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2nd June 2001

GBT SOFTWARE PROJECT NOTE 3.0

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## **GBT Software Documentation using $\LaTeX$**

HTML version Available<sup>1</sup>

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### **Abstract**

This document describes how to generate PDF and HTML versions of documentation from a single source file using  $\LaTeX$  and  $\LaTeX$ 2HTML .

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<sup>1</sup>[http://www.gb.nrao.edu/GBT/MC/doc/general/gbt.doc\\_guide.html](http://www.gb.nrao.edu/GBT/MC/doc/general/gbt.doc_guide.html)

## 1 Purpose

This document is a guide for GBT authors of technical documents. It describes how to use  $\LaTeX$  and  $\LaTeX2HTML$  to:

- produce documents with a standardised GBT “look and feel”
- produce both PostScript/PDF and HTML versions of a document from one master  $\LaTeX$  file

An extremely good *LaTeX2HTML Author's Guide* has been provided by Alan Bridle. This describes the advantages of using  $\LaTeX$  and  $\LaTeX2HTML$ , and how to provide well written, well formatted documentation using them.

This document describes the practical steps needed to apply these tools to GBT Software documentation.

## 2 Creating a New Document

- Choose a directory for the document
- Copy the file `/home/gbt1/doc/templates/template.tex` to that directory, renaming it as appropriate (e.g. `gbt_doc_guide.tex`).
- Copy `/home/gbt1/doc/templates/gbtdocs.sty` to that directory. (*N.B. this step will not be required when I have installed the style file correctly under Solaris and Linux.*)
- Copy `/home/gbt1/doc/templates/.latex2html-init` to that directory.
- edit the `.tex` file (in this case `gbt_doc_guide.tex` and fill in the header information correctly. (*N.B. currently you need to do this twice, once in the “latexonly” section, and once in the “htmlonly” section.*)
- Define any new latex commands you require
- Enter the text of your document

## 3 Processing the Document

N.B. If someone (Joe?) would like to write a make file, then we could just do:

```
$ make document
```

wouldn't that be nice? In the meantime:

- run `latex` on the document, e.g.

```
$ latex gbt_doc_guide
```

to produce a `.dvi` file, and generate the Table of Contents, Section References, and so on. Note that you may need to run this two or three times (especially on a new document) to correctly resolve all of the cross references.  $\LaTeX$  will warn you if this is necessary.

- run `latex2html` on the document to create the HTML version:

```
$ latex2html gbt_doc_guide
```

Note that the html pages (one per section) will be placed in a subdirectory of the current directory with the same name as the `.tex` file, with the initial link file called `index.html`.

- run `pdflatex` on the document to create the PDF version:

```
$ pdflatex gbt_doc_guide
```

This will produce a file with a `.pdf` extension and the same name as the original `.tex` file.

- if you wish to create a postscript version of the document, run `dvips`.

```
$ dvips -o gbt_doc_guide.ps gbt_doc_guide
```