Imprimatur – a Texinfo Document Checker

version 1.0, 19 September 2011

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1 Preface

*Imprimatur* is a set of Texinfo macros and Makefile rules to verify consistency and, to certain extent, completeness of Texinfo documentation.

This package was inspired in part by François Pinard’s `rendition.texi` file we used in GNU tar’s documentation. It was developed between 2005 and 2011 while writing documentation for several other free software projects its author maintains: GNU Mailutils, Dico and Pies, to name a few. It was reorganized into a standalone submodule project in 2011.
Chapter 2: Introduction

2 Introduction

Creating a documentation for software is a difficult task which is equally important as writing the software itself. In particular, it is important that the documentation be consistent with the software it describes and that it cover all aspects of its functionality and usage.

Usually the documentation, as well as the program itself, is not written in one pass. Rather it is created in a series of edits and proofreadings. During this process the author often needs to insert annotations which are not intended for the end user, but which, instead, serve as a reminder for the author himself about pending editing tasks. One may, for example, put a note saying that certain paragraph needs to be reworded or that some feature needs to be explained in greater detail and return to that note later in order to fix it. Quite often several authors take part in creating the documentation. In this case such annotations help coordinate their work.

When preparing the document for publishing, it is important to make sure that all such notes has been revised and none of them remain in the document.

Keeping documentation in sync with the software is another challenging task. After adding a new feature the author not always edits the documentation to reflect that. In fact, quite often it is impossible or undesirable, because the feature may imply some further changes to another parts of the program, and the author may prefer to update the docs when all the changes will have been finished. In this case, putting annotations in appropriate places of the document will remind him that certain parts of it have become inaccurate and need to be attended later.

Imprimatur\footnote{‘Imprimatur’ is Latin for ‘let it be printed’. Historically, this term was used to indicate that there are no obstacles for printing a book.} aims to facilitate all these tasks. It is intended for documents written in Texinfo (see Section “Top” in Texinfo Manual). The package provides a mechanism for editor’s annotations and a set of Makefile rules for verifying the consistency of the document.
3 Renditions

The basic concept used in Imprimatur is the document rendition. The rendition defines how much editor’s information and annotations should appear in the resulting document. There are three possible renditions:

PROOF
This rendition is used for proofreading the document. It inserts all annotations in a prominent form, which makes it easy to revise the document.

DISTRIB
This rendition is intended for the documentation distributed with the packaged versions and its online copies on the Web. It inserts most important annotations, so that the reader is aware about which parts of the document are not fully revised for adequacy. Dangling cross-references are also prominently marked as such (see [Dangling cross-reference], page 14).

PUBLISH
This rendition is intended for publishing printed copies of the documentation. It is supposed that by the time the document is ready for publishing, all editor’s and proofreader’s annotations and dangling references have been resolved and removed from the document. Consequently, the use of annotation macros in this rendition results in translation errors. This helps prevent publishing incomplete or inaccurate documentation.

Default rendition is determined when configuring the package. It can be redefined when building the output, by using the ‘RENDITION’ Makefile variable, e.g.:

\$ make RENDITION=PUBLISH
4 Integrating and Using Imprimatur

This chapter describes how to integrate Imprimatur to your project and provides a brief overview on using it.

The project wishing to use Imprimatur must meet the following requirements: it must use Autoconf and Automake and it must use Git as a version control system.

4.1 Integration

Imprimatur is designed to be used as a Git submodule. If your project uses git, integrating it is quite straightforward.

1. First of all, you need to declare a submodule. To do so, change into the top source directory of your project and run:

   git submodule add git://git.gnu.org.ua/imprimatur.git imprimatur
   git submodule init

   This step needs to be done only once. The first command will clone the project to the directory ‘imprimatur’. If you want another name or need to place it deeper in the directory hierarchy, change the last argument accordingly. For example, to place Imprimatur to the directory ‘doc/aux’ use:

   git submodule add git://git.gnu.org.ua/imprimatur.git doc/aux

   The second command initializes the submodule.

2. Next step is to edit the top-level ‘Makefile.am’. Add ‘-I imprimatur’ to the ‘ACLOCAL_AMFLAGS’ variable, and ‘imprimatur’ directory to the ‘SUBDIRS’ variable. For example:

   ACLOCAL_AMFLAGS = -I m4 -I imprimatur
   SUBDIRS = imprimatur

   If you chose another directory name during the first step, use it instead of ‘imprimatur’ in the above example.

3. Next, you need to edit the ‘configure.ac’ file and add a call to ‘IMPRIMATUR_INIT’. Normally no parameters are needed, just like that:

   IMPRIMATUR_INIT

   However, if you cloned Imprimatur into a directory with another name, the actual directory name must be supplied as the first argument. For example:

   IMPRIMATUR_INIT(doc/aux)

   See Chapter 5 [Init], page 11, for a detailed description of the ‘IMPRIMATUR_INIT’ macro.

4. Now edit the file ‘Makefile.am’ located in the subdirectory where you have your Texinfo sources.

   A. To the value of ‘AM_MAKEINFOFLAGS’ variable add ‘@IMPRIMATUR_MAKEINFOFLAGS@’. This will inform makeinfo and related tools about the location of Imprimatur files (in particular, ‘rendition.texi’) and the selected rendition (see Chapter 3 [Renditions], page 5).
B. Define the variable `imprimatur_INPUT`. It must contain the names of Texinfo sources to be verified by Imprimatur. Normally, the following definition is sufficient:

```
imprimatur_INPUT=$(info_TEXINFOS) $($(base_TEXINFOS))
```

where `base` stands for the base name of your Texinfo document (e.g. ‘foo’, if it is named ‘foo.texi’).

See Chapter 7 [Rules], page 15, for a discussion of this variable and its purposes.

C. Include the file ‘imprimatur.mk’ from the Imprimatur directory using relative addressing. For example, if your documentation subdirectory is located at the same nesting level as the directory you cloned Imprimatur to, use:

```
include ../imprimatur/imprimatur.mk
```

*Do not use Automake substitutions nor Makefile variables in the argument to include.*

D. If you plan to use the ‘check-docs.sh’ script, define a Makeinfo variable to access it, e.g.:

```
CHECK_DOCS=$(top_srcdir)/@IMPRIMATUR_MODULE_DIR@/check-docs.sh
```

See Chapter 8 [check-docs.sh], page 19, for a discussion of this script.

Let’s summarize this step by an example:

```
AM_MAKEINFOFLAGS = @IMPRIMATUR_MAKEINFOFLAGS@
imprimatur_INPUT=$(info_TEXINFOS) $(foo_TEXINFOS)
include ../imprimatur/imprimatur.mk
CHECK_DOCS=$(top_srcdir)/@IMPRIMATUR_MODULE_DIR@/check-docs.sh
```

### 4.2 How to Use Imprimatur

To use Imprimatur, you need to include the file ‘rendition.texi’ into your main Texinfo source file:

```
@include rendition.texi
```

This file provides you with macros for annotating your documentation. These macros are described in detail in Chapter 6 [Macros], page 13. Here we present a short overview.

The most common form of annotation is the ‘@FIXME’ macro. It introduces an editor’s note about something that needs a revision or clarification. For example:

**The @var{fmt} argument is a database format identifier.**

If it is valid, the function returns expiration interval for that format. @FIXME{It is not clear how to obtain negative expiration values.}

In ‘PROOF’ rendition, this Texinfo excerpt produces the following output:

The `fmt` argument is a database format identifier. If it is valid, the function returns expiration interval for that format.

```
Editor’s note:
It is not clear how to obtain negative expiration values.
```
In other renditions, the ‘@FIXME’ macro produces no output at all.

It is supposed that you will be progressively resolving your ‘@FIXME’ s while reviewing your document. During this process you can obtain a listing of all pending ‘@FIXME’ notes by running make imprimatur-fixmes, e.g.:

```
$ make imprimatur-fixmes
Unresolved FIXMEs:
  functions.texi:2231: It is not clear how to obtain negative expiration
```

It is especially handy if you use ‘compile’ mode of GNU Emacs, as you can then easily move editing point to the place when a particular note appears by placing the cursor on the corresponding line and hitting Enter (see Section “Compilation Mode” in The Emacs Editor).

Another common annotation is the ‘@UNREVISIED’ macro. Placed after a sectioning command, it will draw reviewer’s attention to nodes that need a revision. A listing of such nodes can be obtaining using the ‘imprimatur-unrevised’ rule:

```
$ make imprimatur-unrevised
Unrevised nodes:
  mailfromd.texi:2567: @UNREVISIED
  functions.texi:1508: @UNREVISIED
```

The ‘@UNREVISIED’ macro produces output in ‘PROOF’ and ‘DISTRIB’ renditions. In ‘PUBLISH’ rendition it results in compilation error. This behavior is intended to help avoid unrevised nodes from appearing in final published texts.

When writing initial revision of a node you may need to mark a point where a cross-reference to another, not yet written node should be. The intent is to replace this mark with an actual cross-reference command when the node referred to has already been written. For that purpose Imprimatur provides three annotations: ‘@FIXME-ref’, ‘@FIXME-xref’, and ‘@FIXME-pxref’. These macros are similar to corresponding Texinfo commands, except that they take a single argument. In fact in ‘PUBLISH’ rendition these macros are equivalent to their Texinfo counterparts. In ‘PROOF’ and ‘DISTRIB’ rendition, however, they produce a cross-reference explicitly marked as referencing a non-existent node. For example:

```
Enable transcript of @acronym{SMTP} sessions to the log channel.  @FIXME-xref{Logging and Debugging}.
```

This Texinfo fragment produces:

```
Enable transcript of SMTP sessions to the log channel. See Logging and Debugging (Editor’s note: dangling link).
```

To list unresolved cross-reference use the ‘imprimatur-refs’ Makefile rule:

```
$ make imprimatur-refs
Unresolved cross-references:
  options.texi:4951: Logging and Debugging
```
5 Initialization

IMPRIMATUR_INIT (dir, options)  [Autoconf Macro]
Initializes Imprimatur framework. Both arguments are optional. The dir argument, if supplied, specifies the directory you cloned Imprimatur into. It defaults to ‘imprimatur’, so that if you follow the default setup described in Section 4.2 [Usage], page 8 you don’t need to supply this argument.

The options argument is a whitespace-separated list of options. Following options are recognized:

PROOF  [Option]
Set the default rendition to ‘PROOF’.

DISTRIB  [Option]
Set the default rendition to ‘DISTRIB’.

PUBLISH  [Option]
Set the default rendition to ‘PUBLISH’.

If none of these three options is given, IMPRIMATUR_INIT will select default rendition based on the version number of the hosting package, i.e. the ‘VERSION’ variable, as set by AC_INIT macro. The version number should consist of up to three integers, separated by dots. The first integer is the major number, the second one is the minor number, and the third one is the patchlevel. Given that, the following algorithm is used:

1. If patchlevel is present, then:
   a. If it is less than 50, ‘DISTRIB’ rendition is selected.
   b. Otherwise, the package is considered an alpha release and ‘PROOF’ rendition is selected.

2. If patchlevel is not present, ‘DISTRIB’ is used.

generate

frenchspacing  [Option]
Assume French sentence spacing. See Section “frenchspacing” in Texinfo Manual, for a description of the two possible sentence spacings.

By default, American sentence spacing is assumed. This option affects the ‘imprimatur-check-sentence-spacing’ Makefile rule, which verifies whether sentence spacing is used consistently throughout the document. See [imprimatur-check-sentence-spacing], page 16.

makedoc  [Option]
Enables creation of a separate makefile for building Imprimatur documentation. This file is called ‘Makedoc’ and contains rules for building this manual in various output formats. With this option on, the ‘Makefile’ in the ‘imprimatur’ subdirectory will also contain several additional shortcut rules, namely:

‘make info’
‘make imprimatur.info’
Creates the manual in info format (a shortcut for make -f Makedoc imprimatur.info).
'make pdf' Creates a PDF output (a shortcut for make -f Makedoc pfd).

'make dvi' Creates a DVI output.

'make ps' Creates a PostScript output.

This is intended mostly for Imprimatur maintainers, but you may use this option to build your own, perhaps customized, copies of this manual.

**dist-info** [Option]

Distribute the 'imprimatur.info' file. This option is valid only in conjunction with 'makedoc'.

The **IMPRIMATUR_INIT** macro defines several substitution variables, which you can use in your 'Makefile.am' files.

**IMPRIMATUR_MODULE_DIR** [Substitution Variable]

The name of the directory Imprimatur was cloned into. This name is relative to the top source directory. It helps address files from the Imprimatur subdirectory. For example:

```
CHECK_DOCS=$(top_srcdir)/@IMPRIMATUR_MODULE_DIR@/check-docs.sh
```

**IMPRIMATUR_MAKEINFOFLAGS** [Substitution Variable]

Additional options for makeinfo and compatible tools, which inform them about location of Imprimatur Texinfo files. You need to add this variable to your 'AM_MAKEINFOFLAGS' variable:

```
AM_MAKEINFOFLAGS = @IMPRIMATUR_MAKEINFOFLAGS@
```

**RENDITION** [Substitution Variable]

Default rendition. You may need this variable to inform various tools about the selected rendition level, e.g.:

```
TEXI2DVI=texi2dvi -t '@set $(RENDITION)'
```

Note, that 'IMPRIMATUR_MAKEINFOFLAGS' includes the option '=-D $(RENDITION)', so you don’t need to define it explicitly if the tool in question uses this variable.
6 Texinfo Macros

The file `rendition.texi` defines helper macros which serve to annotate Texinfo sources. Expansion of these macros depends on the rendition of the document.

**WRITEME** [Macro]

Use this macro to mark the nodes which need to be written. Normally, you would place it immediately after a sectioning command. When in ‘PUBLISH’ rendition, this macro forces compilation error, because one would hardly want empty nodes to appear in the published document. Otherwise, it produces the following text:

```
Editor’s note:
This node is to be written.
```

**UNREVISIONED** [Macro]

Use this macro to mark the nodes which need a revision. Normally, you would place it immediately after a sectioning command. This macro acts similarly to ‘@WRITEME’. When in ‘PUBLISH’ rendition, it forces a compilation error. In ‘PROOF’ and ‘DISTRIB’ renditions, it produces the following expansion:

```
Editor’s note:
The information in this node may be obsolete or otherwise inaccurate.
This message will disappear, once this node revised.
```

**FIXME (text)** [Macro]

The ‘@FIXME’ macro adds an editor’s note to the file. The argument text gives the content of the note.

The purpose of the note is to draw reviewer’s attention to something near this point of the document. It is of some importance only to the author and reviewers of the document, so it produces output only in ‘PROOF’ revision. Consider, for example, this text:

The @option{-I @var{DIR}} command line option adds a directory to the program’s search path. @FIXME{Document the initial value of the search path.}

In ‘PROOF’ rendition it would produce the following:

```
The `-I DIR` command line option adds a directory to the program’s search path.
```

```
Editor’s note:
Document the initial value of the search path.
```

The three macros below serve as placeholders for the corresponding cross-reference commands:
FIXME-ref (text)  [Macro]
Use this macro for '@ref'-style cross-references. In ‘PUBLISH’ rendition it is entirely equivalent to @ref{text}.

FIXME-xref (text)  [Macro]
Use this macro for '@xref'-style cross-references. In ‘PUBLISH’ rendition it is equivalent to @xref{text}.

FIXME-pxref (text)  [Macro]
Use this macro for '@pxref'-style cross-references. In ‘PUBLISH’ rendition it is entirely equivalent to @pxref{text}.

Use one of these macros when you need to add a cross-reference to a node or anchor which does not exist yet. They will create a dangling reference which allows for translating Texinfo source without errors, and at the same time serves as a reminder to you that the node referred to still needs to be written (see Chapter 7 [Rules], page 15). Once you create the node, you will fix the reference by simply removing the ‘FIXME-’ prefix after the ‘@’ sign.

To illustrate the output produced by these macros, consider the following Texinfo fragment:

@FIXME-xref{regexp}, for more information about regular expressions.

In ‘PROOF’ mode it produces:

See regexp (Editor’s note: dangling link), for more information about regular expressions.

In ‘DISTRIB’ rendition, the output is:

See regexp, for more information about regular expressions.
7 Makefile Rules

The file ‘imprimatur.mk’ contains Makefile rules for verifying the Texinfo documents. It should be included into ‘Makefile.am’ located in the directory where Texinfo sources reside. For example, if your documentation subdirectory is located at the same nesting level as the directory you cloned ‘imprimatur’ into, then add the following statement:

```makefile
include ../imprimatur/imprimatur.mk
```

Note that Automake is supposed to expand this statement, i.e. to replace it with the actual contents of ‘imprimatur.mk’ in the resulting ‘Makefile.in’. This is possible only if the argument to `include` is a literal string. Do not use Automake substitutions nor Makefile variables in the argument to include.

The rules defined in ‘imprimatur.mk’ operate on Texinfo documents listed in the variable ‘imprimatur_INPUT’

`imprimatur_INPUT` [Makefile Variable]
Whitespace-delimited list of Texinfo source files to process. It is often convenient to specify source files via the `name_TEXINFOS` Automake variables. For example, if your main source has the name ‘myproj.texi’ it would normally be added to the Makefile variable ‘info_TEXINFOS’ and the variable ‘myproj_TEXINFOS’ would contain subordinate Texinfo sources it depends on. Then, you would declare ‘imprimatur_INPUT’ as follows:

```makefile
imprimatur_INPUT=$(info_TEXINFOS) $(myproj_TEXINFOS)
```

Once this variable is defined, you can use the following rules:

`imprimatur-format` [Makefile Rule]
Checks whether the files contain tabs (ASCII 9). If so the following diagnostics is displayed:

```makefile
Sources contain tabs; run make imprimatur-untabify
```

See [imprimatur-untabify], page 17.

`imprimatur-ref` [Makefile Rule]
Checks if the sources contain unresolved cross-references, i.e. any of the macros ‘FIXME-ref’, ‘FIXME-xref’ or ‘FIXME-pxref’ (see Chapter 6 [Macros], page 13). If so, the prominent diagnostics is displayed and the rule exits with code 2. For example:

```makefile
Unresolved cross-references:
mailfromd.texi:3535: existing categories
mailfromd.texi:4951: optimizer
mailfromd.texi:9899: debug configuration
functions.texi:1273: filter chains
```

`imprimatur-fixmes` [Makefile Rule]
Checks whether the sources contain ‘@FIXME’ macros (see Chapter 6 [Macros], page 13). If so, list the location of each ‘@FIXME’ along with its content. If the content has several lines, only first of them is displayed. For example:
Unresolved FIXMEs:
functions.texi:1518: Check references to 'Polling functions'
functions.texi:1562: Give more details and references.
functions.texi:2231: How to obtain negative

**imprimatur-writemes**  [Makefile Rule]
Checks whether the sources contain empty nodes, i.e. nodes marked with the ‘@WRITEME’ macro (see Chapter 6 [Macros], page 13). If so, it displays locations of each ‘@WRITEME’, e.g.:
Empty nodes:
calloutd.texi:6: @WRITEME
mfdbtool.texi:148: @WRITEME

**imprimatur-empty-nodes**  [Makefile Rule]
An improved version of ‘imprimatur-writemes’. This rule reports nodes which do not have any text and those marked with the ‘@WRITEME’ macro.

Unlike the rest of rules, ‘imprimatur-empty-nodes’ analyzes files in ‘$(info_TEXINFOS)’. It reads each file and parses it, honoring any ‘@include’ statements.

This rule outputs to standard error the names and locations of empty nodes. For nodes marked with the ‘@WRITEME’ macro, location refers to the place where the macro was encountered and the actual node name is prefixed with ‘(@WRITEME)’, as shown in the example below:
Empty nodes:
./calloutd.texi:6: calloutd
./mfdbtool.texi:148: Configuring mfdbtool
./upgrade.texi:31: (@WRITEME) Upgrading from 7.0 to 8.0

If you wish to excerpt any of the input files from being verified by this rule, you can do so by adding the following pragmatic comment at the beginning of such files:
@c imprimatur-ignore

**imprimatur-unrevised**  [Makefile Rule]
Checks whether the sources contain nodes which need revision, i.e. the ones marked with the ‘@UNREVISED’ macro (see Chapter 6 [Macros], page 13). If so, display locations of each ‘@UNREVISED’, e.g.:
Unrevised nodes:
mailfromd.texi:2567: @UNREVISED
mailfromd.texi:2694: @UNREVISED

**imprimatur-check-sentence-spacing**  [Makefile Rule]
Checks if sentence spacing is correct throughout the sources. By default, American sentence spacing is assumed. French sentence spacing is used if IMPRIMATUR_INIT was called with the ‘frenchspacing’ option (see Chapter 5 [Init], page 11).

If the sentence spacing is wrong, this rule displays the following diagnostics:
Sources contain single-space sentence separators.
Run make imprimatur-fix-sentence-spacing to fix.

If French spacing is declared, the diagnostics will read:
Sources contain double-space sentence separators.
Run make imprimatur-fix-sentence-spacing to fix.

imprimatur-fix-sentence-spacing [Makefile Rule]
Fixes sentence spacing. The action of this rule depends on the setting of
‘frenchspacing’ option (see Chapter 5 [Init], page 11).

imprimatur-basic-checks [Makefile Rule]
Runs the following rules in that order:
  imprimatur-format
  imprimatur-check-sentence-spacing
  imprimatur-refs
  imprimatur-fixmes
  imprimatur-empty-nodes
  imprimatur-unrevised

imprimatur-master-menu [Makefile Rule]
Creates a master menu for each Texinfo file in ‘${info_TEXINFOS}’, taking into account included files.
This rule uses Emacs to create a master menu that follows the top node. The master menu includes every entry from all the other menus. It replaces any existing ordinary menu that follows the top node.
The effect of this rule differs from that of texinfo-master-menu (see Section “Updating Commands” in Texinfo Manual) in that it takes into account included Texinfo files.

imprimatur-untabify [Makefile Rule]
Converts all tabs in Texinfo files to multiple spaces, preserving columns. This rule uses emacs to do the job.

imprimatur-final [Makefile Rule]
Runs ‘imprimatur-untabify’ and ‘imprimatur-master-menu’.
8 check-docs.sh

The shell script `check-docs.sh` provides a mechanism for verifying if all items declared in a program are documented in its Texinfo docs. By *items* we mean here any external entities visible by the end user and designed for his use, such as command line options, configuration statements, external functions and the like. Any such item is supposed to have the following properties:

- **class**: A descriptive name for the group of items this one belongs to. It is intended to be human readable and can consist of arbitrary number of characters. E.g. ‘Command line option’ or ‘External function’, or the like. The script prints class name at the beginning of its output.

- **identifier**: A string of characters uniquely identifying this item among other items of the same class. E.g., a function name if the item is a function, or option name (without the leading dashes) if the item is a command line option.

- **declaration**: A statement in the source code where this item is declared. E.g. a function declaration or option definition. The declaration must contain item identifier so that it can be extracted from it using a regular expression.

- **description**: A statement in the Texinfo document which contains a description of this item. It must meet the same requirement as the declaration, i.e. it should be possible to define a regular expression for extracting the item identifier from the description.

The script is invoked as follows:

```
check-docs.sh code-sed doc-sed sources -- makeinfo-args
```

Notice mandatory double-dash.

Its arguments are:

- **class**: Item class. Make sure you quote it, if it contains characters special for the shell.

- **code-sed**: A regular expression to extract item identifiers from declarations. It must use a parenthesized group to mark the identifier (see Section “REPLACEMENT” in Sed Manual), and the ‘p’ flag or command to output it (see Section “Print out the pattern space” in Sed Manual).

  For example, the following expression extracts function name from its declaration in C code:

  ```bash
  s/\(^[\_a-zA-Z][\_a-zA-Z0-9]*\) \*(.*)/\1/p
  ```

  It assumes that identifiers start in column 0 and is simplified a bit.

- **doc-sed**: A regular expression to extract item identifiers from descriptions. It is in all respects similar to `code-sed`.

  For example, the expression below extracts identifiers from ‘@defmac’ statements:

  ```bash
  ’/@defmac/s/@defmac \*(^[\-a-zA-Z][\-a-zA-Z0-9]*).*/\1/p’
  ```
**sources**  
A list of source files to apply `code-sed` to.

**makeinfo-args**  
A command which produces preprocessed Texinfo source at its output. Normally, it is `makeinfo -E -` with some additional arguments. The `doc-sed` expression is applied to its output.

The `check-docs.sh` script collects identifiers produced by the two sed expressions and computes two sets of differences: identifiers missing from the docs, but present in the sources and the ones missing from the sources but present in the docs. If both lists are empty, the script exits silently with status ‘0’. Otherwise, it reports the differences and exits with status ‘1’.

The script is normally used from Makefile rules in the ‘Makefile.am’ file located in the documentation directory. You may have any number of such rules, each one for a particular class of items. It is recommended to declare a Makeinfo variable pointing to the script, such as:

```
CHECK_DOCS = $(top_srcdir)/@IMPRIMATUR_MODULE_DIR@/check-docs.sh
```

The `makeinfo-args` parameter is usually as follows:

```
$(MAKEINFO) $(AM_MAKEINFOFLAGS) $(MAKEINFOFLAGS) -E - $(info_TEXINFOS)
```

To illustrate this, here is a Makefile rule used by Imprimatur itself to verify that all rules from ‘imprimatur.mk’ are documented:

```
check-rules:
  @$(CHECK_DOCS) "Makefile rules" \ 
  "^imprimatur-.*:/s/:.*//p" \ 
  "s/@deffn \{Makefile Rule\} */p" \ 
  imprimatur.mk -- \ 
  $(MAKEINFO) $(AM_MAKEINFOFLAGS) $(MAKEINFOFLAGS) \ 
  -I $(srcdir) -E - $(info_TEXINFOS)
```

To illustrate its output, suppose that the rule ‘imprimatur-fixmes’ is not documented.

```
$ make -k check-rules
Not documented Makefile rules:
imprimatur-fixmes
```

Similarly, if the docs document rule ‘imprimatur-fixme’ (presumably a typo: the ‘s’ is missing), you’ll get:

```
$ make -k check-rules
Non-existing Makefile rules:
imprimatur-fixme
```

In both cases, the exit code will indicate an error.
9 Reporting Bugs

Send bug reports and suggestions to gray+imprimatur@gnu.org.ua.

If you think you’ve found a bug, please be sure to include maximum information available to reliably reproduce, or at least to analyze it. Please, include the version of the package you are using and a description of the bug: what you did, what result did you get and how it differs from what you expected. If possible, include a short test case with the steps needed to reproduce the bug.

Any errors, typos or omissions found in this manual also qualify as bugs. Please report them, if you happen to find any.
Appendix A GNU Free Documentation License

Version 1.2, November 2002
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