

# The `syntrace` package\*

Mathieu Boretti  
mathieu.boretti@gmail.com

March 13, 2007

## Abstract

This file describe the `syntrace` package. This package is intended for  $\LaTeX$  users who must deal with traces in `synttree`.

## 1 Options

- `synttree` The `synttree` option add the `synttree` command of the `synttree` package to the auto reset commands. With this option, the `\synttree` command is redefined to auto reset trace counter. A `\synttree*` command is add that work like `\synttree`, but without auto reset. This option is enabled is a default options.
- `qtree` The `qtree` option add the `Tree` command of the `qtree` package to the auto reset command.
- `i-start` The `i-start` change the first label of trace to `i` instance of `a`.

## 2 Usage

The `syntrace` package add a way to deal with trace in tree produce using the `synttree` package.

- `\traceLabel` The `\traceLabel{label}` set and draw a end trace. The parameter is the label to use for the reference.
- `\traceReference` The `\traceReference{ref}` draw a trace linked with the specified reference.
- `\syntraceresetmacro` The `\syntraceresetmacro{commande name without slash}` add auto-reset to this command.

## 3 Examples

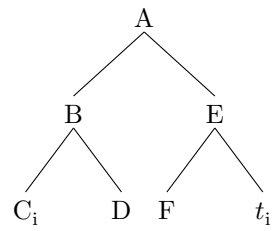
### 3.1 Simply example with `synttree`

```
% \synttree[A %  
% [B [C\traceLabel{11}] [D]] %
```

---

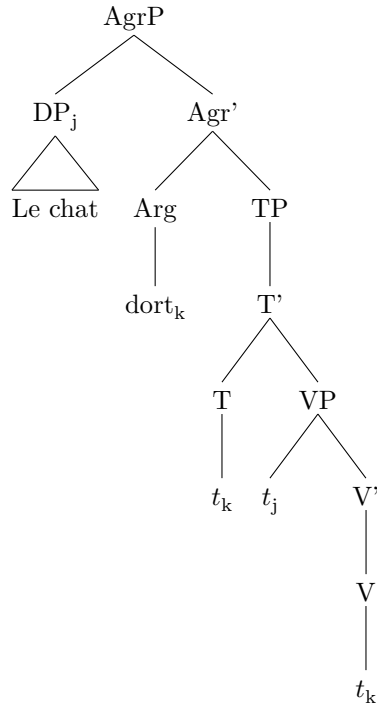
\*This document corresponds to `syntrace` v1.1, dated 2006/08/15.

```
%      [E [F] [\traceReference{11}]]%
%      ]
%
```



### 3.2 One complex example with synttree

```
% \synttree*[AgrP
%      [DP\traceLabel{sujet1} [.t Le chat]]
%      [Agr'
%      [Arg [dort\traceLabel{verbe1}]]
%      [TP
%      [T'
%      [T [\traceReference{verbe1}]]
%      [VP
%      [\traceReference{sujet1}]
%      [V' [V [\traceReference{verbe1}]]]]
%      ]
%      ]
%      ]
%      ]
%      ]
%
```

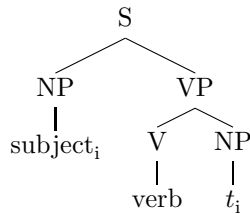


### 3.3 One example with qtree

```

% \Tree [.S [.NP subject\traceLabel{s1} ] [.VP [.V verb ] [.NP \traceReference{s1} ]]]
%

```



## 4 Implementation

`syntrace@startvalue` This counter define the start value of the trace numbering

```

1 \newcounter{syntrace@startvalue}
2 \setcounter{syntrace@startvalue}{0}

```

`syntrace@labelcounter` This counter count the trace

```

3 \newcounter{syntrace@labelcounter}
4 \setcounter{syntrace@labelcounter}{\arabic{syntrace@startvalue}}

```

```

\thesyntrace@labelcounter This macro display the value of the trace counter
5 \renewcommand*{\thesyntrace@labelcounter}{%
6   \alph{syntrace@labelcounter}%
7 }

\syntrace@labelletter This macro display the default letter for the trace
8 \newcommand*{\syntrace@labelletter}{%
9   \ensuremath{t}%
10 }

\syntrace@displaytrace This macro display the value of a trace
11 \newcommand*{\syntrace@displaytrace}[1]{%
12   \raisebox{-.5\height}{\scriptsize\mbox{#1}}%
13 }

\traceLabel This macro add a start trace
14 \newcommand*{\traceLabel}[1]{%
15   \refstepcounter{syntrace@labelcounter}%
16   \syntrace@displaytrace{\thesyntrace@labelcounter}%
17   \label{syntrace-#1}%
18 }

\traceLabel This macro add a reference to a trace
19 \newcommand*{\traceReference}[1]{%
20   \syntrace@labelletter\syntrace@displaytrace{\ref{syntrace-#1}}%
21 }

\syntrace@reset This macro reset the trace counter
22 \newcommand*{\syntrace@reset}{%
23   \setcounter{syntrace@labelcounter}{\arabic{syntrace@startvalue}}%
24 }

\syntraceaddressmacro This macro add autoreset to a command and add a starred version to this com-
mand that have the default functionality
25 \newcommand*{\syntraceaddressmacro}[1]{%
26   \expandafter\ifx%
27     \csname syntrace@old@#1\endcsname
28     \relax%
29     \PackageInfo{syntrace}{Adding auto-reset to #1}%
30     \expandafter\let\csname syntrace@old@#1\expandafter\endcsname%
31     \csname #1\endcsname%
32     \expandafter\def\csname#1\endcsname{\@ifstar{%
33       \csname syntrace@old@#1\endcsname%
34     }{%
35       \syntrace@reset%
36       \csname syntrace@old@#1\endcsname%
37     }}%
38   }%
39   \else

```

```

40     \PackageWarning{syntrace}{#1 already set as auto-reset}%
41   \fi
42 }

\syntracere moveresetmacro This macro remove autoreset to a command
43 \newcommand*{\syntracere moveresetmacro}[1]{%
44   \expandafter\ifx%
45     \csname syntrace@old@#1\endcsname
46     \relax%
47   \PackageWarning{syntrace}{#1 is not set as auto-reset}%
48   \else
49     \PackageInfo{syntrace}{Removing auto-reset from #1}%
50     \expandafter\let\csname #1\expandafter\endcsname%
51     \csname syntrace@old@#1\endcsname%
52     \expandafter\let\csname syntrace@old@#1\expandafter\endcsname\relax%
53   \fi
54 }

```