Chapter 2: Initial .gitconfig setup

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Proper initialization of git on a new workstation will require you to perform an initial set-up on the .gitconfig files affecting your workspace. This chapter covers how to set up the core .gitconfig file components for basic use of git.

# Utilizing the Command line

Professional software engineers prefer using git from the command line as it permits flexibility and customization of functionality. Commands for .gitconfig settings will be presented in the following command terminal format:

git config [<scope choice>] <command>

The square brackets [ ] denote optional arguments, and the contents of the diamond brackets < > denote what type of argument, as shown in *Table 1*, to use.

# Choosing Command Scope

It is important to know when to use the --system, --global, and --local specifiers with a given command. These specifiers are used to tell git how wide the scope of influence should be for the command following your chosen specifier.

## --system

This scope is applied to all repositories on the workstation, regardless of which user is currently logged in.

## --global

This scope is applied to the repositories which fall under subdirectories of the user’s specific profile directory.

## --local

This scope is applied to repositories under the current folder and its subdirectories level of scope.

## Strategy for understanding limitations in scope

It helps to think of the reach of a scope-specifier as it relates to the distance between your repository and where the config file is saved. Git uses these 4 directory locations:

1. Your machine's system .gitconfig  file, the specific location will depend on your operating system.
2. Your user profile’s .gitconfig file located at one of the following 2 locations:
   1. ~/.gitconfig.
   2. ~/.config/git/config.
3. The local repository’s config file: ./.git/config.

The config files defined in bullet points 1, 2, and 3, above, are used to build a cascading list of settings for your local repository in the following order of precedence:

1. System config.
2. Global (user) config.
3. Local (repository-specific) config.

Each successive layer represents a more localized config file, the last and most local file takes greatest precedence.

# Using the Core Commands

Though the .gitconfig file can contain many settings for use in specific tasks, there are 3 which should generally be set to the global scope: user.name, user.email, and core.editor.

## git config --global user.name “your name”

Setting user.name will allow git to automatically add your name to any commit, tag or push you perform. This greatly improves team communication and understanding when tracing out bugs, it also creates a written record of authorship.

## git config --global user.email “yourEmail@provider.suffix”

Setting user.email will allow git to automatically include your email address in any tag, commit, or push you perform.

## git config --global core.editor " ‘d:/’path to’/your\_chosen/editor.exe’ -arg"

Setting core.editor tells git to no longer use the default text editor, vim, and instead use the editor at the file path specified inside of the set of single quotation marks.

#### Table 1: Core .gitconfig commands

|  |  |  |
| --- | --- | --- |
| **Commands** <command> | **Applicable Scopes** <scope choice> | **Syntactic Notes** |
| **user.name** | --global  --local | For git to understand that your first and last name should be treated as a single string, you need to surround your whole name in single or double quotation marks. |
| **user.email** | --global  --local | In order to prevent possible conflicts with your email containing special characters, surround your full email address in single or double quotation marks. |
| **core.editor** | --system  --global | Inside the double quotation mark, but outside the single quotation mark, you may include command line arguments which will modify the conditions under which the application opens. |

# References

*Git - First-Time Git Setup*. https://git-scm.com/book/en/v2/Getting-Started-First-Time-Git-Setup. Accessed 26 Nov. 2017.

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