# LHC COMPUTING GRID

# DOCUMENTATION HOWTO

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Abstract: *A simple documentation to help LCG Team in document creation, with Latex and the LCG document template.*

## Contents

# 1. Introduction

## 1.1. Objectives of this Document

Help people in LCG fdeployment group fro creation and publication of documentations.

## 2. Documentation not written in latex

For documentation not produce in latex you have to copy a doc, txt and pdf version of you documentation in /afs/cern.ch/project/gd/word_doc/. Your documentation naming rule must be documentation_name.doc and documentation_name.pdf and documentation_name.txt the 3 formats are abolutely require. After this copy advertise Maarten Litmath or Louis Poncet to update the Website.

# 3. LATEX DOCUMENTATION, HOW TO USE LCG TEMPLATE

## 3.1. CVS

To cleanly use the template and integrate your document in LCG Team documents system you should have a read/write access on the CVS. For this account you should ask to Louis or Piera or send a mail to the lcg-support mailing list. With this account you could begin.

To begin you have to checkout from the CVS the edg-docs module, the best way is to create on your machine a folder, this folder will be the root of the lcg cvs.

In all this documentation WorkingFolder is the folder use to copy the CVS tree and latex-documentation is an exemple you can replace it with your document name.

```
cd /WorkingFolder
mkdir cvs-lcg
cd cvs-lcg
cvs co lcg-docs
cd lcg-docs
```

In the lcg-docs folder you will find a script template.sh and folders of the others documents produced by lcg team. To create your document, create a folder with the futur name of your document, and go in. Now you have to use the template script to generate all the file you need. In all the exemple the document we create is this one the latex-userguide, when you read example replace latex-userguide by your document name.

```
cd latex-userguide
../template.sh
```

Now all the document a ready to use. You need to edit 2 files, docinfo.tex, where we can found simple information about your document (you have to fill the blank part of docinfo), and your document name dot tex in my case latex-userguide.tex. The following example is the docinfo.tex of the latex-userguide.

```
\def\docidentifier{Latex-Userguide 20030325}
\def\title{Latex User Guide}
\def\subtitle{\hspace{1cm}}
\def\pubdate{\today}
\def\partners{LCG Team}
\def\authors{Louis Poncet}
\def\status{PUBLIC}
\def\abstract{A simple documentation to help LCG Team in document creation, with Latex and the LCG document template.}
```

Now we can edit the document latex-userguide.tex to write the core of the document. To create pdf,dvi,ps and html version of your doc use make, it will produce a .pdf file and a folder (with the same name as the document) containing html ans css files for the html version.

To maintain you document and use the CVS correctly you have to upload your document on the cvs with a cvs add and cvs commit. The correct procedure to upload is :

```
cd /WorkingFolder/cvs-lcg/lcg-docs/latex-userguide
make clean
cd ..
# First time upload
cvs add latex-userguide
#then upload the 2 files you just update
cd latex-userguide
```

```
#First time upload
cvs add docinfo.tex latex-userguide.tex
# each time you want to edit your files on the cvs
cvs commit docinfo.tex latex-userguide.tex
```

With this method we can manage cleanly, differents versions of your documents. If we decide to change cover or evoluate the documentation aspect, we can change cover or other details. You just have to rerun ../template.sh in your document folder. If you have add pictures you also add to add and commit the pict folder and your pictures.

## 4. To put this documentation online

Actually to put documentation online, you have to send an e-mail to Louis.Poncet@cern.ch

## 5. LATEX COMMAND

This part will explain a short set of latex commands to help people in document creation. Latex is a High level markup language so you write document in pure text mode with tags that indicate style, table or other.

### 5.1. SIMPLE PARAGRAPH

To write simple paragraph in text mode it is very simple you have to know a couple of things, if you write in text mode you need to put a blank line to delimit paragraph, if you want to put a carriage return put a \\, if you use enter to go next line latex will not go to the next in te result document. If you want to write : # $ % & ˜_ {ˆ }, you have to put an \ before. For the \ you need to write $\backslash$.

### 5.2. TABLE

To write a table in latex there is a lot of possibilities, here we will just explain a simple way to do that. A table is defined by column a row. in latex to create a simple table with 2 column, 2 row with black line to delimit row and table. You juste add the following lines.

```
\begin{tabular}{|c|c|}
\hline
Case 1 & Case 2 \\
\hline
Case 3 & Case 4 \\
\hline
\end{tabular}
```

the result of this code is

| | |
|---|---|
| Case 1 | Case 2 |
| Case 3 | Case 4 |

To manage horizontal line add or remove \hline and to manae vertical lines add or remove in |c|c| the character & delimit the end of a case and \\ send you to the next line.

### 5.3. IMAGES

To include an image in a Latex document you add to use an special tag made for this tag is includegraphics. For differents needs you should provide the image you need to include in two differents format, EPS ans PNG, this files should have the same name with the appropriate extension. An easy way to convert image is to use ImagMagik package who provide 'convert' application. All images mus be copy in pict folder which is made for. TO include you pict do like this :

```
\includegraphics{pict/your_image_name}
```

Do not put an extension. We will provide an exemple. We want to include logo_cern.gif in our document. the logo is in gif formet, this format is not supported by our system.

```
#Iconvert the image
convert logo_cern.gif logo_cern.eps
convert logo_cern.gif logo_cern.png
cp logo_cern.eps logo_cern.png $CVSROOT/lcg-docs/\
      latex-documentation/pict/
#then i can include it in my latex file by adding
\includegraphics{pict/logo_cern}
```

## 6. Writing code

To write code or directly in txt mode in document you have one tag which is verbatim this tag is use to send directly the text mode into you latex document. with this verbatim tag you can write all characters used by Latex or make a difference between your text and your examples.

\begin{verbatim}
\end{verbatim}

## 7. TO BE CONTINUED ...