

A Configuration File Primer



COMMON TYPES OF CONFIG FILES

- INI files
- XML
- JSON
- YAML



INI FILES (.INI, .CONF, CFG)



- Historical, informal
- example:

```
; last modified 1 April 2001 by John Doe
[owner]
name = John Doe
organization = Acme Widgets Inc.

[database]
; use IP address in case network name resolution is not working
server = 192.0.2.62
port = 143
file = "payroll.dat"
Key = Value
```

- Seen in:
 - → PHP, Git



XML

- eXtensible Markup Language
- Open standard, related to HTML
- example:

• Verbose, complex



JSON

- JavaScript Object Notation
- example:

```
"owner": {
        "name": "John Doe",
        "organization": "Acme Widgets Inc."
},
"database": {
        "server": "192.0.2.62",
        "port": 143,
        "default": true,
        "file": "payroll.dat"
}
```

• Simple type system, no comments

07461386126 – Definitely be a string, as a number would cut off the first 0



YAML

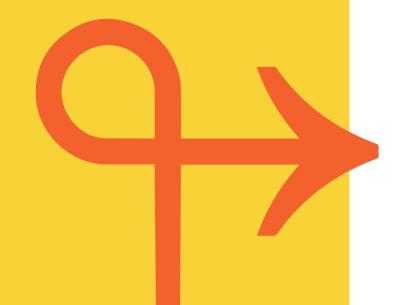
- YAML Ain't Markup Language
 - → (formerly, Yet Another Markup Language)
- Superset of JSON
- Spaces, not tabs (set number of spaces, ideally 2)
- example:

```
"owner": {
        "name": "John Doe",
        "organization": "Acme Widgets Inc."
},
"database": {
        "server": "192.0.2.62",
        "port": 143,
        "default": true,
        "file": "payroll.dat"
}
```

```
owner:
   name: John Doe
   organization: Acme Widgets Inc.
database:
   # use IP address in case network name resolution is
not working
   server: "192.0.2.62"
   port: 143
   default: true
   file: payroll.dat
```



YAML Syntax strings



While YAML allows string values to be specified without quotes, there are a few scenarios that do require quoting your strings:

• Providing a numeric value that we want interpreted as a string instead of a number.

storeNumber: "123"

Strings containing special characters (:, {, }, [,], ,, &, *, #, ?, |, -, <, >, =, !, %, @, \).

jmespath: "TextView[@text='Submit']"

• Strings containing escape sequences that need to be parsed as such.

streetAddress: "123 No Street\nPhantom City"

command: "echo 'hello'"

• When a string value behaves in ways you didn't expect, try putting it in double quotes.



YAML SYNTAX MULTILINE STRINGS

Literal style, using the | (pipe) character, which preserves end-of-line characters.

```
- script: |

ls

npm build
```

Folded style, using the > (greater than) character, which removes end of line characters.

```
- description: >
   This is a longer description which will
   conveniently be transformed by the YAML parser into
   a string with no end of line characters.
```



YAML SYNTAX -ARRAYS / LISTS



```
Two options for arrays: (List of elements) (2 space yaml)
```

```
names:
```

```
- "new text" (- as a space + 'space')
```

- "name 1"

- "name 2"

- "name 3"

Or:

```
names: ["name 1", "name 2", "name 3"]
```

An array of objects:

names

- name: Barney

age: 36

- name: Betty

age: 28