

The basic `sed` by examples

CS 2XA3

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Outline

Examples

Processing cycle

Substitution

Examples

sed -e 's/oldstring/newstring/g' infile > outfile

- ▶ -e means expression
- ▶ s means substitute
- ▶ replaces **oldstring** by **newstring** in **infile**
- ▶ g means global: replaces all occurrences
- ▶ > means that the output is redirected to **outfile**

Examples

- ▶ **sed -e '1,8d' infile**
removes lines with numbers 1 to 8
- ▶ **sed -e '/include/d' infile**
removes the lines that contain **include**
- ▶ **sed -e '/^FIRST/,/^LAST/d' infile**
removes the lines between a line starting with **FIRST** and a line starting with **LAST**

^ indicates the beginning of line, \$ the end of a line

sed

- ▶ reads a line from a file into a buffer
- ▶ executes the command (or commands) on the buffer
- ▶ outputs the buffer to the standard output

Substitution

```
sed -e 's/pattern1/pattern2/'
```

```
sed -e 's/pattern1/pattern2/g'
```

pattern1 text to be replaced; can be a regular expression

Substitution

```
#!/bin/bash
echo "the first application of sed"
sed -e 's/^\[0-9]\{3\}/(\1)/' s.txt
echo "the second application of sed"
sed -e 's/^\[0-9]\{3\}/(\1\+\1)/' s.txt
echo "see the original file"
cat s.txt
```

Substitution

the first application of sed

(905)-123-3456

(905)-124-3456

(905)-125-3456

(905)-126-3456

(905)-127-3456

the second application of sed

(905+905)-123-3456

(905+905)-124-3456

(905+905)-125-3456

(905+905)-126-3456

(905+905)-127-3456

cont' on the next slide

Substitution

cont' from the previous slide

see the original file

905-123-3456

905-124-3456

905-125-3456

905-126-3456

905-127-3456