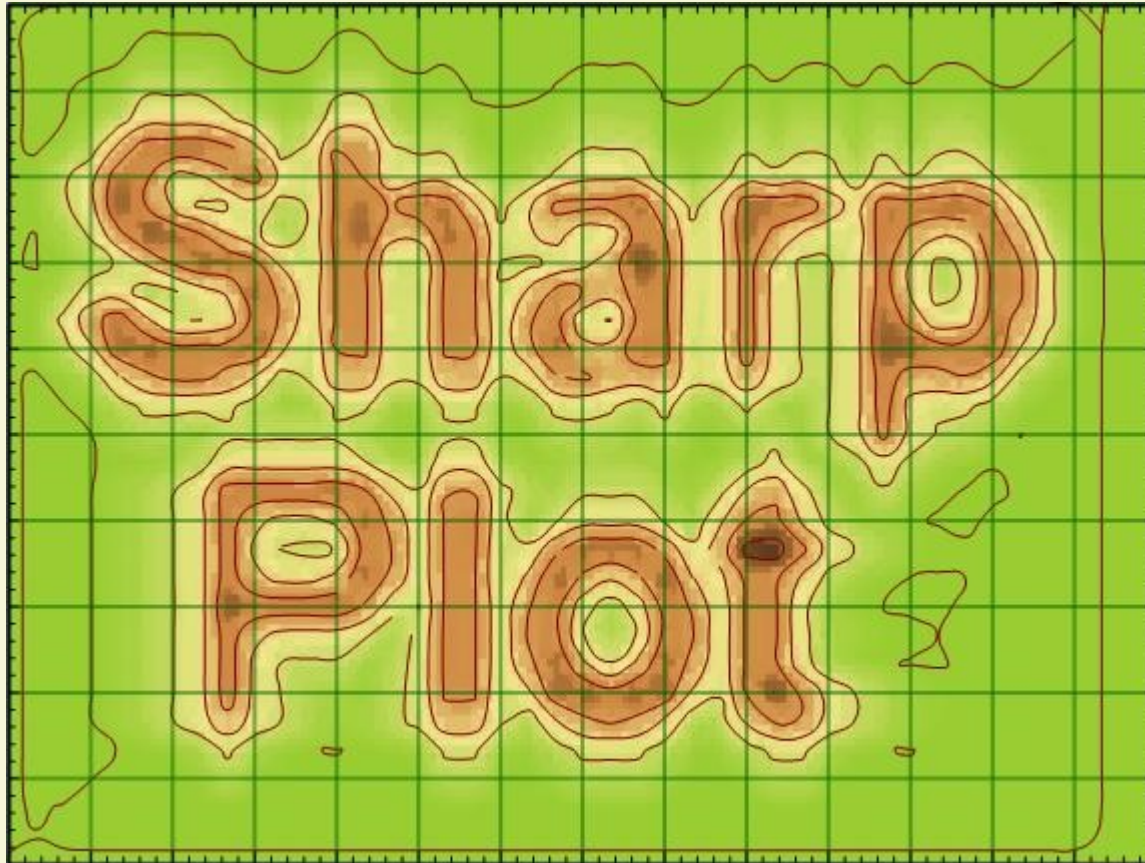


# SharpPlot

*Automated graphical representation of data*



# What is SharpPlot ?

- Charting package in APL (and .Net)
  - APL scripts generating charts from data
  - Output : Raster, Vector, Web, GUI
- Philosophy
  - Publication-quality output (PostScript)
  - Maximising data readability
  - Avoiding fashionable spurious decorations
  - Have a good set of defaults



# How to use it ?

- PostScript-oriented state machine

- Set Frame

```
⎕USING←',sharpplot.dll' ',system.drawing.dll'  
sp←⎕NEW Causeway.SharpPlot (800 600)
```

- Set Parameters

```
sp.Heading←'My Chart'  
sp.LineGraphStyle←Causeway.LineGraphStyles.GridLines
```

- Draw

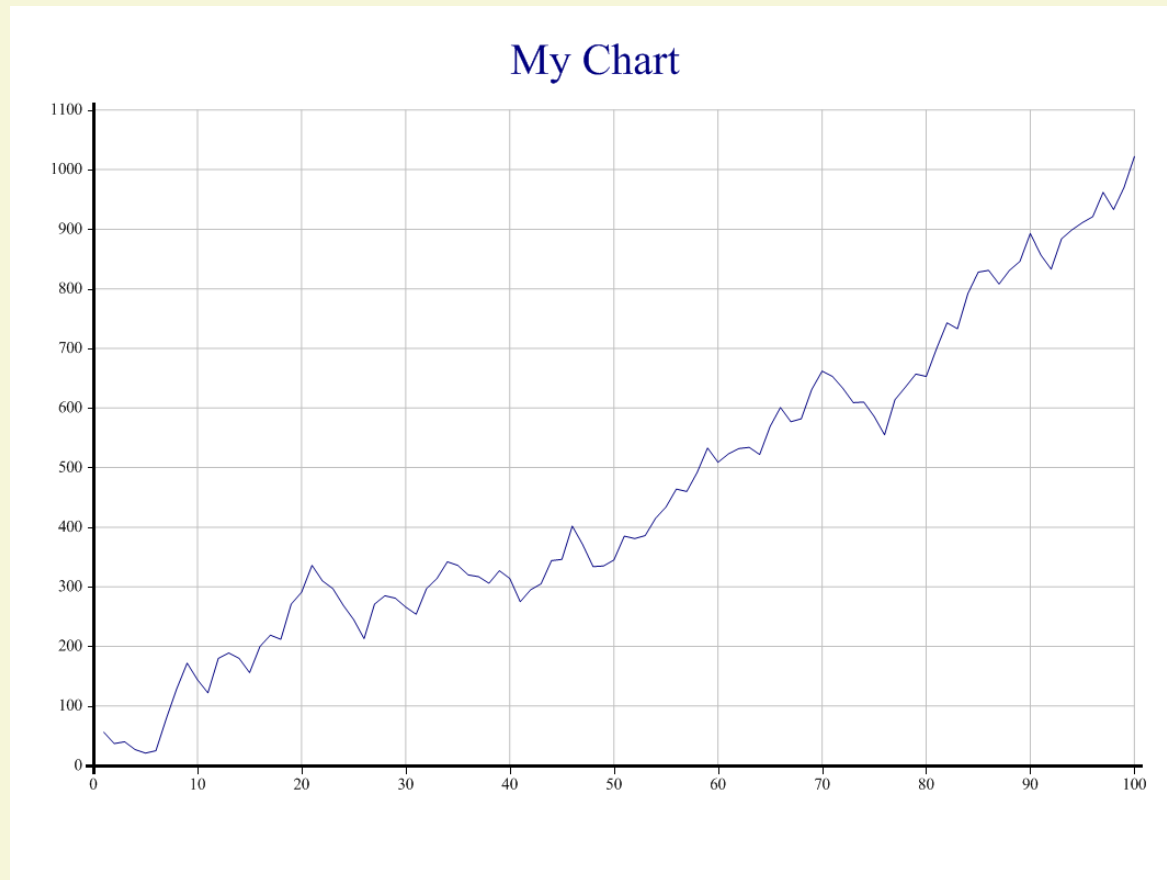
```
sp.DrawLineGraph c(+\^-40+?100p100)
```

- Output (to file or stream)

```
sp.SaveImage 'C:\mychart.png'  
System.Drawing.Imaging.ImageFormat.Png
```

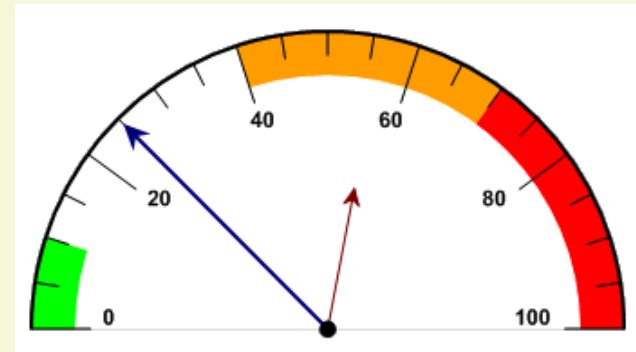
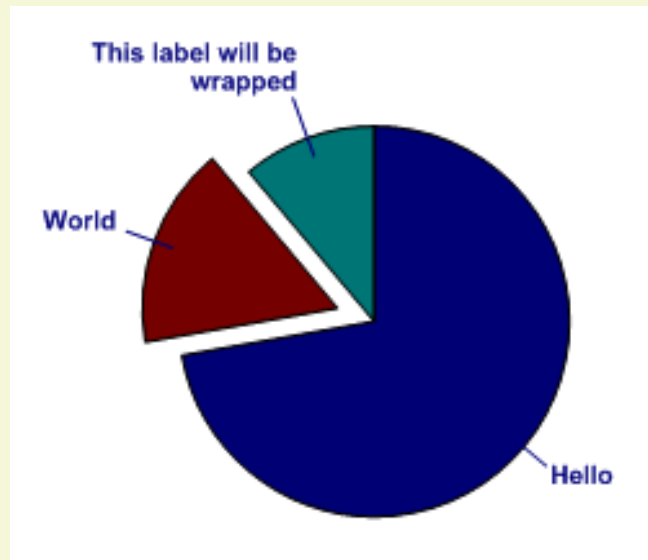


# How to use it ?



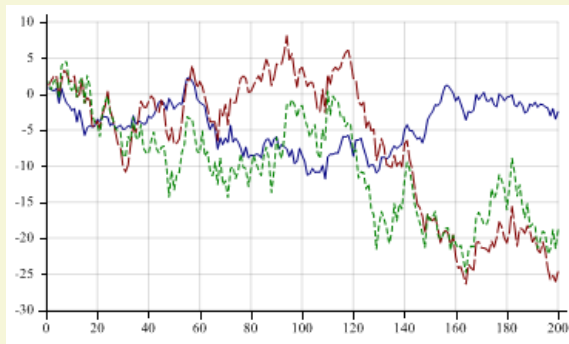
# Chart Types : 1-d

- Pie
- Dial

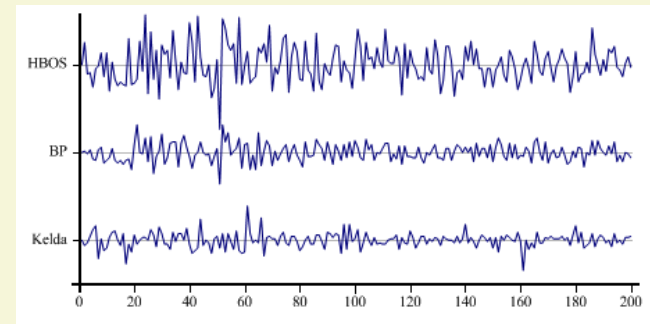


# Chart Types : 2-d

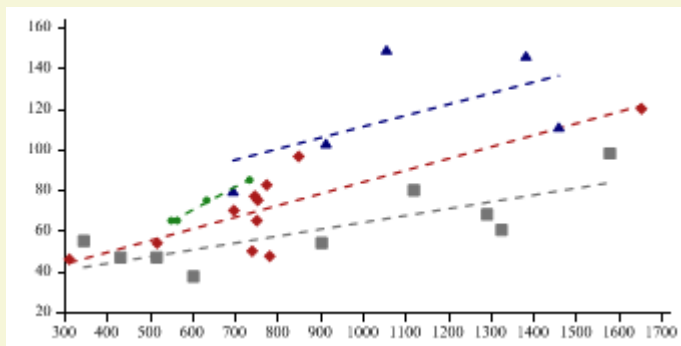
- Line



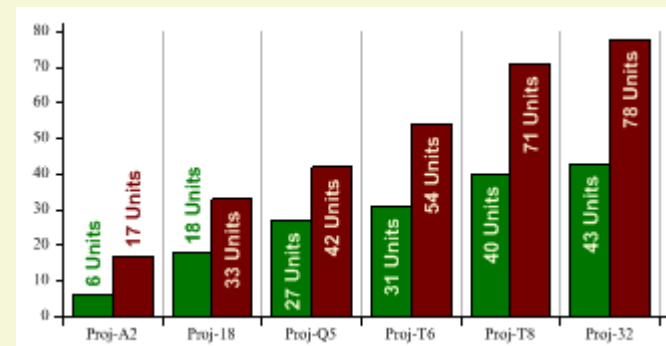
- Trace



- Scatter

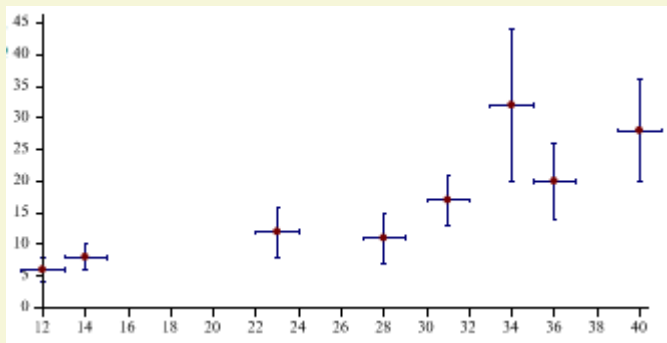


- Bar

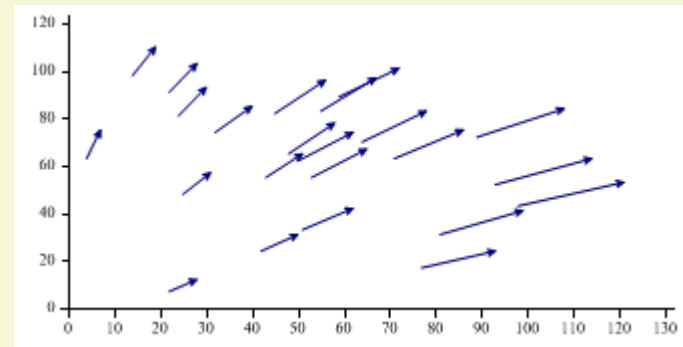


# Chart Types : Specific 2-d

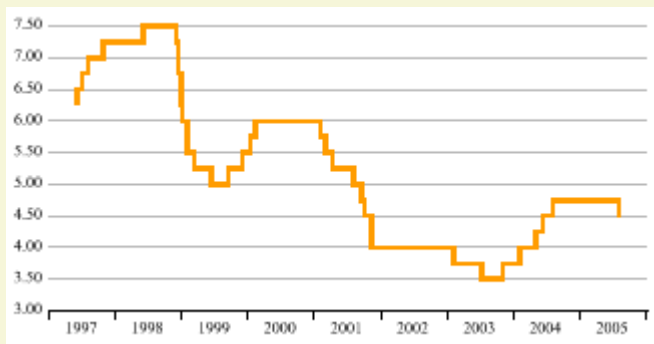
- MinMax



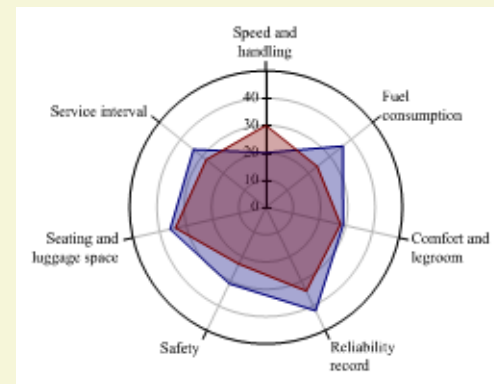
- Vectors



- Step

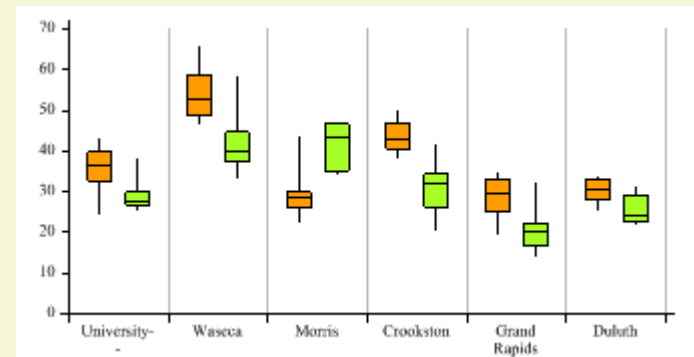
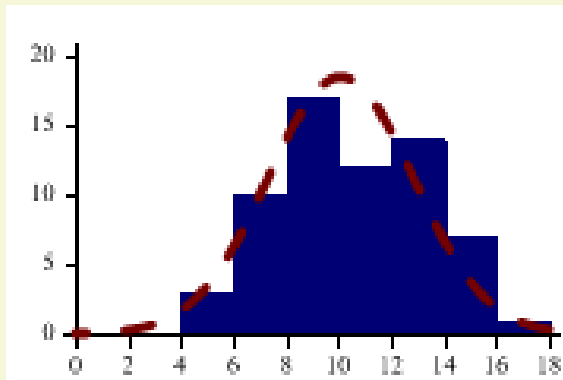


- Polar



# Chart Types : Statistical

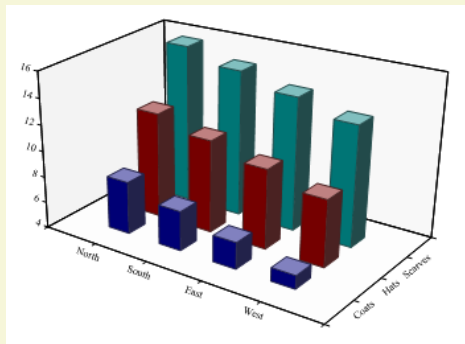
- Histogram
- Box & Whiskers



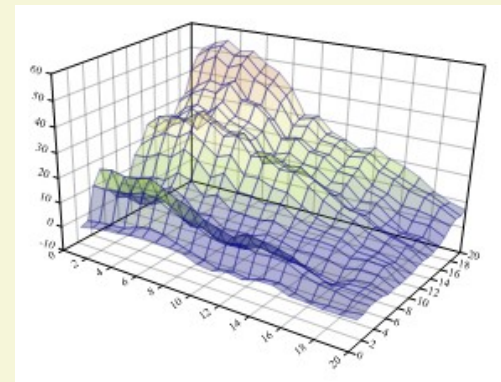


# Chart Types : 3d

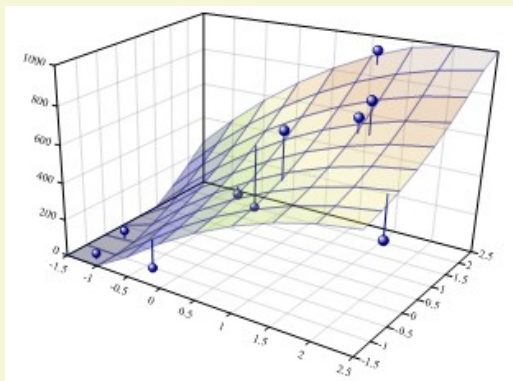
- Tower



- Response Surface

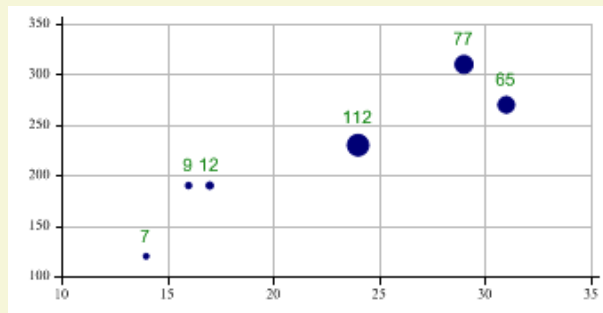


- Cloud

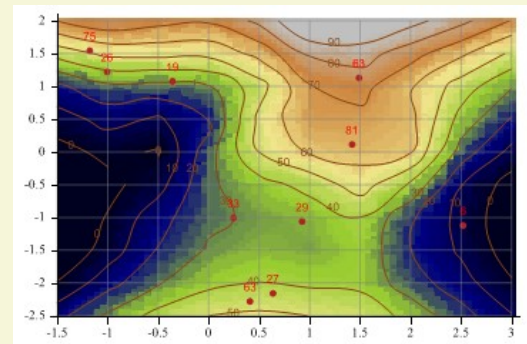


# Chart Types : Readable 3d

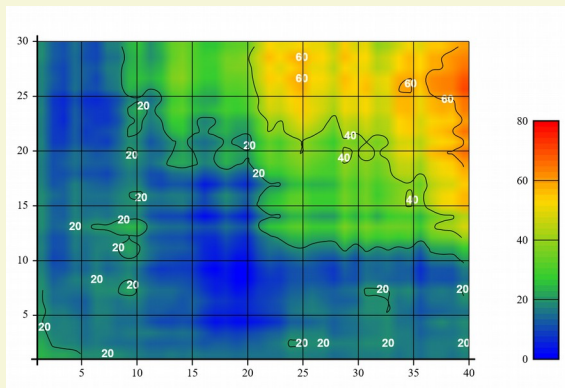
- Bubble



- Contour

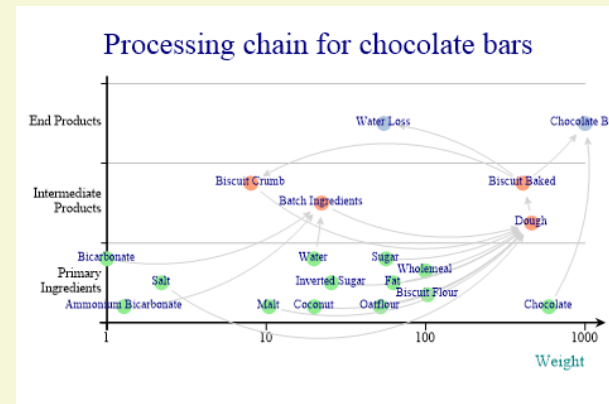
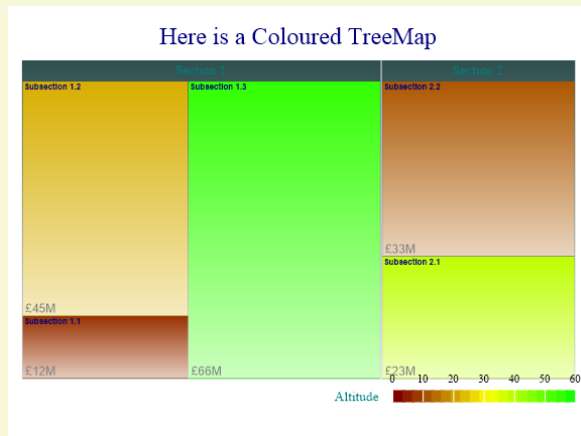


- Altitude Matrix



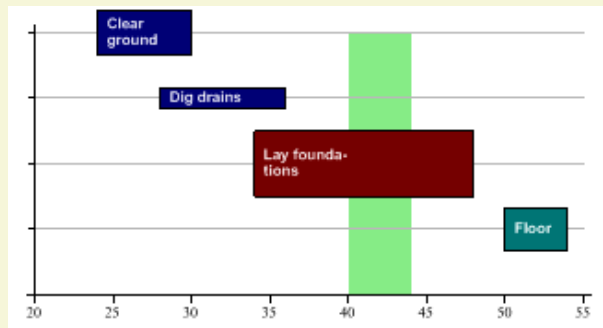
# Chart Types : Hierarchy

- TreeMap
- NetworkMap

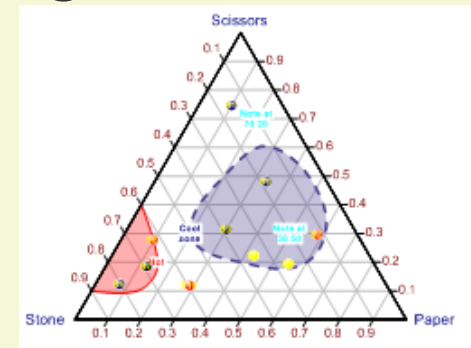


## Chart Types : Misc

- Gantt



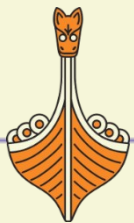
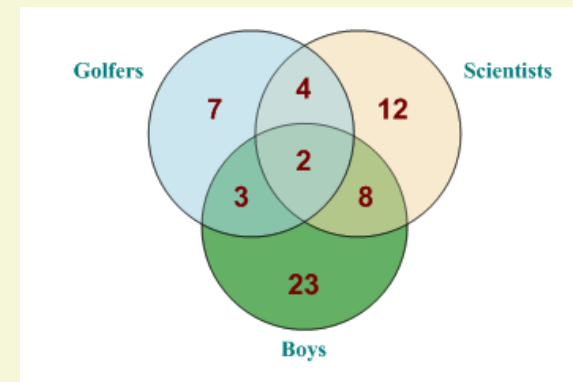
- Triangle



- Table

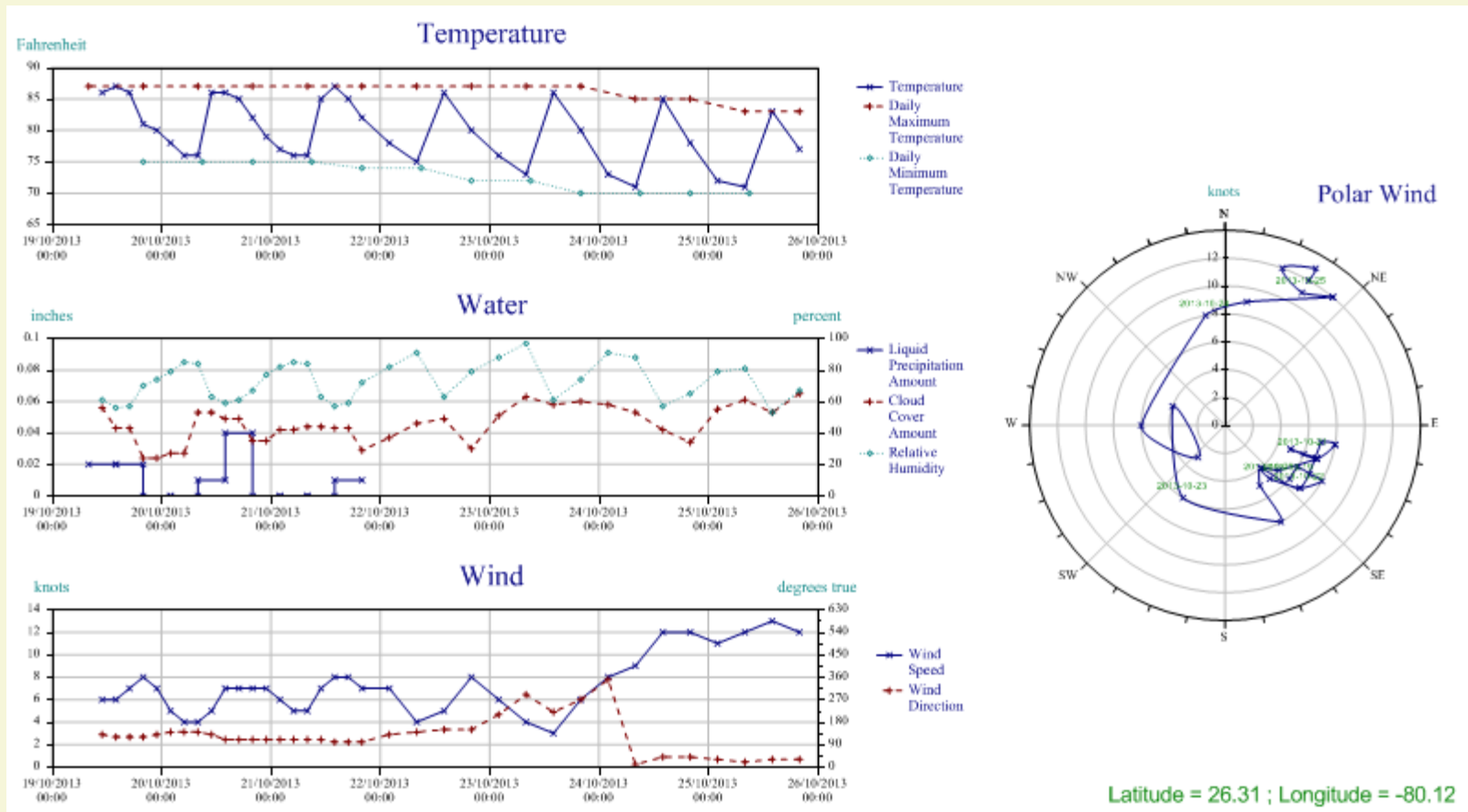
Average Yield	University-Farm	Waseca	Morris	Croukston	Grand Rapids	Duluth
Manchuria	26.96	41.17	30.90	36.45	27.56	26.77
Gilabron	39.94	48.47	31.96	32.15	21.78	27.77
Svansota	31.28	42.92	30.40	30.55	23.15	23.87
Velvet	33.36	43.82	32.48	36.70	27.63	24.38
Tiebi	32.82	56.53	45.20	44.38	25.20	32.27
No. 457	34.85	50.15	36.12	40.05	25.82	28.15
No. 462	31.09	65.24	38.69	39.55	22.42	25.30
Pearland	30.42	42.30	36.54	33.42	30.74	31.69
No. 475	27.34	64.02	33.42	38.12	17.47	30.22
Wisconsin No. 38	38.66	59.49	38.32	42.99	27.57	30.47

- Venn diagram





# Multiple Charts



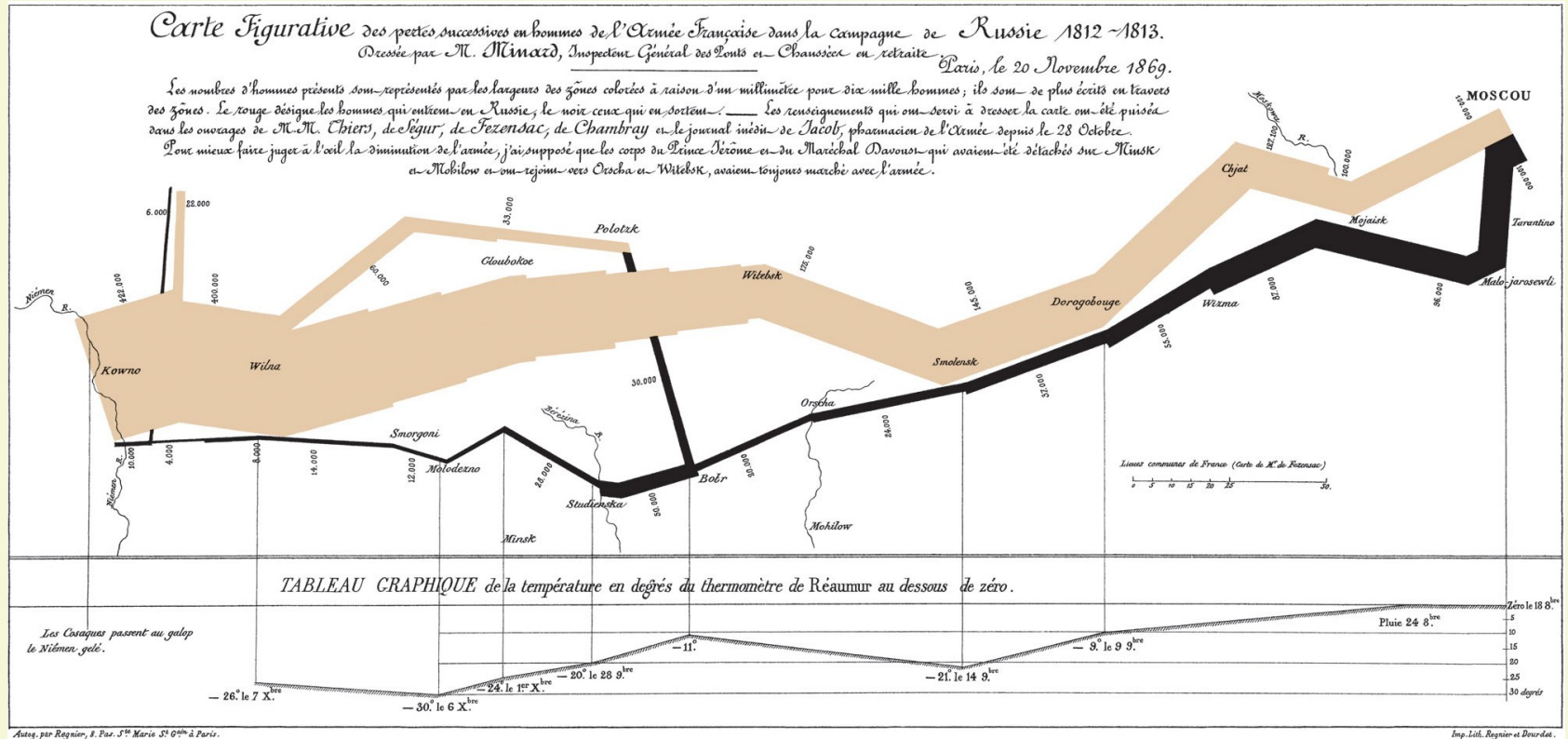
# Multiple Charts



After M. Minard's "Carte figurative des pertes successives en hommes de l'Armée Française dans la campagne de Russie 1812-1813", Paris, 1869/11/20.



# Multiple Charts





# SharpPlot

*Automated graphical representation of data*

