Berlin IOS Dev Group

Fast introduction to

GITHUB

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https://groups.google.com/forum/?hl=en&fromgroups#!forum/iosdevberlin

http://www.meetup.com/Berlin-iOS-User-Group/events/73412362/

https://www.facebook.com/iosdebug

Versioning

- **What is versioning?**
- System to save changes in documents or files. All versions have a time stamp and a user id and can be recovered at later time
- **Why versioning?**
- Before versioning you made manual backups like: V1, V2, V3 – very uncomfortabel and not reliable at all
- With versioning you can switch to older versions, work together with other people at the same time, merge it, make branches, and so on …
- Before GIT, there was CVS and (still) SVN. Git seems to be the most modern and is highly connected to the open source though and community

Git Terminology

Term	Definition
Repository	A repository is a database containing the history, the different versions over time and all different branches and tags. In Git each (local) copy of the repository is a complete repository.
Branches	A branch is a separate code line with its own history. You can create a new branch from an existing one and change the code independently from other branches. One of the branches is the default (normally named master). The user selects a branch and works in this selected branch, which is called the "working copy". Selecting a branch is called "checkout a branch".
Tags	A tag points to a certain point in time in a specific branch. With a tag, you can have a named point to which you can always revert, e.g. the coding of 25.01.2009 in the branch "testing".
Commit	A commit is used to record your changes to a repository (locally). This creates a new revision which can be retrieved later. Each commit contains the author and committer, thus making it possible to identify the source of the change.
Push	Any change you commit is only local to your repository first, it is not yet present in the „official“ remote repositiory. To do so you have to make a Push. This 2 command technique is one of the biggest differences to SVN f.e.
Pull	If you have to refresh your local clone of the repository, f.e., to get updates from others people work, you do a pull.
URL	A URL in Git determines the location of the repository. Can be locally or online.
Revision	Represents a version of the source code. Git identifies revisions with SHA1 hash ids, like: 02b141f484aebb47d8d52e3b8cf92cfd137634e5 Don't care about that now ;-)

Working with GIT

- Unfortunately GIT works with Terminal only and handling is a bit geeky sometimes (unconventional method naming, etc.)
- But there are several GUI clients (http://git-scm.com/downloads/guis) and it's buildin in Xcode also
- There are several websites that offer free GIT repository space, one of the most common is GitHub

Working with Github

- Create GitHub account
- Download and install Git and GitHub for Mac: https://help.github.com/articles/set-up-git
- Open Github client
- In Github online click „New repository“ Button
- Then click „Setup in Mac“ Button
- GitHub client asks for local folder, press „Clone“
- In Xcode create new Project inside this local folder
- In Github: Sync new project
- DONE! :-) Check online if files are existing
- Change something in Xcode, commit again and check again online