

Video Communication Server X3.0

Regular Expressions for VCS

XXXXXXXXXX

24-April-09

TANDBERG

See: productivity

See: passion

See: performance

X3.0 Features

- Why Regex?
- Basic Regex Expressions
- Regex – some to try
- Non absorbing expressions
- Exercise

Why Regex?

- Provide a concise and flexible means for *matching* and *transforming* strings
- ‘Regular Expression’ - it’s a standard
 - Google it!
- Used simply it is simple – but complex extensions also available
- Used in Unix and Linux editors, including sed
- One of techniques available in VCS for matching calls in zones

Basic Regex Expressions

- Basic expressions (Metacharacters)

- . Any single character
- \d A digit \equiv [0-9]
- * 0 or more repetitions of previous character or expression
- + 1 or more repetitions of previous character or expression
- ? 0 or 1 repetitions of previous character or expression
- {n} n repetitions of previous character or expression
- [abc] A character from this set of characters
- [1-4] A character from this range of characters
- [^def] A character NOT including these characters
- ^ Start of line
- \$ End of line
- \ Literalise, e.g. * really is *
- | 'or' – match (wxy|wyx)
- () Group digits and store in store id \n

Regex – some to try 😊

Note: Regex is a simple programming language – there can be more than one right answer!

- Add domain to E164 number
 - `(\d*)` → `\1@tandberg.com`
- Remove a domain
 - `(.*)@.+` → `\1`
- Add a prefix '01189' to a 6 digit number
 - `(\d{6})` → `01189\1`
- Reverse the order of 3 digits and put a dot between each
 - `(\d)(\d)(\d)` → `\3.\2.\1`
- Match either `123@tandberg.com` or `123@tandberg.net`
 - `123@tandberg\.(net|com)`

Non-absorbing expressions

- Non absorbing expressions – Lookbehind
 - checks characters but does not remove them from match string
 - i.e. the rest of the Regex must work, this expression will just ensure that certain characters are or are not as specified.
- (?<!chn) - three characters are not chn (VCS is not case sensitive)
 - Format name.surname.3 char country@tandberg.com
 - [^\.]+\.[^\.]+\.[a-z]{3}(?<!chn)@tandberg\.com
- (?<=chn) - three characters are chn
 - Format name.surname.3 char country@tandberg.com
 - [^\.]+\.[^\.]+\.[a-z]{3}(?<=chn)@tandberg\.com
- Or - three characters are chn
 - Format name.surname.3 char country@tandberg.com
 - [^\.]+\.[^\.]+\.[a-z]{3}chn@tandberg\.com

Non-absorbing expressions

- Non absorbing expressions – Lookahead
- `(?!chn)` - 3 characters not chn
- `(?=chn)` - 3 characters are chn
- *** same function different way of representing it ***
 - `[^\.]+\.[^\.]+\.(?!chn)[a-z]{3}@tandberg\.com`
 - `[^\.]+\.[^\.]+\.(?=chn)[a-z]{3}@tandberg\.com`
- ... from the Admin Guide ... `(?!.*@tandberg.net$).*`
 - Matches anything which does not end with `@tandberg.net`
 - Same as `.*(?!@tandberg.net$)`

Exercise

- Handling SIP and H.323 endpoints dialling one another
 - For routing use URI format, so need to convert E164 to URI
 - All destinations dialled from SIP, H323 URI or H323 E164 result in a URI
 - For local zone route URI, then e164
 - Routes to SIP or URI registered endpoint first, then to E164 registered endpoint
- What transform(s) & local zone match(es) / transform(s) are required?
- Transform
 - (\\d*) → \\1@tandberg.com
- Local zone URI
 - (.*@tandberg\\.com) → Leave
- Local zone E164
 - (.*@tandberg\\.com) → \\1

Thank you

TANDBERG

See: productivity

See: passion

See: performance

www.tandberg.com