

tesseracont — A new LaTeX package*

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Abstract

==== Put abstract text here. ====

1 Usage

==== Put descriptive text here. ====

`\dummyMacro` This macro does nothing. It is merely an example. If this were a real macro, you would put a paragraph here describing what the macro is supposed to do, what its mandatory and optional arguments are, and so forth.

`dummyEnv` This environment does nothing. It is merely an example. If this were a real environment, you would put a paragraph here describing what the environment is supposed to do, what its mandatory and optional arguments are, and so forth.

2 Implementation

```
1 \langle*package\rangle
2 \RequirePackage{xparse}
3 \RequirePackage{tikz}
4 \tikzset{
5   pics/carc/.style args={#1:#2:#3}{
6     code={
7       \draw[pic actions] (#1:#3) arc(#1:#2:#3);
8     }
9   }
10 }
```

An internal helper macro to calculate a dodecadent (like quadrant, but with twelve).

```
11 \def\tesseracont@dodec#1{{90+(30*(#1-1))}}
```

Representation of the number 1 in base tesseracont \complement .

```
12 \NewDocumentCommand{\tesseracont@one}{}{%
13   \draw[white] (0,0) circle (0pt) pic[black]{%
14     carc=\tesseracont@dodec{2}:\tesseracont@dodec{7}:6pt};%
15   \draw[white] (0,0) circle (0pt) pic[black,line width={6pt*0.2}]{%
16     carc=\tesseracont@dodec{2}:\tesseracont@dodec{4}:{6pt*0.9}};%
17 }
```

Representation of the number 2 in base tesseracont \supset .

```
18 \NewDocumentCommand{\tesseracont@two}{}{%
19   \draw[white] (0,0) circle (0pt) pic[black]{carc=\tesseracont@dodec{7}:\tesseracont@dodec{2+1}
20   \draw[white] (0,0) circle (0pt) pic[black,line width={6pt*0.2}]{carc=\tesseracont@dodec{7}:\
21 }
```

Representation of the number 3 in base tesseracont \cup .

```
22 \NewDocumentCommand{\tesseracont@three}{}{%
23   \draw[white] (0,0) circle (0pt) pic[black]{carc=\tesseracont@dodec{3}:\tesseracont@dodec{11}
24   \draw[white] (0,0) circle (0pt) pic[black,line width={6pt*0.2}]{carc=\tesseracont@dodec{3}:\
25   \draw[white] (0,0) circle (0pt) pic[black,line width={6pt*0.2}]{carc=\tesseracont@dodec{8}:\
```

*This file describes version v1.00, last revised 2018/02/18.

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26 }

Representation of the number 4 in base tesseract \bigcirc .

```
27 \NewDocumentCommand{\tesseract@four}{-}{-}
28 \draw[white] (0,0) circle (0pt) pic[black]{carc=\tesseract@dodec{8}:\tesseract@dodec{6+1}
29 \draw[white] (0,0) circle (0pt) pic[black,line width={6pt*0.2}]{carc=\tesseract@dodec{0}:\tesseract@dodec{6+1}
30 }
```

Representation of the number 5 in base tesseract \bigcirc .

```
31 \NewDocumentCommand{\tesseract@five}{-}{-}
32 \draw[black] (0,0) circle ({6pt*0.5});
33 }
```

Representation of the number 10 in base tesseract \bigcirc .

```
34 \NewDocumentCommand{\tesseract@ten}{-}{-}
35 \draw[white] (0,0) circle (0pt) pic[black]{carc=\tesseract@dodec{2}:\tesseract@dodec{8}:\tesseract@dodec{6+1}
36 \draw[black] (0,0) -- ++(\tesseract@dodec{2}:6pt);
37 }
```

Representation of the number 15 in base tesseract \bigcirc .

```
38 \NewDocumentCommand{\tesseract@fifteen}{-}{-}
39 \draw[white] (0,0) circle (0pt) pic[black]{carc=0:180:6pt};
40 \draw[black] ({6pt*0.3},0) -- ++(0:{6pt*0.7});
41 }
```

`dummyEnv` This is a dummy environment. If it did anything, we'd describe its implementation here.

```
42 \newenvironment{dummyEnv}{%
43 }{%
```

Don't use % to introduce a code comment within a `macrocode` environment. Instead, you should typeset all of your comments with LaTeX—doing so gives much prettier results. For comments within a macro/environment body, just do an `\end{macrocode}`, include some commentary, and do another `\begin{macrocode}`. It's that simple.

44 }

45 \endinput

46 \endpackage

3 Change History

v1.00	log entry to show what a change
General: First public release 1	<i>within</i> an environment definition
v1.00a	looks like. 2
dummyEnv: Added a spurious change	

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Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

D	environments:	14, 16, 19, 20, 23,
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