ccref - cross referencing with proper definite articles

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October 2021, in Paris

Abstract

The package ccref provides the command \ccref parallel to cleveref's \cref for handling definite articles properly (especially for the article contractions in many European languages).

/ 1 / The motivation

By default, when using cleveref's \cref to reference theorem-like environments, the names do not contain definite articles. This may be acceptable for English, but certainly not good enough for languages such as French, Italian, Portuguese, Spanish, etc. – in these cases there shall be grammatical errors and would give you a strong feeling that it is machine-generated.

However, even if we manually add the definite articles in the names, there would still be other problems. As an example, if we define the French names to be:

```
\crefname{theorem}{le théorème}{les théorème}
\crefname{proposition}{la proposition}{les propositions}
```

then when one writes (which is "*We can deduce this from ...*" in French)

```
On peut le déduire de \cref{thm1,thm2,prop3}.
```

the result would be:

> On peut le déduire **de les** théorèmes 1 et 2 et **la** proposition 3.

which is wrong, as the correct result should be:

> On peut le déduire **des** théorèmes 1 et 2 et **de la** proposition 3.

\cref cannot handle such cases correctly — and that is when \ccref comes into play.

/ 2 / The usage

2.1 | How to load it ?

Simply load the package with:

```
\usepackage{ccref}
```

Tip

- ccref uses cleveref internally, thus it should usually be placed at the last of your preamble.
- To handle article contractions correctly, \ccref shall detect the current language, thus you need to use packages such as babel or polyglossia to set your languages appropriately.

2.2 | How to use it ?

Then you can use the command `\ccref` as follows:

- `\ccref[`⟨*prep*⟩`]{`⟨*labels*⟩`}`
  - This will pass the preposition ⟨*prep*⟩ to the first definite article.
- `\ccref*[`⟨*prep*⟩`]{`⟨*labels*⟩`}`
  - This will pass the preposition ⟨*prep*⟩ to every definite article.

However, before using it, you should first define the `\crefname`s carefully. The definite article in `\crefname`s needs to be marked manually using `\ccmarkart`, for example:

```
\crefname{theorem}{\ccmarkart{le} théorème}{\ccmarkart{les} théorème}
```

/ 3 / Example

Let us come back to the example at the beginning, now you can do this:

```
\crefname{theorem}{\ccmarkart{le} théorème}
                  {\ccmarkart{les} théorème}
\crefname{proposition}{\ccmarkart{le} proposition}
                      {\ccmarkart{les} propositions}
```

And the sentence shall be written as[1]:

```
On peut le déduire \ccref*[de]{thm1,thm2,prop3}.
```

which would result in:

> On peut le déduire **des** théorèmes 1 et 2 et **de la** proposition 3.

As another example, with (which is "*Think of ...*" in French):

```
Pensez \ccref*[à]{thm1,thm2,prop3}.
```

one would get something like:

> Pensez **aux** théorèmes 1 et 2 et **à la** proposition 3.

/ 4 / Known issues

- ccref currently only works for French, Italian, Portuguese (both European and Brazilian) and Spanish, certainly more would be added to this list.
- In the case that the initial letter of ⟨*prep*⟩ is capitalized, ccref cannot yet handle the case changes automatically. However, this should be a rare occurrence.
- The names of theorem-like environments are not provided — for the moment you need to define them all by yourself. However, users are encouraged to use the ProjLib toolkit, which already handles everything for you.

[1] Here the stared version is used because we want the preposition "de" to be passed to every definite article.