

# **Macro's and Environments**

**Macro and environment definitions to be used in the user manuals**

**Technical Reference Manual**

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## Macro's and Environments, Technical Reference Manual

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# 1 Usage

Using the macros defined in the `deltares_manual` class (`deltares_report` is under development) assure a Deltares look-and-feel of the manuals/reports. And when the company style needs an update the `deltares_manual` class will be updated, after that all manuals are generated in the new company-style.

Do only use the `\newpage` and other layout keywords at the very very last generation before releasing the pdf-document.

## 1.1 Documentclass options

There are style classes for the manuals, reports and memo's.

### 1.1.1 Manual style

Syntax: `\documentclass[ddraft, options]{deltares_manual}`.

Several options can be specified, separated by a comma. The following options are supported

<code>ddraft</code>	Print the word 'DRAFT' diagonal on each page.
<code>signature</code>	Insert a signature page in the document.
<code>dutch</code>	Predefined text will be in dutch.

Example: `\documentclass[ddraft, signature, dutch]{deltares_manual}`

Macro `\deltarestitle` defined for generating the title pages, this macro replaces the macro `\manualtitle`. It is now easier to switch between the several Deltares document classes.

### 1.1.2 Report style

Syntax: `\documentclass[ddraft, options]{deltares_report}`.

Default font: Helvetica.

Several options can be specified, separated by a comma. The following options are supported

<code>ddraft</code>	Include the 'concept' frontpage in the report
<code>dutch</code>	Predefined text will be in dutch.
<code>subfooter</code>	Set the subtitle also in the footer of a page.
<code>arial</code>	Set the arial font (under development).

Example: `\documentclass[dutch, ddraft, subfooter, arial]{deltares_report}`

Macro `\deltarestitle` defined for generating the title pages, this macro replaces the macro `\reporttitle`. It is now easier to switch between the several Deltares document classes.

### 1.1.3 Memo style

Syntax: `\documentclass[ddraft, options]{deltares_memo}`.

The following option is supported

`dutch` Header text will be in dutch

Example: `\documentclass[ddraft, dutch]{deltares_memo}`

Macro `\deltarestitle` defined for generating the title pages, this macro replaces the macro `\makememoHeader`. It is now easier to switch between the several Deltares document classes.

To have your own frontpage in the report you have to use the following sentence in the preamble.

```
\renewcommand{\FrontCover}{\includegraphics[width=1\paperwidth,
keepaspectratio]{pictures/new_report_cover.pdf}}
```

### 1.2 Preferred table style

Use the `\begin{longtable}` and `\end{longtable}` environment. For tables which appear on two pages use the options `\endfirsthead`, `\endhead`, `\endfoot` and `\endlastfoot`. If no pagebreak should appear after a row in the table use `"\ \ \nopagebreak"` in stead of `"\ \ "`. If no pagebreak should appear after a horizontal line in the table use `"\ \ \nobreakhline"` in stead of `"\ \ \hline"`.

### 1.3 Preferred equation style

Use the `\begin{align}` and `\end{align}` environment.

### 1.4 Text in type writer style, verbatim environment

Use `\begin{Verbatim}` in stead of `\begin{verbatim}`. In this environment the font-size is set to `\footnotesize`

### 1.5 Pagebreaks

The `deltares_manual` class assure that a new section (i.e. `\section`, `\subsection`, `\subsubsection`, `\paragraph`, `\subparagraph`, numbered or not) will never appear at the bottom of a page, but in some cases there will be a page break. A pagebreak will appear if two section are defined just behind each other, example:

```
\section{A section header}
\subparagraph*{A paragraph header}
```

Between this two section definitions a pagebreak can appear. To avoid this situation

- ◇ Add some text between the sections
- ◇ If it is an unnumbered section then replace the second section (here (`\subparagraph*`)) by

```
\textbf{A paragraph header}
\vskip -0.5\parskip
```

- ◇ It is a numbered second, accept the pagebreak

Use always a section-macro to define a header. If you define your own header then a page-break could appear just after the header.

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## 2 Macros

### 2.1 Macro for copyright

The copyright statement is defined by the macro

```
English  \copyrightGB
Dutch    \copyrightNL
Spanish  \copyrightESP
```

in some circumstance the statement need to be adjusted. The default statement is as follows and is presented on page two of the manual.

#### English copyright statement

Copyright © 2018 Deltares

All rights reserved. No part of this document may be reproduced in any form by print, photo print, photo copy, microfilm or any other means, without written permission from the publisher: Deltares.

#### Dutch copyright statement

Copyright © 2018 Deltares

Alle rechten voorbehouden. Niets uit deze uitgave mag worden verveelvoudigd in enige vorm door middel van druk, fotokopie, microfilm of op welke andere wijze dan ook, zonder voorafgaande schriftelijke toestemming van de uitgever: Deltares.

#### Spanish copyright statement

Copyright © 2018 Deltares

Todos los derechos reservados. Queda prohibida la reproducción total o parcial, ya sea de forma impresa, reprografiada, microfilmada o de cualquier otra forma, salvo autorización previa expresa por escrito del editor: Deltares.

Use the `\renewcommand` in the preamble of the main document to redefine the `\copyrightGB` macro.

In short copy the `\copyrightGB` from the file `<deltares_manula.cls>` and adjust the contents. In that way you will prevent the required layout.

### 2.2 Macro for sales and support adresses

The sales and support adresses are defined by the macro `\contactsalesandsupport`, in some circumstance the adresses need to be adjusted. The default layout is as follows and is presented on page two of the manual.

#### For sales contact:

telephone: +31 88 335 81 88  
fax: +31 88 335 81 11  
e-mail: software@deltares.nl  
www: <https://www.deltares.nl/software>

#### For support contact:

telephone: +31 88 335 81 00  
fax: +31 88 335 81 11  
e-mail: software.support@deltares.nl  
www: <https://www.deltares.nl/software>

Use the `\renewcommand` in the preamble of the main document to redefine the `\contactsalesandsupport` macro.

In short copy the `\contactsalesandsupport` from the file `<deltares_manula.cls>` and adjust the contents. In that way you will prevent the required layout.

### 2.3 Example footnote references

$\LaTeX$  code example of a footnote reference:

```
Second paragraph, first footnote\footnote{\label{first}First footnote!}

\pagebreak
Second page, creating the second footnote\footnote{\label{second}Second footnote},
and referencing the first footnote\footnoteref{first}.

\pagebreak
Last paragraph\footnote{last footnote}.
```

### 2.4 Program names

Program names are not supported anymore in the overall Deltares document classes.



**Table 2.1:** Program names are not supported anymore

<code>\Deltares_The_Netherlands</code>	Deltares The Netherlands	Deltares brand name
<code>\WL_The_Netherlands</code>	WL Delft Hydraulics The Netherlands	WL Delft Hydraulics brand name

### 2.5 $\LaTeX$ commands

**Table 2.2:** Defined macro's in `deltares_manual` class

<code>\Autoref{chp:macros}</code>	Chapter 2	reference to chapter with label <code>chp:One</code>
<code>\autoref{chp:macros}</code>	chapter 2	reference to chapter with label <code>chp:macros</code>
<code>\Autoref{sec:commands}</code>	Section 2.5	reference to section, subsection, etc with label <code>sec:commands</code>
<code>\autoref{sec:commands}</code>	section 2.5	reference to section, subsection, etc with label <code>sec:commands</code>
<code>\Autoref{fig:Logo}</code>	Figure A.1c	reference to figure with label <code>fig:Logo</code>
<code>\autoref{fig:Logo}</code>	Figure A.1c	reference to figure with label <code>fig:Logo</code>
<code>\Frefs{fig:Logo}{fig:Three}</code>	Figures A.1c and ??	reference to figures with labels <code>fig:Logo</code> and <code>fig:Three</code>

<code>\Fref{fig:Logo}{fig:Three}</code>	Figures A.1c to ??	reference to figures with labels <code>fig:Logo</code> and <code>fig:Three</code>	
<code>\Aref{alg:One}</code>	??	reference to algorithm with label <code>alg:One</code>	
<code>\Autoref{app:Logo}</code>	Appendix A	reference to appendix with label <code>chp:Logo</code>	
<code>\autoref{app:Logo}</code>	Appendix A	reference to appendix with label <code>chp:Logo</code>	
<code>\Tref{tab:One}</code>	??	reference to table with label <code>tab:One</code>	
<code>\Eref{eq:One}</code>	??	reference to single equation with label <code>eq:One</code>	
<code>\$_\vec{u}\cdot\vec{v}\$</code>	$\vec{u} \cdot \vec{v}$	dot-product; inner-product	
<code>\option{option A}</code>	<u>option A</u>	start a description, option A	
<code>\$_\function{f(x,y)}\$</code>	$f(x, y)$	function with two independent variables	
<code>20_\degr_C</code>	20 °C	degrees	
<code>\twolog</code>	$^2\log$		
<code>\tenlog</code>	$^{10}\log$		
<code>\xml</code>	xml		
<code>\window{window name}</code>	<b>window name</b>		
<code>\menu{menu name}</code>	<i>menu name</i>		
<code>\button{button name}</code>	<i>button name</i>		
<code>\ginput{user input}</code>	“user input”	User input to type in an edit field of a GUI	
<code>\dir{directory name}</code>	<directory name>		
<code>\file{file name}</code>	<file name>		
<code>\ext{mdf}</code>	<mdf>		
<code>\command{ls -Cfa}</code>	<code>ls -Cfa</code>	command line text	
<code>\block{block name}</code>	<b>block name</b>		
<code>\keyw{keyword}</code>	keyword	Keyword in file	
<code>\key{key name}</code>	key name	key on key-board	
<code>\unitbrackets{kg}</code>	[kg]		
<code>\todo{Things to do}</code>	<b>TODO(??):</b> <i>Things to do</i>	Things to do before release this document	<b>TODO</b>
<code>\Note Some text</code>	<b>Note:</b> Some text		
<code>\Tip Some text</code>	<b>Tip:</b> Some text		

<code>\%</code> , <code>\textperthousand</code>	<code>%,%</code>	as in documentclass
<code>\perscomm{H.R.A.~Jagers}</code>	(H.R.A. Jagers, pers. comm.)	
<code>\STRUT</code>		defined as: <code>\newcommand{\STRUT}{\rule{0in}{3ex}}</code> give some room in a table row
<code>\pdiff{H}{x}</code>	$\frac{\partial H}{\partial x}$	partial differential
<code>\pdiff[2]{H}{x}</code>	$\frac{\partial^2 H}{\partial x^2}$	second partial differential

**Outdated**

---

<code>\Cref{chp:macros}</code>	<a href="#">chapter 2</a>	Outdated — reference to chapter with label <code>chp:macros</code>
<code>\Sref{sec:commands}</code>	<a href="#">section 2.5</a>	Outdated — reference to section, subsection, etc with label <code>sec:commands</code>
<code>\Fref{fig:logo}</code>	??	Outdated — reference to figure with label <code>fig:logo</code>
<code>\Apref{app:One}</code>	??	Outdated — reference to appendix with label <code>chp:Logo</code>

---

**2.6 Support**

The contact and sales information on the second page of the user manual can be adjusted by redefining the macro `\contactsalesandsupport`.

Example  $\LaTeX$  command:

```
\renewcommand{\contactsalesandsupport}{
  \begin{tabular}[t]{@{}p{0.5\textwidth}p{0.5\textwidth}}
  \begin{tabbing}
  \textbf{Contact:}\ll
  Bernhard Becker \= \l
  telephone: \> +31\,88\,335\,8507 \l
  fax: \> +31\,88\,335\,8582 \l
  \l
  e-mail: \> rtc-tools@deltares.nl\l
  www: \> http://oss.deltares.nl/web/rtc-tools
  \end{tabbing}
  &
  \begin{tabbing}
  \l
  Dirk Schwanenberg \= \l
  telephone: \> +31\,88\,335\,8447 \l
  fax: \> +31\,88\,335\,8582 \l
  \end{tabbing}
  \end{tabular}
}
```

$\LaTeX$  result:



**Contact:**

Bernhard Becker

telephone: +31 88 335 8507

fax: +31 88 335 8582

Dirk Schwanenberg

telephone: +31 88 335 8447

fax: +31 88 335 8582

e-mail: [rtc-tools@deltares.nl](mailto:rtc-tools@deltares.nl)

www: <http://oss.deltares.nl/web/rtc-tools>

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## 3 Environments

### 3.1 Inline enumeration

$\LaTeX$  command:

```
Two inline options:  
\begin{inparaenum}[(i)]  
\item This is a text and  
\item This is another text.  
\end{inparaenum}
```

$\LaTeX$  result:

Two inline options: (i) This is a text and (ii) This is another text.

### 3.2 Remark environment

Handles single and plural items, i.e. **Remark** or **Remarks**

$\LaTeX$  command:

```
\begin{Remark}  
\item This is a text  
\item This is another text  
\end{Remark}
```

$\LaTeX$  result:

**Remarks:**

- ◇ This is a text
- ◇ This is another text



### 3.3 Restriction environment

Handles single and plural items, i.e. **Restriction** or **Restrictions**  $\LaTeX$  command:

```
\begin{Restriction}  
\item This is a text  
\item This is another text  
\end{Restriction}
```

$\LaTeX$  result:

**Restrictions:**

- ◇ This is a text
- ◇ This is another text



### 3.4 Warning environment

Handles single and plural items, i.e. **Warning** or **Warnings**

$\LaTeX$  command:

```
\begin{Warning}  
\item This is a text  
\item This is another text  
\end{Warning}
```



$\LaTeX$  result:

**Warnings:**

- ◇ This is a text
- ◇ This is another text

### 3.5 Domain environment

$\LaTeX$  command:

```
\begin{domain}
\STRUT Parameter & $-\infty$ & $\infty$ & $0.0$ & \unitbrackets{m s$^{-1}$} \\ [lex] \hline
\end{domain}
```

$\LaTeX$  result:

**Domain:**

Parameter	Lower limit	Upper limit	Default	Unit
Parameter	$-\infty$	$\infty$	0.0	[m s <sup>-1</sup> ]

### 3.6 Guilist environment

$\LaTeX$  command:

```
\begin{guilist}
\item[item1] This is a text
\item[item2] This is another text
\end{guilist}
```

$\LaTeX$  result:

```
item1          This is a text
item2          This is another text
```

### 3.7 Varlist environment

$\LaTeX$  command:

```
\begin{varlist}
\item[item1] This is a text
\item[item2] This is another text
\end{varlist}
```

$\LaTeX$  result:

```
item1          This is a text
item2          This is another text
```

### 3.8 Sybollist environment

$\LaTeX$  command:

```
\begin{sybollist}
\item[item1] This is a text
```

```
\item[item2] This is another text
\end{symbolist}
```

LaTeX result:

```
item1    This is a text
item2    This is another text
```

### 3.9 Options environment

LaTeX command:

```
\begin{options}
\item[item1] This is a text
\item[item2] This is another text
\end{options}
```

LaTeX result:

Options:

```
item1          This is a text
item2          This is another text
```

### 3.10 Verbatim

#### Framed verbatim

LaTeX command:

```
\begin{Verbatim}[frame=single, framesep=6pt]
*
* Directional Point Model of Vegetation input file
*
[DPMVFileInformation]
  FileCreatedBy      = Delft3D Support
  FileCreationDate   = 02-07-2004
  FileVersion        = 00.01
  PolygonFile        = plants.pol
[DPMVOverall]
...
\end{Verbatim}
```

LaTeX result:

```
*
* Directional Point Model of Vegetation input file
*
[DPMVFileInformation]
  FileCreatedBy      = Delft3D Support
  FileCreationDate   = 02-07-2004
  FileVersion        = 00.01
```

```

    PolygonFile      = plants.pol
[DPMVOverall]
...

```

### Framed verbatim and bold face text

It also possible to print some lines in bold face while keeping the typewriter font (i.e. courier).

```

\begin{Verbatim}[frame=single, framesep=6pt, fontsize=\footnotesize]
*
* Directional Point Model of Vegetation input file
*
[DPMVFileInformation]
  \textbf{FileCreatedBy}    = Delft3D Support}
  FileCreationDate = 02-07-2004
  FileVersion       = 00.01
  PolygonFile      = plants.pol
[DPMVOverall]
...
\end{Verbatim}

```

$\LaTeX$  result:

```

*
* Directional Point Model of Vegetation input file
*
[DPMVFileInformation]
  FileCreatedBy    = Delft3D Support
  FileCreationDate = 02-07-2004
  FileVersion       = 00.01
  PolygonFile      = plants.pol
[DPMVOverall]
...

```



**Note:** If old delatares  $\LaTeX$  templates are used, add `\renewcommand{\ttdefault}{pcr}` in the preamble of the document.

### 3.11 Tabbing environment

Can be used for source code representation  $\LaTeX$  command:

```

\begin{tabbing}
mm \= mm \= mm\= mm\= mm\= mm\= \kill
\> \command{if} $(trig1==ON \text{\command{ and }} trig2==ON)$ \command{then}\\
\> \> $trig12=ON$ \\
\> \command{else}\\
\> \> $trig12=OFF$ \\
\> \command{endif}
\end{tabbing}

```

$\LaTeX$  result:

```

if (trig1 == ON and trig2 == ON) then
  trig12 = ON
else
  trig12 = OFF
endif

```

### 3.12 List of symbols

A list of symbols, containing a variable name, it's unit and description, can be generated by using the nomenclature macro (`\nomenclature`), examples:

```

\nomenclature[A]{ $\hat{A}_{\delta}$ }{m}{near-bed peak orbital excursion}
\nomenclature[G]{ $\alpha$ }{-}{artificial compression coefficient}
\nomenclature[A]{ $\alpha$ }{-}{artificial compression coefficient}

```

where the argument between square brackets indicate the sorting in the list of symbols, latin letters before greek letters: A=Latin letter, G=Greek letter.

For detailed information see the manuals of *nomentbl* (and *nomencil*) which can be downloaded from the internet.

LaTeX result:

**Table 3.1:** Example of List of Symbols

Symbol	Unit	Description
$\alpha$	-	artificial compression coefficient
$\hat{A}_{\delta}$	m	near-bed peak orbital excursion
$\alpha$	-	artificial compression coefficient

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## A Deltares company logo



**(a)** Deltares icon  
(`<deltares_logo.pdf>`).

Deltares

**(b)** Deltares name  
(`<deltares_name.pdf>`).



**(c)** Deltares company logo  
(`<deltares_merk.pdf>`).

**Figure A.1:** Deltares Company.

Deltares, 2016. "BIBTEX key with no entry, needed if no citations are made in the document."