

# Do Not Fear the Command Line

You're Smarter than It



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# Do Not Fear the Command Line

You Are Smarter Than It

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# Any Computer User You Want To Use Command Line You Are Not Sure Where to Start

Who are you?



# Not an exhaustive "How To"

## How command line apps work

## Understand *what* you can do

## A Small Taste of Salesforce DX

What to Expect





I'm using a Mac



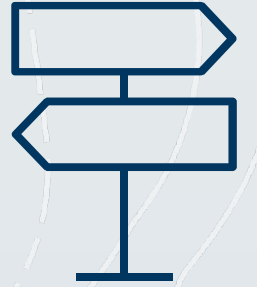
Overview of Command Lines ←

How Commands Work

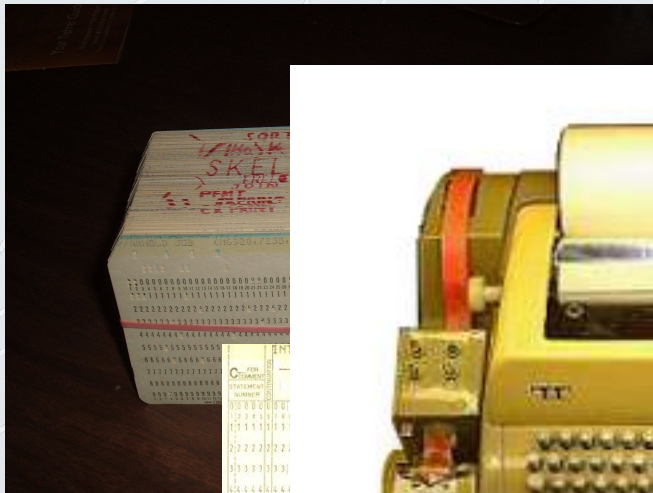
More Powerful Stuff

Salesforce CLIs

Where To Go Next (git, npm, brew, grep)



AN



```
KDF11B-BH ROM V0.9

512KB MEMORY
9 STEP MEMORY TEST
STEP 1 2 3 4 5 6 7 8 9
TOTAL MEMORY ERRORS = 0
CLOCK ENABLED

Type ? for HELP
Enter one of [Boot, Diagnose, Help, Li
TRYING UNIT DLO

BOOTING FROM DLO
#boot
New Boot, known devices are hp ht rk r
oo: rl(0,0)rl2unix
oomem = 177856
oo# Restricted rights: Use, duplicatio
is subject to restrictions stated in y
Western Electric Company, Inc.
Thu Sep 22 19:44:08 EDT 1988

login: root
Password:

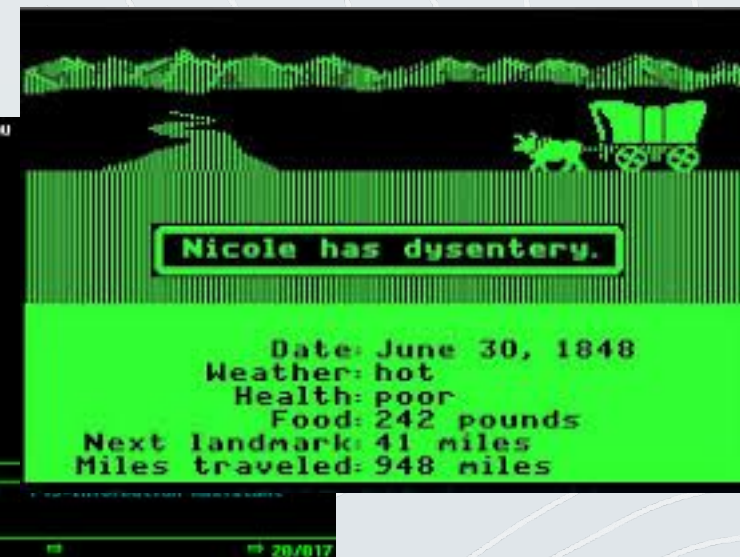
MAIN                                RS/400 Main Menu

Select one of the following:

1. User tasks
2. Office tasks
3. General system tasks
4. Files, libraries, and folders
5. Programming
6. Communications
7. Define or change the system
8. Problem handling
9. Display a menu
10. Information Assistant options
11. Client Access/400 tasks
90. Sign off

Selection or command
==> urked@ire

F3=Exit F4=Prompt F5=Retrieve F12=Cancel
F23=Set initial menu
(C) COPYRIGHT IBM CORP. 1980, 1998.
```



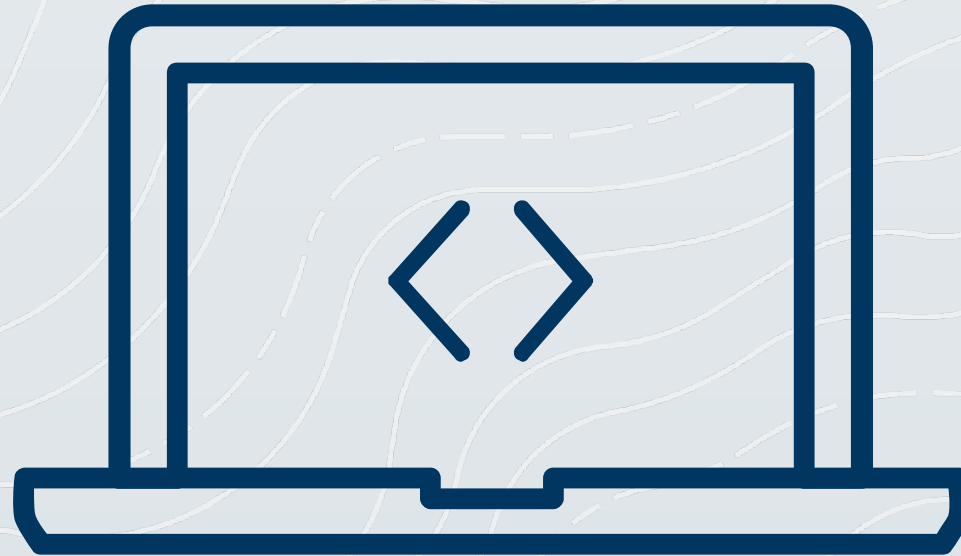
SF

## A Brief History of User Interfaces



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This is my laptop.  
There are many like it,  
but this one is mine.



# Pros

# Cons

Low Resource Usage  
Concise and Powerful  
Expert Friendly  
Automate with Scripting

Unintuitive  
Commands not Obvious  
Not Visually Rich  
Beginner Unfriendly

Pros and Cons of Command Lines



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A few obvious statements follow...



The command line is an app





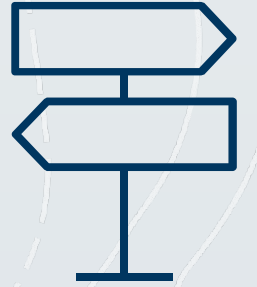
# The command line executes commands

# Commands are little apps

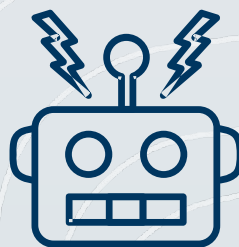
You write them instead of clicking on them.



Overview of Command Lines  
How Commands Work  
More Powerful Stuff  
Salesforce CLIs  
Where To Go Next



Input  
(STDIN,  
FILE)



Output  
(STDOUT  
)

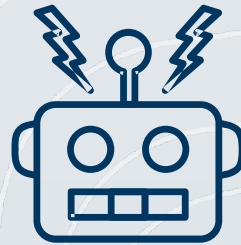
How a command works





Add something here about STDERR

Input  
(STDIN,  
FILE)



Output  
(STDOUT  
)

How a command works

0013000000rqYCC

AN

CASESAFEID()

SF

0013000000rqYCCAA2

Sound familiar?

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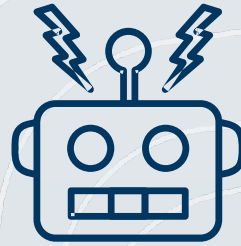
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Input

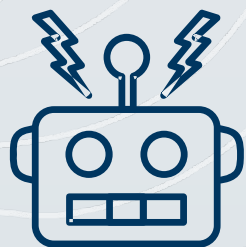


Parameters

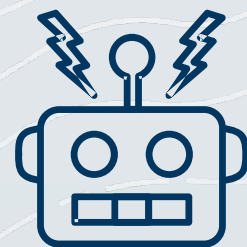


Output

There are also parameters

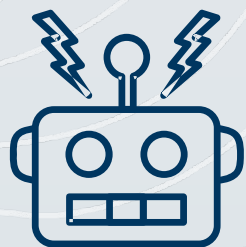


;

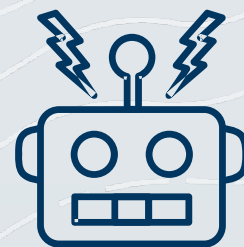


Semicolon: Do one thing ; then do another

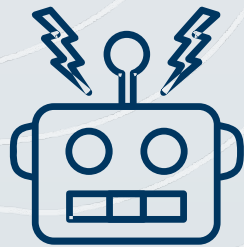




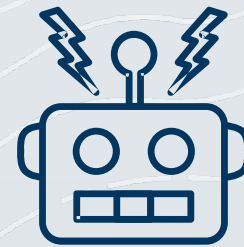
&  
&



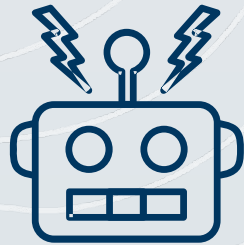
Only do the second if the first one works correctly



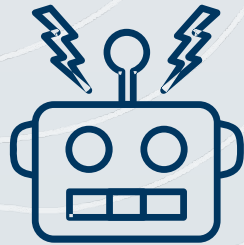
|



Pipe: Take the output from the first thing and send it to the second



Redirect: Take the output from the first thing and write to a file  
(Careful...this wipes the previous contents of the file)



Append: Take the output from the first thing and write to the end of a file



bash (Windows 10)  
cygwin  
cmd  
powershell

What if I'm using Windows?

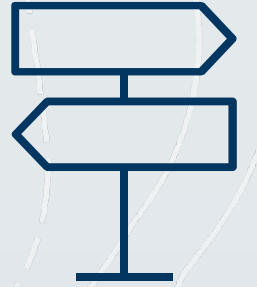


# Demo

Files, Folders, Input, Output



Overview of Command Lines  
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# alias

Create a shortcut for a more complicated command

# cat, head, tail

Meow...

Just kidding...different ways to read a file





dog

Just kidding...there is no dog...unless you make an alias called "dog"

Then dog does whatever you tell it to do...

...good dog



WC

Not the loo...  
word count  
counts stuff



# find

Look for files



# grep

Search in files  
(global regular expression print)



# sed

Modify data in a stream  
(**s**tream **e**ditor)



# awk

Basic programming language for Unix systems  
(not an acronym, and not covering today...)



# curl

Web request

(Windows has iwr)

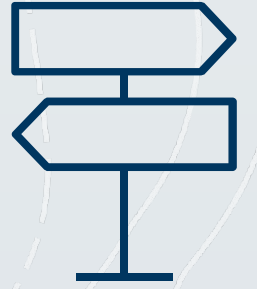


# Demo

cat, head, tail, wc, grep, sed



Overview of Command Lines  
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Where To Go Next



AN

> curl

```
https://blixtar-dev-ed.my.salesforce.com/services/data/v39.0/query?q=SELECT
+Id,Name+FROM+Account+LIMIT+1 -H 'Authorization: Bearer
00D240000000lwtW!AQ4AQMiGG9NfUIO5njwZpODWCazHSUFRgM26oIREehLfu9
GPqq1JWSTxwUfgncjdET.13_G0dPm5SobOPuj_F0.vvIU9lh44'
```

```
{"totalSize":1,"done":true,"records":[{"attributes":{"type":"Account","url":"/service
s/data/v39.0/subjects/Account/001240000050EByAAM"},"Id":"001240000050
EByAAM","Name":"DVLA"}]}
```

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The trouble with curl

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# Salesforce DX CLI

CLI for accessing Salesforce APIs

Currently in Pilot



# force-cli

Open source CLI project

To be superseded by Salesforce DX CLI



# Lightning CLI

Static Code Analysis for Lightning Components



# Heroku CLI

Formerly Heroku toolbelt

Now a part of Salesforce DX CLI



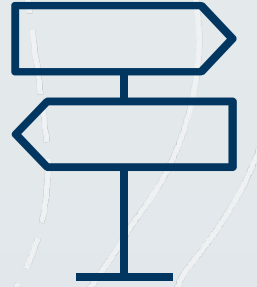
# Demo

Files, Folders, Input, Output





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# Windows is case insensitive

## Unix file permissions

### sudo versus Run As Administrator

Mac/Unix v Windows



Powershell, CMD, cygwin (Windows shells)  
Z shell (popular powerful Unix shell)  
Package managers (brew, chocolatey, npm)  
Automating (cron, shell scripts)  
Source Control (git)  
Task Runners (gulp, grunt, ...)  
awk (Unix programming language)  
REPLs (interactive mode programming)

All the other stuff



**Brief History of Command Lines**  
<http://bit.ly/brief-history-cmd-lines>

**Windows and Unix Command Line Equivalents:**  
<http://bit.ly/win2unixcmd>



My Stuff:

[slideshare.net/chittum](https://slideshare.net/chittum)

[salesforce.quip.com/rFA0Af9rhUza](https://salesforce.quip.com/rFA0Af9rhUza)







blue-  
infinity

Linked by isobar



atmiradigital

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Madrid 1st June 2017

Q & A

?

Questions?



Thank You



## Q & A

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Remember to tell us what you think in the event survey  
[www.LondonsCalling.net/survey/](http://www.LondonsCalling.net/survey/)

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[@pchittum](https://twitter.com/pchittum)



# Thank You

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