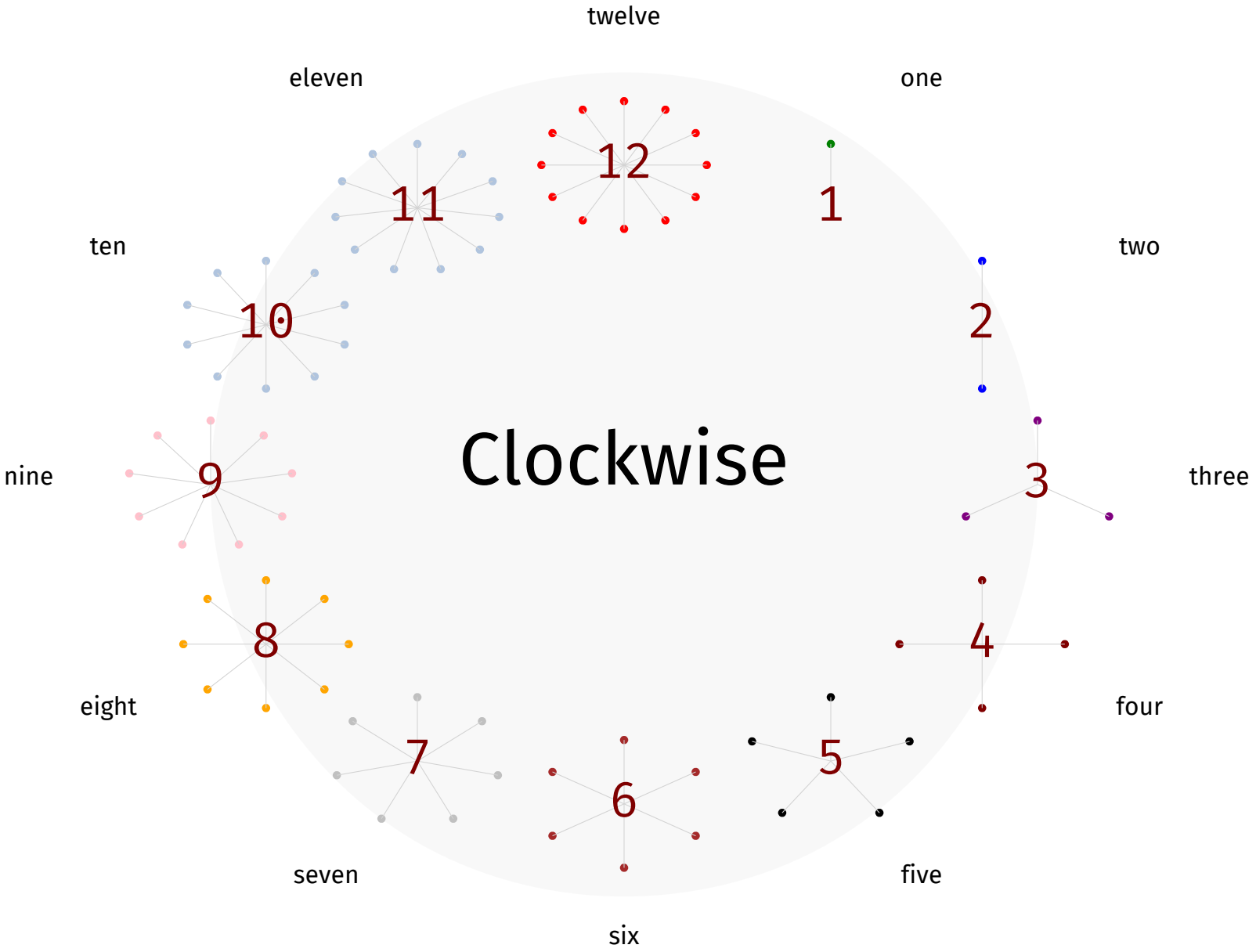
Pgrid

```
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
```

Using dchart with decksh

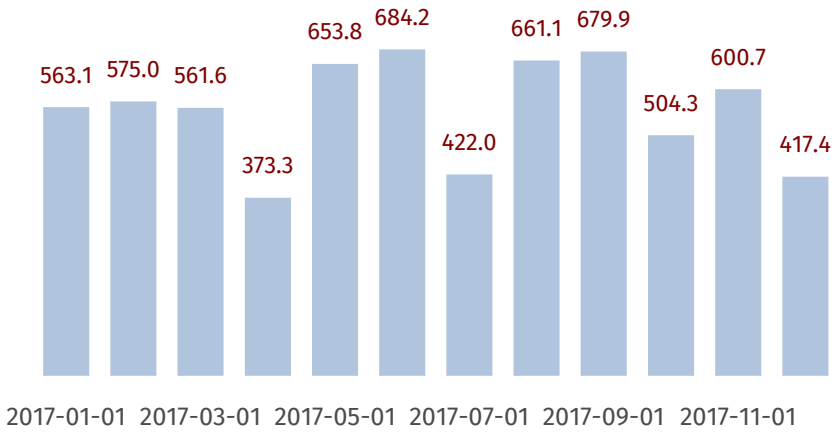


Chart #1

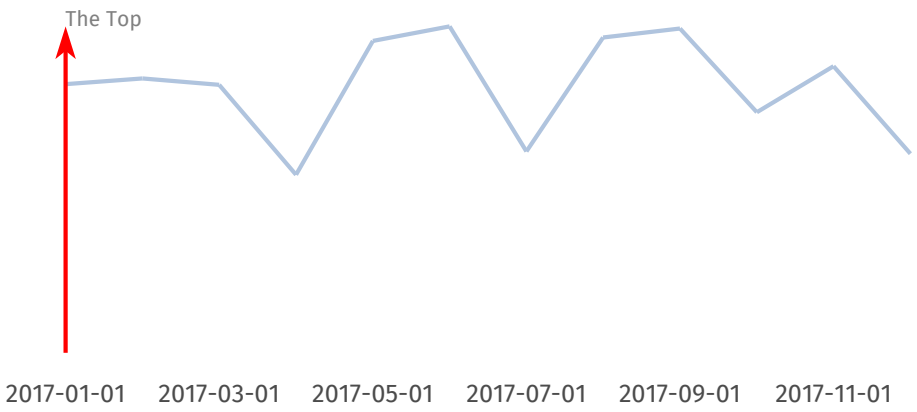


Chart #2

```
t=80        // top
b=t-20      // bottom
l1=10       // Chart 1 left
r1=l1+35    // Chart 1 right
l2=r1+10    // Chart 2 left
r2=l2+40    // Chart 2 right
ny=b-10     // note y-coordinate

opts="-fulldeck=f -xlabel=2 -title=f"
dchart opts                       -top t -bottom b -left l1 -right r1 code/AAPL.d
dchart opts -bar=f -line -val=f   -top t -bottom b -left l2 -right r2 code/AAPL.d
text "Chart #1" l1 ny 3
text "Chart #2" l2 ny 3
arrow l2 b l2 t 0.2 2 1 "red"
text "The Top" l2 t 1 "sans" "gray"
```