

# Package ‘fedregs’

October 6, 2018

**Type** Package

**Title** Text Analysis of the US Code of Federal Regulations

**Version** 0.1.0

**Description** The Code of Federal Regulations (CFR) annual edition is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government of the United States of America. Simply, the 'fedregs' package facilitates word processing and sentiment analysis of the CFR using tidy principles. Note: According to the Code of Federal Regulations XML Rendition User Guide Document:

“In general, there are no restrictions on re-use of information in Code of Federal Regulations material because U.S. Government works are not subject to copyright. OFR and GPO do not restrict downstream uses of Code of Federal Regulations data, except that independent providers should be aware that only the OFR and GPO are entitled to represent that they are the providers of the official versions of the Code of Federal Regulations and related Federal Register publications.”

**License** GPL-3

**BugReports** <https://github.com/slarge/fedregs/issues>

**Encoding** UTF-8

**LazyData** true

**Depends** R (>= 3.1.0),

**Imports** dplyr (>= 0.7.4), magrittr (>= 1.5), xml2 (>= 1.2.0), purrr (>= 0.2.5), rvest (>= 0.3.2), stringi (>= 1.1.7), httr (>= 1.3.1), tidytext (>= 0.1.9)

**Suggests** ggplot2 (>= 2.2.1), tidyr (>= 0.8.0), testthat (>= 2.0.0)

**RoxygenNote** 6.0.1

**NeedsCompilation** no

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**Repository** CRAN

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cfr_part	<i>Parse the Relevant Details for CFR urls.</i>
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Description

cfr\_part returns a data\_frame year, title, volume, chapters, parts, and URL for each url

Usage

cfr\_part(url, verbose = FALSE)

Arguments

- url                    A valid url for .xml CFR volumes. Ideally, from cfr\_urls.
- verbose               logical. Will return "helpful" messages regarding the status of the URL.

Details

cfr\_part

Since we’re after more refined data than a single volume, we need to figure out what chapters and parts are associated with each volume. This function parses the xml and scrapes the Table of Contents for the information held in each volume.

Value

Numeric (year, title, volume, and chapters) and characters (parts and URL).

Examples

```
part_vec <- cfr_urls(year = 2017, title_number = 50)
cfr_part(part_vec[1])
```

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cfr\_text*Extract the Text for a Given Year, Title, Chapter, and Part*

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## Description

cfr\_text returns a tibble of CFR text

## Usage

```
cfr_text(year, title_number, chapter, part, token = "words",  
  return_tidytext = TRUE, verbose = FALSE, ...)
```

## Arguments

year	numeric between 1996 and 2017.
title_number	numeric between 1 and 50.
chapter	numeric or roman numeral.
part	numeric.
token	character. Unit for tokenizing. Currently
return_tidytext	logical. TRUE = tidytext, FALSE = raw data
verbose	logical. Will return "helpful" messages regarding the status of the URL.
...	Extra arguments passed on to tokenizers, such as n and k for "ngrams" and "skip_ngrams"

## Details

cfr\_text

This function is the main function of the fedregs package. It takes the title, chapter, part, and year and returns a tibble of raw text (return\_tidytext = FALSE) or **tidytext** text (return\_tidytext = TRUE). N.b., it has not been extensively tested on titles and chapters other than Title 50 chapter VI and part 648.

## Value

a tibble with year, title\_number, chapter, part, and text nested by subpart

## Examples

```
regs <- cfr_text(year = 2017,  
  title_number = 50,  
  chapter = 6,  
  part = 648,  
  return_tidytext = TRUE,  
  verbose = TRUE)  
head(regs)
```

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cfr_urls	<i>URLs for .xml Code of Federal Regulations.</i>
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### Description

cfr\_urls returns a character string of valid URLs associated with a year and CFR title.

### Usage

```
cfr_urls(year, title_number, check_url = TRUE, verbose = FALSE)
```

### Arguments

year	numeric (YYYY) between 1996 and 2017.
title_number	numeric between 1 and 50.
check_url	logical. Should the URLs be tested using <code>httr::http_error()</code> .
verbose	logical. Will return "helpful" messages regarding the status of the URL.

### Details

cfr\_urls

The Code of Federal Regulations (CFR) is divided into titles, chapters, parts, subparts, and sections. Each title within the CFR is divided into volumes. Unfortunately, each chapter isn't consistently in the same volume so cfr\_urls function scrapes up all the valid URLs for a given title/year combination.

### Value

Valid URLs are returned as a vector of character strings. Invalid URLs are returned as 'NA's.

### Examples

```
library(dplyr)
url_list <- expand_grid(years = 2015:2017,
  title = 50,
  KEEP.OUT.ATTRS = FALSE,
  stringsAsFactors = FALSE) %>%
  mutate(url = purrr::map2(years, title, cfr_urls, check_url = TRUE))
head(url_list)
```

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fedregs	<i>fedregs package</i>
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### Description

Text Analysis of the US Code of Federal Regulations

### Details

See the README on [GitHub](#)

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