User manual for `kluwer.cls`

Instructions for authors

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Abstract. This is the user manual for the `kluwer.cls` class file for the preparation of articles to be submitted to journals. It is based on the same set of macros as the class files which Kluwer uses for the typesetting of its journals. The `kluwer.cls` class file is similar in use as the `article` class file of LaTeX 2_ε, but it has some extra fields in the preamble and some extended commands for the main text.

Keywords: LaTeX 2_ε, (electronic) submission, user manual, class file, Kluwer

Abbreviations: KAP – Kluwer Academic Publishers; compuscript – Electronically submitted article

Table of Contents

* This e-mail address is available for all problems and questions.

1. Introduction

The kluwer class file is the general style file for submitting an article in LaTeX 2ε for publication in one of the journals of Kluwer Academic Publishers.

The LaTeX class files for typesetting Kluwer journals are based on a common set of underlying macros; the same macros underly this class file. So, in theory at least, conversion of your submission to a journal class file should be trivial.

1.1. Using other packages

Please try to limit your use of additional packages. They frequently introduce incompatibilities. This problem is not specific to the Kluwer styles, it is a general LaTeX problem. Check this manual whether the required functionality is already provided by the Kluwer class file. If you do need third-party packages, send them along with the paper. Also check the log file whether additional files and packages are loaded by those packages and send them too.

2. The opening

Although you may be able to include the body of your paper with few or no changes, the opening is specific to the Kluwer class files. This is the structure of a paper:

```
\documentclass[options]{kluwer}

<package declarations>
<your own macros and preamble commands>

\begin{document}
\begin{article}

\begin{opening}
<opening commands>
\end{opening}

<body of your paper>

\end{article}
\end{document}
```

It is possible to include several `article` environments into one paper. For an edited volume, one can also place a `frontmatter` environment before the `article` environments.

The opening environment should look like this:

```
\begin{opening}

% Title block:

\title{...}
\subtitle{...}

% Author block [repeatable]:

\author{...\surname{...}\email{...}}
\author{...\surname{...}\email{...}}
\institute{...}

% Extra information:

\dedication{...}
\translation{...}
\runningtitle{...}
\runningauthor{...}
\begin{ao}
....
\end{ao}
\begin{motto}
....
\end{motto}

% Abstracts and keywords:

\begin{abstract}
...
\end{abstract}
\keywords{...}
\abbreviations{\abbrev{...}{...};
               \abbrev{...}{...}}
\nomenclature{\nomen{...}{...}; \nomen{...}{...}}
\classification{...}{...}
\end{opening}
```

These commands should be used only within the `opening` environment. Most of them will produce an error if used somewhere else in your document.

Below, we shall describe them in detail. Their order is not fixed. They are executed by `\end{opening}`, without regard to their location within the `opening` environment (with an exception for the author block, please see below for details). Anything that is not within a command will end up being typeset *before* the 'real' contents of the environment, so be careful to only use the commands given here.

Now let us explain the commands in more detail.

2.1. Title and Subtitle

The title and, if necessary, subtitle should be typed in one of the following two styles of capitalisation:

`\title{This is my title}`	One initial capital
`\title{This Is My Title}`	Initial capitals

This has to be done according to the style of the journal in which your article is to be published. Uppercasing will be done by the stylefile if necessary. A missing `\title` command generates an error message.

You can split the typeset title and subtitle over multiple lines by putting two backslashes at an appropriate place, and you can specify footnotes to the title by use of the `\thanks` command. The specified text will be placed at the bottom of the page as a footnote.

An example of a title block could look like this:

```
\title{The 'Kluwer' LaTeX Style File:\\
       Instructions for Authors\thanks{Donald Knuth}}
\subtitle{Basic Instructions}
```

2.2. Author block

The author block consists of one or more authors followed by an institute. This construction may be used more than one time. A typical 'large' author block would look like this:

```
\author{A. \surname{Thor1}\email{thor@wkap.nl}}
\author{B. \surname{Thor2}\thanks{Partially supported...}}
\institute{KAP}
\author{C. \surname{Thor3}}
\institute{}
```

As you can see, the surname of the author is given within a separate command, `\surname`. This makes it easier for us to extract database information from the LaTeX file. It has no influence on the way the author's name is typeset.

You can specify support acknowledgements etc. by use of the `\thanks` command.

If the author has an email address that looks like it will last for at least the time between submission and publication, you can give the address in the `\email` command either after the surname of the author or in the `\institute` command. It will be typeset in small typewriter font within brackets.

The specification for the author block is a bit more complicated than the rest of the opening environment. Please take note of the following restrictions:

1. Order is important for all `\author` and `\institute` commands. They will be typeset in the same ordering as found in your input file.

2. `\thanks` can only be used as the very last item in the `\author` command. If you make a mistake, you will get a quite incomprehensible TEX error message.

3. The list of authors *has* to end with an institute. If there are authors that are not part of any institute, give an empty command as demonstrated above. If you don't, that author's name will *not* be typeset.

4. Sometimes the class file may fail to find a good place to break a line containing multiple authors. If this happens, you can insert two backslashes (`\\`) yourself to force a line break after an author's name or email address (It will *not* work if the two backslashes are the first characters within `\author`. In this case there will be a LATEX error `'No line to end'`).

2.3. Extra information

These commands give some extra information about the article.

2.3.1. *Dedicated and translated articles*

You can use the commands `\dedication` and `\translation` to give extra information about your article. The commands help by inserting the correct amount of space above and below your text.

2.3.2. *Running heads*

You can create a running title (used on odd pages) by using the `\runningtitle{}` command, where you put the (maybe shortened) title between the curly braces, and you can create a running author line (used on even pages) using the analogous `\runningauthor` command.

Both of these commands may be used in strange ways by LATEX, so try to keep the information short enough to fit in the headline, and try to use only plain text. For instance, don't try to force line breaks in the running title, and don't insert `\label`s.

2.3.3. *Address for correspondence*

The environment `ao` can be used to give an address for correspondence or offprints. The contents of this environment will be typeset at the end of the article environment (an example is given in this document on page 31). The exact phrasing of the leading text depends on the stylefile, so it may change later here at Kluwer.

2.4. ABSTRACTS AND KEYWORDS

The `abstract` environment is used to give a short description of the article.

The `\keywords` command gives a list of keywords. These should be separated with commas.

The `\abbreviations` command allows to give a list of abbreviations used. It defines a sub-command `\abbrev` with two arguments, of which the first is the abbreviation and the second the meaning. The exact layout will once again depend on the used stylefile.

Here is the example from the beginning of this document:

```
\abbreviations{\abbrev{KAP}{Kluwer Academic Publishers};
   \abbrev{compuscript}{Electronically submitted article}}
```

The command `\nomenclature` is closely related to `\abbreviations`. It takes one argument subdivided into `\nomen` parts. The above example gives the correct syntax. For both environments it is legal to have text outside of `\abbrev` respectively `\nomen`, in which case it will just be typeset as flushed text, and you have to provide additional formatting yourself. This is discouraged.

The command `\classification` takes two arguments, the first describing the type of the classification, the second the classification proper. An example might be:

```
\classification{JEL codes}{D24, L60, 047}
```

2.5. DATE

By using the `\date` command, it is possible to specify reception and acception dates. Since this is something that the journal's editor enters, the default value when no `\date` command is given is to insert a template line that allows easy fill-in of this information. You are advised not to use this command.

2.6. MOTTO

When you want to specify a piece of poetry or a quotation to specify a motto to your article, you can use the `motto` environment. You can differentiate between prose and poetry. If you are using prose, give an extra option to the environment: `[prose]`

Here is an example:

```
\begin{motto}[prose]
The only thing that never looks right is a rule.
There is not in existence a page with a rule on it
that cannot be instantly and obviously improved
by taking the rule out.

\rightline{George Bernard Shaw, In {\it The Dolphin} (1940)}
\end{motto}
```

2.7. EXAMPLE

An example of an elaborate `opening` environment:

```
\begin{opening}
\title{The 'Kluwer' LaTeX Style File:\\
       Instructions for Authors\thanks{With thanks to Donald Knuth}}
\subtitle{Basic Instructions}

\author{A. \surname{Thor1}\email{thor@wkap.nl}}
\author{B. \surname{Thor2}\thanks{Partially supported...}}
\institute{KAP}
\author{C. \surname{Thor3}}
\institute{}

%\date: rather not

\dedication{To Jim}

\translation{De Kluwer LaTeX stylefile; aanwijzingen voor auteurs}

\runningtitle{De Kluwer LaTeX stylefile}
\runningauthor{Hoekwater e.a.}

\begin{ao}\\
Kluwer Prepress Department\\
P.O. Box 990\\
```

```
3300 AZ Dordrecht\\
The Netherlands
\end{ao}

\begin{motto}
What can't be done with TeX isn't worth doing.
\end{motto}

\begin{abstract}
This document describes how to format a paper with
\texttt{kluwer.cls}, the Kluwer
class file for journal submissions.
\end{abstract}

\keywords{LaTeX, Kluwer, Journal submissions}

\abbreviations{\abbrev{KAP}{Kluwer Academic Publishers};
   \abbrev{compuscript}{Electronically submitted article}}

\nomenclature{\nomen{KAP}{Kluwer Academic Publishers};
   \nomen{compuscript}{Electronically submitted article}}

\classification{JEL codes}{D24, L60, 047}
\end{opening}
```

Here ends the description of the `opening` environment.

3. Mathematical constructs

As already indicated, the Kluwer class file offers additional functionality beyond what the standard LaTeX `article` style provides. This section gives an overview of the additional mathematical constructs that are supported.

3.1. Symbols

The class file attempts to load two packages `amssymb` and `wasysym`. These support additional symbols. There will be no error if they are not available.

All of the commands for symbols from these packages will of course be available. Additionally, there are some commands defined in `klumac.sty`. A short overview is given in Table I.[1]

[1] Some of these commands actually use the AMS fonts. This means that if you do not have these fonts, the commands will fail with a 'missing font..' error.

Table I. Additional math symbols made available through `kluwer.cls`

$\mathbf{I}$	`$\I$`	$\overset{a}{}$	`$\down{a}$`
Res	`$\Res{a}$`	$\Vert\!\lceil$	`$\dres$`
$\overset{a}{\textcircled{a}}$	`$\bigo{a}$`	$\Vdash$	`$\forces$`
$\frown$	`$\concat$`	$\lesseqgtr$	`$\grlo$`
$\mathbb{C}$	`$\dC$`	$\gtrsim$	`$\gsim$`
$\mathbb{E}$	`$\dE$`	$\bar{\mathbf{I}}$	`$\iduaal$`
$\mathbb{F}$	`$\dF$`	lh	`$\lh$`
$\mathbb{L}$	`$\dL$`	$\gtrless$	`$\logr$`
$\mathbb{N}$	`$\dN$`	$\lesssim$	`$\lsim$`
$\mathbb{P}$	`$\dP$`	$\big\downarrow a$	`$\mapdown{a}$`
$\mathbb{Q}$	`$\dQ$`	$\xrightarrow{a}$	`$\mapright{a}$`
$\mathbb{R}$	`$\dR$`	$\not\equiv$	`$\nequiv$`
$\mathbb{Z}$	`$\dZ$`	$\circledast$	`$\oast$`
depth	`$\depth$`	range	`$\range$`
$\Diamond$	`$\diamond$`	$\lceil$	`$\res$`
dom	`$\dom$`	$\restriction$	`$\restrict$`

Please see the documentation for `amssymb` and `wasysym` for the additional symbols these packages provide (most of `amssymb` is also documented in (Goossens *et al.*, 1994)).

3.2. Subequation environment

A subequation environment is available to create equations with sub-numbering of the equation counter. It takes one (optional) argument, that specifies the way that the sub-counter should be typeset.

Possible options are:

alph	(1a)	This is the default.
Alph	(1A)	Uppercase
arabic	(1.1)	Arabic numbers.

e.g.

```
\begin{subequation}[alph]
\begin{equation}
E = mc^2
\end{equation}
\begin{equation}
```

```
x^2 + y^2 = 1
\end{equation}
\end{subequation}
```

producing

$$E = mc^2 \tag{1a}$$

$$x^2 + y^2 = 1 \tag{1b}$$

You can also put an `eqnarray` environment inside a `subequation` environment:

```
\begin{subequation}[arabic]
\begin{eqnarray}
E & = & mc^2 \\
x^2 + y^2 & = & 1
\end{eqnarray}
\end{subequation}
```

producing

$$E = mc^2 \tag{2.1}$$

$$x^2 + y^2 = 1 \tag{2.2}$$

3.3. Varequation environment

If nothing else fits your requirements, you can also 'hard-code' equation numbers of your own design with the `varequation` environment. No LaTeX counters are incremented. You may want to use it as follows:

```
\begin{varequation}{3\ensuremath{\alpha}}
E = mc^2
\end{varequation}
```

producing

$$E = mc^2 \tag{3α}$$

Note the use of `\ensuremath`, which may be necessary when you use mathematical symbols inside the argument. Otherwise your input may fail under some internal stylefiles (i.e. those that use equation numbers on the left side of the page).

Note also that 'hard' equation numbers require 'hard' equation references: LaTeX's automatic cross-referencing is of no use here.

3.4. Displayed sentences: theorems and such

The `kluwer` class file contains a predefined layout for theorems, corollaries, etc. These environments have to be defined with the help of LaTeX's `\newtheorem` command. Here is an example:

```
\newtheorem{theoremdemo}{Demo Theorem}
\begin{theoremdemo}
This is a  \verb!\newtheorem!.
\end{theoremdemo}
```

Results in:

DEMO THEOREM 1. *This is a* `\newtheorem`.

The class file also defines a `\newdisplay` command, which is identical to `\newtheorem` in usage, but will give a different layout. Here is an example:

```
\newdisplay{displaydemo}{Demo Theorem}
\begin{displaydemo}
This is a  \verb!\newdisplay!.
\end{displaydemo}
```

Results in:

Demo Theorem 1. This is a `\newdisplay`.

For more information on the use of the `\newtheorem` command, please refer to the LaTeX manual.

Also, the class defines an extra command, `\newproof`, that can be used for displayed text of a lower level. The major differences are that this command does not define a counter to go with the environment, nor does it have an option to specify such a counter.

```
\newproof{rem}{Remark}
\begin{rem}
This is a remark.
\end{rem}
```

resulting in

Remark. This is a remark.

except of course that you should put commands such as `\newproof` in the preamble.

3.5. PROOFS

For proofs, you can use the `pf` environment. This will generate the heading '*Proof.*' If you wish to create your own heading, you can use `pf*` and give the `\begin{pf*}` command your alternative heading as an extra argument. Thus,

`\begin{pf*}{Proof (of Lemma 3)}` will generate the heading '*Proof (of Lemma 3).*'

4. Sectioning commands

This section gives examples of sectioning commands.

5. Section

Here is a section

5.1. SUBSECTION

Here is a subsection

5.1.1. *Subsubsection*
And a subsubsection

5.1.1.1. *Paragraph* This is a lead-in heading (paragraph)

Subparagraph This is a lead-in heading (subparagraph)
There is also a command `\part`, but this is not intended to be used within articles.

The general syntax of these commands should be known to you already. We have made no changes apart from the layout.

6. Lists and displayed text

The document class redefines `itemize` and `enumerate` so that they take an optional argument that makes some parametrization possible.

Also, there are some environments available for displayed text, for instance, quotations.

6.1. ITEMIZE

In the case of `itemize` the optional argument specifies a default label:

```
\begin{itemize}[$\bullet$]
\item This is an example of a list with an optional argument
\item[--] This is the second item
\end{itemize}
```

```
\begin{itemize}
\item Ordinary.
\end{itemize}
```

Will result in:

- This is an example of a list with an optional argument

– This is the second item

6.2. ENUMERATE

In the case of `enumerate` the optional argument can be used to specify the width of the left margin, in approximately the same way as for the `thebibliography` environment.

```
\begin{enumerate}[000000]
\item See the wide left margin below?\\ Next line
\end{enumerate}
```

Will result in:

1. See the wide left margin below?
   Next line

```
\begin{enumerate}
\item Normal.\\ Next line
\end{enumerate}
```

Will result in:

1. Normal.
   Next line

The default value for the optional argument is `00`, which is approximately 1em.

6.3. USING POETRY, QUOTES, AND QUOTATIONS

LaTeX defines environments `verse`, `quote` and `quotation`.; see (Lamport, 1985). Here is how they look with the Kluwer class file:
Here's a verse:

> I think you will like them,
> when you shall see them on a beautiful quarto page,
> RICHARD BRINSLEY SHERIDAN, *The School for Scandal* (1777)

A quote:

> When a proof has been sent me with two or three lines so widely spaced as to make a grey band across the page, I have often rewritten the passage so as to fill up the lines better
>
> GEORGE BERNARD SHAW, in *The Dolphin* (1940)

A quotation:

> There was things which he stretched, but mainly he told the truth.
> MARK TWAIN, *Huckleberry Finn* (1884)

6.4. VITAE FOR AUTHORS

Because a lot of our articles contain a short vita(e) of the author(s), we have provided a `vitae` environment. Usage is as follows:

```
\begin{vitae}
\Vauthor{Author1} ...
\Vauthor{Author2} ...
\end{vitae}
```

This environment is smart enough to notice the difference between one author and more than one author, which will be reflected in the generated heading.

Authors' Vitae

Hoekwater, T.
This author spent most of his working life answering questions about TEX and LATEX.

Kroonenberg, S.
Now this is the job of the second author.

6.5. SPECIAL SECTIONS FOR NOTES AND ACKNOWLEDGEMENTS

Just as most articles have a bibliography, a lot of articles also contain 'Notes' and 'Acknowledgements'. For this reason, there are respectively the environments `notes` and `acknowledgements`.

Here are some examples again:

```
\begin{notes}
\item Please note that this class file is provided
    {\it as is}, and is copyrighted\index{copyright}
```

```
    by Kluwer Academic Publishers. You are free to use
    this class file as you see fit, provided that you do
    not make changes to the included macro files.
    If you do make changes, you are required to rename
    the changed files.\index{making changes}
\end{notes}
```

Notes

1. Please note that this class file is provided *as is*, and is © by Kluwer Academic Publishers. You are free to use this class file as you see fit, provided that you do not make changes to the included macro files. If you do make changes, you are required to rename the changed files.

```
\begin{acknowledgements}
...
\end{acknowledgements}
```

Acknowledgements

I would like to thank Donald E. Knuth for the fact that he wrote this brilliant program, thereby indirectly supporting my wife, my cats and myself. (*T.H.*)

7. Footnotes and endnotes

When using the `kluwer` class file, you can produce endnotes analogous to LaTeX footnotes. Instead of the `\footnote` command you use `\endnote`. The command `\theendnotes` should be used to place the endnotes in the text. They will be put in a separate 'Notes' section in the `\footnotesize` font.

There are also companion commands `\endnotemark` and `\endnotetext`. Use those under circumstances when `\endnote` would fail.[1]

8. Kluwer's tabular environment

The Kluwer class file makes various changes to the `tabular` and `tabular*` environments. Most notable is the extra vertical spacing. This effectively disables vertical rules, since they would contain gaps. Vertical rules rarely help

to make a table more readable, and are frowned upon by designers. For most tables, the recommended arrangement of rules is:
– one rule at the top
– one rule separating column heads from data cells
– one bottom rule
and no vertical rules; see *e.g.* table II in section 9. But if you think you really can't live without vertical rules, you can use the `TABULAR` environment, which is identical to the standard LaTeX `tabular` environment. Section 9 contains examples.

8.0.1. *tabular* and the array package*

The `tabular*` environment is also modified: it always fills the entire specified width.; see table III in section 9.

If you load the `array` or `dcolumn` package, then the `tabular*` environment won't spread its columns automatically; you need to create the more elaborate preamble described in Lamport C.10.2. Whereas *without* the array package a preamble

```
\begin{tabular*}{\maxfloatwidth}{lll}
```

would suffice, you would need

```
\begin{tabular*}{\maxfloatwidth}{%
  l@{\extracolsep{0pc plus 2pc}}l@{\extracolsep{0pc plus 2pc}}l}
```

if the array- or dcolumn package is loaded.

8.1. Additional commands for 'tabular' and 'tabular*'

As you saw above, there are some changes to the `tabular` and `tabular*` environments. Apart from the extended baseline and the filling out of `tabular*`, there are also four extra commands to draw partial horizontal lines; these are:

`\rcline`, which leaves some space to the *left* of the line
`\lcline`, which leaves space to the *right* of the line
`\rlcline` and `\lrcline`, these two leave space on both sides (they mean the same thing).

These commands are used in the tabular below:

Description 1	Description 2	Description
A	Row 1, Col 2	Row 1, Col 3
B	Row 2, Col 2	Row 2, Col 3

```
\begin{tabular}{lll} \hline
Description 1 & Description 2 & Description \\
\lcline{1-1}\rlcline{2-2}\rcline{3-3}
A& Row 1, Col 2 & Row 1, Col 3 \\
B& Row 2, Col 2 & Row 2, Col 3 \\ \hline
\end{tabular}
```

9. Floats

Note. When using the Kluwer float environments, keep in mind that the Kluwer classfiles need to provide uniform formatting. Whereas the standard LaTeX float environments simply provide a plain vanilla floating environment with a caption command, the Kluwer float environments contain various formatting specifications; *e.g.* the placement of the caption within a float is enforced: the caption will be typeset above the table whether your caption command preceeds or follows your tabular environment. If you run into trouble, try to remove your own formatting and go with the defaults provided.

The `kluwer` class file defines two major kinds of float, tables and figures, and some derivatives like starred environments and `sub...` versions.

9.1. The table environment

Here is how the `table` environment is intended to be used:

```
\begin{table}[placement options]
...
\caption[optional short version]{Caption text.}
\label{unique-label}
\end{table}
```

For *placement options* you can use a combination of the following characters:

- `t` This indicates placement at the top of a page. This may be the current page, but it could also be a subsequent one.
- `b` This indicates placement at the bottom of a page. This may be the current page, but it could also be a subsequent one.
- `p` This indicates placement on a page that contains floats only, no text.
- `h` This should mean 'here', but it is not always possible (there may not be enough space left on the page). In that case, LaTeX will change this to `[ht]`.

Table II. Caption text.

Description 1	Description 2	Description
Row 1, Col 1	Row 1, Col 2	Row 1, Col 3
Row 2, Col 1	Row 2, Col 2	Row 2, Col 3

The following option is non-standard:

`H` Also means 'here', but in a more rigorous way. If there is not enough space left on the page, the page will be filled up with whitespace and the float will appear at the top of the next page. The difference between `h` and `H` is that `H` *never* skips over the following text.

The table caption is given with the `\caption` command. This command is required! If you do not have a caption, use `\caption{}`. As you will see in the examples below, the correct way to tag a table for referencing through `\ref` is by putting the `\label` *after* the caption command.

9.1.1. *Examples*

We show two examples of tables. Their output can be seen in Tables II and III. See section 8 on the use of rules in tables.

The first example, table II:

```
\begin{table}
\caption{Caption text.}\label{tab1}
\begin{tabular}{lll} \hline
Description 1 & Description 2 & Description \\ \hline
Row 1, Col 1 & Row 1, Col 2 & Row 1, Col 3 \\
Row 2, Col 1 & Row 2, Col 2 & Row 2, Col 3 \\
\hline
\end{tabular}
\end{table}
```

The following example demonstrates the Kluwer version of the `tabular*` environment; see section 8. You may want to set the width parameter to `\maxfloatwidth`, which is the maximum allowed width of the float. Some of our journals have indented floats, so then the float is not allowed to be as wide as `\textwidth`, while rotated tables (see below) have an allowed width of (almost) `\textheight`.

```
\begin{table}
\caption{Caption text.}\label{tab2}
\begin{tabular*}{\maxfloatwidth}{lll} \hline
```

Table III. Caption text.

Description 1	Description 2	Description
Row 1, Col 1	Row 1, Col 2	Row 1, Col 3
Row 2, Col 1	Row 2, Col 2	Row 2, Col 3

```
Description 1 & Description 2 & Description \\ \hline
Row 1, Col 1 & Row 1, Col 2 & Row 1, Col 3 \\
Row 2, Col 1 & Row 2, Col 2 & Row 2, Col 3 \\
\hline
\end{tabular*}
\end{table}
```

9.1.2. *Trouble with captions*

One final remark on tables: a Kluwer table float is specifically intended to contain a `tabular[*]` environment. If it doesn't, it may not know how wide a caption should be. If a long caption doesn't get broken properly into lines, the cause may be that your table is not a tabular, or that you are using a package that reimplements the `tabular` environment, or that there is more than one `tabular`. In such cases, you can tell the caption command manually the width of the table with a command `\tabwidth{...}` at the end of the `table` environment.

9.2. The figure environment

Section 10 deals with general aspects of including graphics. This subsection is about the Kluwer `figure` float environment.

For figures, there are the environments `figure` and `figure*`. Both of these support the same optional placement specifiers as `table`; see page 18 and section 9.1.

Figure 1 is a typical figure, generated by the following code:

```
\begin{figure}
\centerline{\includegraphics[width=12pc]{mouse.eps}}
\caption{This is the caption of the figure.}
\end{figure}
```

Note that this example needs the line

```
\usepackage[...]{graphicx}
```

in the preamble of your document.

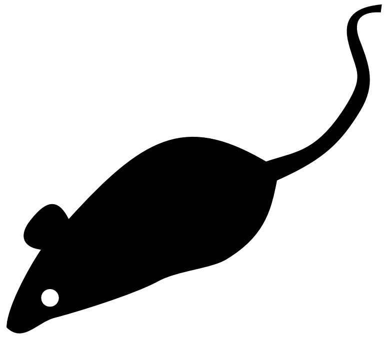

Figure 1. This is the caption of the figure. This is a little mouse with one ear.

9.3. Subnumbering tables and figures

`figure` and `table` also allow you to use the environments `subtable` and `subfigure`. These two environments implement subnumbering, analogous to the `subequation` environment; see section 3.2.

9.4. Side-by-side figures

Please don't use the `subfigure` package for placing figures side-by-side: there is a name conflict with the subfigure feature described above. You won't need any particular package for this anyway. One way to accomplish such a thing is with the following code; see figure 2:

```
\begin{figure}[H]
\tabcapfont
\centerline{%
\begin{tabular}{c@{\hspace{6pc}}c}
\includegraphics[width=1in]{mouse.eps} &
\includegraphics[width=1in]{mouse.eps} \\
a.~~ A mouse & b.~~ Another mouse
\end{tabular}}
\caption{Two mice}\label{twomice}
\end{figure}
\noindent Figures \ref{twomice}.a. and \ref{twomice}.b. are
suspiciously similar.
```

a. A mouse b. Another mouse

Figure 2. Two mice

Figures 2.a. and 2.b. are suspiciously similar.

9.5. The algorithm environment

The `algorithm` environment is no longer available.

9.6. Rotated floats

To rotate a table or figure over 90° counterclockwise, enclose the entire table/figure in the `kaprotate` environment.

```
\begin{kaprotate}
\begin{table}
...
\end{table}
\end{kaprotate}
```

If you rotate a float, it will always use an entire page.

9.7. Single- and doublecolumns floats

In two-column styles, there is a difference between the starred forms `figure*` and `table*` compared to their normal forms. The starred forms of `table` and `figure` will be doublecolumn, while the ordinary forms are one column. This distinction also holds for rotated versions.

10. Using graphics with LaTeX

10.1. Macro packages for graphics inclusion

You are encouraged to include figures electronically. For this, we recommend the packages from the graphics bundle, including `graphics`, `graphicx` and `epsfig`. If you currently use `psfig` then you may prefer `epsfig`, which implements the interface of `psfig` in terms of the other packages. For documentation, see 'Packages in the 'graphics' bundle' by David Carlisle (filename `grfguide.[tex|ps]`). This document may be available within your TeX installation, but can also be obtained from CTAN, see page 28.

Another online resource is 'Using Imported Graphics in LaTeX2e' by Keith Reckdahl (file `epslatex`, also available from CTAN). Be aware that you cannot blindly trust the information there to be valid with the Kluwer classes.

10.2. Graphics file formats

In general, the preferred graphics are tiff for images/bitmaps and Encapsulated PostScript, eps in short, for any type of graphic, including bitmaps. Our TeX installation requires eps, but we can easily convert tiff to eps. Many other formats, e.g. pict (Macintosh), wmf (Windows) and various proprietary formats, are not suitable. Even if we can read such files, there is no guarantee that they will look the same on our systems as on yours. Don't use bm2font either.

Simple line art without gray objects can easily be scanned by us, so as long as you provide good hardcopy of such pictures there will be no problem.

For bitmapped graphics, the following resolutions are optimal: black-and-white line figures: 600–1200 dpi; line figures with some grey or coloured lines: 600 dpi; photographs: 300 dpi; screen shots: leave as is; any resampling at all will compromise the quality of screenshots. These are resolutions *after* scaling. Higher resolutions won't improve output quality but do increase file size and increase the likelihood of problems at print time; lower resolutions may compromise output quality.

If your program does not export to eps, you can let the printer driver generate an eps file; see below.

10.3. Setting up your Windows printerdriver for eps generation

Create a printer entry especially for this purpose. Pick a printermodel without non-standard features. When available, 'Distiller' is a good choice; an alternative is 'Apple Laserwriter Plus'. Specify 'FILE:' as printer port. Then each time you send something to the 'printer' you will be asked for a filename. This will be the name of your EPS file.

The Encapsulated PostScript (EPS) export option can be found under the PostScript tab. EPS export should be used only for single pages.

If your PostScript driver doesn't have this option (Windows NT) then we can probably use an ordinary PostScript dump. Select a PostScript option such as 'Optimize for portability' or 'Archive'.

10.4. Eps problems

Eps files are often broken. Frequent problems are: very thin lines (thinner than, say, 0.25pt, or even thickness 0), very light tints (less than 10% gray), exotic fonts and invalid PostScript. Use standard fonts (Times, Helvetica, Symbol) as much as possible. Convert text to outlines if you know how to. Test your files by trying to print them.

Even so, printing to an imagesetter is something very different from printing to a desktop printer, even if it is a PostScript printer. So cross your fingers and supply good hardcopy. That way, at least we can spot problems.

11. References

References are inserted in the `thebibliography` environment. We distinguish two styles of References: by name (explained below in section 11.1) and numbered (explained in section 11.2). You can select one of these styles by including the appropriate document option in the `\documentclass` command. *Please refer to the style of the journal concerned when choosing an option for your references.* If no document option is included, the class file will usually presume named references.

11.1. References by name

For references by name one should include the document option `namedreferences` in the documentclass command:

```
\documentclass[namedreferences]{kluwer}
```

For the `\bibitem` entries there are some special, non-standard formatting requirements. You are urged to use Bibtex with the `klunamed` bibliography style, see section 11.3, which handles these requirements automatically. All Kluwer journals which use named references accept the `klunamed` bibliography style.

Now about these requirements: every `\bibitem` in the `thebibliography` environment should have a `\citeauthoryear` command as an option and should have a key to refer to. The `\citeauthoryear` should have two arguments: the author's name(s) and the year. The `\citeauthoryear` should be preceded by a `\protect` and in the case of more than two authors the argument with the author's name(s) should contain the first author's name with an et al., *e.g.*:

```
\bibitem[\protect\citeauthoryear{authorname(s)}{year}]{key}
```

The first part of your References section could look like this:

```
\begin{thebibliography}{} %    Note the empty pair of curly braces!


\bibitem[\protect\citeauthoryear{Smith et al.}{1992}]{Smith92}
Smith, I.N., Johnes, R.S. and Hines, W.P.: 1992,
'Title of the Article',
{\it Journal\/} {\bf Vol.~no.~X},
pp.~00--00
```

The following `\cite` commands can now be used in your article: `\cite`, `\shortcite`, `\citeauthor`, `\citeyear`, `\inlinecite` and `\opencite`. For the sample `\bibitem` above, the four `cite` commands would generate the following reference in your text:

Call:	Produces:
`\cite{Smith92}`	(Smith et al., 1992)
`\citeauthor{Smith92}`	Smith et al.
`\citeyear{Smith92}`	1992
`\shortcite{Smith92}`	(1992)
`\inlinecite{Smith92}`	Smith et al. (1992)
`\opencite{Smith92}`	Smith et al., 1992

With these commands or combinations of them you can create any reference in your text according to the reference style of the journal in which your article is to be published.

If you don't want to make use of references, but just want to generate a bibliographic list at the end of your article, you can use empty square brackets and braces, like this: `\bibitem[]{}`.

You can format the bibitems manually, but it is better to let Bibtex generate them, using the `klunamed` bibliography style; see page 25. For the layout conventions we refer you to the authors instructions of the journal in which your article is to be published.

11.2. Numbered References

For numbered references one should include the documentclass option `numreferences` in the preamble command:

```
\documentclass[numreferences]{kluwer}
```

You should start the `thebibliography` environment with the command:

```
\begin{thebibliography}{99}
```

The second pair of curly braces should contain a number that corresponds with the widest number in the reference list below (usually 99 is the correct value).

You should label every `\bibitem` by putting a key between the curly braces, e.g.: `\bibitem{Smith92}` In your article you can refer to this `\bibitem` with `\cite{Smith92}`.

11.2.1. *Using the optional argument of* `bibitem`

With numbered references, you should not use the optional argument to `\bibitem`, since it will produce unexpected results.

The `\cite` command will produce the number of the reference in brackets, e.g. [2]. The `\shortcite`, `\citeauthor` ... commands, as mentioned in Section 11.1, can also be used but they will produce the same output as `\cite`.

You can either format the bibitems manually or let Bibtex generate them; see below. For the layout conventions we refer you to the authors instructions of the journal in which your article is to be published.

11.2.2. *Customization*

For numbered references, brackets around both bibliographic references and citations are now parameterized: if e.g. you want brackets around the numbers of the bibliographic entries but no dot after the number then you can put the following definitions is the preamble:

```
\def\redot{}
\def\releft{[}
\def\reright{]}
```

In the same vein, brackets around citations in the text are defined by `\def\coleft{[}` and `\def\ccright{]}`.

11.2.3. *Ranges of references*

If you want to collapse a range of citations such as [3,4,5] into something like [3–5] then you can load the package `klucite`:

```
\usepackage{klucite}
```

It only works if the references are in the correct order.

11.3. BIBTEX

If you use BIBTEX, please send the `bbl` file, not the `.bib` files. You could also include the BIBTEX output directly in your article.

Kluwer has BIBTEX style files available for the `namedreferences` and `numreferences` options. For named references, the file is called `klunamed.bst`. You are strongly urged to use this one because of the special requirements for named references. For `numreferences`, the file is called `klunum.bst`. You can substitute other bibliography styles for numbered references if you want. Both files are included with the distribution of the class file.

We refer you to the LATEX and BIBTEX manuals for further information on using BIBTEX.

12. Various

12.1. My pages come out raggedbottom!

The sectioning commands always try to keep a section head together with a certain number of subsequent lines on the same page. Values may differ, but the typical values are: 3 lines for section and subsection and 2 lines for subsubsection.

If you find that your pages come out unbalanced, this could be the problem. The other likely problem is that you used a `Here` float on the page, and it didn't fit.

12.2. AMSmath and cross-referencing

If you use AMSmath, you may have trouble with cross-referencing your equations. You can solve this by omitting the `\begin/end{article}` lines.

The `article` environment is designed to allow multiple articles in one document. In order to guarantee unique cross-referencing labels, it internally prepends the article number as a Roman numeral to cross-referencing labels. We saw no way to make this work with AMSmath. However, without an article environment nothing will be prepended, and cross-referencing will work o.k.

12.3. Error messages *Command . . . already defined*

You can usually ignore messages about commands already being defined.

12.4. Bold math

If you fail to get bold symbols, try loading the `bm` package:

```
\usepackage{klups]
...
$y = \bm{\alpha}$
```

This package should be loaded *after* packages such as klups or mathtime, if you use such a package.

12.5. Vertical space with theorems, proofs and display math

The proof environment is designed to maintain a fixed vertical space from a preceding theorem environment. If your theorem ends with displaymath you may not be happy with the effect. In that case, precede the proof environment with `\vskip0pt`.

12.6. Authors' instructions

You may still encounter outdated authors' instructions for certain journals. The instructions may require double line spacing for submissions, or state that the journal does not accept electronic figures. Neither of these statements applies to LaTeX submissions. You do not have to change the baselines and we are happy with Encapsulated Postscript figures.

12.7. Double abstracts

Sorry, but you cannot have multiple abstracts in one article. If you need that, you have to make one abstract environment look like two.

12.8. Letterspaced text, problems with sections and captions

Certain journals require certain headings in a letterspaced font. While the stylefile provides for this, it interferes with writing to auxiliary files like the Table of Contents files. If you encounter incomprehensible error messages, the first thing you should try is to replace the offending `\caption{...}` or `\section{...}` command by `\caption[...]{...}` or `\section[...]{...}`. You will sometimes also have to delete the `<jobname>.aux` file.

If you tried this, and it didn't work, you can ask support from `texhelp@wkap.nl`. Please provide us with a log file that contains the error you received.

12.9. Kluwer styles for camera-ready books

At our website, `www.wkap.nl`, LaTeX class files are available for camera-ready books (proceedings, edited volumes and monographs). These are not based on the journal styles documented here, and are maintained and supported by our Boston branch, email `dthelp@wkap.com`.

Some ongoing book projects use different class files which *are* based on the journal styles and are supported by us. These class files are being phased out and are available only upon request. They come with some additional documentation.

12.10. Obtaining extra fonts / macro packages

You may want to get extra packages and/or fonts (like the `wasy` symbol font) if those are not provided at your site.

All TeX related files on the internet are available from a large central archive called CTAN. These are the main CTAN sites:

```
ftp.dante.de (Deutschland) /tex-archive
ctan.tug.org (TeX Users Group, Boston, U.S.A.) /tex-archive
ftp.tex.ac.uk (England) /tex-archive
```

In the root of the CTAN directory structure you can find a file `CTAN.sites` with mirrors. If you decide to download, please select a site near you (network-wise). The root of the CTAN tree also conveniently contains files `FILES.bydate`, `FILES.byname` and `FILES.bysize`.

If you do not have internet access, some of the packages from these sites can also be obtained by request from KAP, using the address at the end of this document.

12.11. Submitting bug reports and requests

If you have questions regarding our class file, or if you have discovered a bug, or if you have a request for something you would like to see included in the next version of this class file, send you comments to: `texhelp@wkap.nl` (e-mail) or to KAP PrePress, Achterom 119, 3311 KB Dordrecht, The Netherlands (regular mail).

Notes

[1] Here is an example of an endnote

References

Goossens, M., F. Mittelbach, and A. Samarin: *The LaTeX Companion*. Addison-Wesley, Reading, MA, USA, 1994.

Knuth, D.E: *The TeXbook*. Addison-Wesley, Reading, MA, USA, 1984.

Lamport, L.: *LaTeX – A Document Preparation System – User's Guide and Reference Manual*. Addison-Wesley, Reading, MA, USA, 1985.

Smith, I.N., R.S. Johnes, and W.P. Hines: 1992, 'Title of the Article', *Journal Title in Italics* **Vol. no. X**, pp. 00–00

Index

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