

**The `\glinlines` macro** The `\glinlines{}` macro provides for an unlimited number of word-for-word interlinear text/gloss lines, and an unlimited number of free-form text lines for translations, notes, etc.

The macro can be used inside the linguistic example environment (`exe`) of the `gb4e` package, standing in place of the `\gl...` commands in some cases.

```
\begin{exe}
\ex
\gll Wenn jemand in die Wüste zieht ... \\\
If someone in the desert draws and lives ... \\\
\trans `if one retreats to the desert and ... '
\end{exe}
```

produces:

- (1) Wenn jemand in die Wüste zieht und ...  
     If someone in the desert draws and lives ...  
     ‘if one retreats to the desert and ... ’

The `\glinlines{}` equivalent is:

```
\begin{exe}
\ex
\glinlines{%
    Wenn jemand in die Wüste zieht und ...
*/    If someone in the desert draws and ...
\glt  `If one retreats to the desert and ... '
\end{exe}
```

and produces:

- (2) Wenn jemand in die Wüste zieht und ...  
     If someone in the desert draws and ...  
     ‘If one retreats to the desert and ... ’

The number of words in the text/gloss lines currently must be equal.

Lines are delineated with `*/` (arbitrarily chosen, can be set to some other string).

Words are split out by spaces. “they-have” is one word, “they have” is two words. Braces, which have a special meaning to  $\text{\TeX}$ , can be used to group words, in effect shielding everything they contain from being seen: “{they have}” counts as one word. Because braces are eventually stripped out before printing, their presence affects the working of any attach-commands that `\glinlines{}` might use.

Free-form text as a translation (or any other matter) is introduced with `\glt` (likewise arbitrary) as the default marker.

Multiple glosses are possible:

- (3) Auto uderzył dziecko.  
car.NOM hit.3SG child.ACC  
car.ACC hit.3SG child.NOM  
‘The car hit the child.’ / ‘The child hit the car.’

Each text/gloss line (the word-for-word lines, WFW), can have one or more free-form text lines (FFT) attached.

The unstarred version of the macro, `\glinlines{}`, will print the FFT line(s) attached to the last WFW line. The starred version, `\glinlines*{}`, will print all FFT lines.

- (4) Auto uderzył dziecko.  
car.NOM hit.3SG child.ACC  
‘The car hit the child.’  
car.ACC hit.3SG child.NOM  
‘The child hit the car.’

The WFW lines can hold anything, not just glossing, as long as the number of words (i.e., ungrouped spaces) matches.

The FFT lines likewise can contain anything, not just translations.


- (5) gef hundinum matinn  
gje hunden maten  
give the dog the food  
gib dem Hunde das Essen  
One of the daily chores.




Source Reference

<https://tex.stackexchange.com/questions/156066/align-glosses-in-more-than-one-language-with-gb4e>



The `\glsetfirstlineformat{}` command will apply its contents to every word on the first line, e.g., font, font size, font colour.

To keep the spaces pristine as word-boundary markers, commands to be applied inside a line are marked with a colon (:) and suffixed to a word, e.g., `ugrt:writing` becomes `ugrt \writing`, which typesets as “ugrt ”.

- (6)   q  
‘Ugarītu  q  
Ugarit q

An ancient city in the east Mediterranean.  
Also known as Ras Shamra (“head fennel” = Cape Fennel),

## رأس شجرة



**New line** Post-pend a plus sign (+) to the word prior to where the new line should occur, e.g., “Mink.+”:

- (7) `thu-mi-t-əm =k'wa Mink.`  
`go.RIL.CTR.PASS =.QUOT Mink`  
`chichiya7-u-s =k'wa Mink te= c'estaya.`  
`grandmother.PST.3POSS =.QUOT Mink .DET= knothole`  
 ‘Mink went towards it. The knothole was Mink’s grandmother.’

Source Reference

<https://tex.stackexchange.com/questions/306764/breaking-line-in-gb4e>

Switching over to italic blue for the first line.

Notice the emphasized e, subscript i,  $e_i$ , inside an italic environment.

- (8) *a delak a uleker er ngak el kmo ng-ngerai a sensei*  
 mother-my asked P me L Comp CL-what teacher  
*a milskak a buk me a Toki a ulterur  $e_i$  er ngak*  
 gave book and Toki sold P me  
 ‘My mother asked me what the teacher gave me a book and Toki sold me’

To do: outdent:

Source Reference

<https://tex.stackexchange.com/questions/115591/how-can-i-indent-the-second-line-of-a-linguistic-gloss-with-gb4e-sty/115607#115607>

**Prepend commands** To prepend a command to a word, mark the command’s finish with a semicolon (;), e.g., `:llapstar;`The` becomes `\llapstar`The` which becomes “\*‘The”. (The `\llap{}` command is used here to overprint the \* to the left, so that the text aligns vertically.)

- (9) *bites dog cat*  
 verb dd cc  
 ‘The dog bites the cat.’  
 \*‘The cat bites the dog.’

Source Reference

<https://tex.stackexchange.com/questions/306564/left-edge-vertical-alignment-in-gb4e>

**Dot Prefix** Words (i.e., made up of letters A-Z, a-z, and digits 0-9) beginning with a dot are treated as parts of speech and their formatting is governed by the `\mfssetposformat{}` command, e.g., with `\mfssetposformat{ \scshape \bfseries` “.1sg” becomes “.1sg”.

- (10) *kma t’əlčqu-(y)in*  
      **.1SG .1SG.SUB**-see-**.2SG.OBJ**  
      ‘I saw you.’ (S1:71)

Source Reference

<https://tex.stackexchange.com/questions/184860/gb4e-leave-s-extra-space-before-translation/184862#184862>

### Patching the example number format

11. *Dies ist ein Beispiel*  
This is an example  
( )  $\mapsto$  . : `\usepackage{gb4e} \usepackage{etoolbox} \makeatletter \patchcmd\exe {\theexnumi} {\theexnumi.} {} {} \makeatother`

**Global settings** The `\mfssetposformat{}` formatting continues to apply from one example to the next, like a global switch.

- (12) *Saja mem-bawa surat itu kepada Ali.*  
I **.CAUSE**-bring letter the to Ali.  
I brought the letter to Ali.

Source Reference

<https://tex.stackexchange.com/questions/337817/using-gb4e-inside-of-enumerate-environment/338093#338093>

**Attaching commands** Use `:commandA;na:commandB` to achieve `\commandA na \commandB`  
 e.g., upright brackets: `:uplb;na:uprb`  $\mapsto$  (na).

(13) *nyumba i-na-on-ek-a (na) wa-tu*  
 house(9) 9-.PRS-see-.NEUT-FV (.COM) 2-person  
 intended: ‘(A/the) house is seen by people.’

(14) *a-li-sem-a kwamba “na-m-ju-a”*  
 1-.PST-speak-.FV .COMP .1SG.PRS-1-know-.FV  
 ‘He said, “I know him.”’

Source Reference

<https://tex.stackexchange.com/questions/308454/gb4e-overwrite-italics-in-first-line>

**Adding information to the right** is done with `\glinlinesnote{gloss example}{note}`.

```
\begin{exe}
\ex
  \glinlinesnote{%
    Das ist ein deutsches Beispiel.
  */ this is a German example
  }{German}
\end{exe}
```

produces

(15) *Das ist ein deutsches Beispiel.* (German)  
 this is a German example

A longer sentence:

(16) *Das ist einer dieser sehr langen Sätze, die es in der a*  
 this is one of-these very long sentences that it in the a  
*b deutschen Sprache gibt.*  
 b German language gives

(17) *Das ist einer dieser sehr langen Sätze,* (German)  
 this is one of-these very long sentences  
*die es in der a b deutschen Sprache gibt.*  
 that it in the a b German language gives  
 This item has a language note.

Source Reference

<https://tex.stackexchange.com/questions/600695/limiting-space-used-by-gb4e-and-adding-language-information-to-the-right>

**Extended commentary** The example can be almost all free-form text (i.e., `glt`-tagged material):

(18) *On the honeydew melon*<sup>1</sup>

The **honeydew melon** is one of the two main cultivar types in *Cucumis melo* Inodorus Group. It is characterized by the smooth rind and lack of musky odor.

El **melón verde**, melón blanco, casaba, melón rocío de miel o melón tuna es un fruto de la familia del melón *Cucumis melo* (*Cucumis melo*) que se cultiva en general para el consumo gastronómico. La fruta es similar al melón anaranjado o cantalupo, pero tiene un sabor más dulce, contiene más agua y posee un color verde pálido o claro en su interior.

Le melon honeydew, ou melon miel, est un melon du groupe de cultivars de l'espèce *Cucumis melo* (famille des Cucurbitaceae). Le groupe Inodorus inclut le melon honeydew, le melon musqué, le melon d'hiver et d'autres hybrides du melon.

Il melone verde è un gruppo di colture appartenente al gruppo Inodorus della specie dei *Cucumis melo*.

Tale gruppo comprende oltre al melone verde anche il melone persiano, di inverno, casaba e crenshaw.

This example also illustrates the use of custom markdown commands and their attachment as postfixes, acting on the word they are attached to: `honeydew melon` becomes `honeydew:space;melon`, to be seen as one 'word', to which the `\ttikz` command (an overlaid green bounding box with red text) is applied as the pattern `word::command;` and the pattern is converted to `\command { word }` by a regular expression. The pattern `:command;` is converted to `\command`.

`honeydew::ttikz;` produces:

(19) *The **honeydew** melon*  
**.ART .PROD.MET.ATTR .FRUIT**

(20) *Naoya-wa Mari-ga **Nani**-o Non-da ka Yumi-ni it-ta*  
 Naoya-**TOP** Mari-**NOM** what-**ACC** drink-**PAST** Q Yumi-**DAT** it-**PAST**  
**no?**  
 Q?  
 '(Lit.) For which x, x a thing, Naoya said to Yumi whether Mari drink x.'

<sup>1</sup>Text from various Wikipedias.

**Word-numbering** can be switched on with `\mfsnumberedwordson`.

- (21) *Naoya-wa*<sup>1</sup> *Mari-ga*<sup>2</sup> *Nani*<sup>3</sup> *Non-da*<sup>4</sup> *ka*<sup>5</sup> *Yumi-ni*<sup>6</sup>  
 Naoya-**TOP**<sup>1</sup> Mari-**NOM**<sup>2</sup> what-**ACC**<sup>3</sup> drink-**PAST**<sup>4</sup> Q<sup>5</sup> Yumi-**DAT**<sup>6</sup>  
*it-ta*<sup>7</sup> *no*<sup>8</sup>  
 it-**PAST**<sup>7</sup> Q<sup>8</sup>  
 ‘(Lit.) For which x, x a thing, Naoya said to Yumi whether Mari  
 drink x.’

**Word-stacks**, which are `vbox`es, can be formatted with `\mfsformattedvboxon`.

- (22) 

<i>οὐ</i> ou not	<i>θέλω</i> thelō want. <b>1Sg</b>	<i>δὲ</i> de but	<i>ὕμᾱς</i> humas you. <b>ACC.PL</b>	<i>ἀγνοεῖν</i> agnoein be-ignorant. <b>PRES.INF</b>	<i>ἀδελφοί</i> adelphoi brothers. <b>VOC</b>
<i>ὅτι</i> hoti that	<i>πολλάκις</i> polakis often	<i>προεθέμην</i> proethemēn planned. <b>1Sg</b>	<i>έλθεῖν</i> elthein come. <b>AOR.INF</b>		

But I don’t want you to be unaware, brothers, that many times I  
 planned to come.  
 (Rom 1.13)

The default style is `\colorbox{blue!12}`. It can be changed by setting the `[wordstackstyle = ...,]` option, e.g., `[wordstackstyle = {\fcolorbox{blue}{red!12}]` produces:

- (23) 

<i>οὐ</i> ou not	<i>θέλω</i> thelō want. <b>1Sg</b>	<i>δὲ</i> de but	<i>ὕμᾱς</i> humas you. <b>ACC.PL</b>	<i>ἀγνοεῖν</i> agnoein be-ignorant. <b>PRES.INF</b>
------------------------	--	------------------------	--	---

- (24) *w-for-w line 1*  
 w-for-w line 2  
 w-for-w line 3  
 w-for-w line 4  
 Line 4, Trans A  
 Line 4, Trans B  
 Line 4, Trans C

- (25) *w-for-w line 1*  
 Line 1, Trans A  
 Line 1, Trans B  
 Line 1, Trans C

w-for-w line 2  
 Line 2, Trans A  
 Line 2, Trans B  
 Line 2, Trans C  
 w-for-w line 3  
 Line 3, Trans A  
 Line 3, Trans B  
 Line 3, Trans C  
 w-for-w line 4  
 Line 4, Trans A  
 Line 4, Trans B  
 Line 4, Trans C

#### option key preamble=

- (26) Somebody has arrived late.  
*#Ich bin schon da*  
 I am already there  
 ‘I am here already.’

Source Reference

<https://tex.stackexchange.com/questions/308008/gb4e-phantom-spacing>

In plain code, square brackets on the first word is an issue, since an `\item[...]` will set the item dotpoint to whatever “...” is, but is not an issue with `\glinlines`.

- (27) *[This] a is an example which displays properly.*

No special treatment, uses `[This]`

- (28) \*

*[This] b is an example which displays properly (not).*

uses `\ex[*]`

- (29) *\*[This] c is an example which displays properly.*

uses `llapstar`

Source Reference

<https://tex.stackexchange.com/questions/590883/how-to-use-gb4e-to-produce-glossed-example-with-bracket>

Text, see footnote<sup>2</sup>

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<sup>2</sup> *This is a footnoted example.*

dA V iA Adj N



- (30) *Text*<sup>3</sup>, *text*, *text*.  
Text<sup>4</sup>, text, text.  
Text<sup>5</sup>, text, text.  
Text is here<sup>6</sup>, text, text.

---

<sup>3</sup>A footnote.

<sup>4</sup>A footnote.

<sup>5</sup>A footnote.

<sup>6</sup>A footnote: Source Reference

<https://tex.stackexchange.com/questions/334636/using-gb4e-to-insert-footnote-in-gll-line>

(31)

<i>luizcid</i>	<i>dun-</i>	<i>ua-</i>	<i>glud-</i>	<i>gan</i>	<i>giumima</i>
ART	PFX	PFX	V	SFX	N
ATEL-	NPST-	be.OLD-	ACT-	VST.PTCP	woman
there was a	being old		woman who		
Something else					
Ergative subject of muiddrin					
Over text					
Under text					

Source Reference

<https://tex.stackexchange.com/questions/355934/horizontal-curly-braces-in-expe-glossing-example>  
xxx

**Right-to-Left** See the example (uses polyglossia).

**Even height and depth** with a zero width \vrule.

**tfeL-ot-thgiR**

(32)

<p>مثبتة</p> <p>τω-δευτέρω do reinado x muthabatat installed</p>	<p>حقيقة</p> <p>έτει ano-segundo x haqiqat reality</p>	<p>هناك</p> <p>εν τω No hunak there</p>
<p>طويل</p> <p>Ναβουχοδονόσορ Nabucodonsor x tawil long</p>	<p>زمن</p> <p>βασιλείας sonhou x zaman time</p>	<p>منذ</p> <p>της de Nabucodonosor x mundh ago</p>

المقروء	المحتوى	أن	وهي
και o espirito dele, x almaqu' read	ενύπνιον desconcertou-se x almuhtawaa content	Ναβουχοδονόσορ e x 'ana that	ενυπνιάσθη um sonho, x wahi which
سيلي القارئ	ما	لصفحة	
και sono dele x silahi alqari distract the-reader	το πνεύμα αυτού o x ma what-will	εξέστη e x lisafhat for-page	
		عن الترك	
		ο ύπνος αυτού se lhe fugiu. y ean alturk about the-turk/leaving	

‘There is a long-established fact that the readable content of a page will distract the reader from leaving.’

Source Reference

<https://tex.stackexchange.com/questions/317589/arabic-russian-interlinear-text/317703#317703>

**Reset line formats** with `\glresetlineformats`.

(33) x y z  
a b c  
a b c  
a b c  
a b c  
a b c

**Subscripts and Superscripts** with `\glsb{}{}` and `\glsuper{}{}`.

(34)  $x_a y_\alpha z_b$   
 $a^x b^y c^z$   
 $a_1 b_2 c_3$   
 ${}_1a {}_2b {}_3c$   
 $^xa ^yb ^zc$   
 $a \ b \ e_i$

`x:suba;`  $\mapsto x_a$

`y:subalpha;`  $\mapsto y_\alpha$

`z::glsb!b;`  $\mapsto z_b$

`a::glsuper!x;`  $\mapsto a^x$

`b::glsuper!y;`  $\mapsto b^y$

`c::glsuper!z;`  $\mapsto c^z$

`a::glsb!1;`  $\mapsto a_1$

`b::glsb!2;`  $\mapsto b_2$

`c::glsb!3;`  $\mapsto c_3$

`::glsb!1;a`  $\mapsto {}_1a$

`::glsb!2;b`  $\mapsto {}_2b$

`::glsb!3;c`  $\mapsto {}_3c$

`::glsuper!x;a`  $\mapsto ^xa$

`::glsuper!y;b`  $\mapsto ^yb$

`::glsuper!z;c`  $\mapsto ^zc$

`e::glsb!i;`  $\mapsto e_i$

**Single-item Sequence as Input Line** An item that will be used multiple times can be stored once and retrieved multiple times.

(35) The cat sat on the mat.  
The cat sat on the mat!  
The cat sat on the mat?  
The cat sat on the mat??

The command `\mfsloadaseql` takes four parameters: [ namespace (optional) ] { sequence name } { separator } { (multiline) data } so that `\mfsloadaseql{cat}{.}` { The cat sat on the mat. } loads `The cat sat on the mat.` And the command `\mfsuseaseql` { sequence name } { output delimiter } retrieves it.

```
\glinlines{%
    \mfsuseaseql{cat}{.}
*/    \mfsuseaseql{cat}{!}
*/    \mfsuseaseql{cat}{?}
*/    \mfsuseaseql{cat}{??}
}
```

**Sequence item as Input Line** Multiple items can be stored as records in a sequence and then retrieved from that sequence by record number. For examples, sentences in a narrative.

(36) Many Volcanoes Erupt Mulberry Jam Sandwiches.  
The cat sat on the mat.  
The quick brown fox jumps over.

Storing:

```
\mfsloadaseql{dog}{*/}{%  
The cat sat on the mat.  
*/ The quick brown fox jumps over.  
*/ Many Volcanoes Erupt Mulberry Jam Sandwiches.  
}
```

Retrieving:

```
\glinlines{%  
    \mfsuseaseqli{dog}{3}  
*/    \mfsuseaseqli{dog}{1}  
*/    \mfsuseaseqli{dog}{2}  
}
```

**Using a lookup table** A property list can store (case sensitive) **key** = **value** pairs as records, and **value** can be retrieved with **\mfsgetapropkv** {propertylist name} {key}.

Storing:

```
\mfsloadaprop{cat}{%  
The=1  
,cat=2  
,sat=3  
,on=4  
,the=5  
,mat=6  
,mat.=7  
}
```

Retrieving the value attached to key **the** = 5.

```
\mfsgetapropkv{cat}{the}
```

**Auto-attaching a command to every word on a line** The option [ addca = pkvcat ] will postfix the example custom command \pkvcat to every word on line a (the first line). The first three lines (a–c) have this built-in addc- ability.

(37) 1 2 3 4 5 7  
 1 2 3 4 5 6. pkvcat added manually (note the dot)  
 The cat sat on the mat. source text

### Doing lookups

addca=  
 addcc=

(38)	G1722	G3588	G2094	G3588	G1208	G3588	G932	*
	εν	τω	έτει	τω	δευτέρω	της	βασιλείας	Ναβουχοδονόσορ
	in	the	year	the	second	of-the	reign	Nebuchadnezzar
	G1797	*			G1798	G2532	G1839	
	ενυπνιάσθη	Ναβουχοδονόσορ			ενύπνιον	και	εξέστη	
	dreamed	Nebuchadnezzar			a-dream	and	was-startled	
	G3588	G4151	G1473	G2532	G3588	G5258	G1473	G1096
	το	πνεύμα	αυτού	και	ο	ύπνος	αυτού	εγένετο
	the	spirit	his	and	the	sleep	his	went
	G575	G1473						
	απ’	αυτού						
	from	his						

### Attaching commands to specific words

addc b =  
 addc a w=  
 addc c w=  
 addcxa=

(39) (a) The **cat** sat on the mat.  
 (b) 1 2 3 4 5 7  
 (c) **The** cat sat on the **mat.**

**An inline lookup** “Cat” is word 2 in the lookup.

### Attaching multiple commands to one word

addcxa=  
addc[a]w=  
addcxb=

(40) (a) **The** cat sat on the mat.  $e_i$

(41) The cat sat on the mat.  $e_i$

### Highlighting a Wordstack

addwsa=

(42) The **cat** sat on the mat.  
The **cat** sat on the mat.  
The **cat** sat on the mat.  
The **cat** sat on the mat.

(43) (a) 我 没 有 问 题

(b) wǒ **méi\*** yǒu\* wèn tí

(c) I **no** have ask question

‘I don’t have questions.’

[Line (b) does a lookup of the xpinyin-database.def. \* = first of multiple readings.]

### Standalone commands

#### Note \glnote{}

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna.

(44) (German)  
Das ist ein deutsches Beispiel.  
this is a German example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna.

(45) (German)  
Das ist einer dieser sehr langen Sätze, die es in  
this is one of these very long sentences that it in  
der a b deutschen Sprache gibt.  
the a b German language gives

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna.



### Parallel \gltwoex{}

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna.

- |  |   |
|--|---|
| <p>(46) Das ist ein deutsches<br/>this is a German<br/>Beispiel.<br/>example</p> | <p>(47) Das ist einer dieser sehr langen<br/>this is one of these very long<br/>Sätze, die es in der a b deutschen<br/>sentences that it in the a b German<br/>Sprache gibt.<br/>language gives</p> |
|--|---|

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna.

- |  |  |
|--|--|
| <p>(48) The quick brown fox jumps<br/>DA ADJ1 ADJ2 N V<br/>over the lazy dog.<br/>PREP DA ADJ1 N</p> | <p>(49) The cat sat on the mat.<br/>DA N V PREP DA N</p> |
|--|--|



我诸葛亮 ⇨ wǒ zhū gé\* liàng  
我诸葛亮 ⇨ wǒ zhū (gé,gě) liàng  
Zhūgé Liàng, ...  
Zhūgě Liàng, ...

(qí,dàn,chú) (yí,yà,yá) (sǎn,chěn,càn)  
✓ 3:2:3 Chùyà Càn  
✓ 1:1:2 Qíyí Chěn  
✓ 2:3:- Dànyá Sǎn  
✓ -:- Qíyí Sǎn  
✓ -:-2 Qíyí Chěn  
✓ -:- Qíyí Sǎn  
✓ 1:1:2 Qíyí Chěn  
✓ -:- Qíyí Sǎn



✓-:-2 Qíyí Chěn  
✓-:- Qíyí Sǎn



## Meta Commands xxx

<code>\speech</code>	$\mapsto$	«▶
<code>\writing</code>	$\mapsto$	✎
<code>\uplb</code>	$\mapsto$	(
<code>\uprb</code>	$\mapsto$	)
<code>\uplq</code>	$\mapsto$	‘
<code>\uprq</code>	$\mapsto$	’
<code>\uplqq</code>	$\mapsto$	“
<code>\uprqq</code>	$\mapsto$	”
<code>\emphe</code>	$\mapsto$	<i>e</i>
<code>\suba</code>	$\mapsto$	a
<code>\subi</code>	$\mapsto$	i
<code>\emphx</code>	$\mapsto$	<i>x</i>
<code>\bffbox{zzz}</code>	$\mapsto$	<span style="border: 1px solid black; padding: 2px;">ZZZ</span>
<code>\bffcolorbox{zzz}</code>	$\mapsto$	<span style="border: 1px solid black; background-color: yellow; padding: 2px;">ZZZ</span>
<code>\llaphash{zzz}</code>	$\mapsto$	#ZZZ
<code>\llapstar{zzz}</code>	$\mapsto$	*ZZZ
<code>\glcmd{zzz}</code>	$\mapsto$	<code>\zzz</code>
<code>\glcldb{zzz}</code>	$\mapsto$	<code>\zzz{}</code>
<code>\glmeta{zzz}</code>	$\mapsto$	<code>zzz</code>
<code>\glsub{zzz}</code>	$\mapsto$	<i>zzz</i>
<code>\glsuper{zzz}</code>	$\mapsto$	<i>zzz</i>
<code>\subalpha{zzz}</code>	$\mapsto$	$\alpha$ ZZZ
<code>\pkvtest{zzz}</code>	$\mapsto$	<span style="border: 1px solid black; padding: 2px;">ZZZ</span>
<code>\doemph{zzz}</code>	$\mapsto$	<b><i>ZZZ</i></b>