

# autopuncitems

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## 1 Introduction

This package provides environments `AutoPuncItemize`, `AutoPuncItemizeO`, and `AutoPuncItemizeE` (beta) to automatically punctuate the items. By default, it adds the `autopunc (O|E)` options in the `enumitem` environments `itemize`, `enumerate`, and `description`, to wrap the contents in these environments. If you want to skip this (say if you were using the beamer class which may be interfered with by `enum item`), pass the `noenumitem` option to this package. You can still use the environments with beamer, though. It uses lua pattern matching to modify the environment's contents.

## 2 Some commands

`\APomit` Used in an `\item` to signify that that item should not be automatically punctuated, and not be counted. Expands to nothing.

`\APpass` Used in an `\item` to signify that that item should not be automatically punctuated, and but still counted. Expands to nothing.

`\setAPEach {}{}{}` Set the default, second last, and last punctuation point in that order.

`\setAPall {}` Set all punctuation points the same.

`\setAPdef {}` Set the default punctuation point. ; by default.

`\setAPseclast {}` Set the second last punctuation point. ; **and** by default.

`\setAPlast {}` Set the second last punctuation point. . by default.

`\enableAPautopassnest` Automatically put an `\APpass` on items that introduce a nested list. Default behaviour.

`\disableAPautopassnest` Do not automatically put an `\APpass` on items that introduce a nested list.

## 3 Variants

- `autopunc` Does not expand the contents of environment. Tutorial on next section shows this.  
`autopuncO` Expands the contents of environment once. Useful if `\item` 's are in a command  
`autopuncE` Fully expands the contents of environment first. This is in-progress and should not be used.

## 4 Tutorial

### 4.1 Basic Use

```
1 \begin{itemize}[autopunc]
2   \item one
3   \item two
4   \item three
5   \item four
6 \end{itemize}
```

- one;
- two;
- three; and
- four.

### 4.2 Demonstrating Pass

```
1 \begin{itemize}[autopunc]
2   \item one
3   \item two
4   \item three \APpass
5   \item four
6 \end{itemize}
```

- one;
- two;
- three
- four.

```
1 \begin{itemize}[autopunc]
2   \item one
3   \item two
4   \item three \APpass
5   \item four \APpass
6 \end{itemize}
```

- one;
- two;
- three
- four

### 4.3 Demonstrating Omit

```
1 \begin{itemize}[autopunc]
2   \item one
3   \item two
4   \item three \APomit
5   \item four
6 \end{itemize}
```

- one;
- two; and
- three
- four.

```

1 \begin{itemize}[autopunc]
2   \item one
3   \item two
4   \item three \APomit
5   \item four \APomit
6 \end{itemize}

```

- one; and
- two.
- three
- four

## 4.4 Nested

You must use `autopunc` on each nested list if you want that sub-list to be automatically punctuated. Note that by default, the item introducing (before) a sub-list will not be automatically punctuated.

```

1 \begin{itemize}[autopunc]
2   \item one
3   \item two
4   \item three:
5     \begin{enumerate}[autopunc]
6       \item alpha:
7         \begin{description}[autopunc]
8           \item[hello] world
9         \end{description}
10      \item beta
11      \item delta
12    \end{enumerate}
13   \item four
14 \end{itemize}

```

- one;
- two;
- three:
  1. alpha:
    - hello** world.
  2. beta; and
  3. delta.
- four.

### 4.4.1 If you forget to use `\APpass`

If you disable auto-pass nested lists, and don't use `\APpass`, here is what happens. Notice the extra “; and” below hello world and beta.

```

1 \disableAPautopassnest
2 \begin{itemize}[autopunc]
3   \item one
4   \item two
5   \item three
6   \begin{enumerate}[autopunc]
7     \item alpha
8     \begin{description}[autopunc]
9       \item[hello] world
10    \end{description}
11    \item beta
12  \end{enumerate}
13  \item four
14 \end{itemize}

```

- one;
- two;
- three
  1. alpha
    - hello** world.
    - ; and
  2. beta.
- ; and
- four.

```

1 \enableAPautopassnest
2 \begin{itemize}[autopunc]
3   \item one
4   \item two
5   \item three
6   \begin{enumerate}
7     \item alpha
8     \begin{description}[autopunc]
9       \item[hello] world
10    \end{description}
11    \item beta
12  \end{enumerate}
13  \item four
14 \end{itemize}

```

- one;
- two;
- three
  1. alpha
    - hello** world.
  2. beta
- four.

## 4.5 Expanding list contents

```

1 \def\listexample{
2   \item one
3   \item two
4   \item three
5   \item four
6 }
7 --will work fine (expand once)
8 \begin{itemize}[autopunc0]
9   \listexample
10 \end{itemize}
11
12 --will throw error
13 (author to fix this)
14 %\begin{itemize}[autopuncE]
15 %   \listexample
16 %\end{itemize}
17
18 --does not give desired result
19 (no items found)
20 \begin{itemize}[autopunc]
21   \listexample
22 \end{itemize}

```

- will work fine (expand once)
  - one;
  - two;
  - three; and
  - four.
- will throw error (author to fix this)
- does not give desired result (no items found)
  - one
  - two
  - three
  - four

## 4.6 Using the environment

The normal way to use the environment should be inside the first list, like so.

```

1 \enableAPautopassnest % default settn
2 \begin{itemize}
3 \begin{AutoPuncItems}
4     \item one
5     \item two
6     \item three
7     \item four
8 \end{AutoPuncItems}
9 \end{itemize}

```

- one;
- two;
- three; and
- four.

You may want to use the `AutoPuncItems` environment outside a list environment instead, say perhaps if you're using the `beamer`. Note that nested lists are normally not punctuated, and since the first-level list is inside the environment, it's considered nested. If you would like to disable the prevention of auto-punctuating all nested lists, use the `\disableAPprotectnest` . Note that nested lists will cause an error to occur.

```

1 \disableAPprotectnest
2 \begin{AutoPuncItems}
3 \begin{itemize}
4     \item one
5     \item two
6     \item three
7     \item four
8 \end{itemize}
9 \end{AutoPuncItems}

```

- one;
- two;
- three; and
- four