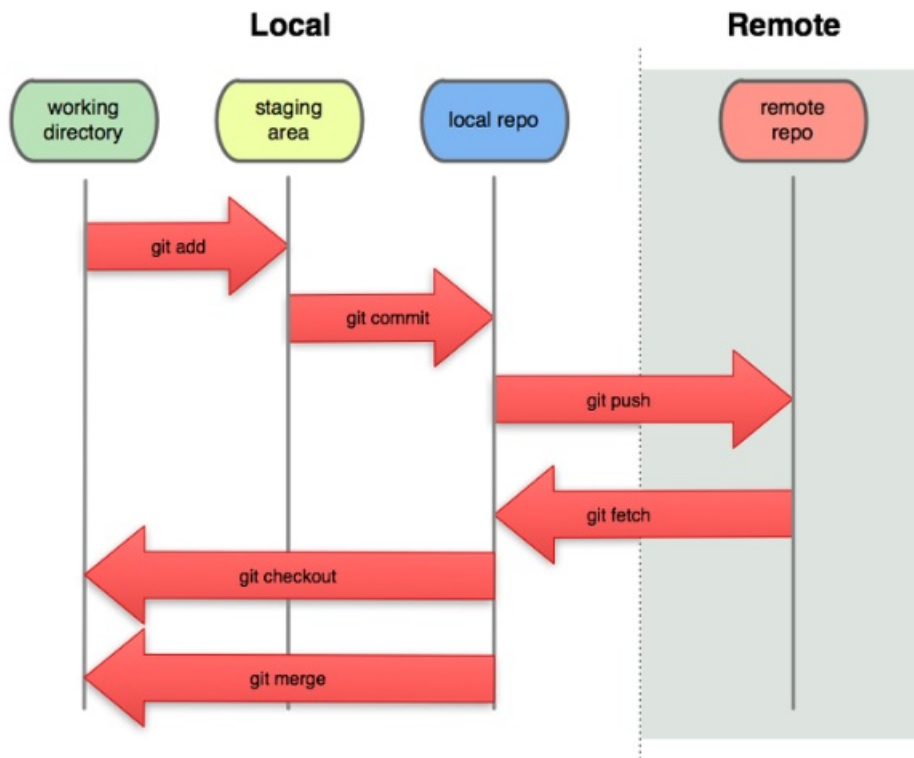


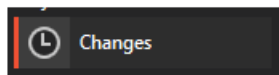
# Development - Team Explorer and Git

12/29/2023 1:43 pm EST

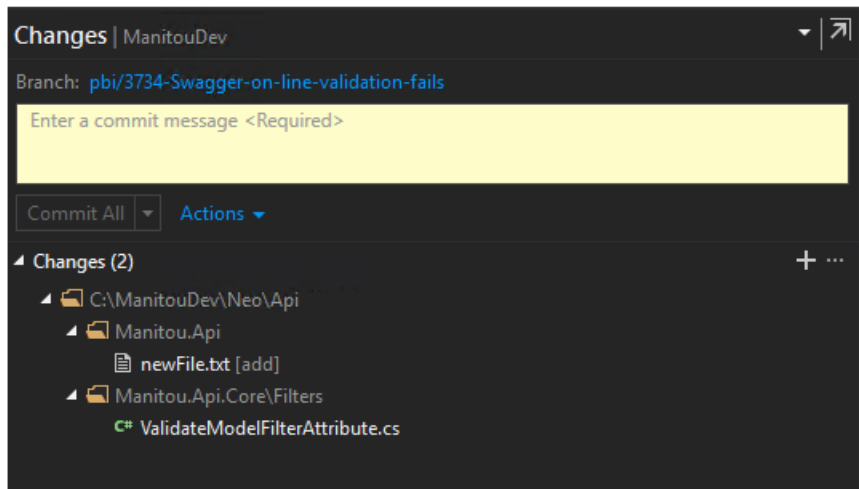
All of the actions that can be performed in Visual Studio's Team Explorer (TE) are also git commands that can be run the command line. Sometimes the command line can provide additional details that may be helpful when managing local and remote repositories.



## Changes



The "Changes" button in TE will show files that existed previously and have been modified. The "Changes" button will also show files that have been created or added to the project.



## Git Commands - Changes

The following git commands can be run from the command line and return the same information:

- Find modified files
  - `git ls-files -m`
- Find new/added files
  - `git ls-files --others --exclude-standard`

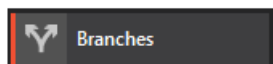
Administrator: Developer Command Prompt for VS 2017

```
C:\ManitouDev\Neo\Api>git ls-files -m
Manitou.Api.Core\Filters\ValidateModelFilterAttribute.cs

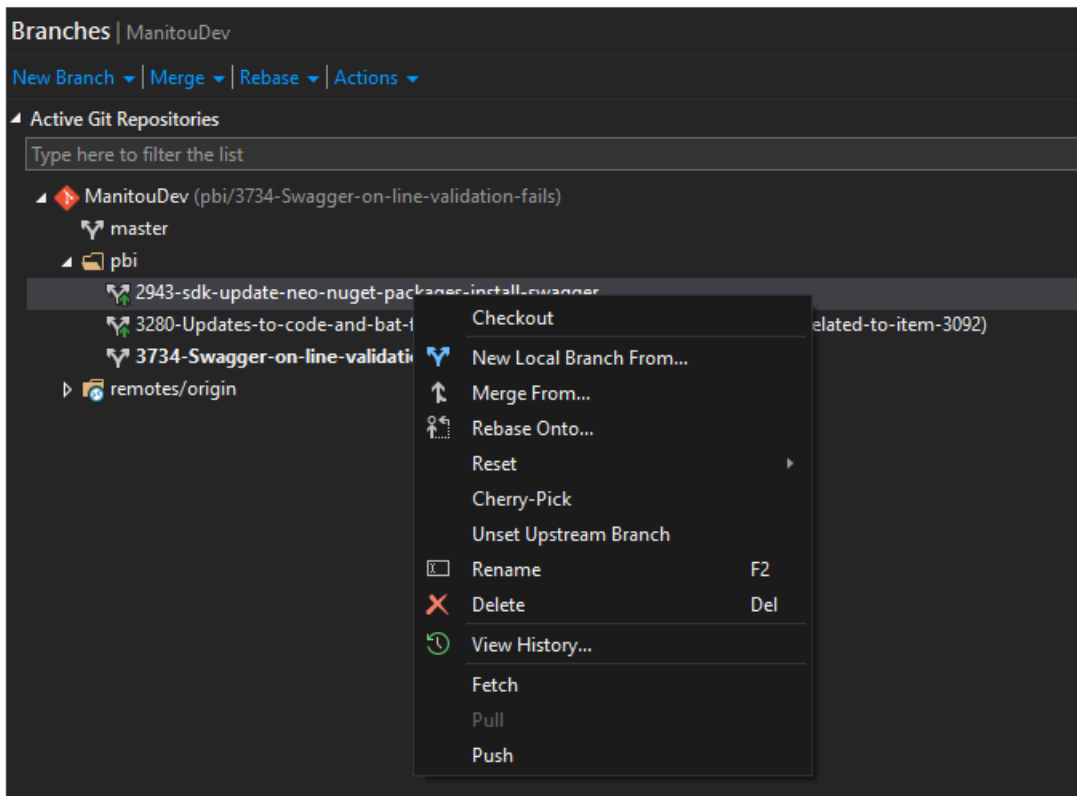
C:\ManitouDev\Neo\Api>git ls-files --others --exclude-standard
Manitou.Api/newFile.txt

C:\ManitouDev\Neo\Api>
```

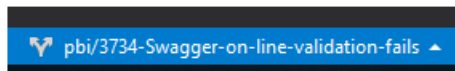
## Branches



Use this area to create a new branch for your code and to revert/undo any changes. You can also use this area to checkout a branch:



To see what current branch you are on, look in the lower, right corner of Visual Studio:



## Git Commands - Branches

To see what branch you are on from the command line, use the "git branch" command:

```
Administrator: Developer Command Prompt for VS 2017
C:\ManitouDev>git branch
master
pbi/2943-sdk-update-neo-nuget-packages-install-swagger
pbi/3280-Updates-to-code-and-bat-files-needed-to-pull-pull-and-build-Manitou-(related-to-item-3092)
* pbi/3734-Swagger-on-line-validation-fails
C:\ManitouDev>
```

To checkout a branch from the command line, use the "git checkout <branch>" command:

```
Administrator: Developer Command Prompt for VS 2017

C:\ManitouDev>git checkout master
Switched to branch 'master'
D      .gitattributes

C:\ManitouDev>
```

To create a new branch and immediately checkout that branch, use "git checkout -b <branch>":

```
Administrator: Developer Command Prompt for VS 2017

C:\ManitouDev>git checkout -b pbi/999999-my-ew-branch
Switched to a new branch 'pbi/999999-my-ew-branch'
D      .gitattributes

C:\ManitouDev>
```

### Git Commands - Reset

In TE you can revert your changes and delete any added files. To revert any modified files to what you last pulled from the server, use the 'git reset' command (the --hard switch is optional and will not warn you about having local files that have been modified):

```
Administrator: Developer Command Prompt for VS 2017

C:\ManitouDev>git reset --hard
HEAD is now at f7d9746fd Merged PR 687: As the title states, this is related to item 3092 and these files were not

C:\ManitouDev>
```

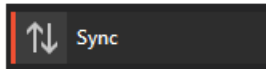
The above command will reset you to the latest commit, if you want to reset to a specific commit, get the commit number and use it with git like this: git reset --hard cdaed2d2

```
Administrator: Developer Command Prompt for VS 2017

C:\ManitouDev>git reset --hard cdaed2d2
HEAD is now at cdaed2d24d Merged PR 465: #1748 Update VisioTech BJS to Safire 2

C:\ManitouDev>
```

## Sync



The Sync command will synchronize your branches on your local machine with the master repository. When you create a new branch locally, the master repository is not aware that local branch exists. Using the "Fetch" command in the "Synchronization" window will pull down any branches that your local environment is not aware of. Using the "Push" command will create the new branch in the master repository.

## Git Commands - Sync/Fetch

Git doesn't have a command called 'sync' but does this through two commands: fetch and push.

If you would like to pull down all branches from the server, use the 'git fetch' command. The result will be a list of the branches that your local repository did not know about:

```
Administrator: Developer Command Prompt for VS 2017
* [new branch]          bug/Ticket-CAS-14624-H4H738-Suppress-Contact-On-Alarm -> origin/bug/Ticket-CAS-14624-H4H738-Suppress-Contact-On-Alarm
* [new branch]          bug/bug-3706-2.1-Google-Maps-not-displaying-correctly-in-NEO-due-to-GoogleMutant-plugin -> origin/bug/bug-3706-2.1-Google-Maps-not-displaying-correctly-in-NEO-due-to-GoogleMutant-plugin
c1af62eb8e..439ff6a56c feature/feature-8-en-new-data-types-and-flags -> origin/feature/feature-8-en-new-data-types-and-flags
2e3ae81926..092b098652 master -> origin/master
* [new branch]          pbi-3365-sql-dot-net -> origin/pbi-3365-sql-dot-net
* [new branch]          pbi-3620-add-logging-to-broker-param-count-error -> origin/pbi-3620-add-logging-to-broker-param-count-error
d4b6e78f9e..120b72cb1d pbi/2943-sdk-update-neo-nuget-packages-install-swagger -> origin/pbi/2943-sdk-update-neo-nuget-packages-install-swagger
5944a13d95..7ceaae68ed pbi/2944-vcc-investigate-hikvision-sdk-update -> origin/pbi/2944-vcc-investigate-hikvision-sdk-update
* [new branch]          pbi/3280-Updates-to-code-and-bat-files-needed-to-pull-pull-and-build-Manitou-(related-to-item-3092) -> origin/pbi/3280-Updates-to-code-and-bat-files-needed-to-pull-pull-and-build-Manitou-(related-to-item-3092)
* [new branch]          pbi/3355-HA-Change-ntext-to-nvarchar(max) -> origin/pbi/3355-HA-Change-ntext-to-nvarchar(max)
* [new branch]          pbi/3440-EAP-Add-ability-to-follow-EAP-execution-into-collapsed-sections -> origin/pbi/3440-EAP-Add-ability-to-follow-EAP-execution-into-collapsed-sections
c1af62eb8e..60e3959e7d pbi/35-EAP-Add-ability-to-create-level-through-a-graphical-component-in-AP-Edit-screen-for-NEO-UI-and-API-work -> origin/pbi/35-EAP-Add-ability-to-create-level-through-a-graphical-component-in-AP-Edit-screen-for-NEO-UI-and-API-work
* [new branch]          pbi/3734-Swagger-on-line-validation-fails -> origin/pbi/3734-Swagger-on-line-validation-fails
* [new branch]          pbi/98-99-add-user-script-type-customer-operator-notes -> origin/pbi/98-99-add-user-script-type-customer-operator-notes
0db5e420a2..c287d52180 user-story-93-show-enhanced-notification -> origin/user-story-93-show-enhanced-notification
C:\devtmp>
```

With a newly created local branch, use the 'git push <branch>' to have this branch created on the server

```
Administrator: Developer Command Prompt for VS 2017
C:\devtmp>git checkout -b pbi/9999999-my-ew-branch
Switched to a new branch 'pbi/9999999-my-ew-branch'

C:\devtmp>git push -u origin pbi/9999999-my-ew-branch
Total 0 (delta 0), reused 0 (delta 0)
To https://boldgroup.visualstudio.com/Manitou/_git/Manitou
 * [new branch]          pbi/9999999-my-ew-branch -> pbi/9999999-my-ew-branch
Branch 'pbi/9999999-my-ew-branch' set up to track remote branch 'pbi/9999999-my-ew-branch' from 'origin'.
C:\devtmp>
```

Git - Reset your code to the last time you pulled

```
git reset --hard
```