



# Git

Duration 2 day(s) (DVCS-GIT-02)

Know how to set up and configure Git

## Description

Git is the decentralized version control system (DVCS) of the moment. Created by Linus Torvald to manage the versioning of the Linux kernel source code, this tool is geared towards speed, efficiency and lightness. Helping to manage large projects with extreme flexibility in the contribution workflow, Git is making its mark in the OpenSource world: countless projects are now managed with Git and the Eclipse Foundation has even put in place a multi-year migration plan to migrate its projects under Git. It has become a staple of the DVCS domain and its use in business is gradually coming.

## Goals

- Understand DVCS principles - Learn Git specificities - Know how to set up and configure Git - Learn how to manage your source code with Git - Learn to collaborate with Git repositories - Knowing how to handle the tools attached to Git

### *Public*

- Architect
- Developer
- Project Manager
- System administrator

### *Prerequisites*

- Nil

### *Structure*

50% Theory, 50% Practice

## Program

### Version control

- Why versioning its source code?
- The basic concepts of version control

- Gitweb, web interface for Git
- GitHub, THE Git collaboration platform
- Gerrit to handle code re-reads

### DVCS principles

- What does decentralization bring?
- Principle of operation
- Branch, deposit, merge, rebase and all DVCS concepts

### Presentation of Git

- A little history
- The operation of Git
- Git objects: blob, tree, commit and tag
- The index or staging area

### Set up and configuration

- Installation
- Configuration

### Day-to-day use

- Create / clone a deposit
- View the status of the working tree
- View changes
- Save Changes
- Browse Revision History
- Find the author of a modification

### Deposit and branch management

- Create a branch
- Pass from branch to branch with merges or rebase
- Update a deposit
- Export your deposit
- Remote repositories

### Tools around Git

- Git-gui and TortoiseGit to graphically navigate