Gianfranco Boggio-Togna

τεχνικά

# Typesetting for the Humanities

User Manual

Version 0.9 - November 2006

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# Preface

Over more than two decades,  $T_EX$  has acquired an unparalleled and well deserved reputation as the best tool for typesetting technical books and papers. Although  $T_EX$  was designed by Knuth "for the creation of beautiful books" and is indeed capable of producing "pages whose typographic quality is comparable to that of the world's finest printers" (preface to *The*  $T_EXbook$ ) it has been much more rarely used in the humanities than in the sciences.

Many texts in the humanities have been typeset with  $T_EX$  and there have been some interesting developments (notably EDMAC), but I think it is fair to say that no tools are available that allow literary works to be easily typeset to the minimum standard acceptable in a professionally printed book. Of course, given the right amounts of time and  $T_EX$ nical wizardry, it is possible to handcraft *any* text to the highest typographical quality; but such occasional exploits do not alter the general picture.

 $\tau\epsilon\chi\nu\iota\chi\dot{\alpha}$  is an attempt to fill the gap and provide scholars in the humanities (and—why not?—budding poets and playwrights) with a way of typesetting literary works to the best standards of reputable publishing houses, with something of the ease afforded to writers on technical matters by the available T<sub>E</sub>X software.

The suite supports a simple mark-up language based on a document model that takes the idiosyncrasies of literary texts into account, especially those of poetry and drama. The standard document model of SGML and descendants is not adequate for the purpose, as there is, in general, no direct correspondence between logical elements and typographical features. But the models are very similar and writing a program to generate a suitable  $T_EX$  input directly from a TEI encoded document should be a fairly straightforward task.

This is an interim release (hence the fractional release number). From the very start it has been my intention to provide all the facilities required for typesetting critical editions, chief among them support for an apparatus. But an apparatus presupposes a text typeset to decent standards and requires, above all, a robust and flexible coordinate system for the text (a crude line

numbering scheme is not sufficient). Reaching these goals has proved a more complicated and time-consuming task than I had anticipated. I have a clear idea of how to implement support for an apparatus but turning the idea into code would take at least a year and quite possibly more. And then, not everybody prepares critical editions.

Though not formally designated as such, this should be considered a betarelease: if for no other reason, because the suite, before being published, has had exactly 1 user.

 $Ventimiglia - Latte \cdot Milano \\ 2002 - 2006$ 

gbt

<sup>°</sup>Ω τεχνικώτατε Θεύθ, ἄλλος μὲν τεκεῖν δυνατὸς τὰ τέχνης, ἄλλος δὲ κρῖναι τίν' ἔχει μοῖραν βλάβης τε καὶ ὠφελίας τοῖς μὲλλουσι χρῆσθαι.

PLATO Phaedrus  $_{274e}$ 

# Notation

Quantities appearing within angle brackets, such as, for instance, < dimen > or < number >, are used with the meaning they have in *The T<sub>E</sub>Xbook*. The same notation is employed for some quantities that are specific to  $\tau \epsilon \gamma \nu \iota \chi \dot{\alpha}$ .

< optional argument > refers to the feature, introduced with  $\square T_E X 2_{\varepsilon}$ , that allows a command to take, in addition to any mandatory arguments, an optional argument enclosed by square brackets (see  $\square T_E X 2_{\varepsilon}$  for authors section **3.4**).

Quotations used for the purposes of illustration are typeset in a smaller font, preceded, in almost all cases, by an excerpt of the corresponding source code, typeset with a typewriter font.

Cross-references are enclosed within square brackets and typeset with a typewriter font. A number refers to a page in this manual. An alphanumeric string refers to the file with that name and extension tex in the examples directory of the  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  distribution; one or more page numbers may follow the file name.

# Acknowledgements

In developing  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  I have drawn as much as possible on the repertory of high-quality software that has been developed for T<sub>E</sub>X over the years; without it, writing the suite would have been an impossibly complex task.

To start with thanks to Donald Knuth may seem perfunctory: it is not so in this case. I have lived, and struggled, with TEX for over four years and I have experienced many moments of bafflement and frustration. Several times I have had to stop development as I could not see any way of achieving a certain result; yet I never had the slightest doubt that what I had in mind could be done with TEX and that any apparent difficulty was due only to a lack of imagination on my part. TEX is not perfect but it implements an extraordinarily coherent model of typesetting. It was only at the very end of development that I was faced with some of its intrinsic limitations.

My thanks go next to Leslie Lamport for creating  $\text{LAT}_{EX}$  and especially to the  $\text{LAT}_{EX}$  team for the substantial improvements in  $\text{LAT}_{EX} 2_{\varepsilon}$ : the structure of the  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  software depends, in an essential way, on the use of commands with an optional argument.

Stephan I. Böttcher's lineno package has provided support for line and page control over most of the development of τεχνιχά. Eventually I realized that only a small subset of the functions was actually needed and I packaged it in txnline.sty. It was with some regret that I jettisoned Stephan's code for page table look-up, one of the most elegant pieces of programming I have ever come across.

Before I had written a single line of code, I knew I would not have to worry about headlines and the table of contents, as every conceivable facility in this area was available in Javier Bezos' titlesec and titletoc. And so it has proved to be; implementing an *ad hoc* interface with  $\tau \epsilon \chi \nu \iota \chi \dot{\alpha}$  has been quite easy.

David Carlisle's **ifthen** package has provided a ready-made (indispensable) facility for conditional processing. The very clean design has allowed the addition of a few specialized tests for the τεχνιχά environment without any risk of incompatibilities. Going through the code checking for such risks has

#### ACKNOWLEDGEMENTS

been quite a pleasurable experience: in any competition for the most clever and compact example of  $T_E$ Xnichal wizardry, I would have no hesitation in nominating David's \TE@repl macro.

keyval, also by David Carlisle, has much simplified the handling of options.

The calc package, by Kresten Krab Thorup, Frank Jensen and the LaTeX3 Project, permits the user of  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  to enter complex expressions in a direct and natural way. As in the case of ifthen, the modular design has made it possible to add some specialized functions for the  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  environment.

Melchior Franz's **soul** package supports all the ways of twisting the aspect of copy one may conceivably need in a literary text (and then some...).

The highly specialized ifmtarg package, by Peter Wilson and Donald Arseneau, has simplified coding in several places.

Daniel Flipo's **lettrine** package offers complete support for one of the most characteristic features of French typography. As extensive modifications to the code were in any case necessary to adapt it to the suite, I took the opportunity to recode the whole package, in order to reduce the draw on  $T_EX$  resources (**lettrine** is rather profligate in its use of registers).

Some of the code of **relzise**, placed by Donald Arseneau and Matt Swift in the public domain, has been incorporated in the suite.

Though the structure of  $\tau\epsilon\chi\nu\nu\chi\dot{\alpha}$  is radically different from that of John Lavagnino and Dominik Wujastyk's EDMAC, the very thorough discussion of some TEXnicalities in the documentation has provided many useful hints.

Finally, I should like to mention the late Michael Downes' wonderfully instructive *Around the Bend* collection: one of the most brilliant pieces of coding from the collection is included verbatim in the software.

# Introduction

# Back to the Classics

The name of the suite is the Greek word  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$ , the neuter plural of the adjective  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha} \varsigma$ , which means, among other things, "done by rules of art, technical, systematic", "according to the rules of art" [Liddell-Scott-Jones].

When lowercase Greek letters are not available, the name may be written, as it would have been in Classical times, using all uppercase Greek letters: TEXNIKA; alternatively, one may use the Latin transliteration 'Technica', which is recorded by the Shorter Oxford Dictionary, though marked *rare*. These are the only correct ways of writing the name of the suite. While the connection with the etymology of 'TEX' is obvious and indeed deliberate, I have no wish to contribute to the spread of mad kern disease among the TEX community: Knuth had very good reasons for wanting a distinctive logo and he came up with a witty and elegant solution, but, as we say in Italy, *un bel gioco dura poco*.

The command names are mostly in Latin. There are two reasons for this. First, Latin has been the language of scholarship for centuries and it seems an appropriately neutral choice for a piece of software that may be used to typeset texts in a variety of languages. Second, Latin tags are an almost foolproof guarantee against the danger of conflicts with other packages.

While these seem to me convincing reasons, I realize that, if Latin is all Greek to you, you will find them less than compelling. I trust it will not be too difficult for you to memorize the command names: they are not many and I have chosen, whenever possible (perhaps at the risk of some impropriety), words whose descendants are still very much alive in most Western languages.

If, on the other hand, you are a Latinist, you will no doubt experience a feeling of deep revulsion at the thought of writing something like \Facies \numerus. There is no need for this: whenever appropriate, the genitive and the accusative of a command name are defined to be equivalent to the nominative. (But the suite makes no attempt at enforcing proper grammar

and nothing, except your self-respect, will prevent you from writing such horrors as, for instance, \Forma \stropham.)

To avoid confusing readers unfamiliar with Latin, the nominative form is used throughout this manual but the examples files generally have the inflected forms.

# T<sub>E</sub>X and friends

If you can find, among the example files that are provided with the suite, a document whose style is sufficiently similar to the style you wish to use for the text you are typesetting, you can just copy the preamble of that document, possibly with some minor modifications. If you take this approach, you can get by with just a basic knowledge of  $T_EX$ .

On the other hand, if you have to typeset a complex document with a structure substantially different from that of any of the examples, then you must be able to draw on all the resources of  $T_EX$ . Literary texts require very fine control over the smallest details of typesetting: the invention of a simple yet powerful model for the basic typesetting operations is no small part of Knuth's great achievement. You should be familiar with the first 100 or so pages of *The T<sub>E</sub>Xbook*, up to and including Chapter 15; you should pay special attention to Chapter 14 *How T<sub>E</sub>X Breaks Paragraphs into Lines*, where you will find it worthwhile to venture into territory marked by double dangerous bends.

You need no deep knowledge of LATEX beyond the basic notions: most LATEX environments are of no use in literary texts (and are not guaranteed to work within the  $\tau \epsilon \chi \nu \kappa \dot{\alpha}$  domains). But you should carefully read the user guide,  $LATEX 2\epsilon$  for authors, and follow its guidelines and rules.

For typesetting text in languages other than English, you should of course use Babel.

Document mark-up

# The document model

The  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  software processes those parts of the input document that are identified, by explicit mark-up, as *objects* belonging to one of a few *classes*; any other part of the document is processed directly by LATEX or TEX. While objects are recognized and processed wherever they are found, the typesetting of complex documents requires the objects to appear within a *domain*, which provides the necessary context.

# Domains

The suite supports two basic domains: *versus* (or *Versus*) for poetry and *prosa* (or *Prosa*) for prose. Higher level domains may also be defined; at present there exists just one domain of this type: *drama* (or *Drama*) for plays. (The case of the initial letter of a domain name is irrelevant).

The term *domain* (not part of the standard TEX terminology) refers to a section of text delimited by a pair of commands. A LATEX environment defines a domain, and so do the two commands formed by concatenating the environment name to  $\$  and  $\$ end respectively. The dual notation is a standard feature of LATEX; placing some text between  $\$ Env and  $\$ endEnv has the same effect as placing it between  $\$ begin{Env} and  $\$ end{Env}, with one crucial difference:  $\$ begin{Env} starts a TEX group that is closed by  $\$ end{Env}, while the command pair does not alter the grouping structure. In principle, it would seem simpler and clearer always to use an environment; in practice, one must keep in mind that processing long stretches of text within a group places a strain on TEX resources, with the risk of being eventually faced with the dreaded message

#### TeX capacity exceeded, sorry

Moreover, enclosing the text within a group is often unnecessary and gives no advantages. The examples files can provide some guidance on the criteria for choosing between the two forms of definition.

A versus (or Versus) domain is enclosed by one of the pairs:

\versus \endversus, \Versus \endVersus,	<pre>\begin{versus} \end{versus},   \begin{Versus} \end{Versus}.</pre>					
Similarly for a <i>prosa</i> (or <i>Prosa</i> ) domain:						
\prosa \endprosa, \Prosa \endProsa,	<pre>\begin{prosa} \end{prosa}, \begin{Prosa} \end{Prosa}.</pre>					
And for a <i>drama</i> (or <i>Drama</i> ) domain:						
\drama \enddrama,	\begin{drama} \end{drama},					

\Drama \endDrama, \begin{Drama} \end{Drama},

In this manual, the shorthand "within < domain >" is used for the text enclosed by any pair of delimiters for the domain; for instance, "within Versus" stands for text that appears between any of of the delimiter pairs listed above for the Versus domain. Furthermore, *poem* is used as a shorthand for the text included in a single instance of the Versus domain.

The Versus and Prosa domains can be freely nested one inside the other and each domain may also occur recursively inside itself. The software avoids any unnecessary overhead in domain switching; it also checks that domains are properly nested and, if they are not, issues an error message (if you are using an environment you may also get the usual LATEX message about mismatched **\begin \end** commands).

#### The Versus domain

Within the Versus domain:

- Blank or empty lines are ignored. All vertical spacing must be requested explicitly. Inter-line spacing is fixed: it does not stretch or shrink.
- Each line, as read by T<sub>E</sub>X, corresponds to a line of verse.

Recall that placing a % at the end of an input line seamlessly joins the line to the first nonspace character on the line that follows. T<sub>E</sub>X reads

This is % a single % as This is a single line. line. You must be careful about spaces. T<sub>E</sub>X reads This is% a single% as This is a single line. line.

**CAUTION** If you use your own commands to generate some text, be very careful about the definition. Within *Versus*, while the text is read the

end-of-line character is *active*: make sure that it does not occur within the command definition (i.e. put a percent sign at the end of each line). If the command can appear at the beginning of a line, the definition should start with \leavevmode.

#### The Prosa domain

Within the *Prosa* domain all the standard rules for  $T_EX$  input apply: an empty line. for instance, marks the end of a paragraph.

#### The Drama domain

This specialized domain is described in chapter **Typesetting drama**[86].

### Classes and objects

The main classes are \textus, \numerus, \titulus and \spatium, which are supported by the base package of the suite, TEXNIKA. The poetry and drama packages add support for a few, more specialized, classes.

Objects never belong directly to one of the main classes: they occur only as instances of a subclass of one of the classes. You are free to define as many subclasses as are necessary for processing a particular type of document. To each subclass is associated a set of *attributes* whose values determine the way an object of the subclass is processed; you can set and change a subclass attribute at any time. The suite automatically defines, for each of the classes, one *default* subclass whose name is the same as the name of the parent class; the **\numerus**, **\titulus** and **\spatium** subclasses are always available, while the default **\textus** subclass is reserved [13].

The occurrence of an object in the document takes the form of the name of the parent subclass followed, in most cases, by an argument defining the contents of the object; sometimes the contents are fully specified by an attribute of the subclass, in which case no argument follows the subclass name.

#### Defining a subclass

A subclass is defined by using the command Novus (or Nova or Novum, as appropriate) followed by the name of one of the main classes and the name of the new subclass. For instance:

#### ATTRIBUTES

\Novus \numerus \Nstanza
\Novus \titulus \Act

There are no restrictions on the number of subclasses you may define, except for those imposed by the resources available to  $T_EX$ . In any modern implementation of the program these are so abundant that you would be likely to run into trouble only with a number of subclasses running in the thousands (the **\numerus** class is an exception: each subclass requires the allocation of a **\count** register and there are 256 of them). Even when dealing with a very complex document, you will hardly ever need to define more than a dozen or so subclasses.

The \*-form of the **\Novus** command creates the subclass if it does not already exists, otherwise it just clears all the subclass attributes, which can then be defined anew.

## Attributes

The attributes of a subclass provide the information required for typesetting an object of that subclass. Not all attributes are applicable to every class and some are meaningful only for a specific class. There is, however, a core set of attributes that are generally applicable:

- **\Facies** defines the appearance of the object on the printed page by specifying, for instance, the font and special options such as letter spacing.
- **\Forma** defines the shape of a contiguous set of lines, associated with the object, that are to be treated as a unit; the unit often, but not always, coincides with a  $T_{EX}$  paragraph.
- **\Locus** defines the position of the object in relation to the main body of the document.
- \Modus specifies options that modify the standard way of processing the object.
- \SpatiumAnte, \SpatiumPost, \SpatiumSupra, \SpatiumInfra define the empty space to be left on the page, respectively, before, after, above and below the object.

These are only summary indications: the precise format and meaning of attribute definitions are explained in detail later on.

#### Setting the subclass attributes

The examples that follow define attributes using a realistic value for the argument. The precise format of an argument is explained later; for the purposes of the present discussion, an intuitive understanding of the meaning of the argument is quite sufficient.

An attribute for a subclass is defined by writing, after the name of the attribute, the name of the subclass followed by the definition (enclosed within braces):

```
\Facies \numerus {\oldstylenums{#1}}
```

Some attributes can have two different definitions, to be used alternatively depending on the context; in most cases, the two definitions are associated to recto and verso pages. The definitions are listed in the argument, in the form of sub-arguments separated by  $\$ . If no  $\$  appears within the argument, the definition applies to both contexts.

```
\Locus \numerus {\rightmargin + 1em}
\Locus \numerus {\rightmargin + 1em \\ \leftmargin - 1em}
```

The first definition causes line numbers to be typeset in the right margin in all pages; the second specifies that the numbers should appear in the outside margins, i.e. the right margin for recto pages and the left margin for verso pages.

Since in most cases several attributes of a subclass are defined at the same time, there is a handy convention that can save keystrokes: after a **\Novus** command or an attribute definition in the full format given above, you can omit the subclass name in any further definitions for the same subclass:

\Novus \numerus	\subnumerus					
\Facies	{\RelSize{-3}\oldstylenums{#1}}					
\Locus	{\rightmargin - 1.66cm}					
\Modus	{\alignedleft}					
\Facies \subnum \Locus \Modus	erus {\RelSize{-3}\oldstylenums{#1}} {\rightmargin - 1.66cm} {\alignedleft}					

Attribute definitions are translated by the software into  $T_EX$  macro definitions. All such macro definitions are local, which means that you can temporarily change an attribute within a  $T_EX$  group without affecting its definition outside the group.

#### ATTRIBUTES

The commands for the **\Facies**, **\Forma** and **\Modus** attributes may also occur in the \*-form; the argument is then *added* to the current definition for the attribute.

**CAUTION** As the examples above show, an attribute definition may include strings of the form #n, where n is a digit. This is the T<sub>E</sub>X notation for a parameter in a macro definition (attribute definitions eventually result, as we have seen, in macro definitions). With complex documents, it is sometimes necessary to define *ad hoc* commands whose definition includes the setting of some attribute [fleurs]. This can be safely done, provided you remember a basic rule of T<sub>E</sub>X syntax: if a macro definition occurs within the replacement text of another macro definition, all # tokens occurring in the parameters of the inner definition must be redoubled, as in this example from *The T<sub>E</sub>Xbook*:

\def\a#1{\def\b##1{##1#1}}

#### The \Facies attribute

The attribute defines the appearance of an object as it is typeset; the argument may contain arbitrary  $T_EX$  and LATEX commands, though, in most cases, the commands are limited to those that directly affect the aspect. Within the argument, the object to be typeset is represented by #1 (the notation for a  $T_EX$  macro parameter, which the object actually is, in this context); for some objects that have distinct components, each component may be represented by a separate macro parameter (up to #5 for some objects of the \numerus class). The typesetting of the object according to the definition in \Facies is done within a  $T_EX$  group, so that there is no risk of any other part of the document being affected.

\Novus \textus \Facies \Facies	{\RelSize{-3}#1} {\itshape #1}					
\Facies	{\RelSize{-1}\textit{#1}}					
\Facies	{\bfseries #1}					
\Novus \numerus \SomeNumber						
\Facies	{\RelSize{-2}\textbf{\oldstylenums{#1}}}					
\Facies	{\RelSize{-1}\textbf{\letter {#1}}}					
\Facies	{\raisebox{1.5ex}[0pt][0pt]					
	{\RelSize{-3}\oldstylenums{#1}}}					
\Facies	{\ROMANnumeral {#1}}					
\Facies	{\ordinal {#1}\MakeUppercase{\theordinal}}					

```
\Novus \titulus \SomeTitle
\Facies {\textsc{#1}}
\Facies {\RelSize{2}\textsl{#1}}
\Facies {\newpage\thispagestyle{empty}\LETTERspace{#1}}
```

For the \textus, \titulus and \spatium classes, the argument of \Facies need not contain any reference to the object (i.e. no #1), in which case the subclass name, when used as a command within the document, is not followed by an argument. The actual object, if any, to be instanced at that point is then entirely specified, directly or indirectly, by the attribute.

```
\Novus \titulus \SomeOtherTitle
\Facies {\RelSize{+1}ACTE \Nacte*{=+1}\Nscene{0}}
```

An empty argument (\Facies {}) has a special meaning. Although there is no #1, the command is expected to be followed by an argument which is, however, ignored: nothing is typeset.

In some complicated situations you may need to resort to conditionals using the **ifthen** package. In addition to the standard tests provided by the package you may also use **\isempty** (not available outside  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$ ) to check for an empty parameter; the test can always be safely made, irrespective of the actual value of the parameter.

**CAUTION** The *ifempty* test can be used **only** within the definition of an attribute for a  $\tau \epsilon \chi \nu \iota \chi \dot{\alpha}$  subclass. Do **not** use it in any other context: the result would be totally unpredictable.

As mentioned earlier, Facies\* adds the argument to the current definition for the attribute [47].

#### The \Locus attribute

The attribute specifies the position of the object in relation to the boundaries of a line of text. In the standard form, the specification consists of a mandatory keyword that defines the reference point, optionally followed by an offset. The keyword for the reference point is one of the following:

#### ATTRIBUTES

**\textleftmargin**, **\textrightmargin**: the margins between which an object of the default **\textus** subclass is typeset. They differ from the previous pair of margins only when the **\Locus** and/or **\Modus** attributes are specified for the default **\textus** subclass [14].

**\textleftedge**: the position at the left edge of the box containing the first non-space character on the line. Only the white space resulting from the document mark-up (for instance, through the **\Forma** attribute) is taken into account in determining the position; explicit spacing commands at the start of the line are not accounted for.

**\textrightedge**: the position at the right edge of the box containing the last non-space character on the line.

The optional offset from the reference point is an expression (in the format required by the calc package) that evaluates to a < dimen >. Within the expression the following commands (not part of the calc package) may be used:

- \offset{<subclass>} which evaluates to a <dimen> corresponding to the offset from \leftmargin for an object of <subclass> (whose \Locus must have been previously defined).
- \WidthOf{<text>} which evaluated to a <dimen> equal to the width of an \hbox containing <text>. Unlike the standard calc command \widthof, which typesets <text> in the current font, the \WidthOf command typesets <text> according to the \Facies attribute of the subclass whose \Locus is being defined.

#### The \Forma attribute

The attribute defines the shape of a contiguous set of lines, which often (but not always) coincides with a  $T_EX$  paragraph. The shape is defined by means of the  $T_EX$  commands discussed in Chapter 14 of *The T\_EXbook*, *How*  $T_EX$  *Breaks Paragraphs into Lines*: \parindent, \hangindent \hangafter, \leftskip \rightskip etc.

For text that appears within *Prosa*, the way individual lines are typeset can be specified by means of one of the following commands:

justified the  $T_EX$  default: all lines are ranged both left and right except for the last line, which is ranged left.

\rangedleft \rangedright all lines are ranged left and right, respectively.

\centered or \centred all lines are centred within the current text margins

**\centeredfinal** or **\centredfinal** the same as **\justified** but the last line is centred instead of being ranged left. Please note that this style (used almost exclusively for stage directions in theatrical plays) can be applied only to a piece of text that consists of *a single* paragraph.

**CAUTION** Do not use seemingly synonymous plain  $T_EX$  and  $IAT_EX$  control sequences, such as  $\raggedleft$  and  $\raggedright$ : they would give unpredictable results.

\Forma\* adds the argument to the current definition for the attribute.

#### The \Modus attribute

The attribute is used to set options that modify the standard treatment for objects of the subclass. Different options are available for each main class: they are illustrated later on, in the appropriate context.

\Modus\* adds the argument to the current definition for the attribute.

#### The \Spatium attributes

The main attributes are \SpatiumSupra and \SpatiumInfra which specify vertical space to be inserted, respectively, above and below an object. The argument is an object of the \spatium class [36].

For some classes it is possible to define the **\SpatiumAnte** and **\SpatiumPost** attributes for horizontal spacing. They have a rather specialized meaning and are discussed later on.

# The \textus class

As the name suggests, objects of this class consist of text to be typeset as part of the document. The default subclass (unlike that of the other main classes) is permanently reserved by the software for a special purpose.

## The default \textus subclass

Any text that appears within *Versus* or *Prosa* and is not the argument of a subclass command is treated as an object of the default \textus subclass. You may, if you wish, make this relation explicit by writing \textus {<some text>} where you would normally write <some text>, but this is in most cases a pointless complication. There are, however, circumstances where it makes sense; you may, for instance, want to quote some words of the text inside a commentary that uses a different font: quoting the words as the argument of \textus ensures that they are typeset with the proper aspect.

```
μή, φίλα ψυχά, βίον ἀθάνατον
σπεῦδε, τὰν δ' ἔμπραχτον ἄντλει μαχανάν.
PINDAR Pythian III
Questi versi \OldStyleNums{61-2} (\textus{mh', fi'la yuxa',
bi'on a)qa'naton}/\textus{speu=de, ta'n d' e)'mprakton a)'ntlei
maxana'n}) piacquero a Paul Val\'ery, ...
```

Questi versi 61-2 (μή, φίλα ψυχά, βίον ἀθάνατον/σπεῦδε, τὰν δ' ἔμπραχτον ἄντλει μαχανάν) piacquero a Paul Valéry, che li pose come epigrafe a *Le cimetière marin*: compendiano l'idea dominante della provvisorietà del vivere e la soluzione proposta nell'*explicit* del carme («...Il faux tenter de vivre»).

Gentili Introduzione alla Pitica terza

#### The \Facies attribute

Objects of the default **\textus** subclass are typeset using the **\Facies \textus** attribute, which, if not yet defined, is set automatically at the start of the document to reflect the font in use at that point. You can (re)define

**\Facies \textus** at any point, typically within a T<sub>E</sub>X group and perhaps using the \*-form, which adds some parameter to the current definition without replacing it. The **\Facies** attribute for **\textus** must not contain a reference to #1: you cannot say **\textit{#1}**; say **\itshape** instead.

#### The \Locus and \Modus attributes

In most cases you need not specify any other attribute for the default subclass, as you will generally want to use all the available space on the page as seen by  $\text{LAT}_{EX}$ . Sometimes, however, you may want to use only part of that space for the main text of the document [antocleo 125 fol.][mariner]; you must then define the boundaries of the area to be used.

With **\Locus \textus** you define the position of the left margin of the area; for instance:

\Locus \textus {\leftmargin \\ \leftmargin + 1in}

Note how you can specify different positions for recto and verso.

You also have to redefine the text measure (which is always the same for recto and verso and is set by default to \linewidth), with the \measure option of the \Modus attribute:

```
\Modus {\measure {\textwidth - 1in}}
```

Both attributes may be changed as needed, in a document, preferably at a page boundary. The current value of the text measure is available in  $\mbox{Measure}$ , a < dimen > register.

For a visual check of the current value, you can use the \ShowMeasure command, which typesets a graphical representation (there are several examples in this manual); if there is a \textus shift (see the next section), its position is marked by a thin vertical rule. There is also a \ShowLineWidth command to display the IATEX \linewidth. Both commands also have a \*-form, which in addition prints the length in pt.

#### Shifting (Versus only)

In poetry, the starting position for text need not coincide with the \Locus as set explicitly or by default; in fact the text is most often shifted to the right, and by an amount that may change from poem to poem. You can specify a shift by writing, as the argument of \Locus \textus, a < dimen > expression that starts with a sign; e.g. \Locus \textus {+3em}.

If the shift is set within a  $T_EX$  group, it is cancelled at the end of the group; otherwise, it must be cancelled explicitly with \Locus \textus -. The same shift can be reinstated at a later place with \Locus \textus +; note that the value used is that of the last \Locus \textus, independently of grouping (the value is saved globally).

You need not specify the \textus shift explicitly. The  $\tau \epsilon \chi \nu \varkappa \dot{\alpha}$  software can automatically compute and apply the appropriate shift, according to the standard typographical conventions for poetry. For this, you specify \Auto or \auto as the argument of \Locus \textus [50].

The **\textus** shift is taken into account only within *Versus*; it is ignored within *Prosa*.

### Other \textus subclasses

Objects of subclasses other than the default subclass are instanced explicitly by using the subclass name as a command. In most cases the text object is given as the argument of the command but it is also possible to have subclasses whose objects are fully specified by the **\Facies** attribute [6], in which case the subclass name is not followed by an argument.

If no  $\Locus$  attribute is specified for the subclass, the object is instanced at the point where the command occurs. If the  $\Locus$  attribute is set and the command occurs within *Versus* or *Prosa*, the object is attached to the next typeset line, at the position specified by the attribute.

A \textus object may be attached to each line of a set of consecutive lines by using the \*-form of the corresponding command [foscolo 8–11]. The end of the set is marked by the same command followed by *two* asterisks; the command must occur within text that belongs to the first line to which the \textus object should *not* be attached: the appropriate position is obvious within *Versus* but can be determined only by trial and error within *Prosa*.

#### The \textus object

In its simplest form, a **\textus** object is processed by  $T_EX$  in horizontal mode resulting in a **\hbox** that is typeset at its natural width.

```
\Novus \textus \lemma
\Facies {\textbf{#1}}
\lemma{envy} \textit{n}.
Emulation adapted to the meanest capacity.\par
```

```
\lemma{hatred} \textit{n}.
    A sentiment appropriate to the occasion
        of another's superiority.
```

envy n. Emulation adapted to the meanest capacity.

hatred n. A sentiment appropriate to the occasion of another's superiority.

BIERCE The Devil's Dictionary

Both the width of the \hbox and the position of the text within the box can be changed by giving a field specification in the argument of the \Modus attribute for the subclass. The field specification consists of one of the following commands: \rangedleft, \justified (equivalent, in this context, to \rangedleft), \rangedright, \centred (or \centered), followed by a <dimen> argument that specifies the field width, i.e. the width of the generated \hbox.

\Modus \lemma {\rangedleft {.5in}}

**envy** *n*. Emulation adapted to the meanest capacity.

hatred n. A sentiment appropriate to the occasion of another's superiority.

\Modus \lemma {\rangedright {.5in}}

envy *n*. Emulation adapted to the meanest capacity.

hatred n. A sentiment appropriate to the occasion of another's superiority.

\Modus \lemma {\centred {.5in}}

**envy** *n*. Emulation adapted to the meanest capacity.

hatred n. A sentiment appropriate to the occasion of another's superiority.

If the < dimen > given as the command argument starts with a sign, the field width is the sum of the argument and the natural width of the hbox.

\Modus \lemma {\rangedleft {+3mm}}

**envy** *n*. Emulation adapted to the meanest capacity.

hatred *n*. A sentiment appropriate to the occasion of another's superiority.

When a field specification is present in the Modus attribute, if the text in the object does not fit within the field width it is automatically typeset in a \vbox of that width, with line breaks being chosen according to the command in the field specification. You can force a line break by inserting the \\ command in the text; the command takes an *< optional argument>*, a \spatium object that specifies the vertical space to be inserted between the lines; the default is Oex, or the value of \SpatiumInfra \\ if the attribute is defined.

Both the height and the depth of the \vbox are set to zero.

```
\Novus \textus \gloss
\Facies {\RelSize[.9]{-2}\textit{#1}}
\Locus {\textleftmargin - 2mm -.8in}
\Modus {\rangedleft {.8in}}
\gloss{A man may have company when he sets out for heaven,
and yet go thither alone.}
\textbf{64}\ \textsc{Christian} We, indeed, came both together,
...
```

A man may have company when he sets out for heaven, and yet go thither alone. **64** CHRISTIAN We, indeed, came both together, until we came at the Slough of Despond, into the which we also suddenly fell. And then was my neighbour, Pliable, discouraged, and would not venture further. Wherefore, getting out again on that side next to his own house, he told me I should possess the brave country alone for him; so he went his way, and I came mine– he after Obstinate, and I to this gate.

BUNYAN The Pilgrim's Progress

When the  $\langle dimen \rangle$  in the argument of the field specification starts with a sign, line breaks must be set explicitly in the text by means of  $\backslash$ . The effective field width is computed by adding  $\langle dimen \rangle$  to the width of the longest line in the text.

\Novus \textus	\thedate					
<b>\Facies</b>	{\RelSize [.8]{-2}#1}					
\Locus	{\textleftmargin -2mm}					
\Modus	{\aligned {right} \centered {+0mm}}					
\thedate {June, \\18\\1815}Napoleon, then, was right to strike for						
Brussels, and Wellington, taking station in the field of Waterloo,						
was right to deny the road.						

June, Napoleon, then, was right to strike for Brussels, and Wellington, taking station  $\frac{18}{1815}$  in the field of Waterloo, was right to deny the road.

FISHER A History of Europe

Notice the use of **\aligned {right}** in the **\Modus** attribute [19], to force the right boundary of the **\textus** object box (instead of the default left boundary) to be aligned with the reference point specified by the **\Locus** attribute.

#### The \Facies attribute

All the features described in the general discussion of the attribute [9] are available for the subclass.

#### Delimiters

The **\Facies** attribute for a **\textus** subclass may include one or two delimiters. A delimiter is generated by the **\Delimiter** command; the command argument is the T<sub>E</sub>X control sequence for the delimiter, which may be one of the basic set of 22 listed on page 146 of *The T<sub>E</sub>Xbook* or one of the special delimiters listed on page 150. The **\Delimiter** command can appear only at the start or at the end of the argument for **\Facies**. The size of the delimiter is determined by the size of the text object, which must, of course, consist of more than one line (line breaks are set by **\\**).

```
\Novus \textus \DP
\Facies {\Delimiter\lbrace \RelSize[.9]{-2}#1}
\Modus {\aligned{axis} \rangedleft{+0pt}}
\DP {Montague\\Capulet}
\DP {Octavius C\ae{}sar\\Marcus Antonius\\M. \AE{}mil. Lepidus}
\DP {Peaseblossom\\Cobweb\\Moth\\Mustardseed}
```

$\left\{ \begin{array}{l} \text{Montague} \\ \text{Capulet} \end{array} \right.$	{ Octavius Cæsar Marcus Antonius M. Æmil. Lepidus	$\begin{cases} Peaseblossom \\ Cobweb \\ Moth \\ Mustardseed \end{cases}$
--	---	---

The **\Delimiter** command can take, as an *<optional argument>*, a real number: the adjustment factor. The adjustment factor is multiplied by the actual size of the text to which the delimiter is attached to give an apparent size;  $T_{E}X$  will then use the apparent text size to compute the size of the delimiter. As the example shows, the result is not always what one would intuitively expect and it is sometime necessary to proceed by trial and error.

\Facies {\Delimiter[1.1]\lbrace \RelSize[.9]{-2}#1}

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$\left\{ \begin{array}{l} \text{Montague} \\ \text{Capulet} \end{array} \right.$	I UCLAVIUS CAESAL	Peaseblossom Cobweb Moth Mustardseed
--	-------------------	---

You may also set the adjustment factor in the Modus attribute: it then applies to all subsequent \Delimiter commands (according, of course, to the standard T<sub>F</sub>X rules for grouping) [25].

#### The \Locus attribute

All the features described in the general discussion of the attribute [10] are available for the subclass.

#### The \Modus attribute

#### The \aligned command

By default, a box containing an object of the \textus class is typeset so that its left edge is aligned with the reference position (the position defined by the \Locus attribute or the current position, if \Locus is not defined) and the baseline of the last (or only) line in the box is the same as that of the line to which it is attached. Both the horizontal and the vertical alignment may be changed with the **\aligned** command.

The arguments of \aligned for the three instances of the same \textus object in each of the following examples are, respectively, left, centre, right. The thin rule marks the reference position.

Here lies One Whose Name was writ in Water Here lies One Whose Name was writ in Water Here lies One Whose Name was writ in Water

The arguments of *\aligned* for the four instances of the same *\textus* object in each of the following examples are, respectively, top, middle, axis and bottom. The thin rule lies on the text baseline; the = sign in the third instance is centred on the axis (where the bar line of a fraction would lie).

Cast a cold eye	Cast a cold eye	=	Cast a cold eye	Cast a cold eye
On life, on death.	On life, on dcath.		On life, on death.	On life, on death.
Horseman, pass by!	Horseman, pass by!		Horseman, pass by!	Horseman, pass by!

ABI, VIATOR.	ABI, VIATOR, ET IMITARE, SI POTERIS
ET IMITARE, SI POTERIS STRENUUM PRO VIRILI LIBERTATIS VINDICEM.	STRENUUM PRO VIRILI LIBERTATIS VINDICEM.
ABI, VIATOR, ET IMITARE, SI POTERIS STRENUUM PRO VIRILI LIBERTATIS VINDICEM.	ABI, VIATOR, ET IMITARE, SI POTERIS STRENUUM PRO VIRILI LIBERTATIS VINDICEM.

To change both the horizontal and the vertical alignment, you may specify the corresponding arguments in any order, separated by a comma.

#### The \multiples command

The \multiples (or \multiple) command identifies a special type of subclass, whose objects consist of a piece of text repeated as many times as necessary to fill a given width. The piece of text is defined by the \Facies attribute, which, for this type of \textus subclass, cannot contain #1: the argument of the command corresponding to the subclass name is used only to determine the amount of space to be filled with copies of the text defined by \Facies. The main use for subclasses of this type is for representing lacunas in a text.

\Novus \textus \Facies \Modus	\lacuna {\textperiodcentered\hskip 1.5em} {\multiples}
Inde casas postquam ac pellis ignemque pararunt, et mulier coniuncta viro concessit in unum \lacuna {et mulier coniuncta viro concessit in unum} cognita sunt, prolemque ex se videre creatam, tum genus humanum primum mollescere coepit.	
et mul · · · cognit	asas postquam ac pellis ignemque pararunt, ier coniuncta viro concessit in unum  a sunt, prolemque ex se videre creatam, enus humanum primum mollescere coepit. LUCRETIUS De rerum natura V

The amount of space to be filled may be also specified directly with \hskip or \hspace followed by <*dimen*>. For instance, using \PreviousLineWidth (discussed later on [77]):

Cerberus et furiae iam vero et lucis egestas, Tartarus horriferos eructans faucibus aestus \lacuna {\hskip \PreviousLineWidth} qui neque sunt usquam nec possunt esse profecto.

> Cerberus et furiae iam vero et lucis egestas, Tartarus horriferos eructans faucibus aestus . . . . . . . . . . . . . qui neque sunt usquam nec possunt esse profecto. LUCRETIUS *De rerum natura* III

### The \Forma attribute

The attribute is not defined for the subclass.

### The \Spatium attributes

The attributes are not defined for the subclass.

#### Areas

The mechanisms discussed so far are adequate for placing **\textus** objects at the appropriate position in relation to a single line of typeset text. Sometimes, however, it is necessary to position a text object relative to a set of consecutive lines: a common case is that of the list of characters for a play, where several characters, each listed on a separate line, are grouped together with a brace and given a single description:

 $\left. \begin{array}{c} \text{Goneril,} \\ \text{Regan,} \\ \text{Cordelia.} \end{array} \right\} \text{ Daughters to Lear}$ 

The set of consecutive lines in relation to which a text object is to be positioned is delimited by a pair of commands: \area \endarea (or \Area \endArea); you may also place the set within the area (or Area) environment.

```
\Versus
\Area
\textsc{Goneril,}
\textsc{Regan,}
\textsc{Cordelia.}
\endArea
\endVersus
```

An area can be defined only within the *Versus* or the *Prosa* domains; here it is placed within *Versus* to have the name of each character listed on a separate line. All lines in the area must appear on the same page of output.

The \Locus attribute for a \textus subclass whose objects are to be attached to an area must start with \area; the rest of the argument specifies the position of the object in the same manner as for objects that are to be attached to a single line, with one important difference: \textleftedge and \textrightedge refer to the leftmost/rightmost positions, respectively, at which a non-space character occurs on any of the lines within the area (i.e. they correspond to the left and right boundaries of the smallest \vbox that would entirely enclose the area).

The **\Facies** attribute for the subclass may include a **\Delimiter** [18]. In this case, the size of the delimiter is determined by the size of the area to which the **\textus** object is attached and not, as normally happens, by

the size of the object itself. This is usually what is needed; to revert to the normal procedure for determining the size of the delimiter, you can use the \*-form of the command: \Delimiter\*.

Objects of the subclass are instanced in the same manner as objects of other **\textus** subclasses: by using the subclass name as a command, usually followed an argument. Instead of being attached to the next line, the object will be attached to the next area.

```
\Novus \textus \characters
\Locus {\area \textrightedge + .25em}
\Facies {\Delimiter[.95]\} \itshape#1}
[...]
\characters{Daughters to \textsc{Lear}}
\Versus
\Area
\textsc{Goneril,}
[...]
```

Areas may be nested and they may also partially overlap. A single line can belong to at most 16 different areas. In the case of partially (not properly nested) overlapping areas, the opening and closing commands for each area must specify, as an *<optional argument>*, the same (arbitrary) identifier (a string of alphanumeric characters) to allow proper pairing of the commands.

The **\area** command that appears at the start of the argument of **\Locus** can take an *<optional argument>* to specify the position, on the vertical axis, at which the object should be placed relative to the area (the rest of the argument specifies the position on the horizontal axis). The default value (used when there is no *<optional argument>*) is middle which corresponds to the midpoint of the area; other possible values are top and bottom, which correspond to the baseline of, respectively, the first and the last line in the area.

```
\Novus \textus \translation
\Facies {\RelSize[.9]{-2}\textit{#1}}
\Locus {\area \rightmargin - 1.825in}
\Modus {\aligned{middle}\justified{1.825in}}
\Versus
\selectlanguage{french}
\translation {Les cieux, ils \'etaient de cendre et graves . . .}
\selectlanguage{english}
\Area
```

```
\Forma \stropha {011010101}
The skies they were ashen and sober;
The leaves they were crisp\'ed and sere---
...
\endArea
\endVersus
```

The skies they were ashen and sober;

The leaves they were crispéd and sere— The leaves they were withering and sere;

It was night in the lonesome October

Of my most immemorial year; It was hard by the dim lake of Auber, In the misty mid region of Weir—

It was down by the dank tarn of Auber, In the ghoul-haunted woodland of Weir. Les cieux, ils étaient de cendre et graves; les feuilles, elles était périssables et mornes. C'était nuit en le solitaire Octobre de ma plus immémoriale année. C'était fort près de l'obscur lac d'Auber, dans la brumeuse moyenne région de Weir c'était lá, près de l'humide marais d'Auber, dans le bois hanté par le goules de Weir.

POE Ulalume (trans. Mallarmé)

\Locus	{\area[top] \rightmargin - 1.825in}
\Modus	{\aligned{top}\justified{1.825in}}

The skies they were ashen and sober;

The leaves they were crispéd and sere— The leaves they were withering and sere;

It was night in the lonesome October Of my most immemorial year;

It was hard by the dim lake of Auber, In the misty mid region of Weir—

It was down by the dank tarn of Auber, In the ghoul-haunted woodland of Weir. Les cieux, ils étaient de cendre et graves; les feuilles, elles était périssables et mornes. C'était nuit en le solitaire Octobre de ma plus immémoriale année. C'était fort près de l'obscur lac d'Auber, dans la brumeuse moyenne région de Weir c'était lá, près de l'humide marais d'Auber, dans le bois hanté par le goules de Weir.

#### \Locus {\area[bottom] \rightmargin - 1.825in} \Modus {\aligned{bottom}\justified{1.825in}}

The skies they were ashen and sober;

The leaves they were crispéd and sere— The leaves they were withering and sere;

It was night in the lonesome October

Of my most immemorial year;

It was hard by the dim lake of Auber, In the misty mid region of Weir—

It was down by the dank tarn of Auber, In the ghoul-haunted woodland of Weir. Les cieux, ils étaient de cendre et graves; les feuilles, elles était périssables et mornes. C'était nuit en le solitaire Octobre de ma plus immémoriale année. C'était fort près de l'obscur lac d'Auber, dans la brumeuse moyenne région de Weir c'était lá, près de l'humide marais d'Auber, dans le bois hanté par le goules de Weir.

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The *<optional argument>* of the **\area** command that appears at the start of the argument of **\Locus** can specify, in addition to middle, top and bottom, two more options:

#### extend

With this option, after the object has been attached to the area, the values of \textleftedge and \textrightedge for the area are updated to correspond to the left and right boundaries of the smallest \vbox that would entirely enclose *both* the area *and* the object that has just been attached. This allows for proper nesting of delimiters.

```
\Novus \textus \nome
\Facies
               {\textit{#1}\Delimiter\{}
               {\area[extend] \textleftedge - .5em}
\Locus
\Modus
               {\aligned{right}}
\nome {ripresa \textup{(= \textit{sirma})}}
\Area [ripresa]
 Perch'i' no spero di tornar giammai,
  [...]
  ti far\'a molto onore.
\endArea [ripresa]
\nome {stanza}
\Area [stanza]
  { \Modus \Delimiter {.8}
  \nome {piede {\RelSize{-1}\textup{(AB)}}}
  \Area [piede 1]
   Tu porterai novelle di sospiri
    piene di dogli' e di molta paura;\kern .1em
  \endArea [piede 1]
  \nome {piede {\RelSize{-1}\textup{(AB)}}}
  \Area [piede 2]
    ma guarda che persona non ti miri
   che sia nemica di gentil natura:
  \endArea [piede 2] }
  \nome {sirma {\RelSize{-1}\textup{(Bccddx)}}}
  \Area [sirma]
    ch\'e certo per la mia disaventura
    [...]
   pianto e novel dolore.
  \endArea [sirma]
\endArea [stanza]
\end {versus}
```

Notice the use of  $Modus Delimiter {.8}$  to reduce the size of the brace.

		ero di tornar giammai,
	ballatetta, in	Toscana,
	$ipresa \ (= sirma) \begin{cases} va' tu, legger \\ dritt'a la don \end{cases}$	a e piana,
1	$\left( = sima \right) \int dritt'a la don$	na mia,
	che per sua c	ortesia
	che per sua c ti farà molto	onore.
	$ \left\{ \begin{array}{c} piede \ (AB) \\ piede \ (AB) \end{array} \right\} \left\{ \begin{array}{c} Tu \ porterai \ n \\ piene \ di \ do \\ piede \ (AB) \\ che \ sia \ nen \end{array} \right. $	ovelle di sospiri
	<i>pieue</i> (AB) { piene di do	gli' e di molta paura;
	miada (AP) ∫ ma guarda ch	e persona non ti miri
	$prede (AB) \ che sia nen$	nica di gentil natura:
$stanza \ \checkmark$	ché certo per	la mia disaventura
sianza	tu saresti con	tesa,
	sirma (Bccddx) tu saresti con tanto da lei r che mi sarebl dopo la mort	ipresa
	che mi sarebi	be angoscia;
	dopo la mort	e, poscia,
	pianto e nove	l dolore.
	CAVALCA	NTI 'Perch'i' no spero'

With a slight change to the definition of the **\textus** subclass:

\Novus \textus	\nome	
\Facies	{\Delimiter\} \textit{#1}}	
\Locus	{\area[extend] \textrightedge + .5ex	m}

Perch'i' no spero di tornar giamma ballatetta, in Toscana, va' tu, leggera e piana, dritt'a la donna mia, che per sua cortesia ti farà molto onore.	i, $\left. \right\}$ ripresa (= si	(rma)
Tu porterai novelle di sospiri piene di dogli' e di molta paura; ma guarda che persona non ti miri che sia nemica di gentil natura: ché certo per la mia disaventura tu saresti contesa, tanto da lei ripresa che mi sarebbe angoscia; dopo la morte, poscia, pianto e novel dolore.	<pre>} piede (AB) } piede (AB) sirma (Bccddx)</pre>	<pre>stanza</pre>

#### wrap

The object is 'wrapped' around the area. As much text as possible is typeset in a column having the same height as the area; any remaining text is then typeset within the full text measure. This very peculiar format is used for some of the glosses in Coleridge's *Rime of the Ancient Mariner* and is very unlikely to be needed anywhere else. [mariner]

\Novus \tex \Locus \Facies \Modus	<pre>tus \wgloss {\area [top, wrap] \textrightmargin - 20mm} {\FullHyphenation \RelSize[.9]{-2}#1} {\aligned {top} \rangedleft{20mm}}</pre>
in no: an ma	Spirit had followed them: one of the invisible habitants of this planet, neither departed souls r angels, concerning whom the learned Jew, Josephus, d the Platonic Constantinopolitan, Michael Psellus, y be consulted. They are very numerous, and there no climate or element without one or more.}
Of the Sp Nine fath	in dreams assured were irit that plagued us so; om deep he had followed us land of mist and snow.

<pre></pre>	
And some in dreams assured were Of the Spirit that plagued us so; Nine fathom deep he had followed us From the land of mist and snow.	A Spirit had followed them: one of the invisible inhab- itants of this planet, neither

departed souls nor angels, concerning whom the learned Jew, Josephus, and the Platonic Constantinopolitan, Michael Psellus, may be consulted. They are very numerous, and there is no climate or element without one or more.

#### [...]

The moving Moon went up the sky,	In his loneli-
And nowhere did abide:	ness and fixed-
Softly she was going up,	ness he year- neth towards
And a star or two beside–	the journeying
	Moon, and the

stars that still sojourn, yet still move onward; and every where the blue sky belongs to them, and is their appointed rest, and their native country and their own natural homes, which they enter unannounced, as lords that are certainly expected and yet there is a silent joy at their arrival.

# The \numerus class

# The \numerus object

Each subclass of **\numerus** is associated with a counter holding an integer. Objects of the subclass are instanced either automatically (when the value of the counter satisfies some condition) or by an explicit command that provides (directly or by reference to the counter) the contents of the object. The first mechanism applies only to subclasses for which the **\Locus** attribute is defined; the second is applicable to all subclasses.

Defining the **\Locus** attribute for a subclass implies that objects of that subclass will be attached, within the *Versus* and the *Prosa* domains, to a line of text; the attribute specifies the position, within the line, at which the object is typeset. The content of the object is the current value of the counter associated with the subclass; the counter is automatically incremented when a line of text is typeset, but its value may be modified at any time by a command. Objects of this type are the equivalent of the line numbers that are traditionally attached to the lines of a poem (or, more rarely, of a prose text). It is very uncommon for line numbers to be attached to every single line. Usually, they are printed at regular intervals; the **\Progressio** attribute for the subclass sets the interval(s) (the default is **\Progressio** \numerus  $\{5\}$ ).

Objects of a subclass for which the \Locus attribute is not defined or is empty are never instanced automatically but only by means of an explicit command.

The command acting on a subclass takes the form of the subclass name followed by an argument; both the normal and the \*-form of the command are available. (In the next sections, examples refer to the default subclass but, of course, you can use the name of any subclass).

**CAUTION** Any change to the value of the counter associated with a **\numerus** subclass is global (i.e. is made with an assignment prefixed by **\global**).

# Setting the counter

The normal form of the command sets the value of the counter associated with the subclass: \numerus {1} sets the counter to one. The new value may be set relative to the current value by placing a sign at the start of the argument: \numerus {+1} increases the value of the counter by one (note that \numerus {+0} leaves the counter unaltered, while \numerus {0} sets it to zero). \numerus {-0} has a special meaning: it 'freezes' the current value of the counter; the value will be used on any following lines until a command assigning a new value is issued (typically \numerus {+1} to resume normal counting).

For line numbers, setting the value of the counter also enables printing of the numbers, which is not enabled by default. A command with an empty argument, \numerus {}, disables printing, which may be resumed, without altering the counter, with \numerus {+0}.

# Instancing the object

The object specified by the argument of the \*-form is typeset unconditionally, either at the current position within the document or at the position defined by the **\Locus** attribute. The argument of the \*-form (unlike that of the normal form) can be specified using the full syntax for an object of the **\numerus** class, which allows for up to five components:

<head><first value><separator><second value><tail>

Here are some examples; the values assigned to each component are listed on the right side.

123	<>	<123>	<>	<>	<>
135-136\ D	<>	<135>	<->	<136>	< D >
104a\space LP	<>	<104>	<>	<>	< a LP >
a	<>	<>	<>	<>	< a >
-1-+1	<>	<-1>	<->	<+1>	<>
Fr. 286, 7 Dind.	<Fr. $>$	<286>	<,>	<7>	< Dind >
+1	<>	<+1>	<>	<>	<>
{{\relax+}1	<+>	<1>	<>	<>	<>
1{\relax2}	<>	<1>	<>	<>	<2>

The examples exhibit the rules that hold within the argument:

- Spaces are ignored. To get a space in the *<head>* or *<tail>* use \<sub>□</sub> or \space.
- The *<separator>* may be any character that cannot occur within a number, i.e is not a sign or a digit.
- When a character that would be normally be attached to *<first value>* or *<second value>* should instead be treated as part of either the *<head>* or the *<tail>*, you must enclose the entire *<head>* or *<tail>* in braces, inserting **\relax** after the left brace.

If <*first value*> or <*second value*> starts with a sign, the number typeset is the sum of the value and the current value of the counter.

The \*-form does **not** change the value of the counter associated with the subclass. If you wish to update the counter at the same time, put = at the start of the argument: \numerus\*{=+1} typesets the value of the counter incremented by 1 and assigns this value to the counter. If both *<first value>* and *<second value>* are present, the value assigned to the counter is that of *<second value>*.

The \*-form with an empty argument, \numerus\* {}, disables printing for the line to which it is attached: it must be placed at the start of the line, before any text.

For a sample of complicated objects of the \numerus class, see [lgs].

# I₄T<sub>E</sub>X counters

The counter associated with a subclass is also accessible as a  $LAT_EX$  counter whose name is the subclass name sans the escape character. In principle, you could handle it by means of the standard  $LAT_EX$  commands for counters; it is, however, advisable to stick to the mechanisms provided by the suite.

LATEX commands are useful for moving the value of a counter into another counter. Given the subclasses \numerus and \subnumerus,

\subnumerus{\value{numerus}}

sets the counter for the second subclass to the value of the counter for the first subclass. You can also use expressions, in the argument of \setCounter:

```
\setcounter{subnumerus}{\value{numerus}-1}}
```

(Recall that the calc package is required by the suite and so is always available.)

# The \Facies attribute

The argument of the **\Facies** attribute should always contain a reference to **#1**, which represents the object's *<first value>*. For a subclass whose objects are specified using only the normal form of the command, this is all that is needed: *<first value>* corresponds to the value of the counter associated with the subclass.

If an object of the subclass may be specified by means of the \*-form of the command, then the argument of **\Facies** should also account for the other possible components of the object. It is advisable to account for all the components, even though only some may actually occur in a document; the presence of a component is easily checked with **\ifthenelse** using the **\ifthenpty** test (not part of the **ifthen** package and not available outside of  $\tau \epsilon \chi \nu \kappa \lambda [10]$ ).

#1	$<\!\!first$	value>
#2	< tail >	·
#3	< separ	rator>
#4	< secon	nd value>
#5	<head	>
<pre>\Novus \numerus \dates \Facies { (\ifthenelse {\isempty {#5}}{}{\textit{#5}}%</pre>		
Cino da Pistoia \dates* {c.1270-1337} Dino Frescobaldi \dates* {c.1271-1316?}		

Cino da Pistoia (c. 1270-1337)Dino Frescobaldi (c. 1271-1316?)

# The \Locus attribute

In defining the **\Locus** attribute you should keep in mind that objects of the **\numerus** class are aligned to the reference point defined by the attribute on the *right*, unlike objects of the **\textus** class which are aligned on the left.

# The \Modus attribute

#### The \aligned command

When the \Locus attribute is defined, the \numerus object is typeset so that the right edge of the box containing the last digit is aligned with the reference point. The  $\langle tail \rangle$  component, if present, does not affect the alignment; to have the right edge of the  $\langle tail \rangle$  aligned with the reference point, specify \aligned{tail}.

To align the left edge of the box containing the object to the reference point, specify \aligned{left}.

#### The \pagewise command

Within *Prosa* any line numbers attached to the text will, by default, run continuously. The **\pagewise** command causes the counter associated with a line number to be reset to 1 at the start of each page.

# The \Spatium attributes

The only **\spatium** attribute for the class is **\SpatiumAnte**: when line numbers are printed to the right of a line of text, it specifies the minimum distance between the end of the text and the start of a line number.[63]

# The \titulus class

Objects of this class are pieces of text ('titles') that are detached from the main body of the document and mark some significant division in the structure of the text. They are instanced by using the subclass name as a command, usually (see **\Facies** below) followed by an argument.

The object is positioned relative to the current text measure; with the \*-form of the command it is positioned relative to the full \textwidth. Because objects of this class are always instanced at the point where the command is issued, the \Locus attribute is not meaningful.

Within the argument, the command  $\$  forces a line break. The command takes an *< optional argument>*, a **\spatium** object that specifies the vertical space to be inserted between the lines; the default is **Oex**, or the value of **\SpatiumInfra** \\ if the attribute is defined.

The default for **\Facies** is **{#1}** and for **\Forma** is **\centred**. By setting these attributes it is possible to implement some special typographical features; for instance, epigraphs:

\Novus \titulus	101	
\Facies	{\RelSize[.9]{-1}#1}	
\Forma	{\leftskip .45\Measure \justified}	
\SpatiumSupra	{2ex plus .5ex minus .5ex}	
\SpatiumInfra	{2ex plus .5ex minus .5ex}	
\Modus	{\unhyphenated}	
\Novus \textus	\auth	
\Facies	$\{ textsc{#1} \}$	
\Modus	{\rangedright{.45\Measure}}	
<pre>\epigraph { Il y a de certains d\'efauts qui, bien mis   en \oe uvre, brillent plus que la vertu m\^eme.\\   \auth{La Rochefoucauld}}</pre>		
	Il y a de certains défauts qui, bien mis en œuvre, brillent plus que la vertu même. LA ROCHEFOUCAULD	

And, by defining a simple command:

\newcommand {\Epigraph}[2][Anon.]{\epigraph{#2\\\auth{#1}}}

> Plenty and peace breeds cowards; hardiness even of hardiness is mother. SHAKESPEARE

Il faut choisir d'aimer les femmes, ou de les connâitre; il n'y a pas de milieu. CHAMFORT

#### The \Facies attribute

Whether the command takes an argument or not depends on the presence, within the **\Facies** attribute, of **#1**. If it is present, it stands for the value of the argument, which must therefore be supplied; if it is omitted, the contents of the object are completely specified by the **\Facies** attribute and no argument must follow the command name [49].

An empty \Facies [10] has a special interpretation for a \titulus subclass. As for other classes, nothing is typeset, but any actions specified by the \Caput, \SpatiumSupra and \SpatiumInfra attributes are performed.

#### The \Modus attribute

The only option is **\unhyphenated** (or **\nohyphens**) to prevent hyphenation when the object consists of more than one line.

#### The \Spatium attributes

The \SpatiumSupra and \SpatiumInfra attributes are almost always set for this class, to leave some space around the object. \SpatiumSupra may include the \penalty command in the special format (a real number enclosed within parentheses or brackets) supported by τεχνιχά [35]; this may prevent an object appearing too low in the page.

\SpatiumAnte and \SpatiumPost are not defined for the class.

# The \spatium class

An object of the **spatium** class represents vertical space to be inserted at the point where the object is instanced.

## The \Facies attribute

The only attribute for this class is **\Facies**, which specifies the vertical space as a  $\langle glue \rangle$  value and/or a penalty value. When the argument includes both  $\langle glue \rangle$  and a penalty, the values must be listed in this order.

The  $\langle glue \rangle$  value is a TEX glue specification:

<dimen> plus <dimen> minus <dimen>

where the plus  $\langle dimen \rangle$  and minus  $\langle dimen \rangle$  components are optional. In addition to the standard units of measure and T<sub>E</sub>X parameters, you can also use \leading (pronounced *ledding*), the traditional term, in typography, for the distance of a base line of a line of type from the base line of the line below it (\leading is just a synonym for the T<sub>E</sub>X primitive \baselineskip).

**\penalty** is normally interpreted as the standard T<sub>E</sub>X primitive, to be followed by a < number >, but  $\tau \epsilon \chi \nu \iota \varkappa \acute{\alpha}$  supports an extension in which the argument is enclosed within parentheses or square brackets. In **\penalty** (r) and **\penalty** [r], r is a real number < 1: if the available space on the page is ejected and a new page started. If r is enclosed in parentheses, the current page is stretched by T<sub>E</sub>X to achieve the full **\pageheight**, with the risk of running into an **Underfull box**; when r is within square brackets, the rest of the page is filled with space. This extension may be used, for instance, to avoid the problem of a poem starting at the bottom of a page. [fleurs] [carmina] [metapoet]

#### The \spatium object

 $\langle glue \rangle$  is inserted with the LATEX command \addvspace. The sequence of commands \addvspace{s1} \addvspace{s2} is equivalent to a single command \addvspace{maximum of s1, s2}; the same rule applies to the jux-taposition of two \spatium objects. To insert  $\langle glue \rangle$  unconditionally, use

the \*-form of the command corresponding to the subclass name (\vspace\* is used instead of \addvspace).

The default \spatium subclass is defined with:

\Facies {#1}

and the corresponding command may be used to insert the vertical space specified in the argument. New subclasses you may define will almost always have no #1 in their **\Facies** attribute, with the corresponding commands taking no argument.

Objects of the \spatium class also occur in other contexts:

- as values of the **\SpatiumSupra** and **\SpatiumInfra** attributes of some classes ;
- within the argument of \Forma \stropha[53] (a class supported by the poetry package);
- as the *<optional argument>* of a \\ command within an object of the \textus [17] or \titulus [33] classes (and some classes supported by the drama package [102] [104]).

In all these cases, the object specification has the same form as the argument of a command corresponding to a \spatium subclass. Alternatively, if you have defined a \spatium subclass with an appropriate \Facies (it should not contain #1), you can specify the object by quoting the subclass name [54].

τεχνικά makes no explicit provision for classes corresponding to horizontal space. Instead, it provides specialized commands for controlling horizontal spacing in all contexts (mainly occurring within verse) where such spacing constitutes a significant typographical element.

For some classes it is possible to define \SpatiumAnte and \SpatiumPost attributes, which specify horizontal spacing: the rules are the same as for \SpatiumSupra and \SpatiumInfra. TEX does not distinguish between vertical glue and horizontal glue but the two types of glue are not, in practice, interchangeable, if only because vertical glue is best specified in terms of ex units and horizontal glue in terms of em units; if you define a \spatium subclass for horizontal spacing you should use it only for this purpose.

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# Typesetting a document

# Special typographic features

# General-purpose commands

#### Setting the text height and width

The **\TextHeight** command takes a *<dimen>* as argument and sets the  $IAT_EX \ textheight$  parameter to the highest value not exceeding the argument such that a page can accomodate a whole number of lines typeset in the current font. For the \*-form of the command the argument is an integer specifying the number of lines on the page.

The command should always be used when typesetting long stretches of verse. Within *Versus* the inter-line spacing has no stretchability or shrink-ability and a page filled with continuous verse will inevitably result in an **Underfull box** if the text height is not an integer multiple of the inter-line spacing.

The \TextWidth command sets, in addition to \textwidth, two other IATEX parameters: \linewidth and \columnwidth.

For both commands, the argument can be any expression acceptable to the calc package.

#### Changing the font size

 $\label{eq:RelSize} $$ \end{tabular} $$$ 

The command gives the same results as version 2.0b of Donald Arseneau and Matt Swift's \relsize package, whose code it actually uses. The current (3.1) version of \relsize, being based on the concept of 'mag-steps', may give quite different results.

#### Letterspacing, underlining et al.

Melchior Franz's **soul** package includes all the facilities a typographer may conceivably need in this area. The  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  commands are just wrappers for the corresponding **soul** commands, with some minor additions to make them easier to use with the suite.

The basic command for letterspacing is  $\LetterSpace$ . The default values for the space parameters are: <inter-letter space> = .15em, <inner space> = .66em plus .1em, <outer space> = .66em plus .15em; you may of $course change them with <math>\sodef$ . The command takes, as an <optional argument>, a fraction of the form m/n giving the factor by which the space parameters should be multiplied;  $\LetterSpace[3/2]$  increases all space parameters by 50%.

You may wonder at this odd format. Using a real number would be more natural, but unfortunately  $T_EX$  cannot multiply all three components of  $\langle glue \rangle$  by a real number: it can only multiply and divide them by an integer.

The command **\letterspace**, in addition to letterspacing, converts all characters to lower case; **\LETTERspace** converts them to upper case. These 'combination' commands are especially useful for page headings since the **titlesec** package allows you to specify, at the end of an argument, a command name that takes a single parameter.

The command for underlining is Underline. It takes. as an *<optional argument>*, a pair *<underline depth> <underline thickness>* which is used to set these parameters for just the current command (the soul defaults remain in force).

The other commands are \StrikeOut and \Capitals, with the obvious meaning.

#### guillemets

The meaning of \guillemetleft and \guillemetright is obvious (there is no excuse for disfiguring a document with Adobe's grotesque solecisms).

#### Old style numerals

The **\OldStyleNums** command has the same effect as the standard IATEX command **\oldstylenums**, except that it leaves any non-digit characters in the argument unaltered.

#### Roman numerals

The  $T_EX$  primitive \romannumeral yields lower case letters. These are never used for Roman numerals in continental European countries, where only capitals (either full or small) are used. The \RomanNumeral{<number>} and \ROMANnumeral{<number>} commands yield the numeral in, respectively, small and full capitals.

#### Ordinal numbers

The command **\ordinal** {<*number>*} places the representation of the ordinal number corresponding to <*number>* (which must be  $\leq 25$ ) in the control sequence **\theordinal**. For languages with grammatical gender, an <*optional argument>* specifies the gender of the ordinal: **f** yields the feminine form, **n** the neuter form (**m** the masculine form, which is the default if there is no <*optional argument>*).

If Babel is loaded, the ordinal is generated in the language whose name is the current value of \languagename; if \languagename is not defined, English is used. In this release the following languages are supported: English, Latin, French, German and Italian.

The \Ordinal command generates the initial letter in upper case.

#### Mapping numbers to letters

The commands  $\letter{n}$  and  $\Letter{n}$  yield the lower/upper case letter, respectively, at position  $n \mod N$  in an alphabet of N letters. The default is the English alphabet; you may use a different alphabet by specifying, in the *<optional argument>*, one of the following values:

latin	the Latin alphabet
italian	the Italian alphabet
greek	the Greek alphabet (Babel with the greek option)
ibycus	the Greek alphabet (Babel with the ibycus option)

You may define a new alphabet with the command:

```
\alphabetum [<name>] {<argument>}
```

where  $\langle argument \rangle$  is a list of pairs of values, the first value being a lower case letter, the second the corresponding upper case letter. Each value is either a single T<sub>E</sub>X token or a set of tokens enclosed in braces; spaces within

<argument> are ignored. Once the alphabet has been defined, you can use <name> as the <optional argument> of a \letter or \Letter command.

The tokens in an alphabet need not be letters; there is, in fact, a symbol 'alphabet' with these values: \*  $\dagger \ddagger \S \P \parallel$ . The command \reference{n} may be used as a shorthand for \letter [symbol]{n}.

#### Number ranges

Typographical standards require number ranges (e.g. 131-4, 1961-8, 1988-93) to be printed using the least number of numerals possible (except for the numbers 10-19 which represent single words). The command  $\mberRange$ takes three arguments: the first two are the lower and upper limits of the range, the third, which *must* be the name of a LATEX counter, is set by the command to the value to be used for the upper limit.

#### "Driving out"

When typesetting a work in prose of some length, getting a few Overfull box messages is almost inevitable, especially with plays, where speeches may be as short as a couple of lines, leaving no room for manoeuvre to TEX's line-breaking algorithm. For obvious reasons, altering the text is out of the question. Sometimes increasing the stretchability or shrinkability of glue at suitable points (for instance, after the speech heading) will solve the problem, but situations will occur where there is no alternative to allowing looser word spacing ("driving out") for some stretch of text.

The normal form of the **\DriveOut** command is meant to be used at the start of a  $T_EX$  group and it affects all text within the group; the \*-form applies to the text that follows, up to the end of the paragraph.

#### **Full hyphenation**

When text is typeset in a very narrow column it is often impossible to get satisfactory results except by allowing words to be hyphenated fully, well beyond the limits of what is normally acceptable to  $T_EX$ 's line-breaking algorithm. This can be achieved with the **\FullHyphenation** command, which removes all penalties normally associated with hyphenation.

#### Random text

You can generate some random text with the \Lorem command: it yields a single paragraph containing 6 copies of the 'Lorem ipsum' text (69 words) that has been used by typographers for centuries. You can specify, in an  $< optional \ argument >$ , a list of numbers: for each number n in the list the command generates a paragraph containing n copies of the 'Lorem ipsum' text.

#### Rules

The \Rule command generates a horizontal rule with a width equal to the value of \hsize for the text in which it appears, taking \leftskip and \rightskip into account. The rule has the TEX default height (.4pt) and depth (0pt). You may change these parameters by specifying new values within an *< optional argument>*, in the format required by the keyval package (e.g. height=1pt). In the *< optional argument>* you may also set the value for level which defines the distance of the rule from the baseline of the text; by default, the rule is placed on the axis (where the bar line of a fraction would go, in a mathematical formula).

\Rule \Rule [height = 1pt]

Three other styles may be selected by specifying the appropriate keyword in the  $\langle optional \ argument \rangle$ .

\Rule [double]

\Rule [parallel]

\Rule [total]

For the last two styles, height sets the height of the thinner line, Height that of the thicker line.

# Incipits

The initial letter of a text is often emphasized by typesetting it at a larger size and/or in a different font, with the rest of the first word also usually set in a different font.  $\tau\epsilon\chi\nu\varkappa\alpha$  treats this initial part of a text as an object of the class \incipit (with no subclasses), for which the only attribute is **\Facies**. The definition of the attribute can contain references to four parameters:

#1	the initial letter
#2	the rest of the first word
#3	any non-letter token appearing before the initial letter
#4	the (fully expanded) concatenation of $\#1$ and $\#2$
 'Nor for 'But for	incipit {#3\textsc{#4}} 'Love} seeketh not Itself to please, itself hath any care, another gives its ease, ds a Heaven in Hell's despair.'
	OVE seeketh not Itself to please,
'N	for for itself hath any care,
'B	But for another gives its ease,
'A	nd builds a Heaven in Hell's despair.'
	BLAKE The Clod & the Pebble

For large *dropped capitals*, as used in traditional French typography, you can use the \DropCap command, which is the functional equivalent of the \lettrine command in the very versatile package of the same name by Daniel Flipo (tex-archive/macros/latex/contrib/lettrine).

\DropCap is supported by the txndrop package, a modified version (under the terms of the LPPL) of lettrine; note that the package cannot be used independently of τεχνιχά (use the original lettrine instead). txndrop retains all the features of lettrine, with some minor differences due to the need of avoiding any interference between the packages.

txndrop does not support a configuration file. The names of control sequences starting with Default are replaced by names starting with DropCapDefault and the value associated with these control sequences must *all* be set by means of \renewcommand. The string Lettrine in a control sequence must be replaced by DropCap.

\Facies \incipit {\DropCap[ante=#3,findent=1pt]{#1}{#2}} \incipit{'Courage}!' he said, and pointed toward the land,

> "C OURAGE!" he said, and pointed toward the land, "This mounting wave will roll us shoreward soon." In the afternoon they came unto a land In which it seemed always afternoon.

> > TENNYSON The Lotus-Eaters

Incipits may also be used outside *Versus* (in fact, outside of any domain). Outside *Versus*, you can place \unindent at the start of \Facies, to suppress the paragraph indentation.

\Facies \incipit {\unindent#3\textsc{#4}}
\incipit{'Yes}, of course, if it's fine tomorrow,' said Mrs Ramsay.

'YES, of course, if it's fine tomorrow,' said Mrs Ramsay.

WOOLF To the Lighthouse

\Facies \incipit {\unindent#3\textsc{#4}}
\incipit{L'anno} moriva, assai dolcemente.

L'ANNO moriva, assai dolcemente.

D'ANNUNZIO Il piacere

\Facies \incipit {\unindent{\RelSize{3}#1}#2} \incipit{Eine} kleine Station an der Strecke, [...]

Eine kleine Station an der Strecke, welche nach Rußland führt.

MUSIL Die Verwirrungen des Zöglings Törleß

\Facies \incipit {\unindent\textsc{#4}} \incipit{Longtemps}, je me suis couch\'e de bonne heure.

LONGTEMPS, je me suis couché de bonne heure.

PROUST Du côté de chez Swann

#### INCIPITS

\Facies \incipit {\unindent\textsc{\LetterSpace[1/2]{#4}}} \incipit{Longtemps}, je me suis couch\'e de bonne heure.

LONGTEMPS, je me suis couché de bonne heure.

PROUST Du côté de chez Swann

Notice the use of #4 in the second version of Proust's incipit. While in the first version #1#2 would give the same result, in the second (because of the peculiarities of the soul package) the result would be:

\Facies \incipit {\textsc{\LetterSpace[3/2]{#1#2}}}

L ONGTEMPS, je me suis couché de bonne heure.

PROUST Du côté de chez Swann

The incipit need not be identified explicitly: the \incipit\* command causes the next word(s) to be treated as an incipit. The command may be useful, for instance, when typesetting a novel, where the starting word of each chapter is often emphasized; if the chapter title is generated with a \titulus subclass, it is sufficient to place \incipit\* at the end of the \Facies attribute for the subclass. For a collection of poems where each poem is enclosed in an environment, the command may be included in the definition of the environment. [carmina][fleurs]

The incipit generally coincides with the first word of the following text, but, if that word consists of a single letter, the next word is included as part of the incipit.

\incipit\* E s'aprono i fiori notturni

> E S'APRONO i fiori notturni nell'ora che penso a' miei cari. PASCOLI *Il gelsomino notturno*

\Facies \incipit {\textsc{#4}} \incipit\*
I watched the moon around the house
I WATCHED the moon around the house
DICKINSON I watched the moon ...

Please note that only a single non-letter character (typically some sort of quotation mark) may appear before the first letter of the text; any other token will almost invariably cause an error.

You can override the automatic assignment by defining the incipit explicitly:

\incipit{0} der Seele N\"achtlicher Fl\"ugelshaft: O der Seele Nächtlicher Flügelshaft: TRAKL Abendländisches Lied

You can suppress the automatic assignment by placing \incipit {} or \noincipit at the start of the text. You may also redefine (locally) \Facies \incipit {}.

\incipit{} 0 der Seele N\"achtlicher Fl\"ugelshaft:

O der Seele Nächtlicher Flügelshaft: TRAKL Abendländisches Lied

\Facies \incipit {}
E s'aprono i fiori notturni

E s'aprono i fiori notturni nell'ora che penso a' miei cari. PASCOLI *Il gelsomino notturno* 

#### \noincipit I watched the moon around the house

I watched the moon around the house DICKINSON I watched the moon ...

# Typesetting poetry

# The Versus domain

To typeset some text as verse just place it within a *Versus* domain:

```
\versus
\Locus \textus {+6em}
    ?'C\'omo vive esa rosa que has prendido
    junto a tu coraz\'on?
    Nunca hasta ahora contempl\'e en la tierra
    junto al volc\'an la flor.
\endversus
    ¿Cómo vive esa rosa que has prendido
    junto a tu corazón?
    Nunca hasta ahora contemplé en la tierra
    junto al volcán la flor.
```

Bécquer Rima XII

The \Locus \textus command (to be discussed later) shifts the lines to the right, as verse is rarely typeset flush left.

Most poetry presents a uniform appearance but occasionally you may need to change the aspect of a section of verse. For this you can take advantage of  $T_{\rm E}X$  grouping, which localizes changes; just enclose any commands within a pair of braces or place them between \begingroup and \endgroup. Because of the way text is processed within Versus, there is an important restriction: a group delimiter may appear in a line that carries text to be typeset only if the matching delimiter also appears on the same line, i.e. the group is wholly contained within the line. Otherwise, each delimiter must be on a line that does not contain any text to be typeset.

To change the appearance of several lines of verse, you should set **\Facies \textus**, generally using the \*-form, as in the next example, to *add* some feature to the existing definition.

```
{\Facies* \textus {\itshape}
Poi s'ascose nel foco che gli affina
Quando fiam uti chelidon \textemdash{} {\upshape 0 swallow swallow}
Le Prince d'Aquitaine \'a la tour abolie
}
London Bridge is falling down falling down falling down
```

Poi s'ascose nel foco che gli affina Quando fiam uti chelidon — O swallow swallow Le Prince d'Aquitaine à la tour abolie These fragments I have shored against my ruins Why then Ile fit you. Hieronymo's mad againe. Datta. Dayadhvam. Damyata. Shantih shantih shantih

ELIOT The Waste Land

To change the appearance of just a few words within a line of verse, you can freely use all the text commands listed in  $\not BT_E X \mathcal{2}_{\varepsilon}$  for authors.

```
Und wir, die an \textit{steigendes} Gl\"uck
denken, empf\"anden die R\"uhrung,
die uns beinah best\"urzt,
wenn ein Gl\"uckiches \textit{f\"allt}.
```

Und wir, die an *steigendes* Glück denken, empfänden die Rührung, die uns beinah bestürzt, wenn ein Glückiches *fällt*. RILKE *Duineser Elegien*, x

# Titles

Titles are just objects of the **\Titulus** class, preferably belonging to one or more subclasses reserved for this purpose.

```
\Novus \titulus \Title
\Facies {\MakeUppercase{#1}}
\Novus \titulus \SubTitle
\Facies {\RelSize{-1}\textsc{\MakeLowercase{#1}}}
\Title {L'\'Epitaphe de Villon}
\SubTitle {En forme de ballade}
```

L'ÉPITAPHE DE VILLON EN FORME DE BALLADE

```
\Facies \Title {\textbf{#1}}
\Title {Mr. Eliot's Sunday Morning Service}
```

#### Mr. Eliot's Sunday Morning Service

```
\Facies \Title {\RelSize{1}\textit{#1}}
\Title {Von armen B.B.}
```

# Von armen B.B.

For a **\titulus** subclass to be used for titles you should always define the **\SpatiumInfra** attribute and, unless each poem starts on a separate page, also **\SpatiumSupra**, which should include a generous amount of stretchability.

\SpatiumSupra \Title	{2ex plus 2ex\penalty -100}
\SpatiumInfra	<pre>{1.5ex plus .5ex\penalty 10000}</pre>
\SpatiumSupra \SubTitle	{-1ex}
\SpatiumInfra	<pre>{1.5ex plus .5ex\penalty 10000}</pre>

#### L'ÉPITAPHE DE VILLON

EN FORME DE BALLADE

Freres humains qui après nous vivez, N'ayez les cœurs contre nous endurcis, Car, se pitié de nous pauvres avez, Dieu en aura plus tôt de vous mercis.

Sometimes poems are untitled and are just identified by a number. Numbers can be typeset automatically by combining a **\titulus** subclass with a **\numerus** subclass reserved for this purpose. [carmina][fleurs]

```
\Novus \titulus \Titre
\Facies {\Npoem*{=+1}}
\SpatiumSupra {2ex plus 1ex minus .5ex \penalty -100}
\SpatiumInfra {1ex plus .5ex minus .25ex \penalty 10000}
\Novus \numerus \Npoem
\Facies {\RomanNumeral{#1}}
\Titre
Heureux qui, comme Ulysse, a fait un beau voyage,
```

V

HEUREUX qui, comme Ulysse, a fait un beau voyage, Ou comme cestuy là qui conquit la toison, Et puis est retourné, plein d'usage et raison, Vivre entre ses parents le reste de son aage! DU BELLAY Sonnets

# The text

Typographical standards require poetry "to be centred on longest line, unless such line is disproportionately long, in which case use optical centring" (from *The Oxford Dictionary for Writers and Editors*, which presents the house style of the Oxford University Press). You set the position of the text by shifting \Locus \textus:

\Locus \textus {+106pt}

\Measure

Über allen Gipfeln Ist Ruh, In allen Wipfels Spürest du Kaum einen Hauch: Die Vögel schweigen im Walde. Warte nur! Balde Ruhest du auch. GOETHE Wanderers Nachtlied

With a large collection of poems, computing and setting the appropriate shift for each poem would be intolerably tedious. The software provides the option of having it set automatically. If you say

\Locus \textus {\Auto}

the **\Locus** for a *poem* will be chosen so that its longest line is centred. Recall that *poem* stands for anything appearing within a *Versus* domain; in fact, when typesetting a collection you will find it almost indispensable to define one or more environments in which to enclose the poems. [carmina] [metapoet] [fleurs]

If the  $\Delta uto$  option does not give satisfactory results, you can try  $\langle uuto$ , which attempts to provide optical centring, defined by the *ODWE* as "positioning on page of a title or passage of verse so that it appears to the reader to be centred, although by measurement it is not". This is hardly a satisfactory specification for an algorithm and the software approximates optical centring by computing the average length of a line (ignoring very short lines) and setting the  $\Delta cus$  so that a line of that length is centred.

Since the maximum  $\langle dimen \rangle$  T<sub>E</sub>X can handle is about 5.75 meters the average is computed over the first 5.5 meters' worth of text. Unless the poem has a truly bizarre shape, this is not likely to make any noticeable difference.

THE TEXT

Setting the  $\Locus$  automatically requires two  $\Lambda T_E X$  runs. At the end of the first, you get the message: -- You have set  $\Locus \textus to \auto (or \Auto)$ . With both options, if you judge that it would be better to set  $\Locus$  so that a particular line is centred, you can override the automatic mechanism by writing  $\auto$  at the end of that line [polizian].

If each poem in a collection starts on a new page, this simple approach generally provides satisfactory results; but if several poems may appear on the same page, setting the **\Locus** independently for each poem will, in many cases, produce minute irregularities in the alignment of adjacent poems, whenever they have lines nearly equal in length:

Έσπερε πάντα φέρων ὄσα φαίνολις ἐσκέδασ' αὔως φέρεις ὄιν, φέρεις αἶγα, φέρεις μάτερι παῖδα. SAPPHO (Diehl 120)

οἶον τὸ γλυκύμαλον ἐρεύθεται ἄχρωι ἑπ' ὕσδωι, ἄχρον ἐπ' ἀχροτάτωι, λελάθοντο δὲ μαλοδρόπηες, οὐ μὰν ἐχλελάθοντ', ἀλλ' οὐχ ἑδύναντ' ἐπίχεσθαι. Sappho (Diehl 116)

οἴαν τὰν ὐαχινθον ἐν ὤρεσι ποίμενες ἄνδρες πόσσι χαταστείβοισι, χάμαι δέ τε πόρφυρον ἄνθος SAPPHO (Diehl 117)

To avoid this phenomenon, the software, once it has calculated the position of the text for a poem, compares it with the positions for the previous two poems: if it differs from either by a distance smaller than a threshold value (set at 3 mm by default), the calculated position is replaced by the position for the previous poem.

> Έσπερε πάντα φέρων ὄσα φαίνολις ἐσκέδασ' αὕως φέρεις ὄιν, φέρεις αἶγα, φέρεις μάτερι παῖδα. SAPPHO (Diehl 120)

οἶον τὸ γλυκύμαλον ἐρεύθεται ἄκρωι ἑπ' ὔσδωι, ἄκρον ἐπ' ἀκροτάτωι, λελάθοντο δὲ μαλοδρόπηες, οὐ μὰν ἐκλελάθοντ', ἀλλ' οὐκ ἑδύναντ' ἐπίκεσθαι. SAPPHO (Diehl 116)

οἴαν τὰν ὐαχινθον ἐν ὥρεσι ποίμενες ἀνδρες πόσσι χαταστείβοισι, χάμαι δέ τε πόρφυρον ἀνθος Sappho (Diehl 117) This behaviour is enabled by default; to disable it, use \auto\* or \Auto\* (this was done for the first version of the example above). A new threshold value can be entered as the *< optional argument>* of the \auto or \Auto commands: \auto[5mm].

Sometimes you may want to align a poem with the preceding one, even though the difference between their natural positions does not satisfy the condition for automatic alignment. You can force alignment by setting (usually inside a  $T_EX$  group) \Locus \textus {\previous} for the second poem.

## Strophic structures

#### **Regular** structures

Most traditional verse is based on a regular structure of strophes or stanzas, which are treated by the software as objects of the class \stropha (with no subclasses). The \Forma attribute defines the pattern of indentation for the lines comprising the strophe. The argument is a sequence of numeric values, with 0 representing the absence of indentation and positive values corresponding to progressively deeper indentation; negative values are also allowed. Whenever the value cannot be represented by a single character (for instance '10' or '-1') it must be enclosed within braces: {10} {-1}.

```
\Forma \stropha {01}
```

```
Multas per gentes et multa per aequora uectus
aduenio has miseras frater ad inferias,
ut te postremo donarem munere mortis
et mutam nequiquam alloquerer cinerem:
```

Multas per gentes et multa per aequora uectus aduenio has miseras frater ad inferias, ut te postremo donarem munere mortis et mutam nequiquam alloquerer cinerem: quandoquidem fortuna mihi tete abstulit ipsum, heu miser indigne frater adempte mihi. nunc tamen interea haec prisco quae more parentum tradita sunt tristi munere ad inferias, accipe, fraterno multum manantia fletu, atque in perpetuum frater, aue atque uale. CATULLUS *Carmina*, CI The letter c (or C) causes the line to be centred within the text measure. [metapoet 22]

\Forma \stropha {c}

O défaillance universelle! Mon unique va naître aux moissons mutuelles! Pour le fortes roses de l'amour ella va perdre, lys pubère, ses nuances si solitaires, pour être, à son tour, dame d'atour de Maia!

Alléluia!

LAFORGUE Complainte des formalités nuptiales

The letter z (or Z) may be used as the first value. It is equivalent to 0 unless the first line of a strophe happens to be the first line of a page, in which case it is equivalent to 1. [faust 19]

The argument of \Forma may also include objects of the class \spatium, to insert penalties and/or vertical spacing between two lines of verse.

A high penalty will discourage undesirable page breaks, for instance after the first line or before the last line.

```
\Forma \stropha {0 {\penalty 1000} 10101241 {\penalty 1000} 2}
```

I cannot see what flowers are at my feet, Nor what soft incense hangs upon the boughs, But, in embalmed darkness, guess each sweet Wherewith the seasonable month endows The grass, the thicket, and the fruit-tree wild; White hawthorn, and the pastoral eglantine; Fast-fading violets cover'd up in leaves; And mid-May's eldest child, The coming musk-rose, full of dewy wine, The murmurous haunt of flies on summer eves. KEATS Ode to a nightingale

Notice that spaces within the argument of \Forma are ignored.

The unit of indentation is set by default to 1em. You can change it by specifying a  $\langle dimen \rangle$  at the end of the argument, preceded by  $\backslash \backslash$ .

#### TYPESETTING POETRY

Darkling I listen; and, for many a time

I have been half in love with easeful Death,
Call'd him soft names in many a mused rhyme,
To take into the air my quiet breath;

Now more than ever seems it rich to die,

To cease upon the midnight with no pain,
While thou art pouring forth thy soul abroad

In such an ecstasy!

Still wouldst thou sing, and I have ears in vain –

To thy high requiem become a sod.
KEATS Ode to a nightingale

The next example illustrates the use of a convenient shorthand for several consecutive occurrences of the same value: 0\*5 is equivalent to 00000.

\Novum \spatium \interligne
\Facies {.75\leading}
\Forma \stropha {0\*5 \interligne 0}
\SpatiumSupra {\interligne}

La lune blanche Luit dans les bois; De chaque branche Part une voix Sous le ramée...

O bien-aimée

L'étang reflète, Profond miroir, La silhoutte Du saule noir Où le vent pleure...

Rêvons, c'est l'heure.

Un vaste et tendre Apaisement Semble descendre Du firmament Que l'astre irise...

C'est l'heure exquise. Verlaine *La Bonne Chanson*, vi

54

Another shorthand is provided by the  $\langle optional \ argument \rangle$  of  $\stropha$ , which specifies the number of lines in the strophe; if the argument holds fewer values, the last value is replicated as many times as necessary.

 $Forma \ [8] \{10\}$ 

Non morì già, ché sue virtuti accolse tutte in quel punto e in guardia al cor le mise, e premendo il suo affanno a dar si volse vita con l'acqua a chi co 'l ferro uccise. Mentre egli il suon de' sacri detti sciolse, colei di gioia trasmutossi, e rise; e in atto di morir lieto e vivace, dir parea: "S'apre il cielo; io vado in pace." TASSO Gerusalemme liberata, XII

When a fragment of verse is quoted, its boundaries need not coincide with those of a strophe and it would be tedious to have to define a new *ad hoc* **\Forma** for the fragment. This is not necessary: you can use the standard definition with a slash / inserted at the position corresponding to the first line of the quotation.

\Forma \stropha {0{\penalty 1000}101/01241{\penalty 1000}2}

Perhaps the self-same song that found a path Through the sad heart of Ruth, when, sick for home, She stood in tears amid the alien corn; The same that offtimes hath Charm'd magic casements, opening on the foam Of perilous seas, in faery lands forlorn.

Forlorn! the very word is like a bell To toll me back from thee to my sole self! KEATS Ode to a nightingale

Sometimes, especially for short quotations, it is easier to set the indentation directly for each line rather than define \Forma \stropha. The \\ command at the start of a line inserts a space equal to the unit of indentation, \\\* a space twice as long.

```
Sous le pont Mirabeau coule la Seine

\\* Et nos amours

\\Faut-il qu'il m'en souvienne

La joie venait toujours apr\'es la peine

\vacua

\\*Vienne la nuit sonne l'heure

\\*Le jours s'en vont je demeure.
```

Sous le pont Mirabeau coule la Seine Et nos amours Faut-il qu'il m'en souvienne La joie venait toujours après la peine

> Vienne la nuit sonne l'heure Le jours s'en vont je demeure. Apollinaire *Le pont Mirabeau*

Both forms can take an *<optional argument>*: \\\*[n] inserts a space equal to *n* times the unit of indentation. \\[*<text>*] inserts a space equal to the space taken up by *<text>* when typeset; you may also specify the space directly by putting a \hskip command in the parameter. With both forms, a - character at the start of the parameter will produce negative indentation, for instance \\[-\hskip .5em].

Some ancient verse forms exhibit peculiar structures. A case in point is the Italian *ballata*, which consists of a series of regular strophes preceded by a single, different strophe (the *ripresa*)[26]. To accomodate this pattern, it is possible to split the argument of **\Progressio** into two parts: the first to be used once only, the second as many times as necessary. The boundary between the parts is marked by a left parenthesis (the right parenthesis is purely cosmetic and may be omitted).

#### 

Perch'i' no spero di tornar giammai, ballatetta, in Toscana, va' tu, leggera e piana, dritt'a la donna mia, che per sua cortesia ti farà molto onore.

Tu porterai novelle di sospiri piene di dogli' e di molta paura; ma guarda che persona non ti miri che sia nemica di gentil natura: ché certo per la mia disaventura tu saresti contesa, tanto da lei ripresa che mi sarebbe angoscia; dopo la morte, poscia, pianto e novel dolore.

 $[\ldots]$ 

Tu, voce sbigottita e deboletta ch'esci piangendo de lo cor dolente, coll'anima e con questa ballatetta va' ragionando della strutta mente. Voi troverete una donna piacente, di sì dolce intelletto che vi sarà diletto starle davanti ognora. Anim', e tu l'adora sempre, nel su' valore.

CAVALCANTI 'Perch'i' no spero...'

#### **Irregular** structures

Modern verse often exhibits an irregular structure of strophes or stanzas of varying length [leaves]; more traditional compositions [mariner] may also present occasional irregularities of form within an otherwise uniform structure. In such cases, it is necessary to identify the start of a strophe explicitly by placing the  $\stropha$  command before the first line. If such explicit mark-up is needed only in some section of the text, while in the remaining parts the structure is defined by  $\stropha$ , the boundaries of the section may be set in two ways: 1) by enclosing the section to which the explicit mark-up applies in a TEX group, or 2) by placing the  $\stropha$ .

```
Forma \ {010101}\1.5em}
\Facies
                  {\spatium {1ex}}
It was many and many a year ago,
[...]
\stropha
And this was the reason that, long ago,
\\In this kingdom by the sea,
[...]
\stropha*
[...]
{
\stropha
But our love it was stronger by far than the love
\ those who were older than we \
\\Of many far wiser than we \textendash
[...]
\stropha
For the moon never beans, without bringing me dreams
```

```
\\Of the beautiful \textsc{Annabel Lee}\,;
And the stars never rise, but I feel the bright eyes
\\Of the beautiful \textsc{Annabel Lee}\,:
And so, all the night-tide, I lie down by the side
Of my darling, \textendash{} my darling \textendash{} %
my life and my bride,
\\In the sepulchre there by the sea \textendash
\\In the tomb by the side of the sea.
}
```

It was many and many a year ago, In a kingdom by the sea, That a maiden there lived whom you may know By the name of ANNABEL LEE; And this maiden she lived with no other thought Than to love and be loved by me. I was a child and *she* was a child, In this kingdom by the sea, But we loved with a love that was more than love – I and my ANNABEL LEE -With a love that the winged seraphs of heaven Coveted her and me. And this was the reason that, long ago, In this kingdom by the sea, A wind blew out of a cloud chilling My beautiful ANNABEL LEE; So that her highborn kinsmen came And bore her away from me, To shut her up in a sepulchre In this kingdom by the sea. The angels, not half so happy in heaven, Went envying her and me – Yes! – that was the reason (as all men know, In this kingdom by the sea)

That the wind come out of the cloud at night, Chilling and killing my ANNABEL LEE.

But our love it was stronger by far than the love Of those who were older than we – Of many far wiser than we –

And neither the angels in heaven above, Nor the demons down under the sea,

Can ever dissever my soul from the soul

Of the beautiful ANNABEL LEE:

#### STROPHIC STRUCTURES

For the moon never beans, without bringing me dreams Of the beautiful ANNABEL LEE;
And the stars never rise, but I feel the bright eyes Of the beautiful ANNABEL LEE:
And so, all the night-tide, I lie down by the side
Of my darling, - my darling - my life and my bride, In the sepulchre there by the sea -In the tomb by the side of the sea.

Explicitly marking the start of a strophe is hardly worthwhile (leaving some blank space would be just as effective), unless you want to have some text automatically inserted before each strophe, as described in the next section.

## Numbering the strophes

The title of this section refers to most common application of the mechanism we are about to describe, but the mechanism itself is fully general in nature.

The argument of the **\Facies \stropha** attribute specifies a list of arbitrary commands that are to be executed at the (implicit or explicit) start of a strophe.

```
\Forma \stropha {0010}
\Facies {\titulus}
\SpatiumSupra {.75\leading}
\SpatiumInfra {.25\leading}
\Facies \titulus {\numerus*{=+1}}
\Facies \numerus {\romannumeral #1}
\numerus{0}
Awake! For Morning in the Bowl of Night
Has flung the Stone that puts the Stars to Flight
And Lo! the Hunter of the East has caught
The Sultan's Turret in a Noose of Light.
```

Dreaming when Dawn's Left Hand was in the Sky I heard a Voice within the Tavern cry, 'Awake, my Little ones. and fill the Cup 'Before Life's Liquor in its Cup be dry.'

And, as the Cock crew, those who stood before The Tavern shouted -- 'Open then the Door! 'You know how little while we have to stay, 'And, once departed, may return no more.'

[...]

i

Awake! For Morning in the Bowl of Night Has flung the Stone that puts the Stars to Flight And Lo! the Hunter of the East has caught

The Sultan's Turret in a Noose of Light.

ii

Dreaming when Dawn's Left Hand was in the Sky I heard a Voice within the Tavern cry, 'Awake, my Little ones. and fill the Cup 'Before Life's Liquor in its Cup be dry.'

iii

And, as the Cock crew, those who stood before The Tavern shouted – 'Open then the Door!

'You know how little while we have to stay, 'And, once departed, may return no more.'

iv

Now the New Year reviving old Desires, The thoughtful Soul to Solitude retires, Where the WHITE HAND OF MOSES on the Bough Puts out, and Jesus from the Ground suspires.

#### v

Irám indeed is gone with all his Rose,

And Jamshýd's Sev'n-ring'd Cup where no one knows; But still the Vine her ancient Ruby yields,

And still a Garden by the Water blows,

FITZGERALD Rubayát of Omar Khayyám

#### LINE NUMBERING

### Line numbering

To have line numbers printed you must select a subclass of **\numerus** (it is advisable, but not mandatory, to use the default subclass), define the **\Locus** for the subclass and enable printing by using the subclass name with the value for the first line.

\Locus \numerus {\leftmargin + 6em} \numerus{1} O my Luve 's like a red, red rose, That's newly sprung in June: O my Luve 's like the melodie, That 's sweetly play'd in tune.— 5As fair art thou, my bonie lass, So deep in luve am I; And I will luve thee still, my Dear, Till a' the seas gang dry.— Till a' the seas gang dry, my Dear, 10 And the rocks melt wi' the sun: And I will luve thee still, my Dear, While the sands o' life shall run. And fare thee weel, my only Luve! And fare thee weel, a while! 15And I will come again, my Luve, Tho' it were ten thousand mile! BURNS A red red Rose

In most cases, you will also want to change the way numbers are typeset:

\Facies \numerus {\RelSize{-1}\oldstylenums{#1}}

Still ist die Nacht, es ruhen die Gassen, In diesem Hause wohnte mein Schatz; Sie hat schon längst die Stadt verlassen, Doch steht noch das Haus auf demselben Platz.

5 Da steht auch ein Mensch und starrt in die Höhe.
Und ringt die Hände vor Schmerzensgewalt;
Mir graust es, wenn ich sein Antlitz sehe —
Der Mond zeigt mir meine eigne Gestalt.

Du Doppelgänger! du bleicher Geselle!

10 Was äffst du nach mein Liebesleid, Das mich gequält auf dieser Stelle, So manche Nacht, in alter Zeit?

Heine 'Still ist die Nacht, ...'

By default, the number is printed on every fifth line, which seems to be the standard nowadays. A different interval may be more appropriate for certain types of verse; a poem in *terza rima*, for instance, is usually typeset with a number on the last line of each triplet. You define a new interval by setting the **\Progressio** attribute for the subclass.

\Progressio \numerus {3}
\numerus{121}

	E quella a me: "Nessun maggior dolore
	che ricordarsi del tempo felice
123	ne la miseria; e ciò sa 'l tuo dottore.
	Ma s'a conoscer la prima radice
	del nostro amor tu hai cotanto affetto,
126	dirò come colui che piange e dice.
	Noi leggiavamo un giorno per diletto
	di Lancialotto come amor lo strinse;
129	soli eravamo e sanza alcun sospetto.
	Per piú fiate li occhi ci sospinse
	quella lettura, e scolorocci il viso;
132	ma solo un punto fu quel che ci vinse.
	Quando leggemmo il disïato riso
	esser basciato da cotanto amante,
135	questi, che mai da me non fia diviso,
	la bocca mi basciò tutto tremante.
	Galeotto fu 'l libro e chi lo scrisse:
138	quel giorno piú non vi leggemmo avante".
	Mentre che l'uno spirto questo disse,
	l'altro piangëa; sì che di pietade
	io venni men cosí com'io morisse.
142	E caddi come corpo morto cade.
	Dante Inferno, v

Notice that the last number has been moved to the single line that closes the *canto*. The source is:

\numerus\*{} io venni men cos\'i com'io morisse. \numerus\*{+0} E caddi come corpo morto cade.

The interval at which line numbers are printed need not be uniform. In Italian typography there is a tradition of using line numbers to exhibit the strophic structure [polizian]. So, for a *sonetto*:

\Progressio \numerus {443}

62

4	Solo et pensoso i più deserti campi vo mesurando a passi tardi et lenti, et gli occhi porto per fuggire intenti ove vestigio human l'arena stampi.
8	Altro schermo non trovo che mi scampi dal manifesto accorger de le genti, perché negli atti d'alegrezza spenti di fuor si legge com'io dentro avampi:
11	sì ch'io mi credo omai che monti et piagge et fiumi et selve sappian di che tempre sia la mia vita, ch'è celata altrui.
14	Ma pur sì aspre vie né sì selvagge cercar non so ch'Amor non venga sempre ragionando con meco, et io co·llui. PETRARCA <i>Canzoniere</i> , XXXV

As the example shows, the last interval listed in the argument (here 3) is used for numbering any further lines, *ad infinitum*. However, if the last character in the argument is <, the entire argument, and not just its last interval, is repeated *ad infinitum*; for a sequence of sonnets you need specify **\Progressio** once only (you must, of course, reset the *<line number>* to 1 at the start of each sonnet): **\Progressio \numerus** {4433<}

When line numbers are printed on the right at a position that falls within the text measure [harold][sonnets], it may happen that there is not enough room on the line for the number. In such cases, the number is printed on the next line. Notice the \SpatiumAnte attribute: it specifies the minimum space that should be present between the end of the text and the line number (the default value is .5em).

\Locus \numerus {\textrightmargin - 10mm}			
\Facies	{\RelSize{-1}\oldstylenums{#1}}		
\SpatiumAnte	{.25em}		
	O, to be in England		
Now that April's there,			
And whoever wakes in England			
Sees, some morning, unaware,			
That the lowest boughs and the brushwood s			
Round the elm-tree bole are in tiny leaf,			
While the chaffinch sings on the orchard bough			
${ m In \ England-now!}$			
	Drowning House Thought from Almed		

BROWNING Home-Thoughts, from Abroad

Sometimes the next line also has not enough room and the number has to be moved again. And so on, until a suitable line is found. You get an error message if no such line is found before the line that would carry the next line number in the natural progression, or before the end of the *Versus* domain: One or more line numbers could not be printed.

> And after April, when May follows, And the whitethroat builds, and all the swallows! Hark, where my blossom'd pear-tree in the hedge Leans to the field and scatters on the clover 12 Blossoms and dewdrops – at the bent spray's edge – That 's the wise thrush; he sings each song twice over, Lest you should think he never could recapture The first fine careless rapture! 16 And though the fields look rough with hoary dew, All will be gay when noontide wakes anew The buttercups, the little children's dower – Far brighter than this gaudy melon-flower! 20 BROWNING Home-Thoughts, from Abroad

With the default option for warning messages, whenever a line number has to be moved more than once, the offending line is marked, as in the example above (the number between the asterisks gives the position of the relevant line in the source file), and a warning message is sent to the log.

In some cases you may decide that it is better to have the line number printed on the line preceding the one on which it would naturally occur (where printing must of course be suppressed).

#### \\And after April, when May follows, \numerus\*{+0} \numerus\*{} And the whitethroat builds, and all the swallows!

And after April, when May follows, 9 And the whitethroat builds, and all the swallows! Hark, where my blossom'd pear-tree in the hedge Leans to the field and scatters on the clover Blossoms and dewdrops – at the bent spray's edge – That 's the wise thrush; he sings each song twice over, Lest you should think he never could recapture The first fine careless rapture! 16 And though the fields look rough with hoary dew, All will be gay when noontide wakes anew The buttercups, the little children's dower – Far brighter than this gaudy melon-flower! 20 BROWNING Home-Thoughts, from Abroad

\*4695\*

#### LINE NUMBERING

### **Omitting strophes**

Occasionally you may want to print only part of a poem, omitting one or more strophes and marking omissions in some way. You can do this, without upsetting the strophic structure and line numbering, with the command:

\stropha [<line numbers>] {<text>}

<text> (which should fit in a single line and may be empty) will be printed, taking the place of an entire strophe. The <*line numbers>* are a list of all \numerus subclasses that are currently used for line numbering. If lines are not numbered, you should write []; the brackets cannot be omitted, as they distinguish the command from other variants of \stropha.[56]

```
\Locus \numerus {\textleftmargin - 5mm}
\Facies
                  {\RelSize{-1}\oldstylenums{#1}}
\Forma \strophae {0101}
\SpatiumSupra
                   \{1ex\}
[...]
And the moon be still as bright.
\stropha [\numerus]{\textbf{. . . . .}}
Though the night was made for loving,
[...]
                So, we'll go no more a-roving
                   So late into the night,
                Though the heart be still as loving,
                   And the moon be still as bright.
                . . . . . .
                Though the night was made for loving,
                   And the day returns too soon,
           10
                Yet we'll go no more a-roving
                   By the light of the moon.
                BYRON So, we'll go no more a-roving ...
```

Each use of the command represents a single strophe; if several strophes are omitted, you should have as many commands as there are strophes, with all of them, except one, having an empty  $\langle text \rangle$  ({}).

```
\Forma \strophae {000{1ex}000{1ex}000{1ex}000{1ex}000}
\SpatiumSupra {1ex}
\Facies \titulus {\textsc{#1}}
\titulus{i}
0 wild West Wind, thou breath of Autumn's being
[...]
```

```
Destroyer and preserver; hear, 0 hear!
\stropha [\numerus]{}
\stropha [\numerus]{. . . . .}
\titulus{v}
Make me thy lyre, even as the forest is:
```

Ι

O wild West Wind, thou breath of Autumn's being Thou from whose unseen presence the leaves dead Are driven, like ghosts from an enchanter fleeing,

Yellow, and black, and pale, and hectic red,

5 Pestilence-stricken multitudes: O thou Who chariotest to their dark wintry bed

The wingéd seeds, where they lie cold and low, Each like a corpse within its grave, until Thine azure sister of the Spring shall blow

 Her clarion o'er the dreaming earth, and fill (Driving sweet buds like flocks to feed in air) With living hues and odours plain and hill:

. . . . . .

65

Wild Spirit, which art moving everywhere; Destroyer and preserver; hear, oh, hear!

V

Make me thy lyre, even as the forest is: What if my leaves are falling like its own! The tumult of thy mighty harmonies

60 Will take from both a deep, autumnal tone, Sweet though in sadness. Be thou, Spirit fierce, My spirit! Be thou me, impetuous one!

Drive my dead thoughts over the universe, Like wither'd leaves, to quicken a new birth! And, by the incantation of this verse,

Scatter, as from an unextinguish'd hearth Ashes and sparks, my words among mankind! Be through my lips to unawakened earth

The trumpet of a prophecy! O, Wind, 70 If Winter comes, can Spring be far behind? SHELLEY Ode to the West Wind

# Split lines

A poet will sometimes split a line of verse across physical lines, to provide a visual clue of a significant transition in the text:

> Ces nymphes, je les veux perpétuer. Si clair, Leur incarnat léger, qu'il voltige dans l'air Assoupi de sommeils touffus. Aimai-je un rêve? Mon doute, amas de nuit ancienne, s'achève En maint rameau subtil, qui, demeuré les vrais Bois mêmes, prouve, hélas! que bien seul je m'offrais Pour triomphe la faute idéale de roses. Réfléchissons... ou si les femmes dont tu gloses Figurent un souhait de tes sens fabuleux! MALLARMÉ L'après-midi d'un faune

To split a line, place  $\$  at the end of the first part:

```
Ces nymphes, je les veux perp\'etuer.\\
Si clair,
Leur incarnat l\'eger, qu'il voltige dans l'air
Assoupi de sommeils touffus.\\
Aimai-je un r\^eve?
Mon doute, amas de nuit ancienne, s'ach\'eve
En maint rameau subtil, qui, demeur\'e les vrais
Bois m\^emes, prouve, h\'elas! que bien seul je m'offrais
Pour triomphe la faute id\'eale de roses.
R\'efl\'echissons\ldots\\
ou si les femmes dont tu gloses
Figurent un souhait de tes sens fabuleux!
```

Note that spaces after the first fragment and before the second are not significant. The two parts are separated, by default, by a medium space (.22em); this seems to be a common convention among typographers. You can change the spacing with the \SpatiumPost \\ command; for instance \SpatiumPost \\ {0pt} gives:

Ces nymphes, je les veux perpétuer. Si clair,

If putting the normal spacing in front of the last fragment of a line would cause the text to protrude from the right margin, the fragment is typeset

### TYPESETTING POETRY

flush right. In verse drama, a line is often split several times and in such cases applying the standard procedure may result in unsightly irregular spacing.

← \_\_\_\_\_ \Measure \_\_\_\_\_\_→ TITUS Mais, de grâce, écoutez. BÉRÉNICE Il n'est plus temps. TITUS Madame,

Un mot.

BÉRÉNICE

Non TITUS Dans quel trouble elle jette mom âme! RACINE *Bérénice*, V.5

To prevent this, the package automatically computes a suitable (negative) spacing that can be used in a uniform manner throughout the line.

$\longleftarrow \qquad \qquad$
TITUS
Mais, de grâce, écoutez.
BÉRÉNICE
Il n'est plus temps.
TITUS
Madame,
Un mot.
BÉRÉNICE
Non

TITUS Dans quel trouble elle jette mom âme! RACINE *Bérénice*, V.5

This feature comes at a price: it requires a second run through  $LAT_EX$  (the reason listed is -- Some split lines need to be adjusted). The command  $SpatiumPost \{}$  disables the automatic adjustment, without affecting the current value of the spacing interval (it was used, within a  $T_EX$  group, in the first version of the example above).

If you want to set the spacing explicitly for a single line, you can use the  $\langle optional \ argument \rangle$  of the  $\backslash \backslash$  command. By placing some text (usually

taken from the end of the fragment) in the argument, you cause the next fragment to be moved back by the space taken up by the text, overriding the current value of \SpatiumPost \\.

```
\persona[1]{titus}
Mais, de gr\^ace, \'ecoutez. \\[z.]
\persona[2]{b\'er\'enice}
Il n'est plus temps.\\[s.]
\1 Madame,
Un mot.\\[t.]
\2 Non \\[n]
\1 Dans quel trouble elle jette mom \^ame!
```

\Measure

TITUS Mais, de grâce, écoutez. BÉRÉNICE Il n'est plus temps. TITUS

Madame,

Un mot.

BÉRÉNICE

Non

TITUS Dans quel trouble elle jette mom âme! RACINE *Bérénice*, V.5

You may also specify the space directly by putting a \hskip command in the argument, for instance \\[\hskip .5em]. With both formats, a - character at the start of the argument will cause the next fragment to be moved to the right, for instance \\[-\hskip .5em], \\[-z.] (if the text happens to begin with a - character and you want the next fragment to be shifted to the left, put \relax at the start of the argument).

The \*-form of the  $\$  command shifts the next fragment (to the right) by twice the value of  $SpatiumPost \$ ; with an *<optional argument>*,  $\$  [n], it shifts the fragment by n times that value.

The line number for a split line may be printed on either the first or the last fragment. The latter seems to be the most common choice and it is the default. To have the number printed on the first fragment, place \\ at the end of the argument of \Progressio; you may also write \\f to make the choice explicit (and \\1 for the default).

#### TYPESETTING POETRY

Some compositors take a more sophisticated approach, when numbers are typeset in the outer (inner) margins: the number is printed on the fragment whose text is nearer to the margin holding numbers. With numbers in the outer margins, you get

40 To call his fortunes thine. Viola. I'll do my best

SHAKESPEARE Twelfth Night, I.4

on left-hand (verso) pages, and

But you should pity me. Olivia. You might do much: 280 SHAKESPEARE Twelfth Night, I.5

on right-hand (recto) pages. With numbers in the inner margins, the patterns for recto and verso are of course switched around. For this sort of effects, you can use \\lf at the end of \Progressio to have the number printed on the last/first fragment in recto/verso pages and \\fl for the opposite combination.

70

# Folded lines

The software can automatically fold lines of verse too long to fit within the text measure. Folding is not enabled by default and long lines will produce a warning message; this allows you to become aware of the presence of such lines, which you may not expect and may prefer to avoid by adjusting the measure.

To enable automatic folding, set the \Locus attribute for \excessus, a predefined subclass of \textus which stands for the turnover line. You need not set \Facies \excessus, since the default ({#1}) is what you usually want.

\Locus \excessus {\textleftmargin + 3em}

\Measure

Ringsum ruhet die Stadt; still wird die erleuchete Gasse Und, mit Fackeln geschmückt, rauschen die Wagen hinweg. Satt gehn heim von Freunden des Tags zu ruhen die Menschen. Und Gewinn und Verlust wäget ein sinniges Haupt Wohlzufrieden zu Haus; leer steht von Trauben und Blumen, Und von Werken der Hand ruht der geschäftige Markt. Aber das Saitenspiel tönt fern aus Gärten; vielleicht, dass Dort ein Leibendes spielt oder ein einsamer Mann Ferner Freunde gedenkt und der Jugendzeit; und die Brunnen. Immerquillend und frisch, rauschen an duftenden Beet, Still in dämmriger Luft ertönen geläutete Glocken, Und der Stunden gedenk rufet ein Wächter die Zahl. Jetz auch kommet ein Wehn und regt die Gipfel des Hains auf, Sieh! und das Schattenbild unserer Erde, der Mond, Kommet geheim nun auch; die Schwärmerische, die Nacht kommt. Voll mit Sternen und wohl wenig bekümmert um uns, Glänzt die Erstauende dort, die Fremdlingin unter den Menschen Über Gebirgeshöhn traurig und prächting herauf.

HÖLDERLIN Brot und Wein

As the example shows, the software tries to fit as much text as possible on the line by resorting to hyphenation. While this is acceptable (and even desirable, to avoid glaring gaps on the page) with very narrow columns [harold] [sonnets], most typographers prefer to move whole words only. Hyphenation can be suppressed by using the \unhyphenated (or nohyphens) command in \Modus \excessus.

\Locus	\excessus	{\textleftmargin	+	3em}
\Modus		{\unhyphenated}		

Ringsum ruhet die Stadt; still wird die erleuchete Gasse Und, mit Fackeln geschmückt, rauschen die Wagen hinweg. Satt gehn heim von Freunden des Tags zu ruhen die Menschen, Und Gewinn und Verlust wäget ein sinniges Haupt Wohlzufrieden zu Haus; leer steht von Trauben und Blumen, Und von Werken der Hand ruht der geschäftige Markt. Aber das Saitenspiel tönt fern aus Gärten; vielleicht, dass Dort ein Leibendes spielt oder ein einsamer Mann Ferner Freunde gedenkt und der Jugendzeit; und die Brunnen, Immerguillend und frisch, rauschen an duftenden Beet, Still in dämmriger Luft ertönen geläutete Glocken, Und der Stunden gedenk rufet ein Wächter die Zahl. Jetz auch kommet ein Wehn und regt die Gipfel des Hains auf. Sieh! und das Schattenbild unserer Erde, der Mond, Kommet geheim nun auch; die Schwärmerische, die Nacht kommt, Voll mit Sternen und wohl wenig bekümmert um uns, Glänzt die Erstauende dort, die Fremdlingin unter den Menschen Über Gebirgeshöhn traurig und prächting herauf.

A common typographical style aligns the folded text with the end of the first part of the line. For this style, you specify \textrightedge for \Locus \excessus; since objects of the \textus class are aligned on the left, you also need to change the alignment.

\Locus \excessus	{\textrightedge}
\Modus	{\unhyphenated \aligned{right}}
\Facies	{[#1}

Ringsum ruhet die Stadt; still wird die erleuchete Gasse Und, mit Fackeln geschmückt, rauschen die Wagen [hinweg. Satt gehn heim von Freunden des Tags zu ruhen die [Menschen, Und Gewinn und Verlust wäget ein sinniges Haupt Wohlzufrieden zu Haus; leer steht von Trauben und [Blumen. Und von Werken der Hand ruht der geschäftige Markt. Aber das Saitenspiel tönt fern aus Gärten; vielleicht, dass Dort ein Leibendes spielt oder ein einsamer Mann Ferner Freunde gedenkt und der Jugendzeit; und die [Brunnen, Immerquillend und frisch, rauschen an duftenden Beet, Still in dämmriger Luft ertönen geläutete Glocken, Und der Stunden gedenk rufet ein Wächter die Zahl. Jetz auch kommet ein Wehn und regt die Gipfel des Hains auf. Sieh! und das Schattenbild unserer Erde, der Mond, Kommet geheim nun auch; die Schwärmerische, die Nacht [kommt, Voll mit Sternen und wohl wenig bekümmert um uns, Glänzt die Erstauende dort, die Fremdlingin unter den Menschen Uber Gebirgeshöhn traurig und prächting herauf.

With any combination of  $\Locus$  and  $\Modus$ , if you feel that it would be better to fold a line at a point earlier than the one chosen by the software, insert  $\$  at that point.

Satt gehn heim von Freunden des Tags zu ruhen/\ die Menschen, ... Ferner Freunde gedenkt und der Jugendzeit; und/\ die Brunnen,

Satt gehn heim von Freunden des Tags zu ruhen [die Menschen,

[...] Ferner Freunde gedenkt und der Jugendzeit; und [die Brunnen,

Some poetical works have 'lines' that are in fact short paragraphs. These are typeset with an indentation, after the first line, equal to that of a turnover line; clearly, the **\Locus \excessus** should be in the vicinity of the left margin [leaves].

```
\Locus \excessus {\leftmargin + 3em}
\Modus {\justified}
I do not doubt that from under the feet and beside %
the hands and face I am cognizant of, are now looking %
faces I am not cognizant of, calm and actual faces,
```

	Μ	۵	а	c	11	r	۵
۱	гı	e	a	5	u	т	e

I need no assurances, I am a man who is preoccupied of his own soul; I do not doubt that from under the feet and beside the hands and face I am cognizant of, are now looking faces I am not cognizant of, calm and actual faces,

- I do not doubt but the majesty and beauty of the world are latent in any iota of the world,
- I do not doubt I am limitless, and that the universes are limitless, in vain I try to think how limitless,
- I do not doubt that the orbs and the systems of orbs play their swift sports through the air on purpose, and that I shall one day be eligible to do as much as they, and more than they,
- I do not doubt that temporary affairs keep on and on millions of years,
- I do not doubt interiors have their interiors, and exteriors have their exteriors, and that the eyesight has another eyesight, and the hearing another hearing, and the voice another voice,
- I do not doubt that the passionately-wept deaths of young men are provided for, and that the deaths of young women and the deaths of little children are provided for,
- (Did you think Life was so well provided for, and Death, the purport of all Life, is not well provided for?)
- I do not doubt that wrecks at sea, no matter what the horrors of them, no matter whose wife, child, husband, father, lover, has gone down, are provided for, to the minutest points,
- I do not doubt that whatever can possibly happen anywhere at any time, is provided for in the inherences of things,
- I do not think Life provides for all and for Time and Space, but I believe Heavenly Death provides for all.

#### WHITMAN Assurances

Notice the \justified option in \Modus: it causes the first part of a 'normal' line (i.e. a line that is folded once only) to be typeset just like the first part of a line that has to be folded more than once. Even when there are no lines folded more than once, it is better to justify the first part of folded lines, when they are so long. The difference is quite noticeable:

#### With \justified:

\Measure

A glimpse through an interstice caught,

Of a crowd of workmen and drivers in a bar-room around the stove late of a winter night, and I unremark'd seated in a corner,

Of a youth who loves me and whom I love, silently approaching and seating himself near, that he may hold me by the hand,

A long while amid the noises of coming and going, of drinking and oath and smutty jest,

There we two, content, happy in being together, speaking little, perhaps not a word.

WHITMAN A Glimpse

Without \justified:

#### \Measure

A glimpse through an interstice caught,

Of a crowd of workmen and drivers in a bar-room around the stove late of a winter night, and I unremark'd seated in a corner,

Of a youth who loves me and whom I love, silently approaching and seating himself near, that he may hold me by the hand,

A long while amid the noises of coming and going, of drinking and oath and smutty jest,

There we two, content, happy in being together, speaking little, perhaps not a word.

WHITMAN A Glimpse

Such irregularities are always avoided by typographers, even at the cost of some very loose spacing in the justified lines.

The \justified command normally requires an argument specifying a field width, but not for \excessus, where a field specification makes no sense. Instead, the command takes an < optional argument > that specifies the upper limit for the 'badness' of a line that is being forcibly justified; you get an error message if the limit is exceeded. In Whitman's poems, all lines could be justified without exceeding the T<sub>E</sub>X default limit of 200 but this is unlikely to happen very often and you should be prepared to set a substantially higher limit. To get a feeling for what the numerical values actually mean in terms of interword spacing, you can specify the value -1 in the < optional argument >: all lines will be unconditionally justified and the 'badness' of each line will be printed after the line, as in this contrived example:

\Modus

 $\{ justified[-1] \}$ 

\Measure -----The world is too much with us; late 6 and soon, Getting and spending, we lay waste 25 our powers: Little we see in Nature that is ours; We have given our hearts away, a 338 sordid boon! This sea that bares her bosom to 427 the moon; The winds that will be howling at 185 all hours, And are up-gather'd now like sleep- 22 ing flowers; For this, for everything, we are out 49 of tune; It moves us not.-Great God! I'd 1466 rather be A Pagan suckled in a creed outworn; So might I, standing on this pleas-99 ant lea, Have glimpses that would make me 45 less forlorn; Have sight of Proteus rising from 725 the sea; Or hear old Triton blow his 10000 wreathed horn. WORDSWORTH The World

The line number is usually attached to the last turnover line of a folded line and this is the default. To have the number attached to the first print line specify the option F after  $\$  in the argument of **Progressio**. If you are also setting the option for numbering fragments of a split line [67], you may specify the options in any order but you *must* place a comma between them.

### Special features

### Line information

Within *Versus* the software records information about the current domain in these control sequences:

the maximum width of a line so far
the minimum width of a line so far
(self-explanatory)
the maximum <b>\textus</b> shift on a line so far
the minimum <b>\textus</b> shift on a line so far
(self-explanatory)

The control sequences are macro names, *not* registers, and you may redefine them with  $\renewcommand$ , if you know what you're doing (but make sure that the new value is a legal < dimen >).

The control sequences may be used to achieve special effects, as in this example which reproduces one of W.B. Yeats' early drafts for *Sailing to*  $Byzantium^1$  showing a tentative rhyming scheme:

```
\newcommand \AlignedRight [1]{\makebox [\PreviousLineWidth][r]{#1}}
0 dolphin haunted wave of flooding gold
\AlignedRight {might}
\AlignedRight {fold}
\AlignedRight {sight}
\AlignedRight {bold}
O dolphin haunted wave of flooding gold
```

O dolphin haunted wave of flooding gold might fold sight bold

In this manual, \MaxLineWidth and \MaxLineShift are used to ensure that the title of a quotation is aligned at the right end with the longest line of the quotation. This is done using T<sub>E</sub>X primitives; the LAT<sub>E</sub>X equivalent (meant to be placed outside *Versus*, with **#1** standing for the title) would be:

<sup>1</sup>Quoted in Curtis Bradford's essay Yeats's Byzantium Poems: A Study of Their Development in YEATS, A COLLECTION OF CRITICAL ESSAYS Prentice-Hall, Inc. 1963

```
\newlength {\MaxOffset}
\setlength {\MaxOffset}{\MaxLineShift}
\addtolength {\MaxOffset}{\MaxLineWidth}
\makebox [\MaxOffset][r]{#1}
```

### **Document** information

At the end of a document containing at least one *Versus* domain, the software writes some statistics to the .log file. Here are some examples, from, respectively, [leaves] [metapoet] and [sonnets]:

```
Package TEXNIKA Info: Statistics for the Versus domain:
                      -- 587 lines (longest: 1045.20894pt)
                      -- The longest print line is 306.4059pt
                      -- 230 folded lines:
                         longest turnover line: 263.34738pt
                         shortest turnover line: 15.23877pt.
Package TEXNIKA Info: Statistics for the Versus domain:
                      -- 855 lines (longest: 321.88551pt)
                      -- The longest print line is 321.88551pt
                      -- No folded lines.
Package TEXNIKA Info: Statistics for the Versus domain:
                      -- 2309 lines (longest: 253.07394pt)
                      -- The longest print line is 179.70085pt
                      -- 1011 folded lines:
                         longest turnover line: 99.12181pt
                         shortest turnover line: 8.73605pt.
```

A quick check of the values may alert you to the presence of anomalies (for instance, a very low value for the shortest turnover line).

### Dirty tricks

If you are typesetting actual verse, you can completely ignore this section.

Some features of  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  can be put to use in unexpected ways. The contents of a *Versus* domain need not be actual verse. In fact, anything that results in an **\hbox** can be treated as a 'line of verse': this applies, in particular, to mathematical formulas.

```
\Novus \textus \brace
\Locus {\area \textrightedge + 1mm}
\Facies {\Delimiter\}\RelSize{-1} #1}
\begin{versus}
\brace {a math demo from \TeXbook}
\area
$x^{31415}_{92}+\pi$
$x_{y^a_b}^{z_c^d}$
\endarea
\end{versus}
```

The result, however, is not what one would expect:

$$\left. \begin{array}{c} x_{92}^{31415} + \pi \\ x_{y_b^a}^{z_a^c} \end{array} \right\} \mbox{ a math demo from } The \ T_{\!E}\!Xbook \end{array} \right\}$$

.

The reason why the formulas are crushed together is that, within *Versus*, the height of each line is set equal to the design height of the font in use (this is done to overcome some problems caused by capital letters carrying an accent). The **\TrueLineHeight** command disables this feature.

```
\begin{versus}
\TrueLineHeight
\brace {a math demo from \TeXbook}
\area
$x^{31415}_{92}+\pi$
$x_{y^a_b}^{z_c^d}$
\endarea
\end{versus}
```

```
\left. \begin{array}{c} x_{92}^{31415} + \pi \\ x_{y_b^a}^{z_c^d} \end{array} \right\} \text{ a math demo from } \textit{The TEXbook} \end{array} \right\}
```

And, by adjusting the shape of this peculiar 'strophe',

```
\Facies \brace {\Delimiter[.9]\}\RelSize{-1} #1}
[. . .]
\Forma \stropha {0{2mm}0{1.5mm}}
```

```
\left. \begin{array}{c} x_{92}^{31415} + \pi \\ x_{y_b^a}^{z_c^d} \end{array} \right\} \mbox{ a math demo from $The $T_{E}$Xbook} \end{array} \right\}
```

# Typesetting prose

# The *Prosa* domain

M. JOURDAIN. — Par ma foi! il y a plus de quarante ans que je dis de la prose sans que j'en susse rien... MOLIÈRE *Le bourgois gentilhomme* 

As  $T_EX$  has been typesetting prose for more than twenty years without having to be told that it *is* prose, there would seem to be no need for a *Prosa* domain. Placing a text within the domain is, in fact, necessary only when objects of the **\numerus** class (and, more rarely, of the **\textus** class) are to be attached to the lines. The simplest, and most common, case is that of standard line numbering; in some situations, 'milestones' (see below) are needed instead of, or in addition to, line numbers.

Within *Prosa* all the usual rules for  $T_EX$  input apply: empty lines are not ignored and are treated as equivalent to \par.

## Line numbering

Numbers are attached to lines in exactly the same way as in Versus.

```
\Locus \numerus {\rightmargin + 1.5em}
\Facies {\RelSize{-1}\oldstylenums{#1}}
\numerus {1}
\Prosa
\textit{What is truth?} said jesting Pilate, and would not stay
for an answer. Certainly there be, that delight in giddiness,
[...]
\endProsa
```

What is truth? said jesting Pilate, and would not stay for an answer. Certainly there be, that delight in giddiness, and count it a bondage to fix a belief; affecting free-will in thinking, as well as in acting. And though the sects of philosophers of that kind be gone, yet there remain certain discoursing wits, which are of the same veins, though there be not so much blood in them, as was 5

MILESTONES

in those of the ancients. But it is not only the difficulty and labor, which men take in finding out of truth, nor again, that when it is found, it imposeth upon men's thoughts, that doth bring lies in favor; but a natural, though corrupt love, of the lie itself. One of the later school of the Grecians, examineth the matter, and is at a stand, to think what should be in it, that men should love 10 lies; where neither they make for pleasure, as with poets, nor for advantage, as with the merchant; but for the lie's sake. But I cannot tell; this same truth, is a naked, and open day-light, that doth not show the masks, and mummeries, and triumphs, of the world, half so stately and daintily as candle-lights. Truth may perhaps come to the price of a pearl, that showeth best by day; but it 15 will not rise to the price of a diamond, or carbuncle, that showeth best in varied lights. A mixture of a lie doth ever add pleasure. Doth any man doubt, that if there were taken out of men's minds, vain opinions, flattering hopes, false valuations, imaginations as one would, and the like, but it would leave the minds, of a number of men, poor shrunken things, full of melancholy and 20 indisposition, and unpleasing to themselves?

BACON Of Truth

In prose works, line numbering does not usually run continuously throughout the text but restarts instead at the top of each page. To get this style of numbering, you specify \Modus {\pagewise} for the \numerus subclass. [caesar]

### Milestones

*milestone* is the very apt term used in the TEI (Text Encoding Initiative) documentation for an element that "marks the boundary between sections of a text, as indicated by changes in a standard reference system". Such reference systems are common with Classical works, for which the standard is usually the first printed edition (*editio princeps*).

Perhaps the best known example is that of Plato's works, for which the reference system is provided by the edition printed by Henri Estienne (*Stephanus*) in 1578. Each page of that edition carries five marks (**a** to **e**) at regular intervals along the side and a reference to a passage takes the form of a page number followed by the nearest mark on that page (for instance: the word  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  occurs in *Leg. 889a*). Obviously in any printed edition other than a facsimile there will be no correspondence between its page numbers and those of Stephanus' edition, let alone between the marks: the only way to establish the reference system is to insert 'milestones' at the appropriate points in the text. Milestones pose no special problem when they occur in verse (where in fact they are hardly ever found, as line numbers are the natural reference system) and when they are embedded in prose, i.e. they appear within the text. But when milestones are printed in the margins of a prose text, as they commonly are, then they must be identified as such to the  $\tau \epsilon \chi \nu \iota \chi \dot{\alpha}$  software which needs to take special actions to ensure that the milestones appear in the right place. Two IATEX runs are necessary<sup>1</sup> and the reason listed after the first run is: -- You are using 'milestones'. In the rest of this manual, the term 'milestone' will be used in this specialized sense, for an object that has to be attached to a specific line of a paragraph that is typeset by the TEX line breaking algorithm; not everything which is a 'milestone' in this sense would necessarily be considered a milestone in the TEI perspective.

\numerus and \textus subclasses are identified as milestones by setting the \Modus attribute: \Modus {\milestone}. With a \numerus subclass, the fact that the \Locus attribute is set would normally cause the numbers to be attached as line numbers, producing a flood of error messages; to prevent this, specify \Progressio {0} for the subclass.

**Progressio** may be different from zero only in the special case of a subclass used for numbering the lines of a section of text corresponding to a milestone. Note that for such a subclass **\Modus** {**\milestone**} *must* be specified, even though object of the subclass are not, strictly speaking, milestones; the counter for the subclass, however, must be reset to 1 at each milestone and therefore its value depends directly on the position of the milestone.

```
\Novus \numerus \Nchap
\Facies
                 \{\mathbb{M} \in \mathbb{H}^{+1} \setminus \}
\Novus \numerus \Nsect
\Facies
                 {\textbf{\oldstylenums{#1}}}
\Locus
                 {\rightmargin + 1em}
                 {\milestone}
\Modus
\Progressio
                 {0}
\Novus \numerus \sectnum
\Locus
                 {\rightmargin + 1em}
\Facies
                 {\RelSize{-2}\textit{#1}}
\Modus
                 {\milestone}
```

<sup>1</sup>You may notice files with an .auy extension in the current directory: these are used to carry information about milestones from the first to the second pass.

XVII Ipsae uoluptates eorum trepidae et uariis terroribus inquietae sunt subit- 1 que cum maxime exsultantis sollicita cogitatio: "Haec quam diu?" Ab hoc affectu reges suam fleuere potentiam, nec illos magnitudo fortunae suae delectauit, sed uenturus aliquando finis exterruit. Cum per magna camporum spa- 2 tia porrigeret exercitum nec numerum eius sed mensuram comprenderet Persarum rex insolentissimus, lacrimas profudit, quod intra centum annos nemo ex tanta iuuentute superfuturus esset; at illis admoturus erat fatum ipse qui flebat perditurusque alios in mari alios in terra, alios proelio alios fuga, et intra 5 exiguum tempus consumpturus illos quibus centesimum annum timebat. Quid 3 quod gaudia quoque eorum trepida sunt? Non enim solidis causis innituntur, sed eadem qua oriuntur uanitate turbantur. Qualia autem putas esse tempora etiam ipsorum confessione misera, cum haec quoque quibus se attollunt et super hominem efferunt parum sincera sint? Maxima quaeque bona sollicita sunt 4 nec ulli fortunae minus bene quam optimae creditur; alia felicitate ad tuendam felicitatem opus est et pro ipsis quae successere uotis uota facienda sunt. Omne enim quod fortuito obuenit instabile est: quod altius surrexerit, opportunius est in occasum. Neminem porro casura delectant; miserrimam ergo necesse 5 est, non tantum breuissimam uitam esse eorum qui magno parant labore quod maiore possideant. Operose assequentur quae uolunt, anxii tenent quae asse- 5 cuti sunt; nulla interim numquam amplius redituri temporis ratio est: nouae occupationes ueteribus substituuntur, spes spem excitat, ambitionem ambitio. Miseriarum non finis quaeritur, sed materia mutatur. Nostri nos honores torserunt? plus temporis alieni auferunt; candidati laborare desiimus? suffra- 5 gatores incipimus; accusandi deposuimus molestiam? iudicandi nanciscimur; iudex desiit esse? quaesitor est; alienorum bonorum mercennaria procuratione consenuit? suis opibus distinctur. Marium caliga dimisit? consulatus exercet; 6 Quintius dictaturam properat peruadere? ab aratro reuocabitur. Ibit in Poenos nondum tantae maturus rei Scipio; uictor Hannibalis uictor Antiochi, sui consulatus decus fraterni sponsor, ni per ipsum mora esset, cum loue reponeretur: ciuiles seruatorem agitabunt seditiones et post fastiditos a iuuene diis aequos 5 honores iam senem contumacis exilii delectabit ambitio. Numquam derunt uel felices uel miserae sollicitudinis causae; per occupationes uita trudetur; otium numquam agetur, semper optabitur.

SENECA De brevitate vitae, 17

#### commissurae

The mechanism supporting milestones places a limit on the number of milestones that can appear within a single paragraph; the limit is of the order of 200, so it is very unlikely to be exceeded in any normal text. Should the text you are typesetting contain a paragraph of truly monstrous length, the  $\tau \epsilon \chi \nu \varkappa \alpha$  software will silently split the paragraph into smaller parts, making sure that the join (*commissura* in Latin) between the parts is unnoticeable (see *The T<sub>E</sub>Xbook*, exercise 14.15).

If you suspect that a paragraph may have been subjected to this treatment and want to see where the joins (if any) occur, you can use the command **\Facies \commissura**, with the argument specifying what should be printed at the *commissura* (which always coincides with the beginning of a line). A useful definition might be something like:

\Facies \commissura {\llap{\textparagraph\kern 1em}}

If you judge that it would be better to split the paragraph at an earlier point than the one selected by the software, you can force the split by inserting the **\commissura** command at that point. Note, however, that it is generally unsafe to put such a command within the first 20 or so lines of a paragraph: the result is likely to be an **Underfull box**.

### Special features

For each line processed within Prosa the  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  software sets two logical variables, which may be checked in an \ifthenelse test with \boolean: ParagraphFirstLine and ParagraphLastLine, with the obvious meaning. They may be used, for instance, (in conjunction with the \*-form of a \textus subclass [15]) to number paragraphs automatically. Note, however, that the logical variables are available for testing *after* the paragraph has been typeset and so cannot be used to change the contents of the paragraph: in the following example the numbers for chapter and verse are placed outside the paragraph.

\Nchapter
{#1:}
\Nverse
{#1}
\ChapterAndVerse
<pre>{\textleftmargin5em}</pre>

\Measure ------

- 1:1 The words of the Preacher, the son of David, king in Jerusalem.
- 1:2 Vanity of vanities, saith the Preacher, vanity of vanities; all is vanity.
- 1:3 What profit hath a man of all his labour which he taketh under the sun?
- 1:4 One generation passeth away, and another generation cometh: but the earth abideth for ever.
- 1:5 The sun also ariseth, and the sun goeth down, and hasteth to his place where he arose.
- 1:6 The wind goeth toward the south, and turneth about unto the north; it whirleth about continually, and the wind returneth again according to his circuits.
- 1:7 All the rivers run into the sea; yet the sea is not full; unto the place from whence the rivers come, thither they return again.
- 1:8 All things are full of labour; man cannot utter it: the eye is not satisfied with seeing, nor the ear filled with hearing.

KING JAMES BIBLE Ecclesiastes

# Typesetting drama

To typeset the text of a play you must place it within the *Drama* domain, which is supported by the **drama** package. If you are setting a modern play in prose and do not wish to number the lines, this is all that is required. If the play is in verse (or in a mix of verse and prose) you will also need to place sections of the text within the *Versus* or *Prosa* domains, as appropriate.

The drama package adds support for three new classes: one for speechheadings and two for stage directions. Because of their specialized nature, these classes do not allow the definition of subclasses with the **\Novus** command: the only subclass is the default subclass.

There is no special provision for the list of characters, acts and scenes. As the examples files show, a variety of styles is easily accomodated with the appropriate combination of \titulus and \numerus subclasses.

## The speech-heading

The beginning of a speech is indicated by the occurrence of an object of the class \persona, which identifies the speaker(s).

ANSELME. — Seigneur Harpagon, il faut lui pardonner cette imposture! HARPAGON. — Vous payerez donc le commissaire? ANSELME. — Soit. Allons vite faire part de notre joie à votre mère. HARPAGON. — Et moi, voir ma chère cassette.

Molière L'avare, V.6

The **\Facies** attribute for **\persona** must be defined (you get an error message if it is not). The argument specifies how the beginning of the speech is typeset: **#1** stands for the name of the character, i.e. the argument of **\persona**. For the quotation above:

\Facies \persona {\textsc{\MakeLowercase{#1}}. \textemdash{} }

For long texts, entering the full **\persona** command at the start of each speech would be tiresome and would also tend to obfuscate the structure of the text. So there is the possibility of defining an abbreviation for an object of the **\persona** class: a sequence of one or two digits preceded by the escape character. The numerical value of the sequence is irrelevant: **\1** and **\01** are different abbreviations. **\0** and **\00** are reserved and have a special meaning [92]. An abbreviation is defined by placing the corresponding digit(s) in the *<optional argument>* of **\persona**.

It is generally advisable to define all the abbreviations at the same time and in one place. For this you can use the \*-form of **\persona**, which does not generate any text.

\persona\*[1]{Anselme}
\persona\*[2]{Harpagon}
\1 Seigneur Harpagon, il faut lui pardonner cette imposture!
\2 Vous payerez donc le commissaire?
\1 Soit. Allons vite faire part de notre joie \'a votre m\'ere.
\2 Et moi, voir ma ch\'ere cassette.

ANSELME. — Seigneur Harpagon, il faut lui pardonner cette imposture! HARPAGON. — Vous payerez donc le commissaire? ANSELME. — Soit. Allons vite faire part de notre joie à votre mère. HARPAGON. — Et moi, voir ma chère cassette.

Molière L'avare, V.6

Please note that defining an abbreviation results in a *global* assignment, in the  $T_EX$  sense. This means that, if you redefine an abbreviation, the previous definition is lost, even if the redefinition occurs inside a  $T_EX$  group. As more than a hundred abbreviations are available, there is never any need for such confusing tricks.

### Asides

There used to be a typographical convention (now apparently gone out of fashion) of indicating an 'aside' by placing a parenthesis before the name of the speaker.[hamlet] To use this convention, you should define \Facies \aparte and place the \aparte command before \persona:

```
\Facies \aparte {\textbf{\textup{(}}}
\persona{Malvolio} To be Count Malvolio!
\aparte\persona{Sir Toby} Ah, rogue!
\aparte\persona{Sir Andrew} Pistol him, pistol him.
\aparte\persona{Fabian} Peace, peace!
```

Malvolio. To be Count Malvolio! (Sir Toby. Ah, rogue! (Sir Andrew. Pistol him, pistol him. (Fabian. Peace, peace!

SHAKESPEARE Twelfth Night, II.5

### Multiple speakers

When a speech is delivered by more than one speaker, the safest procedure is to use **\persona** with the names of the characters written in full (you cannot use abbreviations within the argument of **\persona**; if you do, you get an error message).

\Facies \persona {\textsc{\MakeLowercase{#1}}. }
\persona {Macbeth, Lennox} What's the matter.

MACDUFF. O horror, horror, horror! Tongue nor heart Cannot conceive nor name thee! MACBETH, LENNOX. What's the matter. SHAKESPEARE Macbeth, II.3

You can also have part of the argument typeset in a different style:

\persona {Macbeth \textit{and} Lennox} What's the matter.

MACDUFF. O horror, horror! Tongue nor heart Cannot conceive nor name thee! MACBETH and LENNOX. What's the matter.

SHAKESPEARE Macbeth, II.3

Only within *Versus*, you may just put the **\Persona** commands (or, more likely, their abbreviations) at the start of the speech. Whether simple juxtaposition of the names of the character gives a satisfactory result depends

on the definition of **\Facies \persona**. With the setting of the previous quotations, you get

\persona\*[1]{Macbeth} \persona\*[2]{Lennox} \1 \2 What's the matter. MACDUFF. O horror, horror, horror! Tongue nor heart Cannot conceive nor name thee! MACBETH. LENNOX. What's the matter. SHAKESPEARE Macbeth, II.3

which is clearly unacceptable. But with another, fairly common, style the result is all right.

```
\Facies \persona {\textit{#1}. }
\persona*[1]{Macb}
\persona*[2]{Len}
\persona*[3]{Macd}
\3 0 horror, horror, horror! Tongue nor heart
Cannot conceive nor name thee! \\
\1\2 What's the matter.
```

Macd. O horror, horror! Tongue nor heart Cannot conceive nor name thee! Macb. Len. SHAKESPEARE Macbeth, II.3

### Stage direction

Stage directions are discussed in detail later. For the current discussion, it is sufficient to know that stage directions are enclosed by either [ and ] or ( and ).

When, at the beginning of a speech, the name of the speaker is immediately followed by a stage direction, the two should, in most cases, be treated as a whole: if, for instance, a full stop or a colon normally follows the name of the speaker, the character should move to the end of the stage direction. You specify how the combination should be typeset by using **#2** within **\Facies \persona**; the parameter stands for the text of the stage direction.

\Facies \persona {\textsc{#1}#2. }
\persona{Danton}\[zum Henker\] Willst du grausamer sein [...]

FABRE. Lebe wohl, Danton! Ich sterbe doppelt.

- HÉRAULT (will Danton umarmen). Ach, Danton, ich bringe nicht einmal einen Spaß mehr heraus. Da ist's Zeit. (Ein Henker stöβt ihn zurück.)
- DANTON (zum Henker). Willst du grausamer sein als der Tod? Kannst du verhindern, daß unsere Köpfe sich auf dem Boden des Korbes küssen?

BÜCHNER Dantons Tod IV.7

The software checks for this combination only if the second parameter (#2) appears within Facies persona; however, if any token is found between persona and [, the two items are processed independently. (If you have #2 in Facies persona and for some reason you wish, in a particular instance, to prevent the two items from being treated as a combination, just put relax or {} in front of [. There is an exception to this rule: a comma placed immediately after persona does not count as a token separating it from the stage direction.

\Facies \persona {\textsc{\MakeLowercase{#1}}#2. \textemdash{} }
\2,\[montrant ma\^itre Jacques\] Pour votre payement, [...]

HARPAGON, *montrant maître Jacques.* — Pour votre payement, voilà un homme que je vous donne à pendre.

Molière L'avare, V.6

This simple mechanism is adequate for most texts; if you need finer control over the way the combination is typeset, you can use **\ifthenelse**. [antocleo]

### Names in stage directions

The names of the characters also appear in stage directions, where they are almost invariably written in full and often highlighted by using a different typeface. The name to be used in a stage direction is defined in the sub-argument (the part following  $\backslash$ ) of  $\gamma$  and the aspect in the sub-argument of  $\gamma$  and  $\gamma$  argument of  $\gamma$  and  $\gamma$ 

```
\persona*[1]{Oth\\Othello}
\persona*[2]{Des\\Desdemona}
\Facies \persona {\textit{#1}. \\ \textsc{#1}}
\(\2 in bed asleep.\)
\(Enter \1 with a light.\)
\1 \textbf{[\,\ldots\,]}
\2 Who's there? Othello? \\
\1 Ay, Desdemona.
```

90

DANTON. Adieu, mein Freund! Die Guillotine ist der beste Arzt.

DESDEMONA in bed asleep. Enter OTHELLO with a light. Oth. [...] Des. Who's there? Othello? Oth. Ay, Desdemona. SHAKESPEARE Othello, V.2

Notice that 'Othello' and 'Desdemona' are written in full within the main text. You must not use a \persona command or an abbreviation in such contexts. It would be wrong in principle, as any tampering with an established text is inadmissible, and in practice it would lead to some surprising results, such as:

```
\2 Who's there? \1? \\
  \1 Ay, \2.
Des. Who's there? Oth. ?
Oth. Ay, Des. .
SHAKESPEARE Othello, V.2
```

# The speech

The text of a speech is usually given a distinctive shape by indenting either all lines after the first (which seems to be the most popular style) or the first line alone. The shape is defined by setting the  $\Forma$  attribute<sup>1</sup> for the  $\Persona$  class.

For the first style use: [earnest] [antocleo]

```
hangafter 1 hangindent < dimen>
```

\Forma \persona {\hangafter 1 \hangindent 1em}

VICTORIA: Oh, happy they that never saw the court,

Nor ever knew great men but by report!

WEBSTER The White Devil, V.6

For the second style: [barbier] [hamlet]

<sup>1</sup>Since the attribute controls the shape of the entire speech and not just that of the speech-heading, there is some ontological impropriety in this extension. But it saves having to define yet another class and it may perhaps be justified as a synecdoche.

TALBOT. Unsinn, du siegst und ich muß untergehn! Mit der Dummheit kämpfen Götter selbst vergebens. Schiller Die Jungfrau von Orleans, III.6

\Forma \persona {\parindent 1em}

SAUL Sol, con me stesso, io sto. — Di me soltanto, (Misero re!) di me sol<br/>o io non tremo.

Alfieri Saul, IV.7

As was mentioned earlier, the two \persona abbreviations \0 and \00 are reserved. Their function is to ensure proper formatting of the speech in certain unusual circumstances. \0 represent a null \persona: it does not cause any text to be typeset but it is otherwise a legal speech-heading. A situation where it is needed occurs fairly often in French plays, because of the 'French scene' convention of starting a new scene whenever the number of characters on the stage changes. When a character is alone on the stage, the fact is stated in the stage directions and it would be pointless to repeat the name at the beginning of the speech; on the other hand, the software requires each speech to start with a speech-heading. [barbier]

\Forma \persona {\hangafter -1 \hangindent 1em}
\0 0\'u donc est ce tr\'esor? [...]

### SCÈNE PREMIÈRE

La crypte des anciens rois de Pologne dans la cathédrale de Varsovie. La MÈRE UBU, seule.

Où donc est ce trésor? Aucune dalle ne sonne creux. J'ai pourtant bien compté treize pierres après le tombeau de Ladislas le Grand en allant le long du mur, et il n'y a rien. Il faut qu'on m'ait trompée. Voilà cependant: ici la pierre sonne creux. A l'oeuvre, Mère Ubu. Courage, descellons cette pierre. Elle tient bon. Prenons ce bout de croc à finances qui fera encore son office. Voilà! Voilà l'or au milieu des ossements des rois. Dans notre sac, alors, tout! Eh! quel est ce bruit? Dans ces vieilles voûtes y aurait-il encore des vivants? Non, ce n'est rien, hâtons-nous. Prenons tout. Cet argent sera mieux la face du jour qu'au milieu des tombeaux des anciens princes. Remettons la pierre. Eh quoi! toujours ce bruit. Ma présence en ces lieux me cause une étrange frayeur. Je prendrai le reste de cet or une autre fois, je reviendrai demain.

UNE VOIX, sortant du tombeau de Jean Sigismond. Jamais, Mère Ubu!

JARRY Ubu roi

00 is more rarely needed. When a speech is interrupted by an piece of text that has a quite different shape (a song, for instance), the software ensures that, on resumption of the normal flow, the text is properly indented.

In some very peculiar circumstances, this mechanism fails: placing 00 at the point of failure forces the indentation appropriate for a line which is not the first of a speech [hamlet 60][stoops 6] [tempest 51]. 00 should also be used to ensure the proper format for an isolated quotation:

\Facies \persona {\textit{#1}.\ \\\textsc{#1}}
\Forma {\hangindent 1em \hangafter 1}
\Facies \[ {\textit{#1}}
\Forma {\centred}
\persona\* [1] {K. Rich.\\King Richard}

The king enacts more wonders than a man, Daring an opposite to every danger: His horse is slain, and all on foot he fights, Seeking for Richmond in the throat of death. Rescue, fair lord, or else the day is lost! \[Alarums. Enter \1\] \1 A horse! a horse! my kingdom for a horse!

\Measure -----

The king enacts more wonders than a man, Daring an opposite to every danger: His horse is slain, and all on foot he fights, Seeking for Richmond in the throat of death. Rescue, fair lord, or else the day is lost! *Alarums. Enter* KING RICHARD K. Rich.. A horse! a horse! my kingdom for a horse! SHAKESPEARE King Richard III, V.4

Using 00 restores the correct layout.

00 The king enacts more wonders than a man,

The king enacts more wonders than a man, Daring an opposite to every danger: His horse is slain, and all on foot he fights, Seeking for Richmond in the throat of death.

In modern typography there seems to be a convention of always starting a speech on a new line but occasionally, in verse drama, two very short speeches may be packed into a single line (this is almost invariably done in editions of Greek drama [septem 35, 36]). The package supports this style; you should define \SpatiumAnte \persona which sets the spacing between the speeches.

```
\persona*[1]{0i}
    \persona*[2]{Is|}
    \SpatiumAnte \persona {1.5em}
    1 \text{ w} = te'knon, h('keis? 2 \text{ w} = pa'ter du'smoir' o(ra=n.
    \1 te'knon, pe'fhnas?
                                      ou)k a)'neu mo'xqou ge' moi.
                                \2
                   Ισ. ὦ πάτερ δύσμοιρ' όρᾶν.
Οι. ὦ τέχνον, ἥχεις;
Οι. τέκνον, πέφηνας; Ισ. οὐκ ἄνευ μόχθου γέ μοι.
Οι. πρόσψαυσον, ὦ παῖ. Ισ. θιγγάμω δυοῖν ὁμοῦ.
Οι. ὦ σπέρμ' ὄμαιμον.
                       Ισ. ὦ δυσάθλιαι τροφαί.
                                                            330
Οι. ἦ τῆσδε κἀμοῦ; Ισ. δυσμόρου τ' ἐμοῦ τρίτης.
Οι. τέχνον, τί δ' ἦλθες; Ισ. σῆ, πάτερ, προμηθία.
                   Ισ. καὶ λόγων γ' αὐτάγγελος,
Οι. πότερα πόθοισι;
   ξύν ῷπερ εἶχον οἰκετῶν πιστῷ μόνῳ.
                     SOPHOCLES Oedipus at Colonus
```

### More about speech-headings

The style used so far for speech-headings, with the speaker's name forming an integral part of the speech, is probably the most popular. But other styles are possible. One style (often used for French plays) places the speechheading on a line of its own, centring it. [phedre][cyrano]

\Locus \persona {\centre}
\Locus \textus {\leftmargin + 6em}

CHIMENE

Quoi! Rodrigue, en plein jour! d'où te vient cette audace? Va, tu me perds d'honneur; retire-toi, de grâce.

DON RODRIGUE Je vais mourir, Madame, et vous viens en ce lieu, Avant le coup mortel, dire un dernier adieu: Cet immuable amour qui sous vos lois m'engage N'ose accepter ma mort sans vous en faire hommage.

CHIMENE

Tu vas mourir!

DON RODRIGUE

Je cours à ces heureux moments Qui vont livrer ma vie à vos ressentiments.

CORNEILLE Le Cid, V.1

Notice how, in order to keep the speech-heading centred above it, the text has been moved to the right. Alternatively, you may leave the text at its natural position and shift the speech-heading.

#### \Locus \persona {\centre - 7em}

#### CHIMENE

Quoi! Rodrigue, en plein jour! d'où te vient cette audace? Va, tu me perds d'honneur; retire-toi, de grâce.

#### DON RODRIGUE

Je vais mourir, Madame, et vous viens en ce lieu, Avant le coup mortel, dire un dernier adieu: Cet immuable amour qui sous vos lois m'engage N'ose accepter ma mort sans vous en faire hommage.

CHIMENE

Tu vas mourir!

DON RODRIGUE Je cours à ces heureux moments Qui vont livrer ma vie à vos ressentiments.

CORNEILLE Le Cid, V.1

Another, less wasteful, style puts the speech-heading on its own line, aligned to the left margin, but takes advantage of any available space on a line of text to place the heading there. [tempest]

```
\Locus \persona {\left}
\Forma {\hangafter 1 \hangindent 1.25em}
```

ROMEO

Lady, by yonder blessed moon I swear That tips with silver all these fruit-tree tops— JULIET O, swear not by the moon, the inconstant moon, That monthly changes in her circled orb, Lest that thy love prove likewise variable. ROMEO What shall I swear by? JULIET Do not swear at all; Or, if thou wilt, swear by thy gracious self, Which is the god of my idolatry, And I'll believe thee. ROMEO If my heart's dear love—

### TYPESETTING DRAMA

JULIET Well, do not swear: although I joy in thee, I have no joy of this contract to-night: It is too rash, too unadvised, too sudden; Too like the lightning, which doth cease to be Ere one can say 'It lightens'. Sweet, good night! SHAKESPEARE *Romeo and Juliet*, II.2

With both styles, if you are within the *Versus* domain, you should continue to put the speech-headings, in the input file, at the start of the speech. For the quotation above:

\1 Lady, by yonder blessed moon I swear
That tips with silver all these fruit-tree tops--\2 O, swear not by the moon, the inconstant moon,
That monthly changes in her circled orb,
Lest that thy love prove likewise variable.

A speech-heading appearing alone (possibly with a stage direction) on an input line is always typeset on a line of its own. This feature can be put to use: with the standard style for speech-headings, moving the speech-heading to its own line is often preferable to having a folded line. [faust]

FAUSTUS. Ay, Mephistophilis, I give it thee.MEPHISTOPHILIS. Then, Faustus, stab thine arm courageously,And bind thy soul, that at some certain dayGreat Lucifer may claim it as his own;

\Measure

And then be thou as great as Lucifer.

FAUSTUS [Stabbing his arm]. Lo, Mephistophilis, for love of thee,

I cut mine arm, and with my proper blood

Assure my soul to be great Lucifer's,

Chief lord and regent of perpetual night!

MARLOWE Doctor Faustus, II.1

Moving the speech-heading away from the text gives:

\2
Then, Faustus, stab thine arm courageously,
[...]
\1 \[Stabbing his arm\]
Lo, Mephistophilis, for love of thee,

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 Measure
 FAUSTUS. Ay, Mephistophilis, I give it thee.
 MEPHISTOPHILIS.
 Then, Faustus, stab thine arm courageously, And bind thy soul, that at some certain day Great Lucifer may claim it as his own; And then be thou as great as Lucifer.
 FAUSTUS [Stabbing his arm].
 Lo, Mephistophilis, for love of thee, I cut mine arm, and with my proper blood Assure my soul to be great Lucifer's, Chief lord and regent of perpetual night! MARLOWE Doctor Faustus, II.1

Finally, there is yet another style which, somewhat paradoxically, is both the standard for classical Greek drama and a very popular choice for contemporary plays. In this style, speech-headings appear within a column of constant width, on the left side of the page, while the text is typeset in another column (very often, in modern plays, without justification).

To get this style, you use the \Modus attribute for \persona to put the speech-heading in a field of fixed width [16] with the correct alignment; the indentation in \Forma is set equal to the field width. For more examples, see [woyzeck] and, if you have ibycus installed, [septem].

```
\Facies \personae {\textit{#1}}
\Forma
                  {\hangafter 1 \hangindent 2.5em\relax}
\Modus
                  {\rangedleft {2.5em}}
\newcommand {\Persona}{%
  \Facies \personae {\slshape\MakeUppercase{##1}}%
                    \{ left \} 
  \Locus
  \Modus
                    {}%
}
\persona*[1]{Ch.} \persona*[2]{A1.}
\Versus
       {\Persona
        \persona{Chorus} 0 suitably-attired-in-leather-boots}
        Head of a traveller, wherefore seeking whom
```

CHORUS

O suitably-attired-in-leather-boots

Head of a traveller, wherefore seeking whom

Whence by what way how purposed art thou come

To this well-nightingaled vicinity?

My object in inquiring is to know.

But if you happen to be deaf and dumb

And do not understand a word I say,

Then wave your hand, to signify as much.

ALCMAEON

I journeyed hither a Boetian road.

- Ch. Sailing on horseback, or with feet for oars?
- Al. Plying with speed my partnership of legs.
- Ch. Beneath a shining or a rainy Zeus?
- Al. Mud's sister, not himself, adorns my shoes.
- Ch. To learn your name would not displease me much.
- Al. Not all that men desire do they obtain.
- Ch. Might I then hear at what thy presence shoots.
- Al. A shepherd's questioned mouth informed me that—
- Ch. What? for I know not yet what you will say.
- Al. Nor will you ever, if you interrupt.
- Ch. Proceed, and I will hold my speechless tongue.
- Al. This house was Eriphyle's, no one else's.
- Ch. Nor did he shame his throat with shameful lies.
- Al. May I then enter, passing through the door?
- Ch. Go chase into the house a lucky foot.And, O my son, be, on the one hand, good,And do not, on the other hand, be bad;For that is much the safest plan.
- Al. I go into the house with heels and speed.

HOUSMAN Fragment of a Greek tragedy

Sometimes a character's 'speech' is part of a piece of text (for instance, a song) with a peculiar shape, quite different from that of an ordinary speech. In such cases you can define the shape of the text with the standard commands for the *Versus* domain and set the appropriate \textus shift (this would normally be done within a  $T_FX$  group).

```
\persona*[1]{autolycus}
  [...]
{\Locus \textus {+6em}
  \Forma \strophae {001110*5111000}
  \1 Get you hence, for I must go
  [...]
Then whither goest? say, whither?}
```

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AUTOLYCUS.	Get you hence, for I must go
	Where it fits not you to know.
DORCAS.	Whither?
MOPSA.	O, whither?
DORCAS.	Whither?
MOPSA.	It becomes thy oath full well,
	Thou to me thy secrets tell.
DORCAS.	Me too, let me go thither.
MOPSA.	Or thou goest to the orange or mill.
DORCAS.	If to either, thou dost ill.
AUTOLYCUS.	Neither.
MOPSA.	What, neither?
AUTOLYCUS.	Neither.
DORCAS.	Thou hast sworn my love to be.
MOPSA.	Thou hast sworn it more to me:
	Then whither goest? say, whither?
:	SHAKESPEARE The Winter's Tale, IV.4

You get a warning message if the **\textus** shift is too small and the text intrudes into the speech heading.

If the peculiar 'speech' is spoken by a single character, there is another possibility. If the only text on the line, after the speech-heading, is  $\$  the speech-heading is attached to the line that follows. In this case no checking is done and you get no warning if the speech-heading and the text in the next line overlap. The line carrying the speech-heading must not be the last line of a page.

```
\Facies \persona {\textsc{#1}. }
\persona{fairy} \\
   {
   \Locus \textus {+3em}
   \Forma \stropha [12]{01010}
   Over hill, over dale,
Thorough bush, thorough brier,
   Over park, over pale,
Thorough flood, thorough fire,
I do wander everywhere,
   [...]
In those freckles live their savours:
   }
I must go seek some dewdrops here
   [...]
Our queen and all our elves come here anon.
```

PUCK. How now, spirit! whither wander you? FAIRY. Over hill, over dale, Thorough bush, thorough brier, Over park, over pale, Thorough flood, thorough fire, I do wander everywhere. Swifter than the moon's sphere; And I serve the fairy queen, To dew her orbs upon the green. The cowslips tall her pensioners be: In their gold coats spots you see; Those be rubies, fairy favours, In those freckles live their savours: I must go seek some dewdrops here And hang a pearl in every cowslip's ear. SHAKESPEARE A Midsummer Night's Dream, II.1

Note that both methods work only within *Versus* and only with the default style of speech-heading. If you are setting a text in prose, you can temporarily switch to *Versus* within a  $T_EX$  group [woyzeck]; and if you are using another style, you can switch, in a similar way, to the default speech-heading style [tempest].

## Stage directions

The taxonomy of stage directions is a notoriously controversial matter and no attempt has been made to devise a classification based on semantic criteria. As far as typesetting is concerned, the way directions are placed in relation to speeches is far more relevant than any consideration of semantics. The two classes therefore differ in the placement of their objects: for the first class (which corresponds to what are sometimes called *stage directions* proper), the object is detached from the speeches; for the second (*actors directions*) the object is usually embedded in a speech, though it may also be typeset as detached.

Objects of the first class are enclosed by a ( ) pair; objects of the second by a [ ] pair. To avoid lengthy circumlocutions, we shall refer to the two classes as *p*-SD and *b*-SD respectively.

These are, of course, standard  $\text{IAT}_{\text{E}}X$  control sequences. They have been hijacked because: 1) they are expressive and easy to type; 2) it is hardly conceivable that they should ever be needed in their original meaning in a theatrical play (besides, the corresponding native  $T_{\text{E}}X$  commands remain available).

As mentioned earlier, the two classes do not have subclasses other that the default subclass; on the other hand, objects of these classes often need to be typeset in a slightly different manner depending on the context. To accomodate such variability without resorting to the creation of subclasses, there exists a set of options that can be specified when an object is instanced.

Options are specified as a sequence of lowercase letters placed after the opening control sequence and terminated by ) or ] for, respectively, a p-SD and a b-SD. For instance:

\(cs) ... \) \[r] ... \]

The presence of an option can be tested within the argument of an attribute (typically **\Facies**) by means of **\ifthenelse**, using a special test (not part of the standard set of tests of the **ifthen** package): **\isopt** <*character*>, which is true if the options for the SD include the option associated with <*character*>.

If a set of options is to be applied to all objects of a class of stage directions it is possible to define it once only, in the \Modus attribute, with the **\options** (or **\option**) command: **\Modus \( {\option{w}}** 

Some texts pose special typesetting problems that require a greater degree of flexibility than is provided by the standard options. To solve such problems you can define your own set of options, to be tested within the argument of an attribute [barbier]; since the package uses only lowercase letters (or non-alphabetic characters) for options, you can freely use uppercase letters for the options you define.

### The p-SD class

This class is most often used for what properly deserves to be called a 'stage' direction, i.e. a description of the stage settings at the beginning of an act.

\Facies \( {\itshape}
\Forma {\centredfinal}
\( La scena ... coperto da un pergolato.\)

La scena stabile rappresenta un Campiello con varie case, cioè da una parte la casa di Gasperina con poggiuolo, e quella di Lucietta con altana; dall'altra parte la casa di Orsola con terrazza, e quella di Gnese con altanella. In mezzo, al fondo, una locanda con terrazzo lungo, coperto da un pergolato.

Goldoni Il campiello

#### TYPESETTING DRAMA

You may have noticed that the argument of **\Facies** does not contain **#1**. In fact, you *cannot* use **#1** for this class (if you do, you get an error message). The reason for this exception to the general rule is that the contents of the object are never 'packaged' by the software into the argument of a macro. It would be unsafe to do so, as there is no guarantee that the contents be always of reasonable size: with some modern playwrights, they can run to several pages.

Within the object, the command  $\$  forces a line break. The command takes an *<optional argument>*, a **\spatium** object specifying the space to be inserted between the lines (e.g. **\\[.5ex]**); the default is **0ex**, or the value of **\SpatiumInfra \\** if the attribute is defined.

\Facies \(	{\itshape}
\Forma	{\justified}
\Novus \textus \Facies \Locus \Modus	<pre>\actscene {\textup{[#1]}} {\textleftmargin5em} {\aligned{right}}</pre>

 $\cline {2.5}$ 

\(A walled garden adjoining the house of Olivia; two doors, one leading out of the garden, the other opening into the house whence there runs a broad walk with great box-trees on either side and a stone seat next the wall\)

[2.5] A walled garden adjoining the house of Olivia; two doors, one leading out of the garden, the other opening into the house whence there runs a broad walk with great box-trees on either side and a stone seat next the wall

SHAKESPEARE Twelfth Night

### Options

The software automatically sets the option ( to identify the object class.

j	$\operatorname{set} \setminus \mathtt{justified}$
r	$\operatorname{set} \operatorname{\sc{set}}$
1	$set \rangedleft$
с	set $\centred$
f	$\operatorname{set} \operatorname{\backslash} centredfinal$

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h	cancel hanging indentation
q	cancel \parindent
W	use the $\mathbb{A}T_{\mathbf{E}}X$ page width instead of the text measure
s	do not insert \SpatiumSupra
i	do not insert \SpatiumInfra

By setting the appropriate options, it is possible to accomodate certain irregularities that sometimes occur within a play.

\Facies \( {\itshape}
\Forma {\centred}

\(The octagon room at Sir Robert Chiltern's house\\
 in Grosvenor Square\)

The octagon room at Sir Robert Chiltern's house in Grosvenor Square

WILDE An Ideal Husband, I

\(Morning room at Sir Robert Chiltern's house\)

Morning room at Sir Robert Chiltern's house

WILDE An Ideal Husband, II

\(j)The Library in Lord Goring's house. An Adam room. [...]

The Library in Lord Goring's house. An Adam room. On the right is the door leading into the hall. On the left, the door of the smoking-room. A pair of folding doors at the back open into the drawing-room. The fire is lit. Phipps, the Butler, is arranging some newspapers on the writing-table. The distinction of Phipps is his impassivity. He has been termed by enthusiasts the Ideal Butler. The Sphinx is not so incommunicable. He is a mask with a manner. Of his intellectual or emotional life, history knows nothing. He represent the dominance of form.

WILDE An Ideal Husband, III

(Same as Act II)

Same as Act II

WILDE An Ideal Husband, IV

### The *b*-SD class

Objects of this class are normally embedded in a speech, but may also occur independently, detached from any speech, in which case they behave much like objects of the p-SD class.

When a *b-SD* occurs within *Versus*, it is treated as part of (wholly contained within) the line on which the opening control sequence  $\[$  appears, irrespective of any end-of-line characters that may intervene between the opening and closing control sequences. So the following text (laid out, for the purpose of illustration, in a somewhat contrived fashion) counts as a single 'verse line'.

\persona{homburg} \[steht einen Augenblick, wie vom Blitz
getroffen da; dann wendet er sich mit triumphierenden
Schritten wieder in den Kreis der Offiziere
zur\"uck\] Dann wird er die Fanfare blasen lassen! \[Er tut,
als ob er schriebe\]

HOMBURG [steht einen Augenblick, wie vom Blitz getroffen da; dann wendet er sich mit triumphierenden Schritten wieder in den Kreis der Offiziere zurück] Dann wird er die Fanfare blasen lassen! [Er tut, als ob er schriebe] KLEIST Der Prinz von Homburg, I.5

### Embedded b-SD

These occur within the text of a character's speech. You should always define the **\SpatiumAnte** and **\SpatiumPost** attributes, since any spaces preceding or following the object in the input are ignored. If you are typesetting prose, you should use  $\langle glue \rangle$  with a generous amount of stretchability and some shrinkability, to reduce the risk of Under/Overfull boxes.

### Options

The following options are set automatically by the software:

]	identifies the object class
е	this is an embedded $b$ -SD
b	the <i>b-SD</i> occurs at the beginning of a speech [89]

The options you can set are:

**r** range the object right

- a do not insert \SpatiumAnte
- p do not insert \SpatiumPost

The **r** option is especially important, as b-SD of this type occur very frequently:

\Facies \[ {[\textit{#1}\ifthenelse {\isopt r} {} {]}} \00 Well may I get aboard! This is the chase: I am gone for ever. \[r]Exit, pursued by a bear\]

\Measure -----

Well may I get aboard! This is the chase: I am gone for ever. [*Exit, pursued by a bear* SHAKESPEARE *The Winter's Tale,* III.3

Notice how the option is tested in the **\Facies** attribute, to omit the right bracket that would normally come at the end of a b-SD (this is an almost universal typographical convention).

When using this option, you need not worry whether the object fits in the line; if it does not, it is automatically moved to a line of its own.

\Measure -

Des. I am very sorry that you are not well. [Exeunt Othello and Desdemona SHAKESPEARE Othello, III.3

The test in **\Facies \persona** reflects the conventions of the style of the *Arden Shakespeare*, which is used for these examples: a character's name in set in small capitals within (to use the terminology of the suite) a p-SD, but in the font of the surrounding text within a b-SD.

Within *Versus*, if line numbers are printed within the text measure, a *b-SD* of this type may be shifted left to make room for a line number. So the line that would normally be typeset as:

that follows, in a manner similar to plain TEX's \llap macro. Compare:

\1 Heaven keep your honour safe!\\
\2 \[Aside\] Amen:

ISABELLA. Heaven keep your honour safe! ANGELO. [Aside] Amen:

with:

 $2 \in Amen:$ 

ISABELLA. Heaven keep your honour safe! ANGELO. [Aside] Amen: SHAKESPEARE Measure for Measure, II.2

#### Detached b-SD

A detached *b-SD* is typeset as an independent paragraph, with the shape specified by \Forma \[. The \SpatiumAnte and \SpatiumPost attributes do not apply.

A detached b-SD is a b-SD that is immediately preceded by a blank line (this is the only exception to the rule that blank lines are ignored within *Versus*). Only within *Versus* (and *not* in any other context) it is possible to omit the blank line and force the b-SD to be treated as detached by specifying the d option explicitly (see below).

A detached b-SD is very much like a p-SD, with three differences:

• in typesetting a detached *b-SD* the software takes the **\textus** shift (if any) into account, while a *p-SD* is always typeset with reference to the text measure;

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- for a detached *b-SD* the argument of \Facies should include #1, since the argument of the command is passed as a T<sub>F</sub>X macro parameter;
- a \textus object cannot be attached to a b-SD.

The following examples illustrates the difference between an embedded b-SD and a detached b-SD, and the difference between the latter and a p-SD:

\Measure

No, Faustus, curse thyself, curse Lucifer That hath depriv'd thee of the joys of heaven. *The clock strikes twelve.* O, it strikes, it strikes! Now, body, turn to air, Or Lucifer will bear thee quick to hell! *Thunder and lightning.* O soul, be chang'd into little water-drops, And fall into the ocean, ne'er be found! *Enter devils.* 

My God, my god, look not so fierce on me! Adders and serpents, let me breathe a while! Ugly hell, gape not! come not, Lucifer! I'll burn my books!—Ah, Mephistophilis!

Execut devils with FAUSTUS.

MARLOWE Doctor Faustus V.2

A slight complication can arise when a b-SD is used within Versus: some lines that look anything but empty are, in the software's eyes, indistinguishable from an empty line (because they do not contain any text to be typeset). If, for instance, a command to change the typeface comes before what should be an embedded b-SD, the result is a detached b-SD.

There are two ways out of the difficulty: you can put a percent sign at the end of the troublesome line, so effectively joining it to the next line; or you can set the e (for embedded) option for the stage direction.

```
{\Facies \[ {\textsl{#1}}%
        \[The clock strikes twelve.\]
}
{\Facies \[ {\textsl{#1}}
        \[e]The clock strikes twelve.\]
}
```

No, Faustus, curse thyself, curse LuciferThat hath depriv'd thee of the joys of heaven.The clock strikes twelve.O, it strikes, it strikes! Now, body, turn to air,Or Lucifer will bear thee quick to hell!

MARLOWE Doctor Faustus V.2

### Options

The software automatically sets the options [ and d ('detached'). The options you can set are just the same as for a p-SD.

j	$\operatorname{set} \setminus \mathtt{justified}$
r	$\operatorname{set} \operatorname{\sc l}$
1	set $\rel t$
С	set $\centred$
f	$\operatorname{set} \operatorname{\backslash} centredfinal$
h	cancel hanging indentation
q	cancel \parindent
W	(see below)
S	do not insert $SpatiumSupra$
i	do not insert $\SpatiumInfra$

For a b-SD the effect of the w option is different from the effect the option has for a p-SD: the stage direction is typeset using the full text measure (not the full text width), ignoring any \textus shift.

By setting the appropriate options you can achieve any particular arrangement, as found in professionally typeset texts. For instance, with the following input:

Facies [	{[\textit{#1\/}]}
\Forma	{\parindent 1em}

 $\[Kisses him and rises and goes out]\]$ 

\[\persona{Sir Robert Chiltern} walks up and down for a moment; the sits down and buries his face in his hands. The Servant enters and begins putting out the lights. \persona{Sir Robert Chiltern} looks up.\]

the result would be:

[Kisses him and rises and goes out]

[SIR ROBERT CHILTERN walks up and down for a moment; the sits down and buries his face in his hands. The Servant enters and begins putting out the lights. SIR ROBERT CHILTERN looks up.]

WILDE An Ideal Husband, I

With this input:

\[ci]Kisses him and rises and goes out\]

\[s]\persona{Sir Robert Chiltern} walks up and down for a moment; the sits down and buries his face in his hands. The Servant enters and begins putting out the lights. \persona{Sir Robert Chiltern} looks up.\]

you get:

[Kisses him and rises and goes out]

[SIR ROBERT CHILTERN walks up and down for a moment; the sits down and buries his face in his hands. The Servant enters and begins putting out the lights. SIR ROBERT CHILTERN looks up.]

WILDE An Ideal Husband, I

as in the edition of Wilde's plays published by Penguin Books in 1954, a book typeset by Unwin Brothers Ltd to very high standards.

# Page headings and the table of contents

For page headings and the table of contents  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  relies entirely on Javier Bezos' excellent titlesec and titletoc packages; as the author says of titlesec, these are tools "for the serious typographer that has a clear idea of what layout he wants". The great versatility of both packages and their elegant interface make it easy to implement the features required for literary texts, for which the standard LATEX sectioning commands, having been designed for technical documents, are quite unsuitable.

The main difficulty with literary texts is that, while they often exhibit a natural division into sections (most plays, for instance, are divided into acts and scenes), the section headings are an integral part of the text and are therefore typeset directly by  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$ . Obviously the information in section headings cannot be replicated in an explicit LATEX sectioning command; yet it must somehow be passed on to LATEX for use in headlines and in the table of contents. This is achieved by means of the **\Caput** attribute, which can be defined for **\titulus** and **\numerus** subclasses; the attribute specifies which information, in an object of that subclass, should be passed to LATEX *as if* it came from the argument of a LATEX sectioning command.

# The \Caput attribute

The first, mandatory, token in the argument of the attribute is the control sequence for a sectioning command (either one of the standard  $IAT_EX$  commands, or one defined with \titleclass).

```
\Caput <subclass> {<sectioning command>}
```

In this basic form, the attribute makes the argument of a *<subclass>* object available: 1) in headlines, as *<sectioning command>*title (for instance **\subsectiontitle**); 2) in the table of contents both as the implicit argument of a **\titletoc** command for the *<sectioning command>* and (explicitly) as the value of **\thecontentslabel** for such a command.

If you want the information to be available only for headlines, or only for the table of contents, you can specify the destination with, respectively:

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\Caput <subclass> {<sectioning command> \headline} \Caput <subclass> {<sectioning command> \contents}

With both the **\headline** and the **\contents** commands you can specify an argument providing the information to be passed to the respective destination instead of the default information. This feature is especially useful for objects of the **\numerus** class, as in this example from [hamlet]:

\Caput	{\section
	<pre>\headline {\theNact.\theNscene.\thenumerus}}</pre>

This definition for the subclass associated with line numbers results in  $\langle act \rangle . \langle scene \rangle . \langle line \rangle$  being printed at the top of each page.

In the argument of **\headline** and **\contents** you should be very careful about using *fragile* commands; when in doubt, put **\protect** in front of the command. [plato][phedre]

## The \Capita command

Information destined for headlines is handled by the LATEX mechanism supporting marks, as modified by titlesec which provides the \setmarks command to define the *<primary>* and *<secondary>* sectioning commands that generate marks (only two classes of marks are supported by LATEX).

Whenever marks are to be generated by sectioning commands associated with a \Caput attribute, you must define *<primary>* and *<secondary>* with the \Capita command. \Capita is a (very slightly) modified version of \setmarks, with the same syntax; it is used exactly where \setmarks would normally occur. Even when you remain with the default *<primary>* and *<secondary>*, you should still issue the command:

\Capita {chapter}{section}

## Special options for \titulus

The standard action for an object of the \titulus class is to transfer the entire command argument. Occasionally, you may want to send only part of the argument to the headline and/or the table of contents; or perhaps you may want to add some extra information. Within the argument of a object of the \titulus class you may use the following commands:

#### \headline \contents \notheadline \notcontents

The text in the argument of the first two commands is sent to the respective destination but it does not become part of the object as it is typeset at the place of occurrence. Conversely, for the last two commands the text is typeset normally in place but it is not sent to the headline or table of contents. Here is an example from [faust]:

```
\Titel {Goethe "uber seinen "'Faust"'
    \notheadline {%
    \\ \notcontents{{\RelSize{-1}und} \\[.33ex]}%
    Quellen zur Entstehungsgeschichte des "'Faust"'%
    }%
}
```

## Extensions to titlesec

### \thecontentslabelfinal

The standard titlesec \thecontentslabel command returns the full label for a section, typically in the form of a sequence of numbers separated by periods. In most cases, only the last number in the sequence is relevant and \thecontentslabelfinal returns just that. [arden.hs][penguin.hs]

### \firstlinetitlemarks

In addition to the standard \firsttitlemarks, \toptitlemarks etc. you can also use \firstlinetitlemarks, which provides the type of mark discussed on page 260 of *The T<sub>E</sub>Xbook*: "What we want [...] is a cross between \topmark and \firstmark: something that will reflect the mark text that represents the state of affairs just after the first line of the page. And T<sub>E</sub>X doesn't provide that." [plato][stoops]

**CAUTION** In the current implementation this feature is something of a 'hack': it works reliably if the marks are set at each line of the page but tends to give unpredictable results when the marks are set more sparsely.

# Indexes

τεχνιχά can build and typeset an index of all objects of a specified \titulus subclass. In addition, for a collection of poems, τεχνιχά can build and typeset the index of first lines: more precisely, of the first lines of all *poems* [5].

# Indexing \titulus objects

You specify that objects of a **\titulus** subclass should be indexed by using the **\indexes** command in the **\Caput** attribute of the subclass. If the attribute also specifies that the object should be moved to the table of contents and/or the headline, **\indexes** must not be the first token in the argument (the first token is interpreted as the control sequence for a sectioning command [111]).

The **\indexes** command takes an *<optional argument>*: a single letter specifying the type of the index entry. By default an entry derived from a **\titulus** object has type **t**; you can specify any other letter (except 1) as the entry type. The commands for collecting information for the indexes and for typesetting an index allow you to select the types of the entries to be processed by the command.

Normally the index entry coincides with the argument of the command when an object of the **\titulus** subclass is instanced; if the argument is split over more than one line by means of **\\** commands, the index entry is a single line in which each occurrence of **\\** is replaced by a space. Sometimes you may want an index entry that differs from the command argument; you can specify the index entry as the argument of an **\indexes** command placed within the argument of the command instancing the object.

For a *poem*, the argument of the command defining the poem title can include, at any position, the command **\addfirstline**. The result is a composite index entry in which the title is followed, on a separate line, by the first line of the poem: a collection may include several poems sharing the same generic title (for instance *Song* or *Sonnet*) and in the index each poem should be unambiguously identified by quoting the opening line [metapoet].

The corresponding index entries are:

Sonnet : Dame sans trop d'ardeur à la fois enflammant Sonnet : Ô si chère de loin et proche et blanche, si MALLARMÉ Sonnets

# Indexing first lines

Indexing of first lines is requested by specifying the index entry type 1 in the commands for collecting and typesetting indexes: this is all that is needed, if each poem is placed in a separate *Versus* domain.

There are two commands that may be used to disable and enable indexing for a specific line. \NotFirstLine, placed within a line, prevents it from being treated as a first line, even though it occurs at the start of a *Versus* domain. \FirstLine, placed within a line, causes it to be treated as a first line: its main use is within \Facies \stropha, where it allows a collection of poems sharing the same strophic structure to be indexed with minimal mark-up. [sonnets]

# Collecting the index information

### The \BuildIndexes command

The main command is \BuildIndexes, which must be placed in the preamble (i.e. before \begin{document}). The command argument is one of the following words: no yes done toc.

Index generation is usually the last stage in the preparation of a text as there is no point in activating it before all details of typesetting have been settled. With **no** as the argument of **\BuildIndexes** all the commands dealing with indexes are disabled and have no effect whatsoever on typesetting.

#### INDEXES

When the time comes of collecting index information, the command argument is changed to yes. The  $< optional \ argument > of$  the command specifies all index entry types for which information should be collected. The argument is a list of letters (the default is t): in addition to 1 for first lines and t for the default entry type for a \titulus subclass, you can use any letter you may have specified as the  $< optional \ argument > of$  the \indexes command in the \Caput attribute of a \titulus subclass.

Each letter in the list may be followed by the names of \numerus subclasses. The effect is this: at the time an index entry of that type is typeset, the counter for each of the specified \numerus subclasses will hold the same value it held at the time the text was typeset in the original context; the value can be typeset as part of the index entry to provide auxiliary references, in addition to the page number [carmina]. Note that the mechanism which makes the value available in the index does not in any way affect the value of the counter outside the context of indexes. When you use this feature, you must place the \BuildIndexes command at a point in the preamble where all the \numerus subclasses the command references are defined.

Any letter except 1 may be followed by either ' or ". When ' is specified, the text of the index entry is examined; if it starts with an article, the original entry is replaced by a new text in which the article is placed at the end, preceded by a comma [fleurs]. The following examples show the original text of the entry on the left and the modified text on the right:

La casa dei doganieri	Casa dei doganieri, La
Los Llanos	Llanos, Los
Le seul témoin	Seul témoin, Le
A Permanent Way	Permanent Way, A
Die Beide	Beide, Die

This feature is available for English, French, German, Italian and Spanish. The appropriate set of articles is selected depending on the value of \languagename, as set by Babel; the default, if \languagename is not defined, is English.

The effect of " is the same as that of ' as far as the ordering of the index entries is concerned, but the original entry is printed, at the position that would be that of the modified entry if ' had been used.

### The \Indexes command

Setting the argument of \BuildIndexes to yes does not actually start collection of index entries. For this, it is necessary to insert an \Indexes command at the point in the document at which you wish to start collecting index information. Collection will then continue, by default, up to the end of the document; it can be stopped with the \*-form of the command, \Indexes\*, (and resumed later by using the normal form again).

The **\Indexes** command takes an *< optional argument>*, the name of an alphabet [40]: the uppercase letters of the alphabet are used as separators for groups of index entries. If the *< optional argument>* is omitted, the English alphabet is used; the *< optional argument>* is ignored in any **\Indexes** commands after the first.

The \Indexes command (in both the normal and the \*-form) cannot appear within Versus or Prosa.

### Sorting the index information

Specifying \Buildindexes{yes} causes the index entries to be written to a file \jobname.idy. This file must be sorted, with the sorted output going to \jobname.idz. The sort key is the string starting at the second character of the record and ending at the first } character; the sorting must be *stable*, i.e. records with equal keys retain their original relative order.

If the document is in a language (such as Latin or English) that uses only standard ASCII characters, a general-purpose sort program may be used. The command line for GNU sort is:

sort -k 1.2,1 -t} -s < <jobname>.idy > <jobname>.idz

For a language that requires an extended character set, a sort program that supports the appropriate collating sequence for the language is needed. <sup>1</sup>

# Typesetting an index

Once the sorted file \jobname.idz has been successfully generated, the index(es) can be typeset. The argument of \BuildIndexes is set to done (or simply to {}) and this causes any \TypesetIndex commands in the document (ignored in previous runs) to be executed.

The TypesetIndex command takes two mandatory arguments and an < optional argument>. The latter specifies which entry types should appear in

<sup>1</sup>I imagine that such a program must exist, but I have been unable to locate a suitable tool, available for both Unix and Windows.

#### INDEXES

the index (the default is t); in most cases, a single type is specified but it is also possible to request, for instance, a combined index of titles and first lines.

The first and second mandatory arguments contain code to be executed respectively before and after the body of the index is typeset. As an index is typeset entirely within the boundaries of a  $T_{\rm E}X$  group, any code in the mandatory arguments cannot possibly affect the rest of the document, unless you use commands that result in global assignments (which should be avoided, unless you know what you are doing).

The first argument should contain code for typesetting the title of the index and for setting an appropriate headline for the index pages. The second mandatory argument of **\TypesetIndex**, with the code to be executed at the end of the index, is usually quite simple: often just a **\clearpage** command.

### Setting the layout of an entry

Within the first argument it also possible to modify the way an index entry is typeset; this is done by setting the attributes of two subclasses (created automatically by the  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  software) associated with each entry type: a \textus subclass for the text of the entry and a \numerus subclass for the page number. For the entry type x the name of the corresponding subclasses are, respectively, \xIndexEntryText and \xIndexEntryPage. For instance, to change the aspect of the page number in the index entry for a first line, you can say:

```
\Facies \lIndexEntryPage {\oldstylenums{#1}}
```

and, to change the aspect of the index entry itself:

```
\Facies \lIndexEntryText {\itshape #1}
```

For the **\textus** subclass, the **Modus** attribute can specify a special option (only available in this context and not elsewhere in the document):

\Modus \tIndexEntryText {\leaders}

When this option is specified, a line of dots will be printed at the end of the text of the index entry, to guide the eye across the page [fleurs]. The **leaders** command takes an *< optional argument>* specifying the distance between the dots; the default distance is .05\Measure.

If the *< optional argument>* of \BuildIndexes includes the names of some \numerus subclasses and you wish to insert the corresponding values in

the index entry, you should of course modify the **\Facies** attribute of the **\textus** subclass for the entry [carmina][fleurs].

In most cases, you will also need to change the **\Facies** attribute for the **\numerus** subclasses themselves; in defining **\Facies** you should always make an explicit test for the value 0 (making sure no text is typeset for it):  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  sets the value to 0 whenever it would not be appropriate to print the original value [carmina][fleurs].

### Setting the layout of the index

An index is not usually typeset as a continuous, uninterrupted sequence of lines. A group of entries sharing the same initial letter is separated from the previous group by some blank space and often the initial letter of the first line of the group is typeset in a larger font. Sometimes the common initial letter is typeset on a separate line, as a sort of title. All these styles are easily obtained with  $\tau \epsilon \chi \nu \iota \chi \dot{\alpha}$ .

Whenever the initial letter of an entry differs from that of the previous entry, the software automatically issues the command \IndexSeparator with the new initial as the argument. \IndexSeparator is a predefined (locally within the index) \titulus subclass created with these attributes:

\Facies \IndexSeparator {}
\SpatiumSupra {.5\leading}

Because \Facies is empty[34], the command argument (the initial letter) is ignored but \SpatiumSupra is obeyed, inserting blank space before the new group of entries. By redefining the attributes (and perhaps adding \SpatiumInfra) you can have the letter in the argument typeset above the group.

The initial letter of the first entry of a group is treated by  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  as an incipit (just like the beginning of the first line of a poem [43]) and is typeset according to \Facies \incipit. Within the index, \Facies \incipit is empty, so that the letter is typeset without alteration. By redefining the attribute, you can specify how the letter should be typeset; the attribute definition must not contain references to parameters other than #1 (only the first letter should be affected).

# Updating the table of contents

At the end of the previous step, the indexes have been typeset but are not yet listed in the table of contents. To update the table, you need a final step with \BuildIndexes{toc}.

**CAUTION** You must make sure that adding the lines for the indexes does not change the pagination beyond the table of contents itself.

# APPENDICES

# Using the suite

The τεχνιχά suite consists of three packages, TEXNIKA, poetry and drama, which are invoked through the standard \usepackage mechanism (poetry and drama automatically invoke TEXNIKA, if not explicitly loaded).

There is a small set of options that may be specified on the **\usepackage** command for any of the three packages.

### repeat

When the option is set, at the end of the  $\bot T_E X$  run, if a second run is necessary, a file with the name \jobname.rpt is created in the current directory. By detecting this file, a script can automatically launch a second run; two sample scripts (typeset.bat and typeset.sh) can be found in the examples directory of the distribution.

### Warnings

When an anomalous situation (for instance, different objects overlapping each other) is detected, a warning message is sent to the log, with the number of the input line causing the problem. In addition, the number is typeset, in the margins, on the corresponding document line, enclosed within two asterisks. This is the default action, when no option is given.

The warnings option suppresses the printing of the number on the document line. nowarnings also suppresses the message to the log. nowarnings may have to be used for production runs to avoid a flood of messages; for instance, when poetry is typeset within a narrow text measure, many line numbers have to be shifted from their standard position by more than one line (which is one of the anomalies that produce a warning) [sonnets].

## House styles

One of the objectives in the design of the  $\tau \epsilon \chi \nu \iota \chi \dot{\alpha}$  suite has been to minimize the amount of mark-up in the body of the document, by allowing most formatting information to be placed in the LATEX preamble, where it constitutes a sort of 'style sheet' (to use the terminology of HTML and XLM).

"The custom of a printing establishment as to [...] the general layout and design" [*The Oxford Dictionary for Writers and Editors*] is traditionally called the *house style*. As the example files show,  $\tau \epsilon \chi \nu \iota \chi \dot{\alpha}$  allows the user to closely approximate any given house style.

As an experiment, the  $\tau \epsilon \chi \nu \iota \varkappa \dot{\alpha}$  code implementing the styles of the Arden Shakespeare and the Penguin Shakespeare has been packaged, respectively, in the files arden.hs and penguin.hs. [antocleo] is designed for, and uses, the Arden style while [tempest] is designed for, and uses, the Penguin style. By switching the house styles, you can typeset each play in the style of the other.

\ifthenelse {\equal {\housestyle}{arden}}

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