

HUMBOLDT-UNIVERSITÄT ZU BERLIN



L^AT_EX for Linguists

L^AT_EX 6: Examples & glossing

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gb4e

Different packages for examples:

- `linguex`
- `gb4e`
- `langsci-gb4e`
- ...

`gb4e` has **more options** than `linguex`, but it re-defines commands causing problems with the math mode (with `_`) and other packages (e.g. `forest`).

Load `gb4e` as one of the **last packages**:

```
\usepackage{gb4e}  
\usepackage[hidelinks]{hyperref}
```

Similar to the `itemize` environment, use an `exe` **environment** for examples, putting every sentence/phrase in an `\ex` **item**.

```
This is a sample text.
\begin{exe}
  \ex This is an example.
  \ex This is an example. The only purpose of this text is to show how to work
      with \LaTeX .
\end{exe}
This is a sample text. The only purpose of this text is to show how to work
with \LaTeX .
```

This is a sample text.

- (1) This is an example.
- (2) This is an example. The only purpose of this text is to show how to work with L^AT_EX.

This is a sample text. The only purpose of this text is to show how to work with L^AT_EX.

For **embedded example levels** use the `xlist` **environment**.

```
\begin{exe}  
  \ex This is an example.  
  \ex This is an example. The only purpose of this text is to show how to work  
    with \LaTeX .  
  \begin{xlist}  
    \ex This is an example on a new level.  
    \ex This is an example. The only purpose of this text is to show how to work  
      with \LaTeX .  
  \end{xlist}  
  \ex This is an example on the first level.  
\end{exe}
```

- (3) This is an example.
- (4) This is an example. The only purpose of this text is to show how to work with L^AT_EX.
 - a. This is an example on a new level.
 - b. This is an example. The only purpose of this text is to show how to work with L^AT_EX.
- (5) This is an example on the first level.

For **embedded example levels inside embedded examples** keep using the `xlist` environment.

```

This is a sample text.
\begin{exe}
  \ex This is an example.
  \ex This is an example. The only purpose of this text is to show how to work
    with \LaTeX .
  \begin{xlist}
    \ex This is an example on a new level.
    \ex This is an example. The only purpose of this text is to show how to work
      with \LaTeX .
    \begin{xlist}
      \ex This is an example on a whole new level.
      \ex This is an example. The only purpose of this text is to show how to
        work with \LaTeX .
    \end{xlist}
    \ex This is an example on the second level.
  \end{xlist}
  \ex This is an example on the first level.
\end{exe}
This is a sample text. The only purpose of this text is to show how to work
with \LaTeX .

```

This is a sample text.

(6) This is an example.

(7) This is an example. The only purpose of this text is to show how to work with L^AT_EX.

a. This is an example on a new level.

b. This is an example. The only purpose of this text is to show how to work with L^AT_EX.

i. This is an example on a whole new level.

ii. This is an example. The only purpose of this text is to show how to work with L^AT_EX.

c. This is an example on the second level.

(8) This is an example on the first level.

This is a sample text. The only purpose of this text is to show how to work with L^AT_EX.

Embedding examples with **letter numbering** in **arabic numbering**:

```
\begin{exe}
  \ex %empty!
  \begin{xlist}
    \ex This is an example.
    \ex This is a different example.
  \end{xlist}
\end{exe}
```

- (9) a. This is an example.
 b. This is a different example.

Cross-references with `label` and `ref`:

```
\begin{exe}
  \ex \label{ex:Arabic}%empty!
  \begin{xlist}
    \ex This is an example.
    \label{ex:Letter1}
    \ex This is a different example.
    \label{ex:Letter2}
  \end{xlist}
\end{exe}
```

See the following cross-references: (10), (10a), and (10b).

- (10) a. This is an example.
 b. This is a different example.

Acceptability judgements

For acceptability/grammaticality judgements, use the **square brackets** and enclose the sentence in **curly brackets**.

```
\begin{exe}  
  \ex[*]{These ungrammatical example is.}  
  \ex[] {This example is grammatical.}  
  \ex[\#]{colorless green idea}  
  \ex This example is grammatical.  
\end{exe}
```

- (11) * These ungrammatical example is.
- (12) This example is grammatical.
- (13) # colourless green idea
- (14) This example is grammatical.

Glossing

- ① The `\ex` line remains empty;
- ② use `\gll` and write in that line your **example**; **end** the line it with `\;`;
- ③ write the **glosses**, and **end** this line with `\;`;
- ④ **optionally**, give a **translation** `\glt`.

```
\begin{exe}
  \ex
  \gll Jeder Bauer, der einen Esel besitzt, schlägt ihn. \;
  every farmer that a.\textsc{acc} donkey owns beats it.\textsc{acc}\;
  \glt 'Every farmer who owns a donkey beats it.' \hfill \citep{Geach62}
\end{exe}
```

- (15) Jeder Bauer, der einen Esel besitzt, schlägt ihn.
 every farmer that a.ACC donkey owns beats it.ACC
 'Every farmer who owns a donkey beats it.'

(Geach, 1962)

Use **curly brackets** to group elements that are being **glossed as a unit**.

```
\begin{exe}
\ex
\gll {Multiword expression} -s can be glossed too.\\
Mehrwortlexem -e.\textsc{pl} können sein glossiert auch\\
\glt 'Auch Mehrwortlexeme können glossiert werden.'
\ex
\gll Peter$_{1}$ $t_{1}$ schläft$_{2}$ $t_{2}$\\
Peter {} sleeps\\
\glt 'Peter ist sleeping.'
\end{exe}
```

- (16) Multiword expression -s can be glossed too.
 Mehrwortlexem -e.PL können sein glossiert auch
 'Auch Mehrwortlexeme können glossiert werden.'
- (17) Peter₁ t₁ schläft₂ t₂
 Peter sleeps
 'Peter ist sleeping.'

Leipzig Glossing Rules (cf. Comrie et al., 2015)

Customizing identifiers

With the command `\exi{ }` instead of `ex`, you can choose own identifiers. The automatic numbering skips the `exi` examples, see (18), and (19).

```
\begin{exe}
  \ex a noun phrase \label{ex:DetNP}
  \exi{($\alpha$)} a noun phrase modified with a PP \label{ex:DetNPAP}
  \ex[*]{noun phrase a} \label{ex:NPDet}
  \exi{($\beta$)}[*]{a with a PP noun phrase modified} \label{ex:DetPPNP}
\end{exe}
```

(18) a noun phrase

(α) a noun phrase modified with a PP

(19) * noun phrase a

(β) * a with a PP noun phrase modified

With the command `\extr{ }` and `\exp{ }` instead of `ex`, you can **repeat the numbering** of earlier examples or repeat it with a **prime**, respectively.

```
\begin{exe}
  \ex[] {a new noun phrase}
  \extr{ex:DetNP}[] {a noun phrase}
  \exp{ex:NPDet}[*] {noun a phrase}
  \ex[] {another noun phrase}
\end{exe}
```

- (20) a new noun phrase
- (18) a noun phrase
- (19') * noun a phrase
- (21) another noun phrase

For further features of `gb4e`, take a look at the package documentation (Kolb et al., 2010).

1 Paket: gb4e

2 langsci-gb4e

langsci-gb4e

There is an **improved version** of `gb4e` made by the *Language Science Press* team.

```
\usepackage{langsci-gb4e}
```

You can use **all** `gb4e` **commands**, but there is also a shorter version for the `exe` and `xlist` environments: open and close every level with `\ea` and `\z`, every further item in a level is given by `\ex`.

```
\ea This is an example.  
  \ea This is an example.  
  \ex This is an example.  
  \z  
\ex This is an example.  
\z
```

- (22) This is an example.
 a. This is an example.
 b. This is an example.
- (23) This is an example.

For further features of `gb4e`, take a look at the LSP guidelines (Nordhoff & Müller, 2018).

Exercise

Go to
<https://github.com/langsci/latex4linguists/blob/master/3-2.md>
and follow the instructions of **all blocks** in your .tex file.

Quellen I

- Link: BibT_EX – Wikipedia (German)
<https://de.wikipedia.org/wiki/BibTeX>
[Zugriff: 23.10.2017]
- Link: BibT_EX – Wikipedia (English)
<https://en.wikipedia.org/wiki/BibTeX>
[Zugriff: 11.01.2019]
- Link: BibT_EX.org
<http://www.bibtex.org>
[Zugriff: 23.10.2017]
- Link: Creating and Managing Bibliographies with BibT_EX on Overleaf – (Lian Tze Lim)
<https://www.overleaf.com/blog/532-creating-and-managing-bibliographies-with-bibtex-on-overleaf>
[Zugriff: 28.11.2017]
- Paket: natbib – Flexible bibliography support.
<https://ctan.org/pkg/natbib>
[Zugriff: 23.10.2017]

Quellen II

- Twitter: T_EX tips
<https://twitter.com/textip>
[Zugriff: 10.04.2017]
- YouTube-Tutorial: L^AT_EX Tutorial
<https://www.youtube.com/channel/UCC-3dzj6dfbWwGzQzhkUS5A>
[Zugriff: 23.10.2017]
- Link: Akzente und Sonderzeichen in L^AT_EX.
https://de.wikibooks.org/wiki/LaTeX/_Akzente_und_Sonderzeichen
[Zugriff: 10.10.2017]
- Link: L^AT_EX/Special Characters.
https://en.wikibooks.org/wiki/LaTeX/Special_Characters
[Zugriff: 02.01.2019]
- Link: CTAN – The Comprehensive T_EX Archive Network .
<http://www.ctan.org/>
[Zugriff: 02.01.2019]
- Link: Type IPA phonetic symbols.
<http://ipa.typeit.org/full/>
[Access: 02/01/2019]

Quellen III

- Link: Language Science Press
`www.langsci-press.org`
[Access: 02/01/2019]

Literatur I

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Manuskript. <https://www.linguistik.hu-berlin.de/de/staff/amp/latex-einfuehrung>.
- Geach, Peter T. 1962. *Reference and generality: An examination of some medieval and modern theories*. Ithaca: Cornell University Press.
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- Kolb, Hans-Peter, Craig Thiersch & Alexis Dimitriadis. 2010. Preliminary documentation for gb4e.sty and cgloss4e.sty. *CTAN: Comprehensive TeX Archive Network*
<http://www.ctan.org/pkg/gb4e>.
- Kopka, Helmut. 1994. *Latex: Einführung*, vol. 1. Bonn: Addison-Wesley.
- Machicao y Priemer, Antonio. 2018. Hinweise für Seminararbeiten. Manuskript.
https://www.linguistik.hu-berlin.de/de/staff/amp/downloads/myp2018-04-06-hinweise_seminararbeit.pdf.
- Machicao y Priemer, Antonio & Robyn Kerkhof. 2016. LaTeX-Einführung für Linguisten – Slides. Presentation at the 7th linguistischer Methodenworkshop in the Humboldt-Universität zu Berlin – 22–24 February 2016.
<https://www.linguistik.hu-berlin.de/de/staff/amp/latex-einfuehrung>.

Literatur II

Nordhoff, Sebastian & Stefan Müller. 2018. Language Science Press: Complete set of guidelines. online.

<http://langsci.github.io/guidelines/latexguidelines/LangSci-guidelines.pdf>.