gron Greppable JSON

CONCEPTS

> gron turns every leaf of a JSON document into one line such as json.user.tags[0] = "a"; and the root is always called json. grep keeps whole paths, so you see where a value lives. Do not rely on grep and sed pipelines in scripts; use jq there.

JSON file, URL or stdin
↓ gron
Assignments json.a.b[0] = 1;
↓ grep / sed / diff
Fewer lines still valid statements
↓ gron -u
JSON again
Round trip: flatten, filter, rebuild

READING INPUT

`gron <file>`
Flatten a JSON file

`gron <url>`
Fetch a URL and flatten the body

`curl -s <url> | gron`
Flatten JSON from stdin

`gron -`
Read from stdin explicitly

`gron -s <file>`
Treat each line as its own JSON object

READING INPUT (cont.)

`gron -k <url>`
Skip TLS certificate checks for a URL

`gron -x <proxy> <url>`
Fetch a URL through a proxy

`gron --noproxy <hosts> <url>`
Hosts that bypass the proxy, comma-separated

OUTPUT CONTROL

`gron -m <file>`
Monochrome, no ANSI colours

`gron -c <file> | less -R`
Force colour through a pager

`gron --no-sort <file>`
Keep document order, faster

`gron -j <file>`
Output as a JSON stream of [path,value]

`gron --version`
Print the version

SEARCHING

`gron <file> | grep <text>`
Show paths whose line matches

`gron <file> | grep -i <text>`
Case-insensitive match

SEARCHING (cont.)

`gron <file> | grep -v <text>`
Drop lines that match

`gron <file> | grep '^json\.<key>'`
Anchor to a top-level key

`gron <file> | grep -F '[0]'`
Match a literal array index

`gron <file> | grep -E '<a>|<b>'`
Match either of two patterns

`gron <file> | grep -c '<text>'`
Count matching lines

`gron <file> | grep '= "'`
Only string leaves

`gron <file> | grep -v '= \[\];\= {};'`
Hide empty arrays and objects

REBUILDING JSON

`gron -u <file>`
Turn assignments back into JSON

`gron <file> | grep <text> | gron -u`
Keep a slice of a document as valid JSON

`gron --ungron`
Long form of -u

REBUILDING JSON (cont.)

`gron -j <file> | grep <text> | gron -j -u`
Round trip using the JSON stream form

`gron <file> | gron -v`
Print the values of the statements

`gron <file> | sed 's/^json\./json.<new>./' | gron -u`
Re-root the output under a new key

`gron <file> | sed -E 's/<a>\.//' | gron -u`
Flatten by stripping path segments

COMPARING AND EDITING

`diff <(gron <a>) <(gron <b>)`
See which paths differ between two files

`diff -u <(gron <a>) <(gron <b>)`
Unified diff of two documents

`gron <file> | sed 's/<old>/<new>/' | gron -u`
Substitute a value, then rebuild

`gron <file> | grep -v <path> | gron -u`
Delete a key

COMPARING AND EDITING (cont.)

`gron <file> | wc -l`
Count leaf values

EXIT CODES

Exit codes

Code	Meaning
0	OK
1	Failed to open file
2	Failed to read input
3	Failed to form statements
4	Failed to fetch URL
5	Failed to parse statements
6	Failed to encode JSON

RECIPES

Find a value in an unknown API

```
curl -s <url> | gron | grep -i <text>
# path found; now query it with jq
curl -s <url> | jq '.items[0].name'
```

Extract a sub-document

```
gron <file> | grep '^json.user' | gron -u > user.json
```

Diff two API responses

```
diff <(curl -s <url1> | gron) <(curl -s <url2> | gron)
```

Search JSON Lines logs

```
gron -s <log>.jsonl | grep error
# every line is numbered json[n]
```