

ordinalpt: counters as ordinal numbers in Portuguese

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1 Introduction

The package `ordinalpt` provides a counter style (like `\arabic`, `\alph` and others) but that produces as output strings like “primeiro” (first in Portuguese), “segundo” (second), “terceiro” (third), ..., up to “milésimo nongentésimo nonagésimo nono” (1999th). There are counter commands to output the text in UPPERCASE, Capitalized or in lowercase, with masculine or feminine gender.

2 User commands

`\ordptmasc` Six commands to output all incarnations of ordinal numbers in portuguese —
`\Ordptmasc` masculine or feminine, in “lowercase”, “Capitalized” or in “UPPERCASE”—:
`\ORDPTMASC` `\ordptmasc{counter}` (lowercase masculine),
`\ordptfem` `\Ordptmasc{counter}` (capitalized masculine),
`\Ordptfem` `\ORDPTMASC{counter}` (uppercase masculine),
`\ORDPTFEM` `\ordptfem{counter}` (lowercase feminine),
`\ordptfem{counter}` (capitalized feminine) and
`\ORDPTFEM{counter}` (uppercase feminine).

Example:

```
\renewcommand{\thepage}{--- \Ordptfem{page} p\'agina ---}
```

will produce in the place for page numbers:

— Primeira página —
— Segunda página —

3 User options

`tricentesimo` The options ‘`tricentesimo`’ (default; closer to latin *tricentesimu*) and ‘`trecentesimo`’
`trecentesimo` are provided to use between “tricentésimo” and “trecentésimo”, since both forms
are correct for the ordinal of 300.
`sexcentesimo` The options ‘`sexcentesimo`’ (default; closer to the latin *sexcentesimu*) and
`seiscentesimo`

`\@ordpt@ordunits` These commands take a number between 0 and 9 and return ordinal in Portuguese from “first” to “nineth”, “tenth” to “ninetieth” (by 10) and “one hundred” to “one hundredth” (by 100). Inside the user commands the command `\@ordpt@case` will be redefined to be identity (lowercase), `\@ordpt@capitalize` (capitalized) or `\MakeUppercase` (uppercase) and `\@ordpt@ul` will be defined as “o” (masculine) or “a” (feminine).

```

22 \newcommand{\@ordpt@ordunits}[1]{%
23   \ifcase#1\or
24     \@ordpt@case{primeir}\@ordpt@ul}\or
25     \@ordpt@case{segund}\@ordpt@ul}\or
26     \@ordpt@case{terceir}\@ordpt@ul}\or
27     \@ordpt@case{quart}\@ordpt@ul}\or
28     \@ordpt@case{quint}\@ordpt@ul}\or
29     \@ordpt@case{sext}\@ordpt@ul}\or
30     \@ordpt@case{s'\etim}\@ordpt@ul}\or
31     \@ordpt@case{oitav}\@ordpt@ul}\or
32     \@ordpt@case{non}\@ordpt@ul}%
33   \fi}
34 \newcommand{\@ordpt@ordtens}[1]{%
35   \ifcase#1\or
36     \@ordpt@case{d'\ecim}\@ordpt@ul}\or
37     \@ordpt@case{vig'\esim}\@ordpt@ul}\or
38     \@ordpt@case{trig'\esim}\@ordpt@ul}\or
39     \@ordpt@case{quadrag'\esim}\@ordpt@ul}\or
40     \@ordpt@case{quinguag'\esim}\@ordpt@ul}\or
41     \@ordpt@case{sexag'\esim}\@ordpt@ul}\or
42     \@ordpt@case{septuag'\esim}\@ordpt@ul}\or
43     \@ordpt@case{octog'\esim}\@ordpt@ul}\or
44     \@ordpt@case{nonag'\esim}\@ordpt@ul}%
45   \fi}
46 \newcommand{\@ordpt@ordcents}[1]{%
47   \ifcase#1\or
48     \@ordpt@case{cent'\esim}\@ordpt@ul}\or
49     \@ordpt@case{ducent'\esim}\@ordpt@ul}\or
50     \@ordpt@case{tr\@ordpt@tracent cent'\esim}\@ordpt@ul}\or
51     \@ordpt@case{quadringent'\esim}\@ordpt@ul}\or
52     \@ordpt@case{quingent'\esim}\@ordpt@ul}\or
53     \@ordpt@case{se\@ordpt@sexcent cent'\esim}\@ordpt@ul}\or
54     \@ordpt@case{septingent'\esim}\@ordpt@ul}\or
55     \@ordpt@case{octingent'\esim}\@ordpt@ul}\or
56     \@ordpt@case{non\@ordpt@noningent gent'\esim}\@ordpt@ul}%
57   \fi}

```

`\@ordpt@ordinal` This command does all the work of mount the words.

```

58 \newcommand{\@ordpt@ordinal}[1]{%

```

It checks whether the number is between 0 and 1999.

```

59   \ifthenelse{\value{#1}>0\and\value{#1}<2000}

```

Save original counter to the counter `@ordpt@counter`.

```

60  {%
61    \setcounter{@ordpt@counter}{\value{#1}}%

```

Then, if it is larger than 999, adds “milesimo(a)” in front of it.

```

62    \ifthenelse{\value{@ordpt@counter}>999}
63    {%
64      \@ordpt@case{mil\'esim\@ordpt@ul}%

```

Save in the boolean @ordpt@putspace to put a space if something else is to be written.

```

65      \setboolean{@ordpt@putspace}{true}%

```

Subtract 1000 from the counter

```

66      \addtocounter{@ordpt@counter}{-1000}%
67    }

```

If counter is less than 1000, set the boolean @ordpt@putspace to not put a space if something else is to be written.

```

68    {%
69      \setboolean{@ordpt@putspace}{false}%
70    }%

```

Starts to parse the counter. Gets the algarism of cents, resetting counter @ordpt@alg and does a loop, stepping @ordpt@alg and subtracting 100 from @ordpt@counter while this counter is larger than 100.

```

71    \setcounter{@ordpt@alg}{0}%
72    \whiledo{\value{@ordpt@counter}>99}
73    {%
74      \stepcounter{@ordpt@alg}%
75      \addtocounter{@ordpt@counter}{-100}%
76    }%

```

If the algarism of the cents is positive, checks if it has to add a space, writes with \@ordpt@ordcents and set boolean @ordpt@putspace accordingly.

```

77    \ifthenelse{\value{@ordpt@alg}>0}
78    {%
79      \ifthenelse{\boolean{@ordpt@putspace}}{\space}{}%
80      \@ordpt@ordcents{\value{@ordpt@alg}}%
81      \setboolean{@ordpt@putspace}{true}%
82    }
83    {}%

```

Gets the digits of tens analogously it did before.

```

84    \setcounter{@ordpt@alg}{0}%
85    \whiledo{\value{@ordpt@counter}>9}
86    {%
87      \stepcounter{@ordpt@alg}%
88      \addtocounter{@ordpt@counter}{-10}%
89    }%
90    \ifthenelse{\value{@ordpt@alg}>0}
91    {%
92      \ifthenelse{\boolean{@ordpt@putspace}}{\space}{}%

```

```

93      \@ordpt@ordtens{\value{@ordpt@alg}}%
94      \setboolean{@ordpt@putspace}{true}%
95  }
96  {%
Now counter @ordpt@counter is left with the units digit. Print as before.
97      \ifthenelse{\value{@ordpt@counter}>0}
98      {%
99          \ifthenelse{\boolean{@ordpt@putspace}}{\space}{}%
100      \@ordpt@ordunits{\value{@ordpt@counter}}%
101  }
102  {%
103  }
104 % end of the first +\ifthenelse+: sign counter error if argument
105 % counter is not between 1 and 1999 inclusively.
106 %      \begin{macrocode}
107  {\@ctrerr}%
108 }

\ordptmasc      The end user commands. The difference between them is the \let binds of
\Ordptmasc      \@ordpt@case to \@firstofone, \@ordpt@capitalize or \MakeUppercase, and
\ORDPTMASC      binds of \@ordpt@ul to \@ordpt@masc="o" or \@ordpt@fem="a".
\ordptfem 109 \newcommand{\ordptmasc}[1]{%
\Ordptfem 110 \let\@ordpt@case\@firstofone
\ORDPTFEM 111 \let\@ordpt@ul\@ordpt@masc
112 \@ordpt@ordinal{#1}}
113 \newcommand{\Ordptmasc}[1]{%
114 \let\@ordpt@case\@ordpt@capitalize
115 \let\@ordpt@ul\@ordpt@masc
116 \@ordpt@ordinal{#1}}
117 \newcommand{\ORDPTMASC}[1]{%
118 \let\@ordpt@case\MakeUppercase
119 \let\@ordpt@ul\@ordpt@masc
120 \@ordpt@ordinal{#1}}
121 \newcommand{\ordptfem}[1]{%
122 \let\@ordpt@case\@firstofone
123 \let\@ordpt@ul\@ordpt@fem
124 \@ordpt@ordinal{#1}}
125 \newcommand{\Ordptfem}[1]{%
126 \let\@ordpt@case\@ordpt@capitalize
127 \let\@ordpt@ul\@ordpt@fem
128 \@ordpt@ordinal{#1}}
129 \newcommand{\ORDPTFEM}[1]{%
130 \let\@ordpt@case\MakeUppercase
131 \let\@ordpt@ul\@ordpt@fem
132 \@ordpt@ordinal{#1}}

```

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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.

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