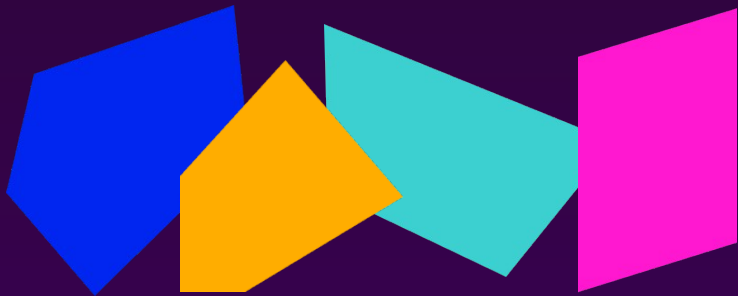


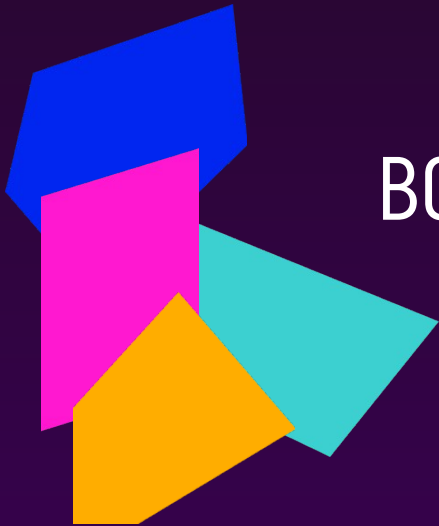


THE UNIX PHILOSOPHY



THERE IS NO UNIX PHILOSOPHY

BOTTOM-UP, NOT TOP-DOWN



THERE ARE NO UNIX SYSTEMS

BUT SEVERAL -NIX SYSTEMS



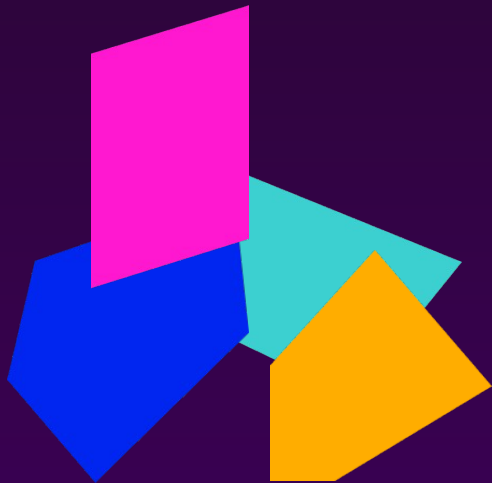
UNDERSTANDING *WHAT IS?*

IS TO UNDERSTAND *WHY IS?*



THE DANGERS OF SPECIALIZATION, OR WHY GENERAL DUMBNESS IS SMART

"Specialization is for insects"
– Robert Heinlein



A FICTITIOUS CASE STUDY

VISUALIZING WEATHER DATA



INSERTING DATA

Row Labels	Sum of Revenue	Average of Temperature
2017	9424200	46.48128714
1-Jan	19700	32.19956522
2-Jan		25.985
3-Jan		27.85608696
4-Jan		32.82565217
5-Jan		25.8275
6-Jan		20.48
7-Jan		11.67173913
8-Jan		10.76391304
9-Jan		6.334347826
10-Jan		14.44217391
11-Jan		43.53173913

Grouping ? X

Auto

☒ Starting at: 1/1/2017

☒ Ending at: 1/1/2019

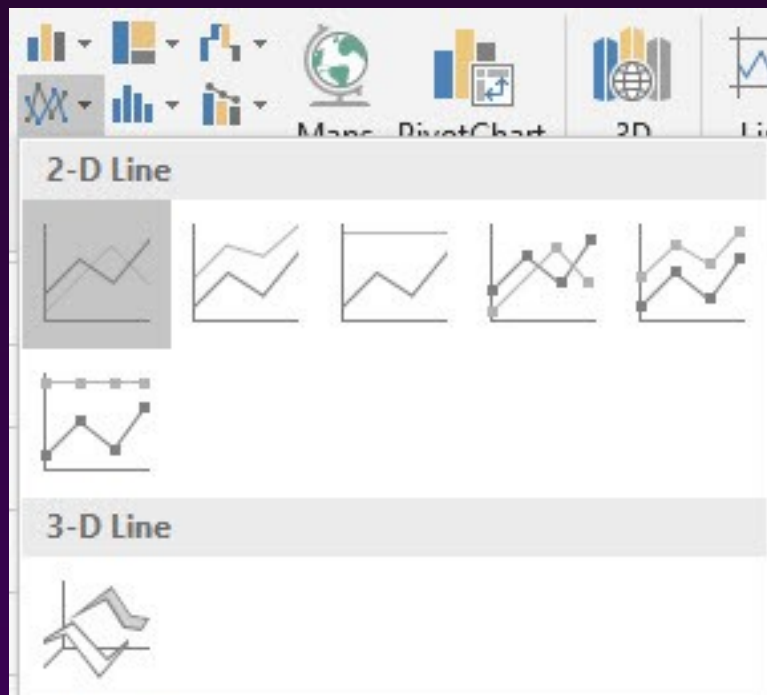
By

Seconds
Minutes
Hours
Days
Months
Quarters
Years

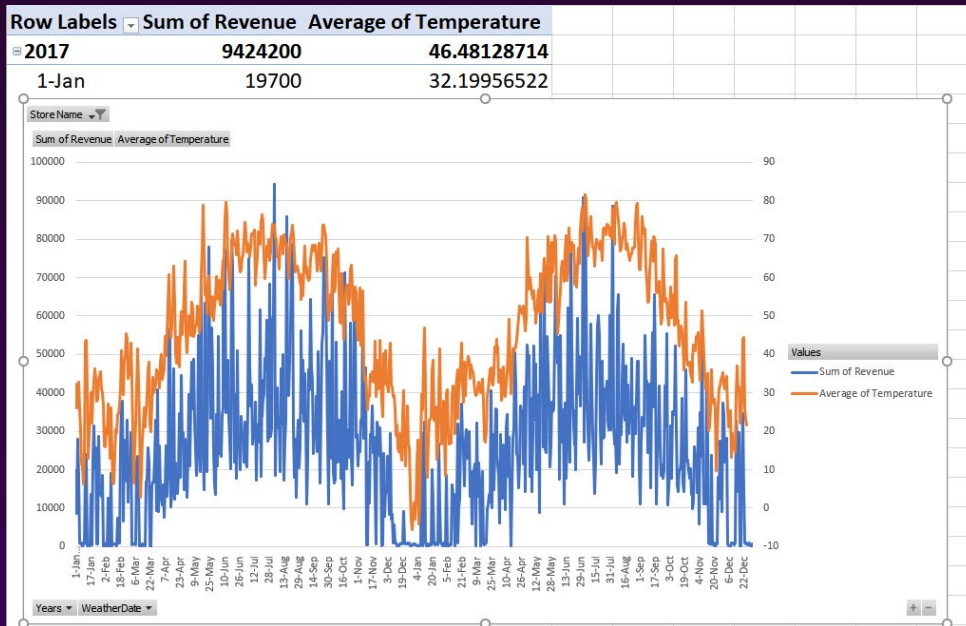
Number of days: 1

OK Cancel

TRANSFORMING DATA



VISUALIZING DATA



WHY IS SPECIALIZATION LIMITED?

KILLER FEATURES MAKES LIFE EASIER
ONLY WHEN STAYING INSIDE THE BOX.

UNDERSTANDING WHAT IS?

IS TO UNDERSTAND WHY IS?





• A SET OF BELIEFS

- MOVING PARTS OVER FIXED PARTS
 - SIMPLICITY OVER COMPLEXITY
 - OPENNESS OVER CLOSENESS
 - TRANSPARENCY OVER OPAQUENESS
 - FAMILIARITY OVER INNOVATION
 - ROBUSTNESS OVER PERFECTION
- SILENCE OVER EXCESSIVE COMMUNICATION



- A SET OF BELIEFS
 - MOVING PARTS OVER FIXED PARTS
 - SIMPLICITY OVER COMPLEXITY
 - OPENNESS OVER CLOSENESS
 - TRANSPARENCY OVER OPAQUENESS
 - FAMILIARITY OVER INNOVATION
 - ROBUSTNESS OVER PERFECTION
- SILENCE OVER EXCESSIVE COMMUNICATION

MODULARITY

```
tr -cs A-Za-z '\n' |  
tr A-Z a-z |  
sort |  
uniq -c |  
sort -rn |  
sed ${1}q
```





• A SET OF BELIEFS

- MOVING PARTS OVER FIXED PARTS
 - SIMPLICITY OVER COMPLEXITY
 - OPENNESS OVER CLOSENESS
- TRANSPARENCY OVER OPAQUENESS
- FAMILIARITY OVER INNOVATION
 - ROBUSTNESS OVER PERFECTION
- SILENCE OVER EXCESSIVE COMMUNICATION

MODULARITY, SIMPLICITY, OPENNESS



EXAMPLES

```
# move every to name-of-post.html to  
folder with same name and change to  
index.html
```

```
# new-page.sh  
#!/bin/bash  
FILE=$1  
FOLDER="${FILE%.*}"  
HTML_FILE="index.html"  
mkdir "${FOLDER}" && \  
cp "$1" "${FOLDER}/${HTML_FILE}"  
  
for f in *.html; do ./new-post.sh $f; done
```

```
# mass-change hrefs
```

```
for f in *.html; do sed -e 's!tufte.css!  
https://bergsans.net/css/tufte.css!g' $f ;  
done
```

```
# download html, and convert to markdown
```

```
curl --silent  
https://bergsans.net/essays/2020-03-14-  
fold-as-a-universal-form | pandoc --from  
html --to markdown-strict -o fold-as-a-  
universal-form.md
```



- **A SET OF BELIEFS**

- MOVING PARTS OVER FIXED PARTS
 - SIMPLICITY OVER COMPLEXITY
 - OPENNESS OVER CLOSENESS
 - **TRANSPARENCY OVER OPAQUENESS**
 - FAMILIARITY OVER INNOVATION
 - ROBUSTNESS OVER PERFECTION
- SILENCE OVER EXCESSIVE COMMUNICATION



• A SET OF BELIEFS

- MOVING PARTS OVER FIXED PARTS
 - SIMPLICITY OVER COMPLEXITY
 - OPENNESS OVER CLOSENESS
 - TRANSPARENCY OVER OPAQUENESS
 - FAMILIARITY OVER INNOVATION
 - ROBUSTNESS OVER PERFECTION
- SILENCE OVER EXCESSIVE COMMUNICATION

- **A SET OF BELIEFS**

- MOVING PARTS OVER FIXED PARTS
 - SIMPLICITY OVER COMPLEXITY
 - OPENNESS OVER CLOSENESS
 - TRANSPARENCY OVER OPAQUENESS
 - FAMILIARITY OVER INNOVATION
 - ROBUSTNESS OVER PERFECTION
- SILENCE OVER EXCESSIVE COMMUNICATION

• A SET OF BELIEFS

- MOVING PARTS OVER FIXED PARTS
 - SIMPLICITY OVER COMPLEXITY
 - OPENNESS OVER CLOSENESS
 - TRANSPARENCY OVER OPAQUENESS
 - FAMILIARITY OVER INNOVATION
 - ROBUSTNESS OVER PERFECTION
- SILENCE OVER EXCESSIVE COMMUNICATION



WHY IS UNIX LIMITED?

KILLER FEATURES MAKES LIFE EASIER
ONLY WHEN STAYING OUTSIDE THE BOX.



UNIX IS AS STRONG AS THE TOOLS AT
HAND, AND THE SKILL AND
CREATIVITY OF THE USER...

