

# Git

## SmartGit

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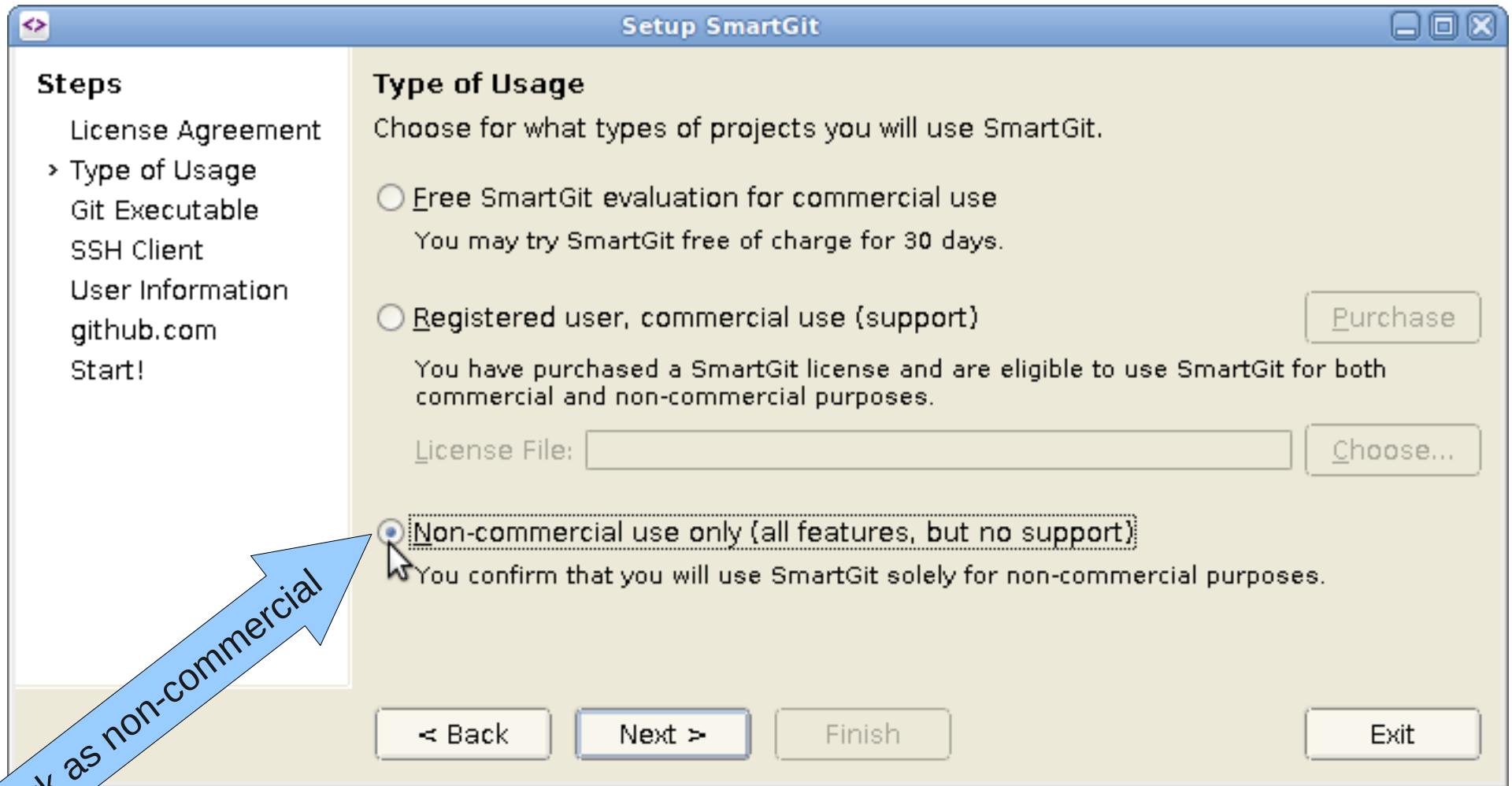
# Where to get it?

- <http://www.syntevo.com/smartgit/download.html>
  - Free for non-commercial use
  - Already downloaded and available for non-commercial use if you are running on our cluster machines
    - Version 1.0.3
    - Latest version is 2.0.5

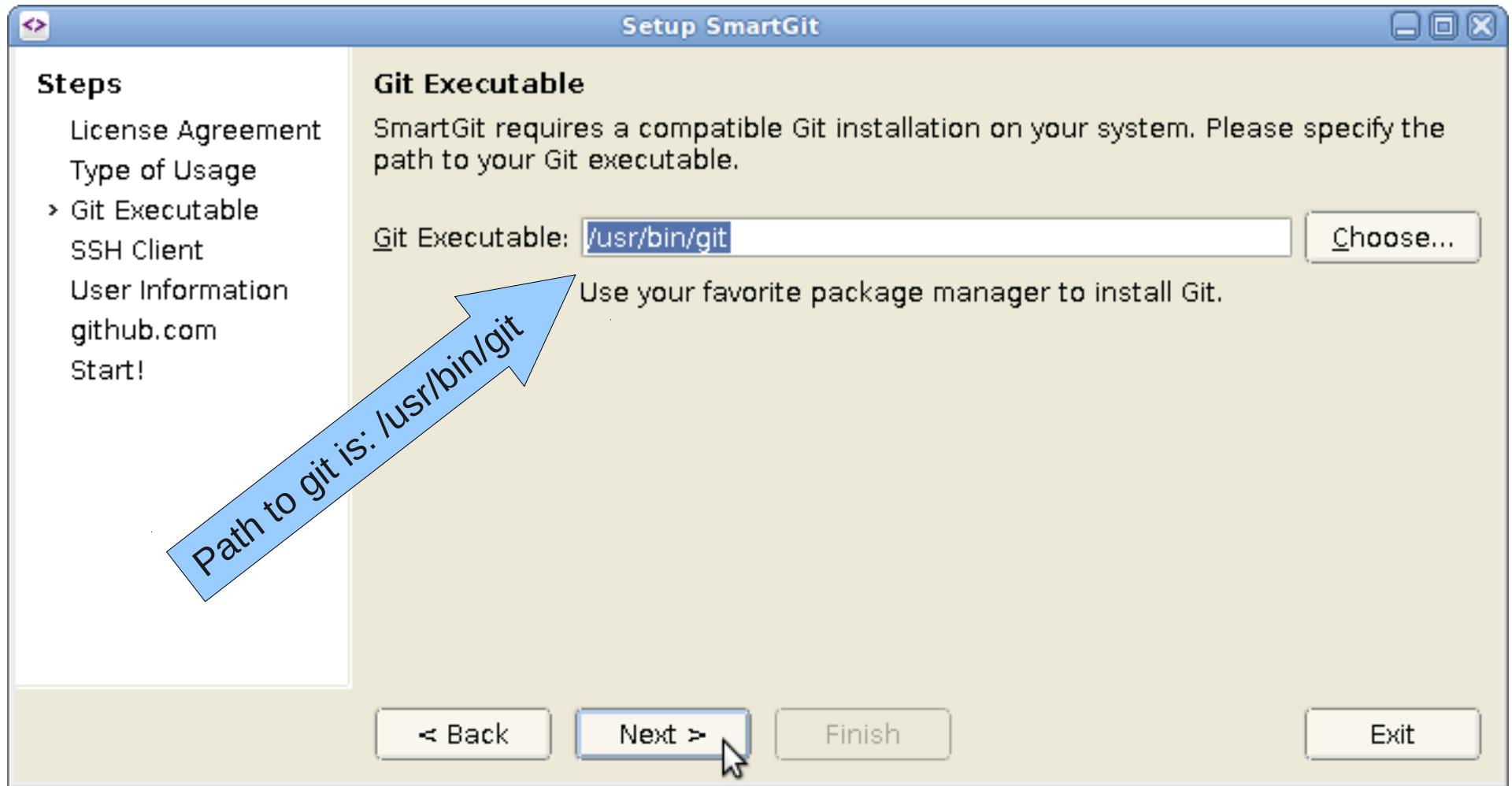
# Setup SmartGit 1.0.3



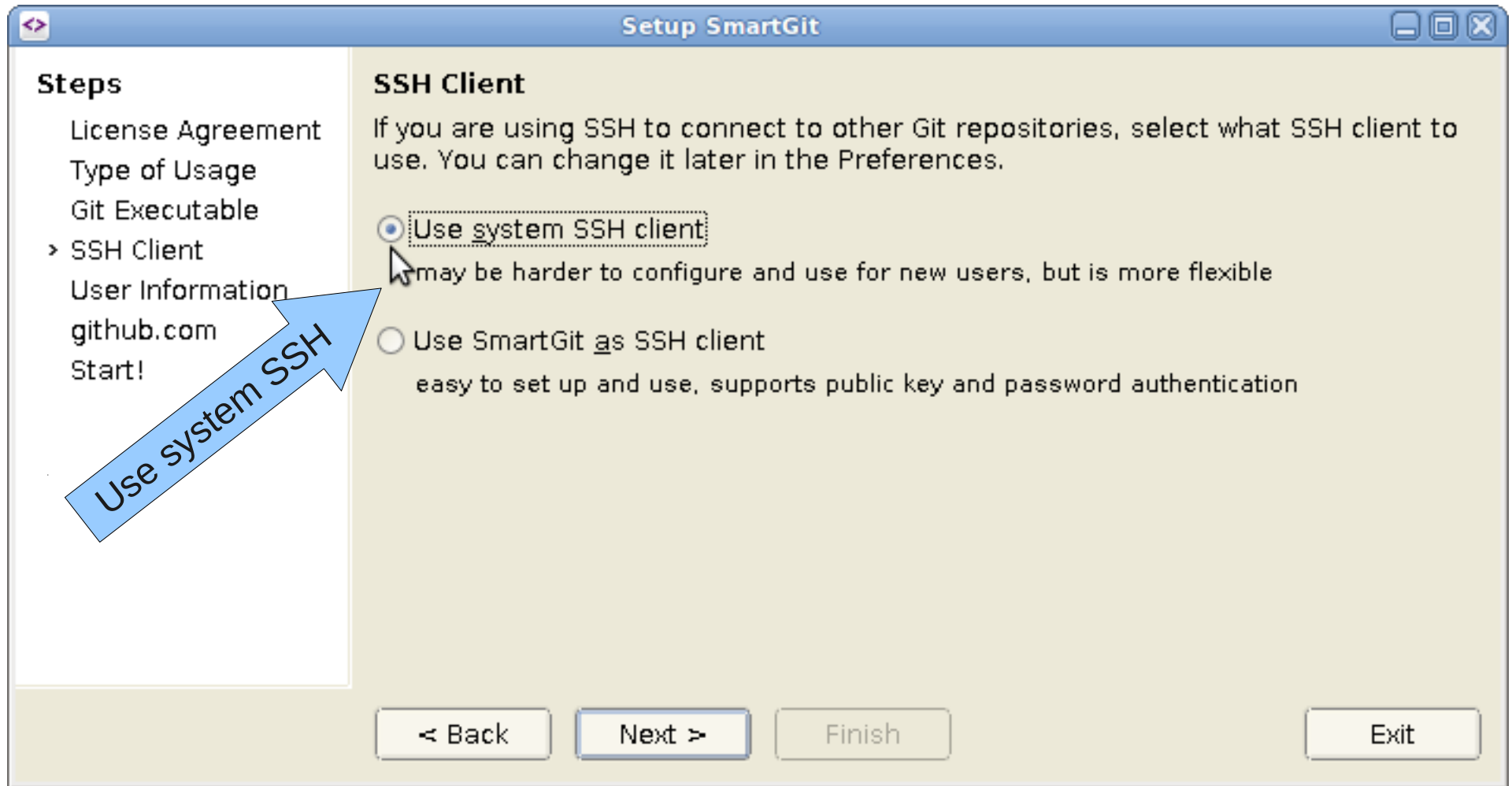
# Setup SmartGit 1.0.3



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The screenshot shows the 'Setup SmartGit' window. On the left, a 'Steps' sidebar lists: License Agreement, Type of Usage, Git Executable, SSH Client, > User Information (highlighted), github.com, and Start!. The main area is titled 'User Information' and contains the text: 'User name and e-mail will be stored in your commits. Below you can configure your default values which are stored in ~/.gitconfig. You can override them in each project by editing <project>/.git/config.' Below this text are two input fields: 'User Name: mktrost' and 'E-Mail: mktrost@umich.edu'. A blue arrow points from the 'User Information' step in the sidebar to the input fields with the text 'Enter your username/email'. At the bottom, there are four buttons: '< Back', 'Next >' (with a mouse cursor), 'Finish', and 'Exit'.

# Setup SmartGit 1.0.3

**Steps**

- License Agreement
- Type of Usage
- Git Executable
- SSH Client
- User Information
- > github.com
- Start!

**github.com**

I have a github account

User Name:

API Token:

Take this value from your github 'Account Settings' page.

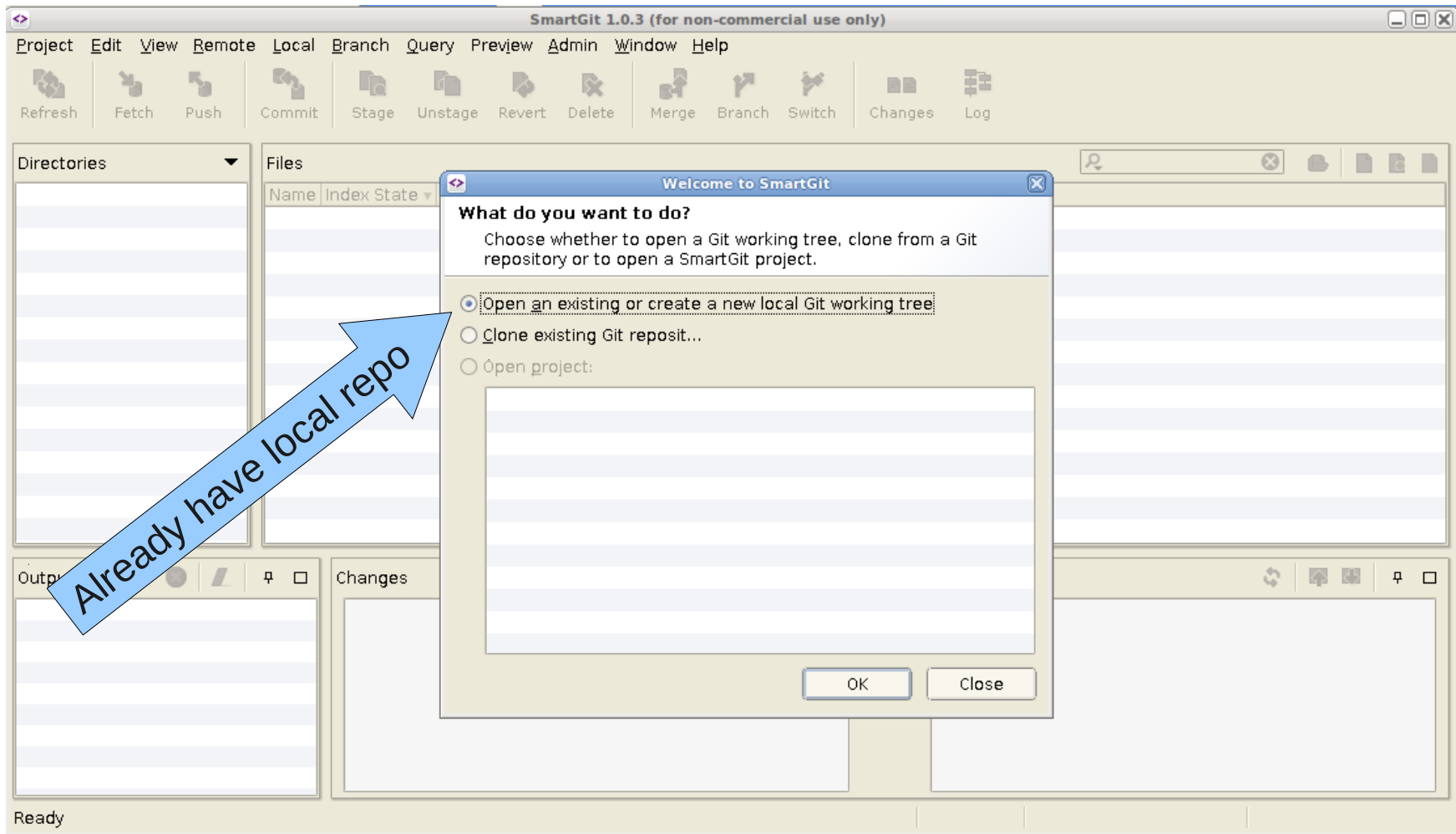
*Optionally add github details*



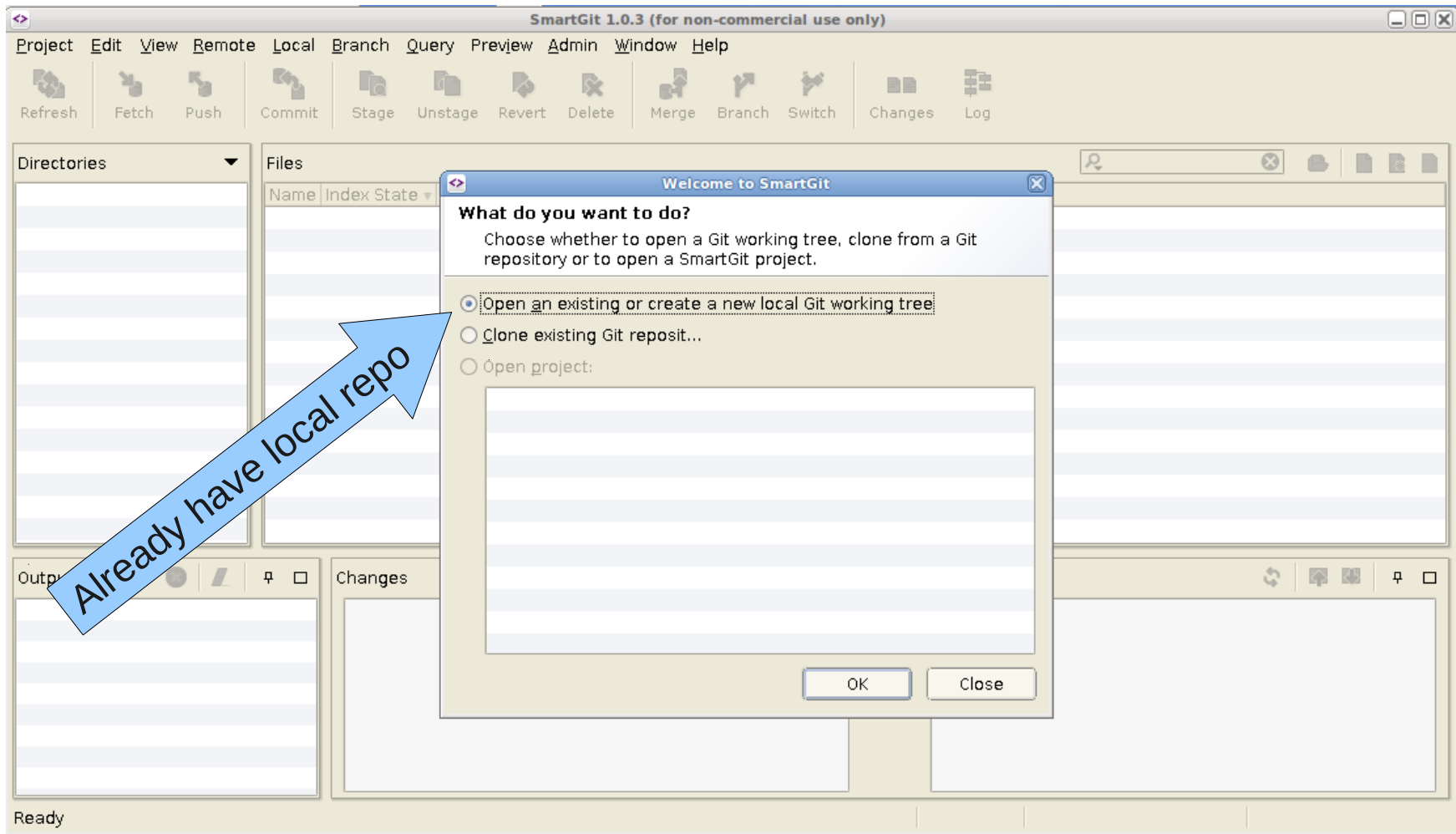
# Open Existing Local Repo/Directory



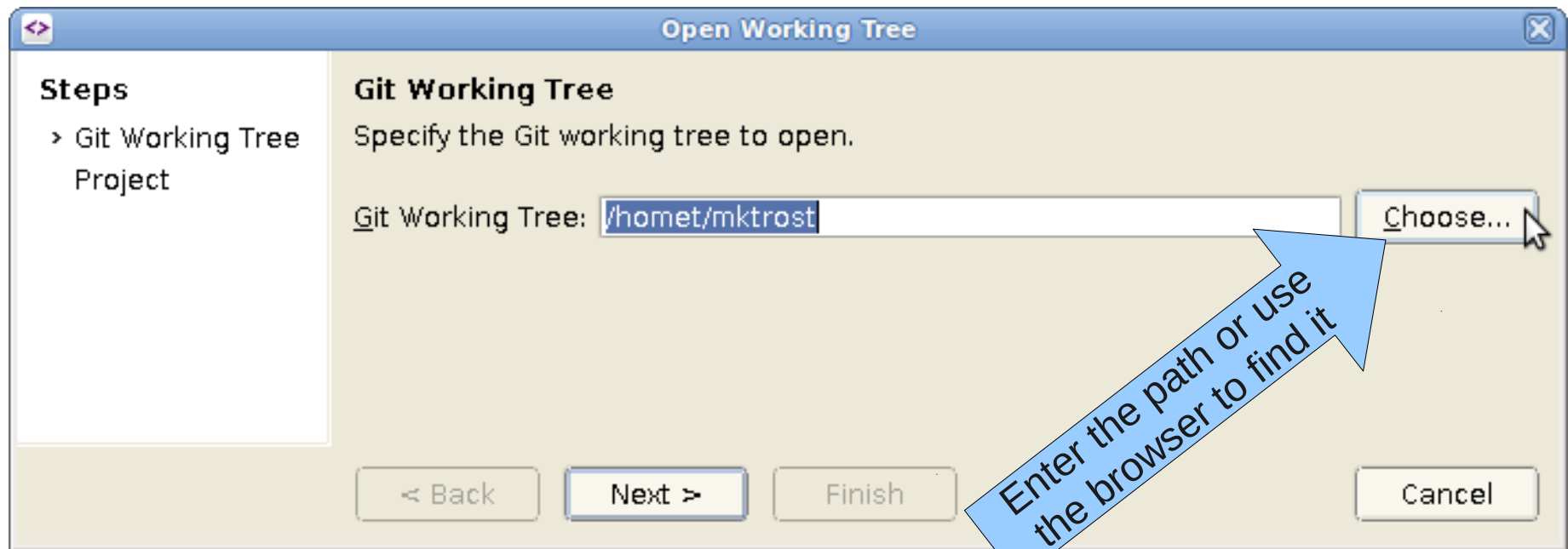
# Open Existing Local Repo/Directory



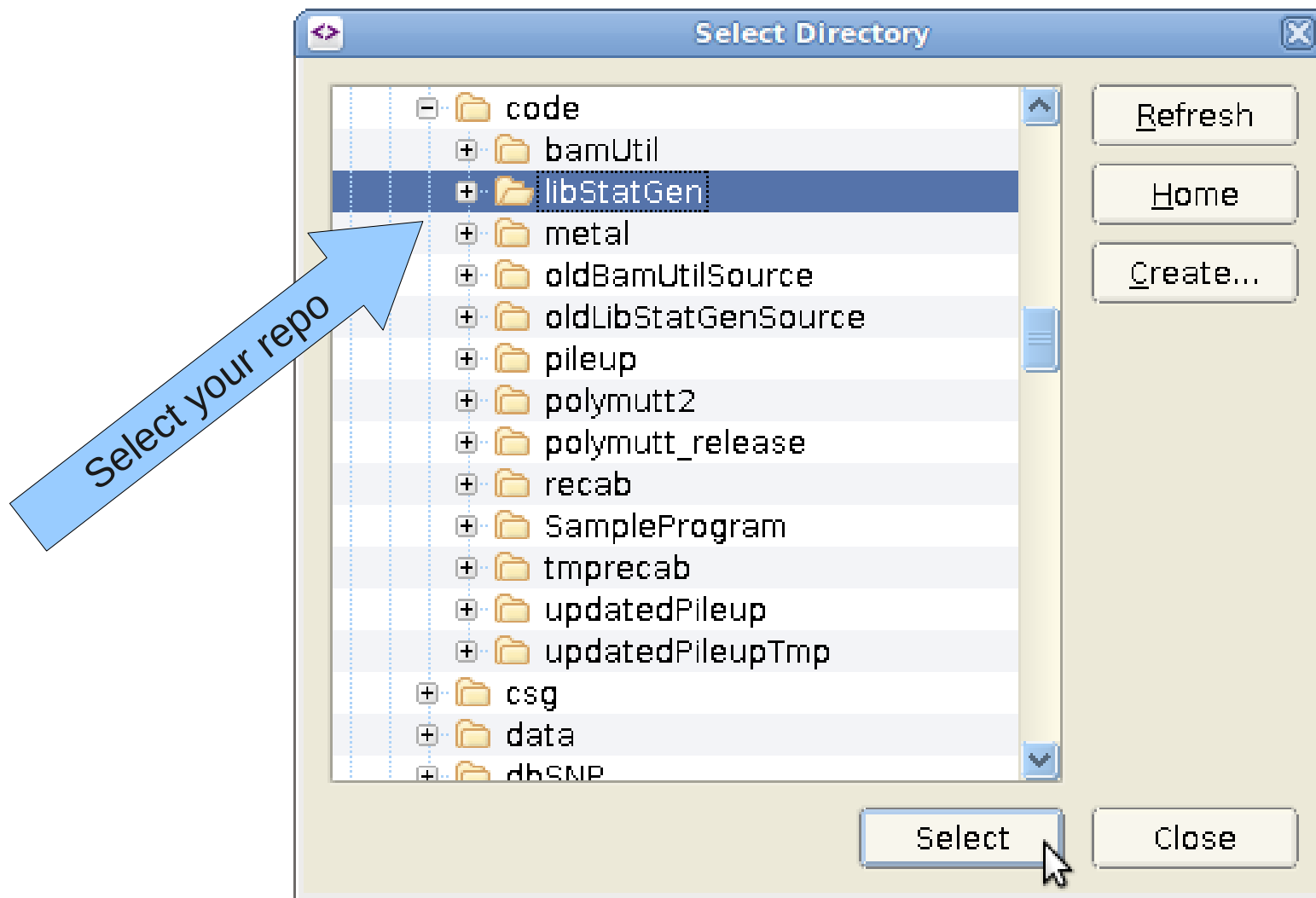
# Open Existing Local Repo/Directory



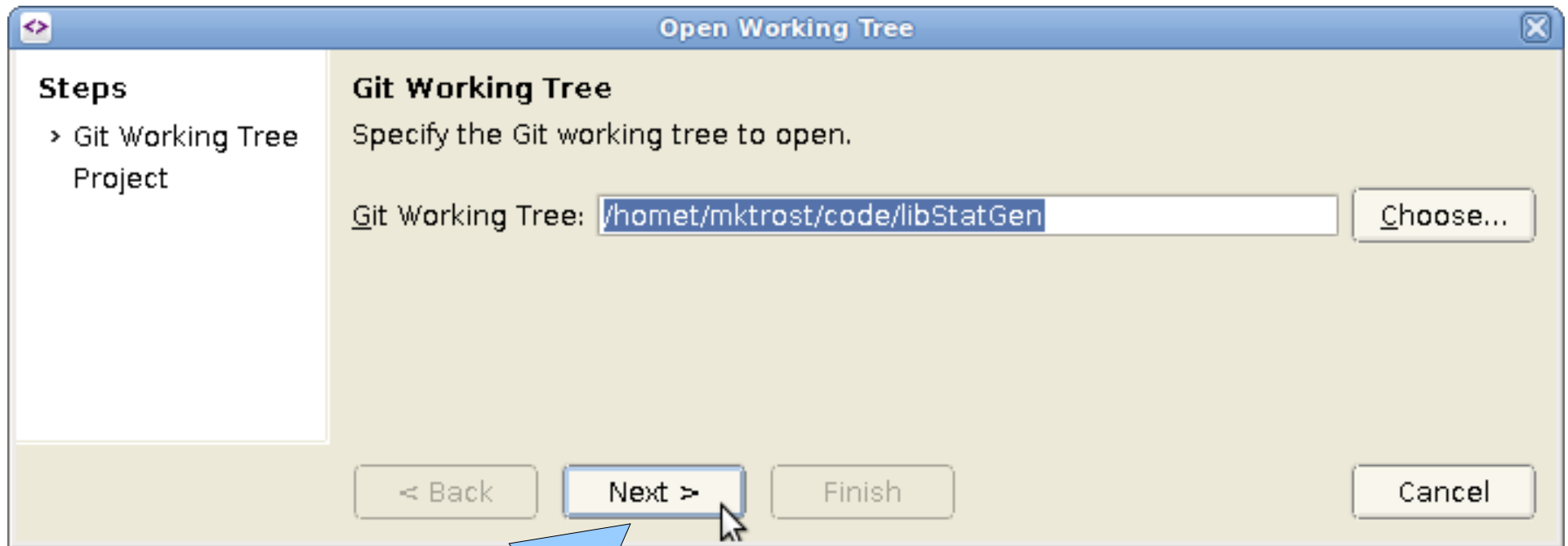
# Open Existing Local Repo/Directory



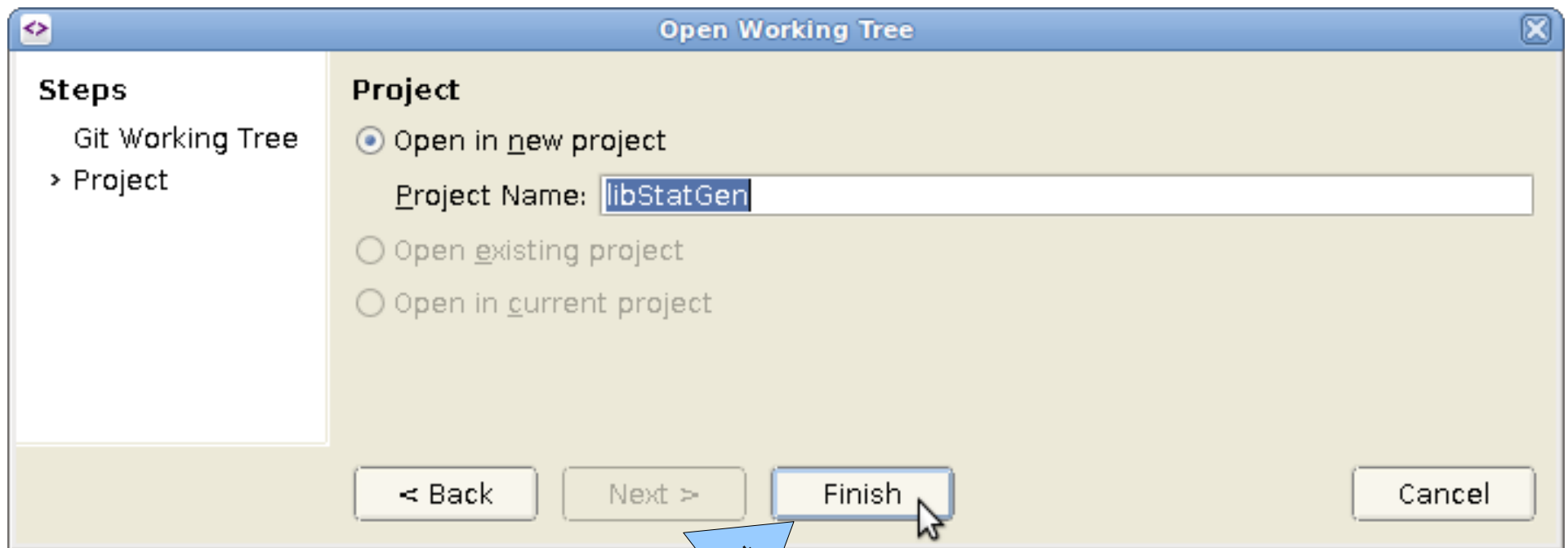
# Open Existing Local Repo/Directory



# Open Existing Local Repo/Directory



# Open Existing Local Repo/Directory



# Use SmartGit

The screenshot shows the SmartGit 1.0.3 interface for a project named 'libStatGen'. The main window displays a file list with columns for Name, Index State, Working Tree State, and Relative Directory. Annotations highlight specific features:

- Show files from subdirectories:** Points to the file filter and view icons in the top right.
- Show untracked files:** Points to the 'Untracked' view icon in the top right.
- Modified but unstaged File:** Points to the 'Cigar.h' file in the list, which has 'unchanged' in the Index State and 'modified' in the Working Tree State.
- Staged File:** Points to the 'Cigar.cpp' file, which has 'modified' in both Index and Working Tree States.
- Unchanged Files:** Points to a group of files including '.gitignore', 'Doxyfile', 'Makefile', 'README.txt', 'Makefile.base', and 'Makefile.common', all of which have 'unchanged' in both states.
- Show untracked files:** Points to the 'Show untracked files' view icon in the top right.
- Show ignored (.gitignore) files:** Points to the 'Show ignored files' view icon in the top right.
- Diffs for currently selected file:** Points to the diff view for 'Cigar.h', showing changes between the 'Head' (Index) and 'Working Tree' states. The diff shows a change from 'Copyright (C) 2010' to 'Copyright (C) 2010-2011'.

The interface also includes a menu bar (Project, Edit, View, Remote, Local, Branch, Query, Preview, Admin, Window, Help), a toolbar with icons for Refresh, Fetch, Push, Commit, Stage, Unstage, Revert, Delete, Merge, Branch, Switch, Changes, and Log, and a sidebar showing the project directory structure.



# Logs

The screenshot shows the libStatGen - SmartGit 1.0.3 interface. The 'Log' button is highlighted with a mouse cursor. A blue callout box points to the 'Log' button with the text: "See Log for the entire directory. If you want to see Logs for just one file, highlight that file".

Directories: /home/mktrost/coc

- Makefiles
- bam
- copyrights
- fastq
- general
- glf
- include

Name	Index State	Working Tree State	Relative Directory
Cigar.h	unchanged	modified	general
Cigar.cpp	modified	as-index	general
.gitignore	unchanged	unchanged	
Doxyfile	unchanged	unchanged	
Makefile	unchanged	unchanged	
README.txt	unchanged	unchanged	
Makefile.base	unchanged	unchanged	Makefiles
Makefile.common	unchanged	unchanged	Makefiles

Output: Stage

Changes: No file selected.

Ready Up-to-date

# Logs

The screenshot displays a version control interface with several key components:

- Commits List:** A table showing a list of commits with columns for Message, Commit Date, and Author. The selected commit is "Update Makefiles to add wholep..." dated 06/30/2011 04:58 PM by mktrost.
- Message Panel:** Displays the commit message: "Update Makefiles to add wholepackage option for releasing tools."
- Files Panel:** Shows a list of files modified in the selected commit, including "Makefile.tool" and "Makefile.wholepackage Added".
- Changes of Makefile.tool:** A diff view showing the changes made to the Makefile.tool file, such as the addition of the wholepackage target and the touch command.
- Branches:** A dropdown menu at the top left shows the current branch as "master" and other available branches like "alignCigar" and "origin/master".

Annotations with arrows point to these elements:

- "Change the currently viewed Branch" points to the branch dropdown.
- "Branches at this commit" points to the branch list.
- "Commits for this repo" points to the commit list.
- "Selected commit's message" points to the commit message panel.
- "Selected File's Diffs for selected commit" points to the diff view.
- "Files modified by selected commit" points to the files list.

# File Log

Log for bam/SamRecord.h

File Edit View Query Preview Window

Commits

Root: <Current>

Message

Message	Commit Date	Author
SamRecord add an accessor to get the reference.	05/31/2011 03:33 PM	mktrost
Update SamRecord::addTag & addIntTag to check to see if the tag is already there and if so update the existing one to the new value.	05/31/2011 09:54 AM	mktrost
Update SamFile to have method to check if it is open, Update SamRecord...	05/23/2011 05:20 PM	mktrost
Add getTagsString method to SamRecord.	05/18/2011 02:08 PM	mktrost
Add the ability to remove a set of tags from a SamRecord.cpp. Added to ...	04/04/2011 06:44 PM	mktrost
Cleanup/Fix SAM/BAM tags logic and add ability to revert BAM files to previ...	03/30/2011 07:09 PM	mktrost
SamRecord - add ability to remove a specified tag.	02/25/2011 11:30 AM	mktrost
Add handling of the reference to the SAM Library to allow the conversion ...	12/06/2010 05:45 PM	mktrost
Update comments in SamRecord.h for Doxygen.	11/24/2010 01:34 PM	mktrost
Add some code for bam	10/20/2010 07:39 PM	mktrost

Message

Update SamRecord::addTag & addIntTag to check to see if the tag is already there and if so update the existing one to the new value.

Selected commit's message

Selected File's Diffs for selected commit

Directories

- bam
  - test
    - expected

Files

Name	Modification	Relative
SamRecord.cpp	Modified	bam
SamRecord.h	Modified	bam
test.sh	Modified	bam/test
ReadFiles.cpp	Modified	bam/test
addedTagToSam.sam	Added	bam/test
addedTagToSam.bam	Added	bam/test
addedTagToBam.sam	Added	bam/test
addedTagToBam.bam	Added	bam/test

All files modified by selected commit

Changes of SamRecord.h

```
/// Add the specified integer tag to the
/// handles switching between SAM/BAM fo
/// determining the type for BAM format.
/// \param tag two character tag to be a
/// \param value value for the specified
/// \return true if the tag was successf
bool addIntTag(const char* tag, int32_t

/// Add the specified tag to the record.
/// switching between SAM/BAM formats w
/// \param tag two character tag to be a
/// \param vtype vtype of the specified
/// \param value value for the specified
/// \return true if the tag was successf
bool addTag(const char* tag, char vtype,

//@}

////////////////////////////////////
// @}

/// handles switching between SAM/BAM fo
/// determining the type for BAM format
/// this code will replace it if the spe
/// \param tag two character tag to be a
/// \param value value for the specified
/// \return true if the tag was successf
bool addIntTag(const char* tag, int32_t

/// Add the specified tag to the record.
/// switching between SAM/BAM formats w
/// is already there this code will repl
/// is different.
/// \param tag two character tag to be a
/// \param vtype vtype of the specified
/// \param value value as a string for t
/// \return true if the tag was successf
bool addTag(const char* tag, char vtype,

//@}
```