The capt-of package

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1 Why this package?

LaTeX provides a command (`\caption`) for adding a caption to a float environment (that is to say, a `figure` or a `table`, "out of the box").

The command is a good one, and many users want to use it. Often, they end up using a float environment, in a case where it's not strictly necessary, and get entangled in the positioning problems that floats pose for the innocent user. Using this package, the user can have standard-looking captions without the need of a float environment.

This package defines an alternative command, `\captionof`, which sets things up so that `\caption` will work outside of a float.

The float package provides an alternative to `\captionof`, in the float `[H]` option ("place the environment *here* without doing any of this floating stuff"). So why use capt-of? — its great advantage is simplicity; you load it, and it defines *one* macro, while float defines lots and lots. (Of course, if you need others of float's capabilities, capt-of loses its advantage...).

2 The potential problem

`\captionof` defines a caption in text; it also steps the `figure` (or `table` or whatever) counter. The float environments do the same.

Now, consider the sequence:

```
<earlier text>
\begin{figure}
  <figure stuff>
  \caption{...}
\end{figure}
...
<intervening text>
...
<inline figure stuff>
```

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```
\captionof{figure}{...}
```

and suppose the `figure` environment doesn't fit anywhere between where it's specified and the inline figure (so that it will float to somewhere later).

We will then see a document with

⟨*earlier text*⟩
...
⟨*intervening text*⟩
...
⟨*inline figure stuff*⟩
Figure ⟨*n+1*⟩: ...
...
⟨*yet more text*⟩
...
⟨*figure stuff*⟩
Figure ⟨*n*⟩: ...

That is, the figure numbers have got out of order, because the floating figure was specified before the inline figure.

LaTeX won't do this when everything is specified as a float: it keeps floats of the same type in order (which is why floats stack up if a single one won't fit).

The moral of that little tale is to say: don't use `\captionof` and floats of the same type in the same document. (Or be extra-specially careful about what's happening if you must.)

3 The code (such as it is)

`\captionof` Usage: `\captionof{`⟨*type*⟩`}[`⟨*move*⟩`]{`⟨*caption*⟩`}`

type is '`figure`' or '`table`' (or some type you've defined with the float package)

move is the optional moving argument of `\caption` (the thing that goes to the list of tables/figures)

caption is the text of the caption

It's probably best to use `\captionof` within an enclosing group (e.g., `\begin{`⟨*center*⟩`}` *figure* `\captionof{figure}{`⟨*blah blah*⟩`}` `\end{`⟨*center*⟩`}`)

```
1 \newcommand\captionof[1]{\def\@captype{#1}\caption}

2 \endinput
3 ⟨/package⟩
```