Subcontractors – find

David Morgan

find

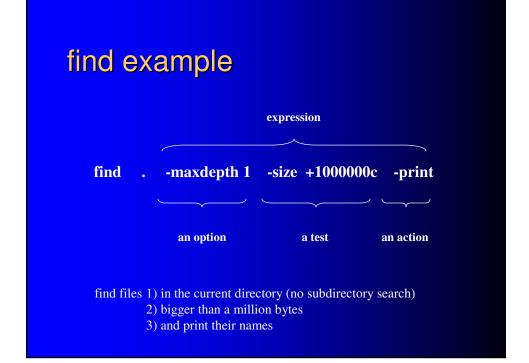
- searches for files in a directory tree
- described by an expression
- expression consists of elements
 - options
 - tests
 - actions
- each element returns boolean result
- find evaluates as many elements of its expression as needed to know expression's outcome

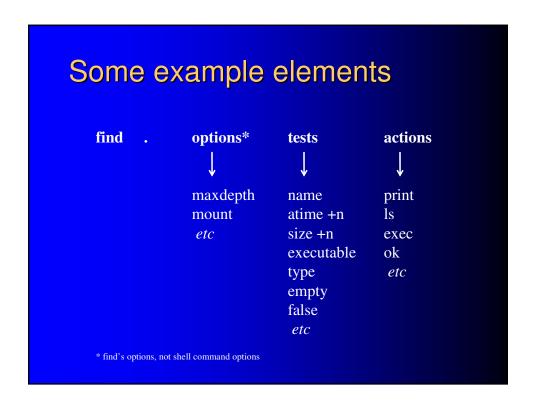
Most common use

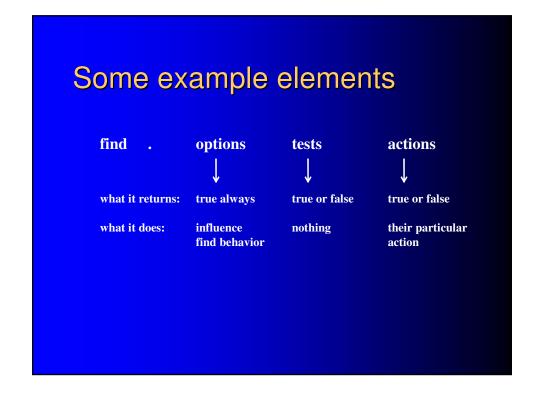
for <all files in a set of files>

if <something about the file> do <something with the file>
next

but the operation details are more complex than that







Operational logic

"[evaluates] the given expression from left to right...
until the outcome is known (the left hand side is false for
and operations, true for or), at which point find moves on
to the next file name."

- "find" man page

Operational logic

```
[root@frausto test]# ls
Afile1 Afile2 Bfile1 Bfile2
[root@frausto test]#
[root@frausto test]# find . -print
./Afile2
./Bfile1
./Bfile2
./Afile1
[root@frausto test]# find . -name "A*" -print
./Afile2
./Afile1
[root@frausto test]# find . -print -name "A*"
./Afile2
./Afile1
[root@frausto test]# find . -print -name "A*"
./Afile2
./Bfile1
./Bfile2
./Afile1
[root@frausto test]# find . -print -name "A*" evaluation
./Afile2
./Afile1
[root@frausto test]# find . -print -name "A*" -print
./Afile2
./Afile1
./Afile1
./Bfile2
./Afile1
./Bfile2
./Afile1
./Bfile1
./Bfile1
./Bfile2
./Afile1
./Bfile1
./Bfile1
./Bfile1
./Bfile1
./Bfile1
./Bfile1
./Afile1
[root@frausto test]# [root@frausto te
```

exec action — arbitrary response for qualifying files

- needs to be terminated with ;
- uses {} as placeholder for current file
- need to escape these from shell

```
a "finder" script command:
```

```
find . -type f -exec grep -1 "$1" {} \;
```

print names of all files in current directory containing a given string