Git & GitHub Resources

## Installing Git

Install Git / Git Bash by putting a request in via OCIO’s ESD Service Portal.

* Once in the Service Portal, go to Submit IT Request > Software Install and select Git for Windows in **Select Software** dropdown
  + Note: Business justification is required for this software install.
* The Git for Windows download link can be found here: <https://git-scm.com/downloads>

## Creating a GitHub Account

* Navigate to <https://github.com/>.
* Click **Sign up**.
* Follow the prompts to create your account.

See this GitHub resource page for more information on getting started: <https://docs.github.com/en/get-started/start-your-journey/creating-an-account-on-github>

## Connecting Git/GitHub and RStudio

* If you’re interested in using Git and GitHub integrated within RStudio, Jennifer Bryan has an incredibly helpful guide for setting this up. The guide also includes information on installing Git as well as lots of troubleshooting tips. We recommend walking through this guide step-by-step.

Link to guide here: [Happy Git and GitHub for the useR](https://happygitwithr.com/index.html)

* Before using Git/GitHub effectively with R/RStudio you will also need to be familiar with working within projects.

If using projects in RStudio is new to you, review this link: [Workflow: Projects](https://r4ds.had.co.nz/workflow-projects.html)

* Also, if you are planning to use Git/GitHub in RStudio, you will likely want to incorporate other tools such maintaining the package environment of your project (i.e., which libraries/packages are used and their versions). The renv package is integrated within a project’s settings in RStudio and can be used in conjunction with the Git/GitHub connection.

Link to the renv package here: [Introduction to renv](https://rstudio.github.io/renv/articles/renv.html)

## Percipio Resources

For more Git and GitHub trainings, check out these resources available at DOL through Percipio/LearningLink!

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| **Course Title & Link** | **Duration** | **Content** |
| [Git & GitHub: Introduction](https://dol.percipio.com/courses/24f5b7c1-d44d-47fb-9bb7-7c71d127bee2/videos/0ddc023b-d779-4d7a-b666-d9826e7fd76a) | 0.5 hrs | * Intro to Version Control * Features of Git * Branching and Merging in Git * Git Repositories in GitHub |
| [Git & GitHub: Working with Git Repositories](https://dol.percipio.com/courses/72663338-f4fc-4402-8c39-81c325fa5e22/videos/3a82b3eb-277e-49aa-ad9f-552c36255d1d) | 1.5 hrs | * Creating Repositories * Commits and Pushes * Add, Modify, and Delete Files * Branching and Merging |
| [Git & GitHub: Using GitHub for Source Code Management](https://dol.percipio.com/courses/6cd118bf-4084-4431-9a73-4b317ba99978/videos/6b7215fb-030a-4151-8679-a63da7956811) | | 1.5 hrs | * Pull Requests * Merge Conflicts * Project Management Features |
| [Working with Git for your Software Projects](https://dol.percipio.com/courses/34a92a50-118e-11e8-9e9d-ad2bc8a1896e/videos/7884afb0-118e-11e8-9e9d-ad2bc8a1896e) | 1 hr | * Commits * Git History * File Management in Git |
| [Introduction to Git](https://dol.percipio.com/courses/56998c70-118b-11e8-9e9d-ad2bc8a1896e/videos/a147efe0-118c-11e8-9e9d-ad2bc8a1896e) | | 1 hr | * Basics, Installation, Configuration * Text Editors * Git Repositories |
| [Working with GitHub](https://dol.percipio.com/courses/357776d0-118e-11e8-9e9d-ad2bc8a1896e/videos/fd600a60-1191-11e8-9e9d-ad2bc8a1896e) | 1 hr | * Managing a GitHub Account * GitHub Web Interface and Command Line * Collaborative Features and Workflows |