**Git**

## Prerequisites

Git Bash

You will need an instance of Git Bash installed on your machine.

Git Hub

A valid Git Hub account with access to a valid email used for validation.

Code Editor or IDE

Code

## Summary

Git and Git Hub are used in conjunction with each other to provide version controls for any project. Git is the local command line interface which generates local versions of the project on your local machine using the Git Bash interface. Git Hub on the other hand is the online ‘cloud’ repository which allows others to use, merge, clone and contribute to code sets.

GitHub repos can be forked, cloned or otherwise modified depending on the requirements.  
  
<https://docs.github.com/en/get-started/quickstart/fork-a-repo>

Existing repositories can be forked, which will create an instance of the original in your online Github repository. Once there, you can select the “Code” button, where a URL will be provided. This URL will then be input into a local gitbash command from within the directory you wish to ‘clone’ the online repository from.

## Instructions

1. Log into Git Hub – navigate to the directory you wish to clone
2. From the upper right, select Fork and fill in the parameters
3. Create Fork
4. Once forked to your account, select “Code” and copy the URL provided.
5. Navigate to and create a directory for your project on your local machine.
6. Right click within this directory and select “Open Git Bash here”. The GitBash interface will open.
7. Type: git clone <paste copied url from step one here>
   1. The working copy of the repository will be downloaded to that directory
8. Create a new repo and add a file (required)
9. Right click on the source folder and select “open gitBash here”
10. Enter the following series of git commands:
    1. Git init
    2. Git add .
    3. Git commit -m ‘Enter message here related to commit’
    4. Git branch
    5. Git branch feature ; where ‘feature’ represents the branch name
    6. Git checkout ‘feature’
    7. Git add .
    8. Git commit -m ‘updated feature branch’
    9. Git remote add origin <https://ssi-tfs.ssi-corporate.com/SSI/SMRT/_git/NSRP_MSDC?path=%2F&version=GBfeature&_a=contents>
    10. Git push –set-upstream origin feature
11. Find the ‘origin’ url by navigating to the repo created in step 3,   
    eg: https://ssi-tfs.ssi-corporate.com/SSI/SMRT/\_git/NSRP\_MSDC  
    and select the “Clone” button. The url will be displayed, where you can copy to clipboard.

To change repository:

git remote set-url origin https://<url>

To confirm new directory:

git remote -v

Syncing With Fork

The repo on your local machine can be ‘synced’ with the remote version located on GitHub.

* Open GitBash
* Change directories to the cloned fork (cd ..)
* Ls to list content
* Type git remote -v
* Type git remote add upstream <paste url here>
* Type git remote -v again