# ACRO

### v1.5 2013/12/18

#### **Typeset Acronyms**

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ACRO not only allows you to create acronyms in a simple way but also lets you add them to different classes of acronyms. Lists can be created of separate classes wherever you want the list to appear.

ACRO also provides an option single which ignores acronyms that are used only once in the whole document.

As an experimental feature ACRO also offers the option sort which automatically sorts the list created by \printacronyms.

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### 1. Licence and Requirements

Permission is granted to copy, distribute and/or modify this software under the terms of the LATEX Project Public License (LPPL), version 1.3 or later (http://www.latex-project.org/lppl.txt). The software has the status "maintained."

ACRO loads and needs the following packages: expl3,<sup>1</sup> xparse, xtemplate, l3keys2e,<sup>2</sup> zrefabspage<sup>3</sup> and translations<sup>4</sup> [Nie13].

#### 2. About

Acronyms and initialisms are abbreviations formed from the initial components in a phrase or a word. These components may be individual letters (as in CEO) or parts of words (as in Benelux and Ameslan). There is no universal agreement on the precise definition of the various terms nor on written usage.

[Wik12a]

After Wikipedia told us what acronyms are and we won't confuse them with units or other kinds of abbreviations – why would we need another package for them? There are several already: acronym [Oet12], acromake [Tho95], acroterm [Vos10], the abbreviations package abbrevs [Swi01] (the current version 1.4 has a bug, 5 though), the nomenclature package nomencl [Vey+05], and of course the mighty glossaries [Tal13]. So there is really no *need* for a new package.

On the other hand acronym, the best of the acronym specific packages, has one or two shortcomings and sometimes using glossaries seems a bit of an overkill (or simply inconvenient as one has to run makeglossaries, makeindex or xindy, then<sup>6</sup>). So ACRO stands somewhere in between (but closer to acronym).

The main reason for the existance of ACRO is a question on TeX.sx<sup>7</sup> which intrigued me and in consequence led to ACRO and it's option single.

ACRO has many similarities with the acronym package. In fact, quite some macros have the same name and meaning.<sup>8</sup>

Please take a minute to think and decide which package will suit your needs best. Are you planning to add a glossary to your book? You should probably go with glossaries, then. Are you planning to add a nomenclature? You may want to choose nomencl (or again: glossaries) and so on. ACRO does a good job for lists of abbreviations.

<sup>1.</sup> on CTAN as l3kernel: http://mirrors.ctan.org/macros/latex/contrib/l3kernel/

<sup>2.</sup> on CTAN as l3packages: http://mirrors.ctan.org/macros/latex/contrib/l3packages/

<sup>3.</sup> on CTAN as oberdiek: http://mirrors.ctan.org/macros/latex/contrib/oberdiek/

<sup>4.</sup> on CTAN as translations: http://mirrors.ctan.org/macros/latex/contrib/translations/

<sup>5.</sup> see http://tex.stackexchange.com/q/59840/5049 for solutions.

<sup>6.</sup> Rumour has it there is going to be a version that can be used without running an external program

<sup>7.</sup> http://tex.stackexchange.com/q/59449/5049

<sup>8.</sup> *Not* in the sense of \meaning!

### 3. Updating from Version o.\*

Version 1.0 introduces a major syntax change. In order to keep documents using a prior version compilable ACRO introduces the option version = {0}. It provides the acronym defining commands with the old syntax and also all the additional commands like \DeclareAcronymFormat that have been dropped in version 1.0. Also the old syntax of \printacronyms is restored. Versions 0.\* also set labels when an acronym was used the first time, version 1.0 doesn't do that any more. version = {0} sets them as expected.

Note that  $version = \{0\}$  does not and will not support new features of any kind, at least not explicitly.

With version 1.0 acronyms are declared with a key/value syntax similar to the way in package glossaries glossary entries are defined. This was made for a good reason: in the beginning the old \DeclareAcronym already had lots of arguments that were hard to remember. Every new feature needed to introduce further commands so that in version 0.6 there have been *four* different commands already. All this isn't necessary any more and there is only one command with only two arguments.

#### 4. Basics

### 4.1. Creating New Acronyms

Changed in version 1.0

Acronyms are created with the command \DeclareAcronym that can only be used in the preamble.

```
\DeclareAcronym{\langle id \rangle}{\langle list\ of\ keys \rangle}
```

The basic command for declaring an acronym.

This command understands a number of keys which are listed below. Some of them are not described immediately but at appropriate places in the documentation.

```
\mathsf{short} = \{\langle \mathit{text} \rangle\} \tag{required}
```

the short form of the acronym.

```
long = \{\langle text \rangle\}  (required)
```

the long form of the acronym.

```
short-plural = \{\langle text \rangle\} Default: s
```

the plural ending appended to the short form.

```
long-plural = \{\langle text \rangle\} Default: s
```

the plural ending appended to the long form.

```
long-plural-form = \{\langle text \rangle\}
```

plural long form of the acronym; replaces the long form when used instead of appending the plural ending.

```
list = \{\langle text \rangle\}
```

Introduced in version 1.4

if specified this will be written in the list as description instead of the long form.

#### 4. Basics

```
short-indefinite = \{\langle text \rangle\}
                                                                                                                            Default: a
                    indefinite article for the short form.
Introduced in
version 1.2
                 long-indefinite = \{\langle text \rangle\}
                                                                                                                            Default: a
                    indefinite article for the long form.
Introduced in
version 1.2
                 long-pre = \{\langle text \rangle\}
                   \langle text \rangle is prepended to the long form in the text but not in the list of acronyms.
Introduced in
version 1.1
                 long-post = \{\langle text \rangle\}
Introduced in
                    \langle text \rangle is appended to the long form in the text but not in the list of acronyms.
version 1.1
                 alt = \{\langle text \rangle\}
                    alternative short form.
                 alt-indefinite = \{\langle text \rangle\}
                                                                                                                            Default: a
                    indefinite article for the alternative form.
Introduced in
version 1.2
                 extra = \{\langle text \rangle\}
                    extra information to be added in the list of acronyms.
                 foreign = \{\langle original \ long \ form \rangle\}
                    can be useful when dealing with acronyms in foreign languages, see section 4.6 for details.
Introduced in
version 1.3
                 sort = \{\langle text \rangle\}
                    if used the acronym will be sorted according to this key instead of its ID.
                 class = \{\langle text \rangle\}
                    the class the acronym belongs to.
                 cite = \{ [\langle prenote \rangle] [\langle postnote \rangle] \{\langle citation \ keys \rangle \} \}
                    a citation that is printed to the acronym according to an option explained later.
                 short-format = \{\langle T_{FX} code \rangle\}
                    the format used for the short form of the acronym.
                 long-format = \{\langle T_F X code \rangle\}
                    the format used for the long form of the acronym.
                 first-long-format = \{\langle T_E X code \rangle\}
                    the format used for the first long form of the acronym as set with \ac, \acf or \acflike and
                    their uppercase, plural and indefinite forms.
                 pdfstring = \{\{\langle text \rangle / \langle plural\ ending \rangle\}\}
                    used as PDF string replacement in bookmarks when used together with the hyperref package.
                    The appended plural ending is optional. If you leave it (and the /) the default ending is used.
                 \mathsf{accsupp} = \{\langle \mathit{text} \rangle\}
```

sets the ActualText key as presented by the accsupp package for the acronym.

```
index-sort = \{\langle text \rangle\}
```

Introduced in version 1.1

If you use the package option index every occurrence of an acronym is recorded to the index and sorted by its ID or (if set) by the value of the sort key. This key allows to set an individual sorting option for the index. See section 5.7 for details.

```
index = \{\langle text \rangle\}
```

Introduced in version 1.1

This key allows to overwrite the automatic index entry with an arbitrary one. See section 5.7 for details.

```
index-cmd = \{\langle text \rangle\}
```

Introduced in version 1.1

This key let's you set an individual index creating command for this acronym. It should be a command that takes one mandatory argument. See section 5.7 for details.

In its simplest form an acronym needs a short and a long form. Please note that both keys must be set and that the short =  $\{\langle k \rangle\}$ ey must always be the first key that is set.

```
1 % preamble:
2 \DeclareAcronym{test}{
3    short = ST ,
4    long = Some Test
5 }
```

This creates the acronym "ST" with the ID "test" and the long form "Some Test."

The format key allows you to choose a specific format for the short form of an acronym:

The short form now looks like this: OT.

The cite key needs a bit explaining. It expects arguments like the standard \cite command, i.e., two optional arguments setting the  $\langle prenote \rangle$  and  $\langle postnote \rangle$  and one mandatory argument setting the citation key.

```
1 % bib file for use with biber/biblatex:
2 @online{NewYork,
3 author = {Wikipedia},
4 title = {New York City},
5 urldate = {2012-09-27},
6 url = {http://en.wikipedia.org/wiki/New_York_City},
7 year = {2012}
8 }
```

The first appearance now looks as follows9: New York (NY) [Wik12b].

### 4.2. Using the Acronyms – the Commands

```
Acronyms are used with with one of the following commands:  \begin{aligned} & \text{`ac*}\{\langle id \rangle\} \\ & \text{basic command; the first output is different from subsequent ones.} \end{aligned} \\ & \text{`Ac*}\{\langle id \rangle\} \\ & \text{same as `ac but capitalizes the first letter of the long form.} \\ & \text{`acs*}\{\langle id \rangle\} \\ & \text{short form; the actual acronym.} \end{aligned} \\ & \text{`acl*}\{\langle id \rangle\} \\ & \text{long form; the meaning of the acronym.} \\ & \text{`Acl*}\{\langle id \rangle\} \\ & \text{same as `acl but capitalizes first letter.} \\ & \text{`aca*}\{\langle id \rangle\} \\ & \text{`alternative short form as a marified in the slit law of ``Declarate and a market states are the same as ``acl but capitalizes first letter.} \end{aligned}
```

alternative short form as specified in the alt key of \DeclareAcronym; if it hasn't been specified this is identical to \acs.

```
\acf*{\langle id \rangle}
```

first form; output like the first time \ac is output.

```
\Lambda cf*{\langle id \rangle}
```

same as \acf but capitalizes first letter of the long form.

```
\acp*{\langle id \rangle}
```

plural form of \ac;

<sup>9.</sup> The appearance of the citation of course depends on the citation style you're using.

If an acronym is used the first time with \ac its output is different from subsequent uses. To be clear on this: the first time! If the acronym has been used with *any* of the output commands before it is *not* the first time any more.

Introduced in version 0.5

If you use the starred variant an acronym will not be marked as used. This proves useful if an acronym is typeset in a section title, for example, since then the appearance in the table of contents won't mark it as used.

```
1 % preamble:
2 % \DeclareAcronym{cd}{
_3 % short = cd,
                                           first time: Compact Disc (CD)
4 % long = Compact Disc ,
                                           second time: CD
      short-format = \scshape
                                           short: CD
                                           alternative: CD
7 first time: \ac{cd} \\
                                           first again: Compact Disc (CD)
8 second time: \ac{cd} \\
9 short: \acs{cd} \\
                                           long: Compact Disc
10 alternative: \aca{cd} \\
                                           short plural: CDS
ii first again: \acf{cd} \\
                                           long plural: Compact Discs
12 long: \acl{cd} \\
13 short plural: \acsp{cd} \\
14 long plural: \aclp{cd}
```

#### 4.3. Plural Forms

If an acronym is defined in the standard way ACRO uses an 's' that's appended to both the short and the long form when one of the plural commands is used. However, that is not always the

best solution. For one thing not all acronyms may have a plural form. Second, the plural form especially of the long forms may be formed differently. And third, other languages can have other plural endings.

For these reasons \DeclareAcronym can get the following keys:

```
short-plural = \{\langle text \rangle\} Default: s
```

The plural ending of the short form.

```
long-plural = \{\langle text \rangle\} Default: s
```

The plural ending of the long form.

```
long-plural-form = \{\langle text \rangle\}
```

An alternative plural form for the long form.

These keys are optional. If they're not used, the default setting is s. If you use long-plural-form the long form will be replaced by the specified plural form when necessary.

Suppose we define the following acronyms:

```
1 \DeclareAcronym{cd}{
   short = cd,
             = Compact Disc ,
   short-format = \scshape
<sub>5</sub> }
6 \DeclareAcronym{ny}{
   short = NY ,
  short-plural = ,
   long = New York ,
   long-plural =
11 }
12 \DeclareAcronym{sw}{
   short = SW ,
              = Sammelwerk ,
   lona
   long-plural = e
17 \DeclareAcronym{mp}{
   short = MP ,
long = Member of Parliament ,
   long-plural-form = Members of Parliament
21 }
```

These acronyms now have the following plural appearances:

```
1 \acsp{cd}, \aclp{cd} \\
2 \acsp{ny}, \aclp{ny} \\
3 \acsp{sw}, \aclp{sw} \\
4 \acsp{mp}, \aclp{mp}
CDs, Compact Discs
NY, New York
SWs, Sammelwerke
MPs, Members of Parliament
```

#### 4.4. Alternative Short Forms

For some acronyms it might be useful to have alternative forms. For this \DeclareAcronym has another key:

```
\mathsf{alt} = \{\langle \mathit{text} \rangle\}
```

Alternative short form.

```
1 % preamble:
2 % \DeclareAcronym{jpg}{
3 % short = JPEG ,
4 % alt = JPG ,
5 % long = Joint Photographic Experts Group
6 % }
7 default: \acs{jpg} \\
8 alt.: \aca{jpg}

default: JPEG
alt.: JPG
```

The alternative form uses the same plural ending as the default short form and is formatted in the same way.

#### 4.5. Extra Information for the List Entry

Of course you can print a list of acronyms where their meaning is explained. Sometimes it can be useful to add additional information there. This is done with another key to \DeclareAcronym:

```
extra = \{\langle text \rangle\}
```

Additional information for the list of acronyms.

These information will only be displayed in the list. See section 6 for the impact of the following example.

The North Atlantic Treaty Organization (NATO) is an intergovernmental military alliance based on the North Atlantic Treaty which was signed on 4 April 1949. NATO headquarters are in Brussels, Belgium, one of the 28 member states across North America and Europe, the newest of which, Albania and Croatia, joined in April 2009.

#### 4.6. Foreign Language Acronyms

Introduced in version 1.3

I repeatedly read the wish for being able to add translations to acronyms when the acronyms stem from another language than the document language, *i.e.*, something like the following in a German document:

```
Steuergerät (Electronic Control Unit, ECU)
Cac{ecu}

Steuergerät (Electronic Control Unit, ECU)
ECU
```

That's why I decided to add the following key:

```
foreign = \{\langle original \ long \ form \rangle\}
```

A description for an acronym originating in another language than the document language.

Here is the definition of the above mentioned ECU acronym:

```
1 \DeclareAcronym{ecu}{
2    short = ECU ,
3    long = Steuerger\"at ,
4    foreign = Electronic Control Unit
5 }
```

As you have seen this adds the foreign entry to the first appearance of an acronym. It is also added in parentheses to the list of acronyms after the long entry. Actually the entry there is the argument to the following command:

```
\acroenparen{\langle argument \rangle}
```

Places  $\langle argument \rangle$  in parentheses:  $\acroenparen{example}$ : (example). See page 18 for a way to customize this other than redefining it.

### 5. Additional Commands and Possibilities

#### 5.1. Indefinite Forms

Introduced in version 1.2

Unlike many other languages <sup>10</sup> in English the indefinite article is not determined by the grammatical case, gender or number but by the pronounciation of the following word. This means

<sup>10.</sup> Let's better say: unlike the other languages where I know at least the basics.

that the short and the long form of an acronym can have different indefinite articles. For these cases ACRO offers the keys short-indefinite, alt-indefinite and long-indefinite whose default is a. For every lowercase singular command two alternatives exist, preceded by i and I, respectively, which output the lowercase and uppercase version of the corresponding indefinite article.

#### 5.2. Uppercasing

 $\acfirstupper{\langle token \ list \rangle}$ 

Introduced in version 1.3e

This command uppercases the first token in  $\langle token \ list \rangle$ . The command is less powerful than \makefirstuc that is provided by the mfirstuc package [Tal12] but it is expandable. Obvious downsides are for example that it does not uppercase accented letters.

#### 5.3. Simulating the First Appearance

Introduced in version 1.2

Users told me<sup>11</sup> that there are cases when it might be useful to have the the acronym typeset according to the first-style but with another text than the long form. For such cases ACRO offers the following commands.

```
\acflike*{\langle id \rangle}{\langle instead\ of\ long\ form \rangle}
```

Write some alternative long form for acronym  $\langle id \rangle$  as if it were the first time the acronym was used.

```
\acfplike*\{\langle id \rangle\}\{\langle instead\ of\ long\ form \rangle\} Plural form of \acflike.
```

The plural ending in \acfplike is only appended to the short form. It makes no sense to append it to the text that is inserted manually anyway. Note that whatever text you're inserting might be gobbled depending on the first-style you're using.

```
11. Well – one, to be precise ;)
```

#### 5.4. Using Classes

The acronyms of ACRO can be divided into different classes. This doesn't change the output but allows different acronym lists, see section 6. For this \DeclareAcronym has an additional key:

```
class = \{\langle text \rangle\}
```

Associated class for an acronym.

This might be useful if you can and want to divide your acronyms into different types, technical and grammatical ones, say, that shall be listed in different lists.

```
1 % preamble:
2 % \DeclareAcronym{la}{
_3 % short = LA ,
    short-plural = ,
_{5} % long = Los Angeles ,
6% long-plural = ,
7 % class = city
                                     Los Angeles (LA)
9 % \DeclareAcronym{ny}{
                                     New York (NY)
10 % short = NY ,
" short-plural = ,
     long = New York ,
13 % long-plural = ,
_{14} % class = city ,
₁₅ % cite
               = NewYork
16 % }
17 \acl{la} (\acs{la}) \\
18 \acl{ny} (\acs{ny})
```

#### 5.5. Reset or Mark as Used, Test if Acronym Has Been Used

If you want for some reason to fool ACRO into thinking that an acronym is used for the first time you can call one of these commands:

```
\acreset{\langle comma separated list of ids \rangle}
```

Introduced in version 0.5

This will reset a used acronym such that the next use of \ac will again print it as if it were used the first time. This will *not* remove an acronym from being printed in the list if it actually *has* been used before.

#### \acresetall

Reset all acronyms.

```
\acifused{\langle id \rangle}{\langle true \rangle}{\langle false \rangle}
```

Introduced in version 1.3e

This command tests if the acronym with ID  $\langle id \rangle$  has already been used and either puts true or false in the input stream.

```
1 \acreset{ny}\ac{ny}
```

New York (NY) [Wik12b]

Beware that both commands act *globally*! There are also commands that effectively do the opposite of \acreset, *i.e.*, mark acronyms as used:

```
\acuse{\langle comma separated list of ids \rangle}
```

Introduced in version 0.5

This has the same effect as if an acronym had been used twice, that is, further uses of \ac will print the short form and the acronym will in any case be printed in the list (as long as its class is not excluded).

#### \acuseall

Introduced in version 0.6a

Mark all acronyms as used.

#### 5.6. \ac and Friends in PDF Bookmarks

Introduced in version 0.5

ACRO's commands usually are not expandable which means they'd leave unallowed tokens in PDF bookmarks. hyperref offers \texorpdfstring to circumvent that issue manually but that isn't really a nice solution. What's the point of having macros to get output for you if you have to specify it manually after all?

That is why ACRO offers a preliminary solution for this. In a bookmark every \ac like command falls back to a simple text string typesetting what \acs would do (or \acsp for plural forms). These text strings both can accessed manually and can be modified to an output reserved for PDF bookmarks.

```
\acpdfstring{\langle id \rangle}
```

Access the text string used in PDF bookmarks.

```
\acpdfstringplural{\langle id \rangle}
```

Access the plural form of the text string used in PDF bookmarks.

```
pdfstring = \{\{\langle pdfstring \rangle / \langle plural\ ending \rangle\}\}
```

Key for \DeclareAcronym to declare a custom text string for PDF bookmarks. The plural ending can be set optionally.

```
accsupp = \{\langle text \rangle\}
```

Introduced in version 1.0

Key for \DeclareAcronym to set the ActualText property of \BeginAccSupp (see accsupp's documentation for details) to be used for an acronym. It only has an effect when the package option accsupp is used, too.

For example the PDF acronym used in the title for this section is defined as follows:

```
6 accsupp = PDF
7 }
```

This also demonstrates the accsupp key. For this to work you need to use the *package option* accsupp, too, which will load the package accsupp. Then the key accsupp will set the ActualText property of \BeginAccSupp. Please refer to accsupp's documentation for details. To see its effect copy PDF and paste it into a text file. You should get uppercase letters instead of lowercase ones.

#### 5.7. Adding Acronyms to the Index

Introduced in version 1.1

ACRO has the package option index. If it is used an index entry will be recorded every time an unstarred acronym command is used. The index entry will be  $\langle id \rangle @ \langle short \rangle$ ,  $\langle sort \rangle @ \langle short \rangle$  if the sort key has been set,  $\langle index\_sort \rangle @ \langle short \rangle$  if the index\\_sort has been set, or  $\langle index \rangle$  if the key index has been set for the specific acronym. The short versions appearing there are formatted according to the chosen format of the corresponding acronym, of course.

This document demonstrates the feature. You can find every acronym that has been declared in the index. In order to allow flexibility the indexing command can be chosen both globally via package option and individually for every acronym. This would allow to add acronyms to a specific index if more than one index is used, for example with help of the imakeidx package.

I'm not yet convinced this is a feature many people if anyone needs and if they do if it is flexible enough. If you have any thoughts on this I'd appreciate an email.

### 6. Printing the List

Changed in version 1.0

Printing the whole list of acronyms is easy: just place \printacronyms where ever you want the list to be.

```
\printacronyms [\langle options \rangle] Print the list of acronyms.
```

The commands takes a few options, namely the following ones:

```
include-classes = \{\langle list \ of \ classes \rangle\}
```

Takes a comma-separated list of the classes of acronyms that should be in the list.

```
exclude-classes = \{\langle list\ of\ classes\rangle\}
```

Takes a comma-separated list of the classes of acronyms that should *not* be in the list.

```
name = \{\langle name \ of \ the \ list \rangle\}
sets the name for the list.
```

```
heading = \{\langle sectioning \ command \ without \ leading \ backslash\rangle\}
Default: section*
```

Changed in version 1.3

Sets the sectioning command for the heading of the list. A special value is none which suppresses the heading.

sort = true|false
Default: true

Introduced in version 1.3

Set sorting for this list only.

```
1 \acsetup{extra-style=comma}
2 \printacronyms[exclude-classes=city]
3
4 \printacronyms[include-classes=city,name={City Acronyms}]
```

### Acronyms

CD Compact Disc

CTAN Comprehensive TeX Archive Network

**ECU** Steuergerät (Electronic Control Unit)

**ID** identification string

JPEG Joint Photographic Experts Group

MP Member of Parliament

**NATO** North Atlantic Treaty Organization, *deutsch*: Organisation des Nordatlantikvertrags

**PDF** Portable Document Format

**SW** Sammelwerk

ST Some Test

**UFO** unidentified flying object

### **City Acronyms**

**LA** Los Angeles

NY New York

You can see that the default layout is a description list with a \section\* title. Both can be changed, see section 7.

The command \printacronyms needs two LATEX runs. This is a precaution to avoid error messages with a possibly empty list. But since almost all documents need at least two runs and often are compiled much more often than that, this fact shouldn't cause too much inconvenience.

### 7. Options and Customization

#### 7.1. General Options

There are a few options which change the general behaviour of ACRO. <u>Underlined</u> values are used if no value is given.

version = 0|1 Default: 1

Provide backwards compatibility for documents set with ACRO in a version prior to v1.0.

single = true | false Default: false

If set to true an acronym that's used only once (with \ac) in a document will only print the long form and will not be printed in the list.

hyperref = true|false Default: false

If set to true the short forms of the acronyms will be linked to their list entry.

label = true|false
Default: false

Introduced in If set to true this option will place  $\label{prefix}\langle id\rangle$  the first time the acronym with ID  $\langle id\rangle$  version 1.5 is used.

label-prefix =  $\{\langle text \rangle\}$  Default: ac:

Introduced in The prefix for the  $\label$  that is placed when option label =  $\{true\}$  is used.

record-pages = true|false Default: true

Since ACRO can handle arabic, roman and Roman page numbers but *not* any other kind of numbering this option allows to turn the page number recording off for these cases as it would lead to errors else. This affects the whole document and can only be set in the preamble! It means you cannot have page numbers in the list of acronyms in this case. Or rather: you can if you use pages = {first}.

only-used = true|false Default: true

This option is true as default. It means that only acronyms that are actually used in the document are printed in the list. If false, all acronyms defined with \DeclareAcronym will be written to the list.

mark-as-used = first|any Default: any

Introduced in This option determines wether an acronym is mark as used when the *first* form is used the first time (with \ac, \acf or \acflike and their uppercase, plural and indefinite forms) or when any of the \ac-like commands is used.

macros = true|false Default: false

If set to true this option will create a macro  $\langle id \rangle$  for each acronym as a shortcut for  $\langle id \rangle$ . Already existing macros will *not* be overwritten.

xspace = true|false Default: false

Introduced in If set to true this option will append \xspace from the xspace package to the commands created with the macros option.

strict = true|false

Default: false

If set to true and the option macros = {true} is in effect then already existing macros will be overwritten.

sort = true|false

Default: true

If set to true the acronym list will be sorted automatically. The entries are sorted by their ID ignoring upper and lower case. This option needs the experimental package l3sort (from the l3experimental bundle) and can only be set in the preamble.

cite = all|first|none

Default: first

This option decides whether citations that are added via cite are added to each first, every or no appearance of an acronym.

 $cite-cmd = \{\langle control \ sequence \rangle\}$ 

Default: \cite

This option determines which command is used for the citation. Each citation command that takes the cite key as argument is valid, for example biblatex's \footcite.

cite-space =  $\{\langle code \rangle\}$ 

Default: \nobreakspace

Depending on the citation command in use a space should be inserted before the citation or maybe not (e.g. \footcite...). This option allows you to set this. Actually it can be used to place arbitrary code right before the citation.

index = true|false

Default: false

Introduced in version 1.1

If set to true an index entry will be recorded every time an *unstarred* acronym command is used for the corresponding acronym.

 $index-cmd = \{\langle control \ sequence \rangle\}$ 

Default: \index

Chooses the index command that is used when option index has been set to true.

Introduced in version 1.1

Introduced in

accsupp = true|false

Default: false

Activates the access support as provided by the accsupp package.

version 1.0

 $uc - cmd = \{\langle control \ sequence \rangle\}$ 

Default: \acfirstupper

The command that is used to capitalize the first word in the \Ac and the like commands. You can change it to another one like for example \makefirstuc<sup>12</sup> or \MakeTextUppercase.<sup>13</sup>

All options of this and the following sections can be set up either as package options or via the setup command:

```
\acsetup{\langle options \rangle}
```

Set up ACRO anywhere in the document. Or separate package loading from setup.

```
1 % with \acsetup{macros}
2 we could have used these before: \nato, \ny
```

<sup>12.</sup> from the mfirstuc package

<sup>13.</sup> from the textcase package

we could have used these before: NATO, NY

### 7.2. Options Regarding Acronyms

The options described in this section all influence the layout of one of the possible output forms of the acronyms.

 $short-format = \{\langle format \rangle\}$ 

(initially empty)

Sets a format for all short forms. For example short-format = {\scshape} would print all short forms in small caps.

 $long-format = \{\langle format \rangle\}$ 

(initially empty)

The same for the long forms.

foreign-format =  $\{\langle format \rangle\}$ 

(initially empty)

Introduced in version 1.3

The format for the foreign entry when it appears as part of the first appearance of an acronym.

 $first-long-format = \{\langle format \rangle\}$ 

(initially empty)

Introduced in version 1.2

The format for the long form on first usage (with \ac, \acf or \acflike and their uppercase, plural and indefinite forms).

 $list-short-format = \{\langle format \rangle\}$ 

(initially empty)

Introduced in version 1.1

An extra format for the short entries in the list. If not used this is the same as short-format. Please be aware that a call of short-format after this one will overwrite it again.

 $list-long-format = \{\langle format \rangle\}$ 

(initially empty)

An extra format for the long entries in the list. If not used this is the same as long-format. Please be aware that a call of long-format after this one will overwrite it again.

list-foreign-format =  $\{\langle format \rangle\}$ 

Default: \acroenparen

The format for the foreign entry as it appears in the list. This may be code that ends with a macro that takes a mandatory argument.

 $extra-format = \{\langle format \rangle\}$ 

(initially empty)

The same for the extra information.

first-style = default|plain|empty|square|short|reversed|plain-reversed|footnote|sidenote

Default: default

Changed in version 1.1

The basic style of the first appearance of an acronym. The value sidenote needs the command \sidenote to be defined for example by the sidenotes package.

extra-style = default|plain|comma|paren|bracket

Default: default

Defines the way the extra information is printed in the list.

 $plural-ending = \{\langle tokenlist \rangle\}$ 

Default: s

With this option the default plural ending can be set.

```
1 % (Keep in mind that we're in
2 % a minipage here!)
3 \acsetup{first-style=empty}
4 \acf{ny} \\
                                            NY
5 \acsetup{first-style=footnote}
                                            NY^a
6 \acf{ny} \\
                                            New York [NY] [Wik12b]
7 \acsetup{first-style=square}
                                            NY [Wik12b]
8 \acf{ny} \\
                                            NY (New York) [Wik12b]
9 \acsetup{first-style=short}
                                            New York - NY [Wik12b]
10 \acf{ny} \\
                                            NY – New York [Wik12b]
\acsetup{first-style=reversed}
12 \acf{ny} \\
                                              a. New York [Wik12b]
13 \acsetup{first-style=plain}
14 \acf{ny} \\
15 \acsetup{first-style=plain-reversed}
16 \acf{ny}
```

#### 7.3. Options Regarding the List

#### page-ref = none|plain|comma|paren

Default: none

If this option is set to a value other than none the page numbers of the an acronym appeared on are printed in the list. Please note that this is an experimental feature and might fail in quite a number of cases. If you notice anything please send me an email!

pages = all|first Default: all

Introduced in version 1.5

If the option page-ref has any value other than none this option determines wether all usages of the acronyms are listed or only the first time. Implicitly sets label = {true}.

```
page-name = \{\langle page \ name \rangle\}
```

Default: p.\@\,

The "name" of the page label. This is automatically translated to the active language. However for the time being there are many translations missing, yet. Please notify me if you find your language missing.

```
pages-name = \{\langle page \ name \ plural \rangle\}
```

Default: pp.\@\,

Introduced in version 1.0

The "name" of the page label when there are more than one page. This is automatically translated to the active language. However for the time being there are many translations missing, yet. Please notify me if you find your language missing.

```
following-page = true|false
```

Default: false

Introduced in version 1.3

If set to true a page range in the list of acronyms that consists of two pages will be written by the first page and an appended f. This depends on the option next-page.

```
following-pages = true|false
```

Default: false

Introduced in version 1.3

If set to true a page range in the list of acronyms that set consists of more than two pages will be written by the first page and an appended ff. This depends on the option next-pages.

 $next-page = \{\langle text \rangle\}$  Default: \,f.\@

Introduced in version 1.0

Appended to a page number when following-page is set to true and the range is only 2 pages long. This is automatically translated to the active language. However, for the time being there are many translations missing, yet. Please notify me if you find your language missing.

 $next-pages = \{\langle text \rangle\}$  Default: \,ff.\@

Introduced in version 1.0

Appended to a page number when following-pages is set to true and the range is more than 2 pages long. This is automatically translated to the active language. However, for the time being there are many translations missing, yet. Please notify me if you find your language missing.

list-type = table |  $\langle list \rangle$  Default: description

This option let's you choose how the list is printed.  $\langle list \rangle$  can be any valid list like itemize or description.

list-style = list|tabular|longtable|extra-tabular|extra-longtable|extra-tabular-rev|
extra-longtable-rev
Default: list

If you choose list-type = {table} you have to specify which kind of table should be used. If you choose longtable, extra-longtable or extra-longtable-rev you have to load longtable in your preamble. The values extra-longtable and extra-longtable-rev put the extra information in a column of its own.

list-heading = chapter|chapter\*|section|section\*|subsection|subsection\*|addchap|addsec

Default: section\*

Changed in version 1.3

The heading type of the list. The last two only work with a KOMA-Script class that also defines the appropriate command. A special value is none which suppresses the heading.

```
list-name = \{\langle list \ name \rangle\} Default: Acronyms
```

The name of the list. This is what's written in the list-heading. This is automatically translated to the active language. However, for the time being there are many translations missing, yet. Please notify me if you find your language missing.

```
list-table-width = \{\langle dimension \rangle\} Default: .7\linewidth
```

This has only an effect if you chose <code>list-type = {  $\langle table \rangle }$ .</code> The *second* column (or the third if you choose one of the -rev styles) of the table is a p column whose width can be specified with this option.

```
list-caps = true|false
Default: false
```

Print the first letters of the long form capitalized.

If you for example have loaded enumitem you can define a custom list for the acronym list:

```
1 % preamble:
2 % \usepackage{enumitem}
3 \newlist{acronyms}{description}{1}
4 \newcommand*\addcolon[1]{#1:}
5 \setlist[acronyms]{
6 labelwidth=3em,
```

```
leftmargin=3.5em,
noitemsep,
itemindent=0pt,
font=\addcolon}
lacsetup{list-type=acronyms,hyperref=false,extra-style=comma}
lackprintacronyms
```

### **Acronyms**

**cD:** Compact Disc

**CTAN:** Comprehensive TEX Archive Network **ECU:** Steuergerät (Electronic Control Unit)

**ID:** identification string

JPEG: Joint Photographic Experts Group

**LA:** Los Angeles

**MP:** Member of Parliament

**NATO:** North Atlantic Treaty Organization, *deutsch*: Organisation des Nordatlantikvertrags

**NY:** New York

**PDF:** Portable Document Format

SW: SammelwerkST: Some Test

**UFO:** unidentified flying object

### 8. About Page Ranges

If you enable the page-ref option ACRO adds page numbers to the list of acronyms. In version o.\* it would add a page reference for an acronym in the list of acronyms that used \pageref to refer to the first appearance of an acronym. This is retained using version = {0}. Version 1.0 uses a different approach that doesn't use a label but instead will list *all* pages an acronym appeared on. With hyperref the pages are referenced using \hyperpage.

There are some options that control how this list will be typeset, e.g., following-page, next-pages or the option page-ref itself. It is important to mention that the page list will always take at least two compilation runs until changes in the options or the actual page numbers affect it. This is due to the fact that the updated sequence is first written to the aux file and only read in during the next run.

### 9. Language Support

ACRO detects if packages babel or polyglossia are being loaded and tries to adapt certain strings to match the chosen language. However, due to my limited language knowledge only a few translations are provided. I'll show how the English translations are defined so you can add the translations to your preamble if needed. Even better would be you'd send me a short email at

contact@mychemistry.eu with the appropriate translations for your language and I'll add them to ACRO.

```
1 \DeclareTranslation{English}{acronym-list-name}{Acronyms}
2 \DeclareTranslation{English}{acronym-page-name}{p.}
3 \DeclareTranslation{English}{acronym-pages-name}{pp.}
4 \DeclareTranslation{English}{acronym-next-page}{f.}
5 \DeclareTranslation{English}{acronym-next-pages}{ff.}
```

### 10. hyperref Support

The option hyperref = {true} adds internal links from all short (or alternative) forms to their respective list entries. Of course this only works if you have loaded the hyperref package in your preamble. You should use this option with care: if you don't use \printacronyms anywhere this option will result in loads of hyperref warnings. Also printing several lists can result in warnings if don't clearly separate the lists into different classes. If an acronym appears in more than one list there will also be more than one hypertarget for this acronym.

Using hyperref will also add \hyperpage to the page numbers in the list (provided they are displayed in the style chosen). Like with an index the references will thus not point to the acronyms directly but to the page they're on.

### A. Commands provided in version o.\*

Prior to version 1.0 the following commands were available. They are still provided if you set the option  $version = \{0\}$ . They will be mentioned here shortly but they won't be explained any more. If you'd like a more thorough description ask me for the documentation to version 0.6a.

### B. All Acronyms Used in this Documentation

```
1 \acsetup{
2  list-type = table,
3  list-style = longtable,
4  list-heading = subsection*,
5  extra-style = comma,
6  page-ref = comma
7 }
8 \printacronyms[name=All Acronyms]
```

#### **All Acronyms**

```
Compact Disc, pp. 7, 8
CD
        Comprehensive TFX Archive Network, p. 2
CTAN
ECU
        Steuergerät (Electronic Control Unit), p. 10
        identification string, pp. 4, 5, 12, 16, 17
ID
        Joint Photographic Experts Group, p. 9
JPEG
        Los Angeles, p. 12
LA
        Member of Parliament, p. 8
MP
        North Atlantic Treaty Organization, deutsch: Organisation des
NATO
        Nordatlantikvertrags, pp. 10, 18
NY
        New York, pp. 6, 8, 11-13, 18, 19
PDF
        Portable Document Format, pp. 4, 13, 14
SW
        Sammelwerk, p. 8
ST
        Some Test, p. 5
UFO
        unidentified flying object, p. 11
```

```
1 \acsetup{
2  list-type = table,
3  list-style = longtable,
4  list-heading = subsection*,
5  page-ref = comma
6 }
7 \printacronyms[include-classes=city,name=City Acronyms]
```

#### **City Acronyms**

```
LA Los Angeles, p. 12
NY New York, pp. 6, 8, 11–13, 18, 19
```

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