

# The gitstatus package\*

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October 8, 2022

## Abstract

This package allows to include information about a git-repository into a document. This information can be included like the watermark in this document or by the use of variables.

## 1 Introduction

If your LaTeX-document is version-controlled with git, you might encounter situations, where you want to include some information of your git-repository into your LaTeX-document - e.g. to keep track on who gave you feedback on which version of your document.

## 2 Options

<code>gitdir</code>	custom git dir (can be relative), (default is ".git/", meaning your LaTeX document is in the top level of your repo)
<code>watermark</code>	watermark with branch + hash on top of page (default: don't use watermark)
<code>nowatermark</code>	same as watermark=false
<code>novariables</code>	disable creation of variables (default: false, hence variables are created)

## 3 Variables

Apart from the option to add a watermark at the top of the page that mentions the current commit hash and branch-name, the package also provides variables with the same information for individual use. These variables are: The directory of the git repository.

<code>\gitdir</code>	The directory of the git repository.
<code>\gitcommit</code>	The hash of the most recent commit of the current branch.
<code>\gitbranch</code>	The name of the current branch.

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\*This document corresponds to gitstatus v1.1, dated 2022/10/06.

## 4 Implementation

### 4.1 Required Packages

The package relies on five other packages. Three are listed here, the other two are only required if a watermark is created.

```
1 \RequirePackage{kvoptions}
2 \RequirePackage{catchfile}
3 \RequirePackage{xstring}
```

### 4.2 Options

The options are defined.

```
4 \DeclareStringOption[.git/]{gitdir}           % custom git dir (can be relative)
5 \DeclareBoolOption[false]{watermark}        % watermark with branch + hash on top of
6 \DeclareComplementaryOption{nowatermark}{watermark}
7 \DeclareBoolOption[false]{novariables}      % disable creation of variables
8 \ProcessKeyvalOptions*
```

### 4.3 Getting Git Information

Git information is read directly from the files within the specified git-directory.

#### 4.3.1 Branch Name

Branch is read from HEAD.

```
9 \def\gitstatus@headpath{\gitstatus@gitdir HEAD}
10 \IfFileExists{\gitstatus@headpath}{
11   \CatchFileDef{\gitstatus@headfull}{\gitstatus@headpath}{
12     \StrGobbleRight{\gitstatus@headfull}{1}{\gitstatus@head}
13     \StrBehind[2]{\gitstatus@head}{/}{\gitstatus@branch}
14   }{
15     \def\gitstatus@branch{NOT AVAILABLE}
16     \PackageWarning{gitstatus}{Can't find HEAD (maybe check specified gitdir).}
17 }
```

#### 4.3.2 Commit Hash

Commit-Hash is read from refs/heads/<branch-name>.

```
18 \def\gitstatus@branchpath{\gitstatus@gitdir refs/heads/\gitstatus@branch}
19 \IfFileExists{\gitstatus@branchpath}{
20   \CatchFileDef{\gitstatus@commit}{\gitstatus@branchpath}{
21   }{
22     \def\gitstatus@commit{NOT AVAILABLE}
23     \PackageWarning{gitstatus}{Can't read commit hash (maybe check specified gitdir).}
24 }
```

## 4.4 Defining Local Variables

Make directory, branch and hash available outside of package

```

25 \ifgitstatus@novariables
26 \else
27   \def\gitdir{\gitstatus@gitdir}
28   \def\gitbranch{\gitstatus@branch}
29   \def\gitcommit{\gitstatus@commit}
30 \fi

```

## 4.5 Creating Watermark

Include git information as watermark.

```

31 \ifgitstatus@watermark
32   \RequirePackage{xcolor}
33   \RequirePackage[printwatermark]{xwatermark}
34   \newwatermark
35     [allpages,color=black!20,angle=0,scale=0.5,align=left,xpos=-2cm,ypos=13cm]
36     {On branch: \texttt{\gitstatus@branch}\\ Commit: \texttt{\gitstatus@commit}}
37 \fi

```

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