# UGit User Guide

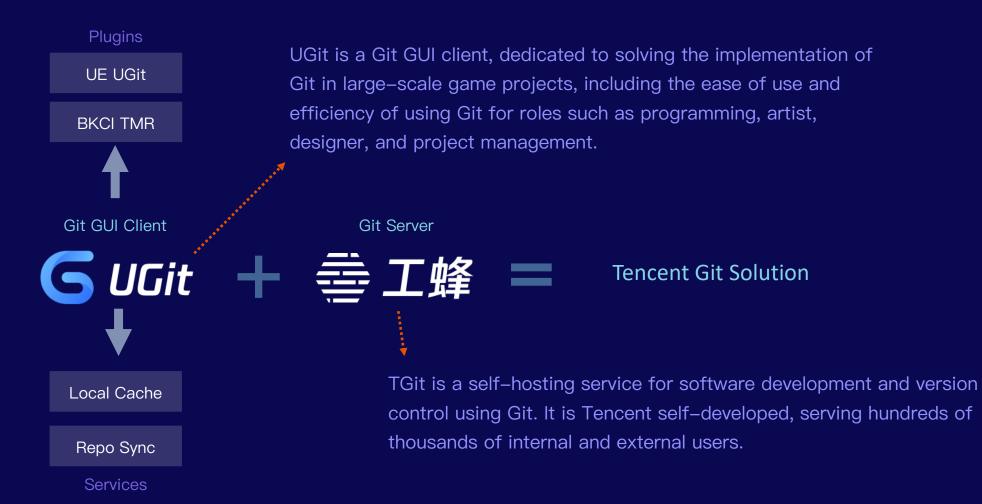
Lite Version

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#### Introduction

About UGit



### Introduction

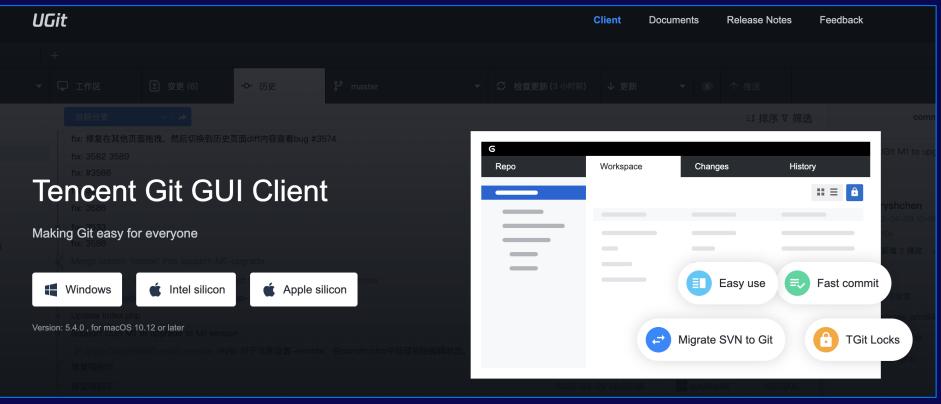
Extreme Versioning Problems Facing Larger Games



### Installation

Download and install (Windows)

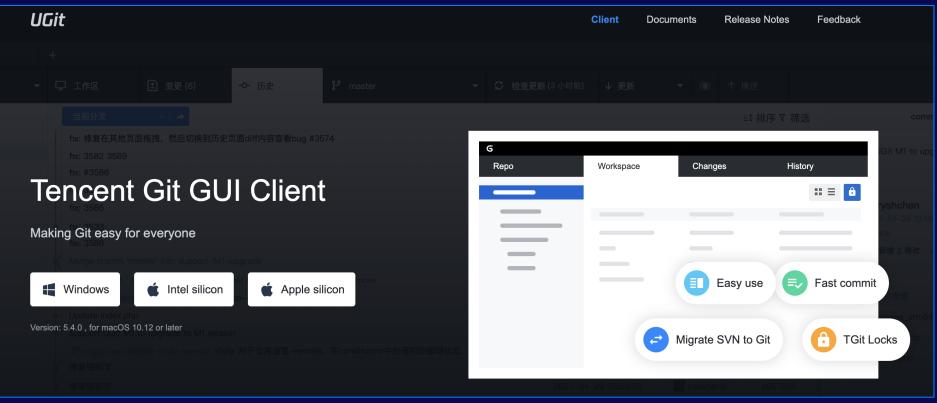
https://ugit.qq.com, download the Windows package, then double click the package to finish install.



### Installation

Download and install (macOS)

https://ugit.qq.com, download the macOS package, double click to extract, then drag UGit.app to /Application folder.

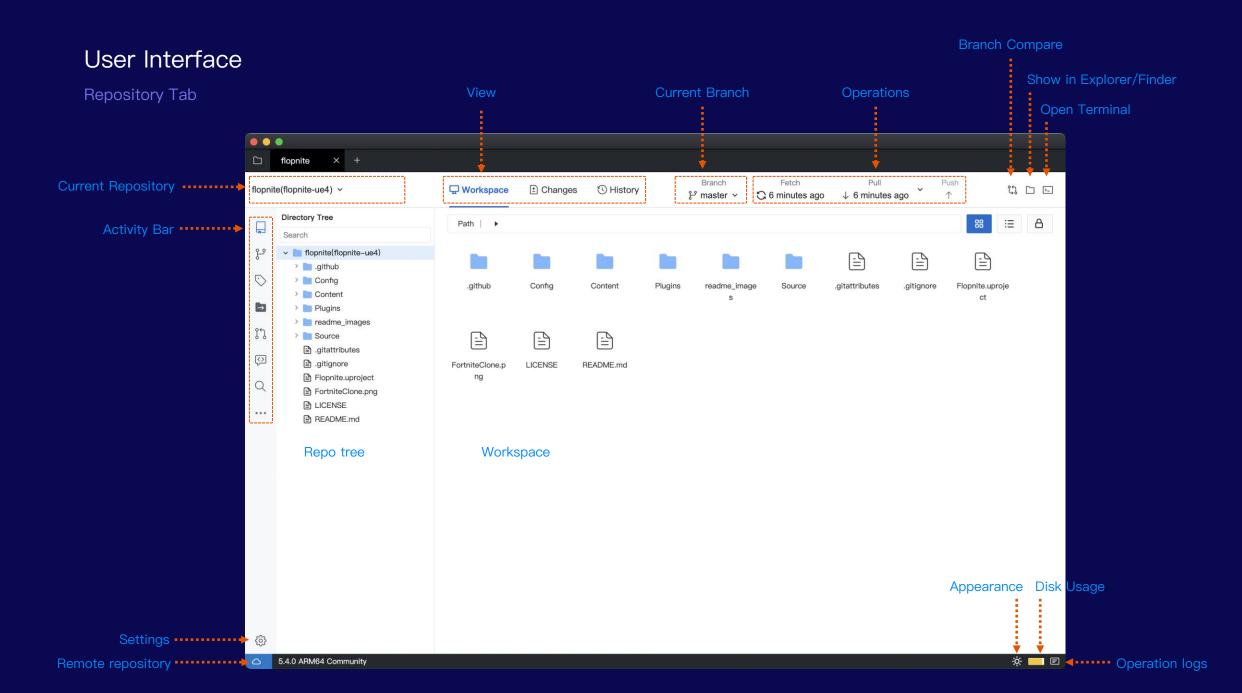


### User Interface

New Tab

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		Recent Repos Favorite Repositories All	Resource and reedback	UGit help doc
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	23 Necover repo		·	/
	🕸 Settings			
	Operations	Local repos and search repo		

稔 Scheduled Tasks	
碅 Excel diff	Tools



# Initialization

Config git user name and email

#### Config git user.name and user.email for the first time usage(That is git global config).

Settings		×
Accounts	Username	
- <b>0-</b> Git	yourname Email	
& Appearance	yourname@tencent.com	
(၇) Тооі		
Commit Template		
<sup>†</sup> † <sup>†</sup> Advanced		
	Cancel OK	

### Initialization

Authenticating git platform

From File>Preferences(macOS: UGit>Preferences), click 'Sign In' to authenticating the platform. After sign in, then you can clone repo from it. p.s. The git.tencent.com require ip whitelist to access.

Settings		×	Settings		×
Image: Accounts-0-GitImage: AppearanceImage: AppearanceIma	git.tencent.com git.code.tencent.com ?-git.code.tencent.com coding.net github.com	Sign In Sign In Sign In Sign In	Image: Relation of the second seco	git.tencent.com git.code.tencent.com ?-git.code.tencent.com coding.net github.com	Sign Out Sign In Sign In Sign In

### Initialization

Init git Ifs and git ignore for new repo

The git lfs config is very important for game projects, especially when creating a new git repo, it needs to be properly configured.

Repository Manag	gement		
Clone	New Repository	Name	
		repository name	
Open	New TMR	Description	
New		Local Path	
		/Users/yunshan/Work/01-workspace	Choose
		□ Initialize this repository with a README	
		Repo Group	
		None	~
		Git Ignore View Template	
		UnrealEngine	~
		Git LFS View Template	
		ue5.all	~
		License	
		None	$\sim$
		OK	

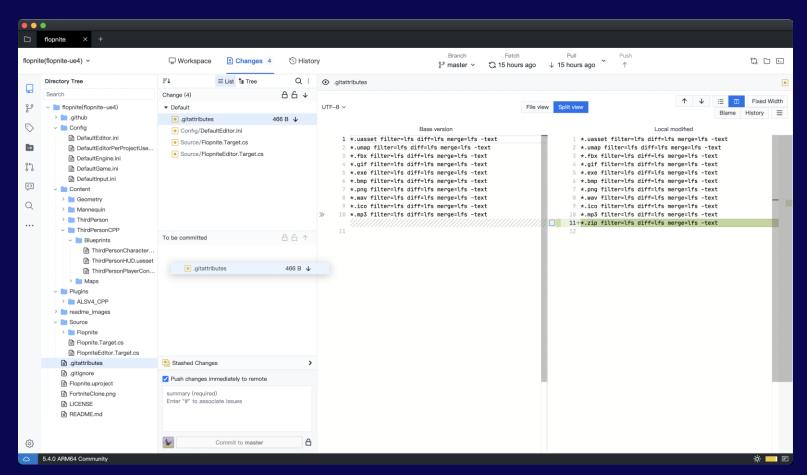
# Clone repository

Clone repository to local disk

The git lfs config is very important for game projects, especially when creating a new git repo, it needs to be properly configured.

New Tab	x +	Repository Mana	igement			
		Clone	git.tencent.com	Filter	0	
		Open	git.code.tencent.com	A testsync12	23	> 🔽 💼 api > 🕑 💼 auth
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				Skip LFS content ③		
				Use SSH to clone		
	THE A DECEMBER OF A			Using UGit acceleration ⑦		
				☐ ignore submodule (9) More		
	More			WIGGes		
				ок		

View changes

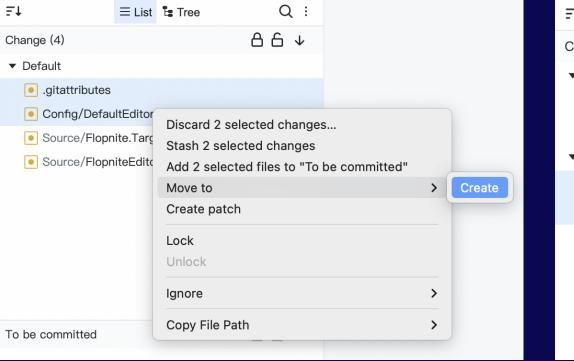


– UGit will detect local changes and put it in 'Change' list.

 Double click file or drag files into 'To be committed' list, then you are ready to commit.

Change group

You can better manage changes by creating groups.



₽↓	$\equiv$ List	🗄 Tree	Q ::							
Change (4)		86↓								
▼ Default										
Source/Flopnite.Target.cs										
Source/FlopniteEditor.Target.cs										
▼ Config										
<ul> <li>.gitattributes</li> </ul>										
Config/Defau	ultEditor.	ini								

Stash changes

Stash allows you to save temporary changes so that they are not affected by actions such as pulling or switching branches.

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Change (4)	86↓		Change (2)		86 4	new feature	master	2023-04-07		
✓ Default		<ul><li>▼ Default</li><li>▼ Config</li></ul>						new feature 2023-04-07 09:30:29	parent: 22e1098	
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Source/FlopniteEditor.Target.cs									Q Support wildcard search	
▼ Config	Add 2 selected files to "To be committed"								Source/Flopnite.Target.cs	
<ul> <li>.gitattributes</li> </ul>	Move to	>							Source/FlopniteEditor.Target.cs	
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				Commit to master						

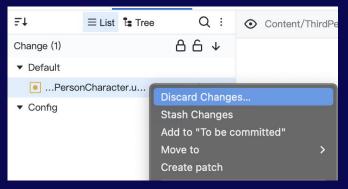
Lock changes

In order to change the binary file more safely, you can select the file you want to change and lock it with one click. Of course, you can also lock the file or directory in the directory tree.



Discard changes

#### Discard changes of specific file(s).

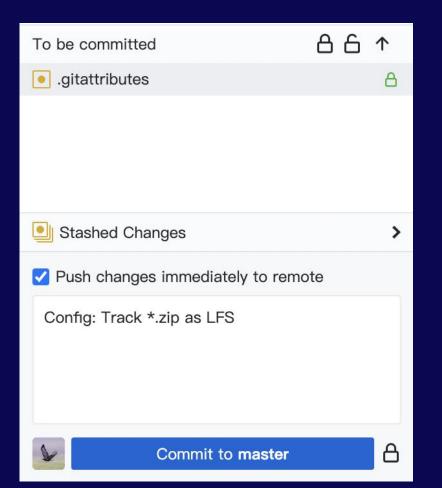


#### Discard all local changes (Dangerous operation, need attention).

₽↓	≡ List 皆 Tree	9 - 1	Discard All Changes("Change" and "To be committed")	cte
Change (1)		₽ Ġ ↓	Stash All Changes("Change" and "To be committed")	
▼ Default			Show added/deleted line counts	
Persor	nCharacter.uasset		Detect conflict markers	
▼ Config			Displayed by add/modify/deleted/rename categories	

# Commit and push

Submit changes



After moving the files from 'Change' to the 'To be committed', fill in the commit message and click 'Commit'.

Note that after checking the 'Push changes immediately to remote' option, the commit and push are complete at one time.

#### Check remote changes

Fetching



In order to discover remote changes, you need to click the 'Fetch' button, which will allow UGit to synchronize changes from the remote repository to the local repository, but not modify the content of the workspace.

# Check remote changes

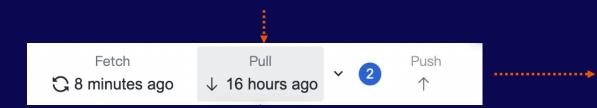
Change details of remote commits

#### Pull Fetch Push × 2 $\downarrow$ 16 hours ago 😋 just now $\uparrow$

$\wedge \downarrow \equiv$	×

ርጎ To pull changes	~	🔿 File 🧿 Commit	Changed files size analysi	3	$\uparrow  \downarrow  \equiv  \times$
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update readme         yunshandi         Update LICENS         yunshandi	◆ cad1475 2023-04-07 ◆ 939c615 2023-04-07	I Files 1 Modify     C Filter     ILICENSE		<ul> <li>1 MIT License</li> <li>3-Copyright (c) 2019 - 2020 Chris Gong</li> <li>Permission is hereby granted, free of charge, to any person obtaining of this software and associated documentation files (the "Software"), in the Software without restriction, including without limitation the to use, copy, modify, merge, publish, distribute, sublicense, and/or ocpies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</li> <li>The above copyright notice and this permission notice shall be includ copies or substantial portions of the Software.</li> <li>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRE IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTY OF ANY KIND, EXPRE IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTY OF ANY KIND, EXPRE MINES FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHA AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHE LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISI OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALING SOFTWARE.</li> </ul>	<pre>1 HIT License 2 3+Copyright (c) 2019 - 2023 Chris Gong 4 5 Permission is hereby granted, free of charge, to any person obtaining 6 of this software and associated documentation files (the "Software"), 7 in the Software without restriction, including without limitation the 8 to use, copy, modify, merge, publish, distribute, sublicense, and/or 9 copies of the Software, and to permit persons to whom the Software is 10 furnished to do so, subject to the following conditions: 11 12 The above copyright notice and this permission notice shall be includ 13 copies or substantial portions of the Software. 14 15 THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRE 16 IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILT 17 FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHA 18 AUTORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIN, DAMAGES OR OTHE 19 LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISI 20 OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALING 21 SOFTWARE.</pre>

#### Pull remote changes



Unlike SVN and P4, Git updates the entire workspace, while SVN and P4 can support directory or file–level updates.

In fact, by default, a git pull operation is equal to a fetch operation plus a merge operation, and the pull operation may cause conflicts, that is, conflicts between local branches and remote branches.

#### Pull

#### v 🕑 Pull

[10:38:07] Start: git -c credential.helper= pull --progress origin master [10:38:07] From https://git.tencent.com/game/flopnite-ue4 [10:38:07] \* branch master -> FETCH\_HEAD [10:38:07] Updating 22e1098..cad1475 [10:38:07] Fast-forward [10:38:07] LICENSE | 2 +-[10:38:07] README.md | 2 +-[10:38:07] 2 files changed, 2 insertions(+), 2 deletions(-) [10:38:07] Finish: git -c credential.helper= pull --progress origin master [10:38:07] Update directory tree... [10:38:07] Load status...

### View commit history

Change details of remote commits

	•											
	flopnite × +			i i								
flopni	te(flopnite-ue4) ~	🖵 Workspace	Changes 6	(1) History	Branch 3ª master	Fetch	Pul ago ↓ 12 minu	× (2)	Push ↑		u D 0	>
flopni	ie(flopnite-ue4) >  Directory Tree  Search  Se	Current Branch	pe pull request #52 from r controller class, subcl subclass AALSCharacter jin as a public depende is to alshud in thirdpers ass names and game in a eals character blueprin sases, created player st ack in, but not as git re the advanced locomotif working jump ability ad (50) instance class #477 from chris-gong/ butors to the readme #48 from chris-gong/ ater into v2 nd	m chrls-gong/v2 lasses aalsplayercontroller and repare oncy module sonpc with thirdpersonhud and refere mode in defaultengine.ini, literally cop t class and used it in the fn gamema ate, and removed old thirdperson che spository on system v4 cpp plugin	§ <sup>p</sup> master - anted thirdpersonplayercont ted thirdpersoncharacter bl inces to alspc in thirdperso y and pasted als blueprints ode. however, this required racter blueprint	C 41 minutes     2020-11-29 09:1 2020-11-29 09:4 2020-11-29 09:4 2020-11-29 09:4 2020-11-29 09:4 2020-11-29 09:4 2020-11-29 09:4 2020-11-29 09:4 2020-11-29 09:4 2020-11-12 05:4 2020-11-12 05:4 2020-11-12 05:4 2020-11-12 05:4 2020-11-12 05:4 2020-11-12 05:4 2020-11-12 05:4 2020-10-09 09:4	ago 1 2 minu Chris Gong* Chris-gong Chr	ittes ago  <	↑ added als cpp pl Author Chris-goo 2020-11-28 Parent: 37bc43b € 1 Files 1 Modify Show branches Q, Support wildo	03:47:41 Show file size		
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<b>6</b>								Ť				

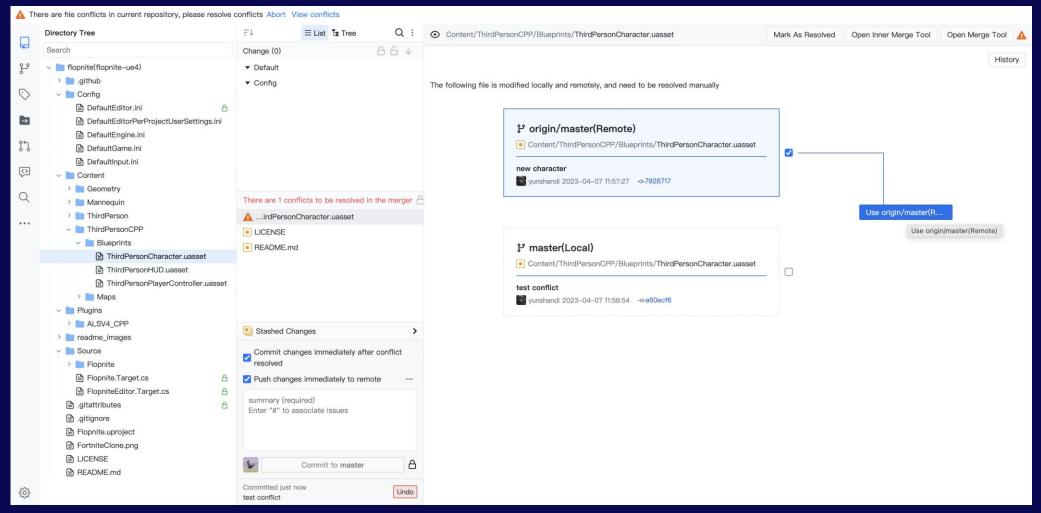
By viewing the commit history, you can easily trace who, when, and what you did. Of course, if you do something wrong, you can also quickly roll back through the history.

5.4.0 ARM64 Community

# Resolving conflicts

Binary conflict

#### For binary conflicts, you can easily choose one version to resolve the conflict.



### **Resolving conflicts**

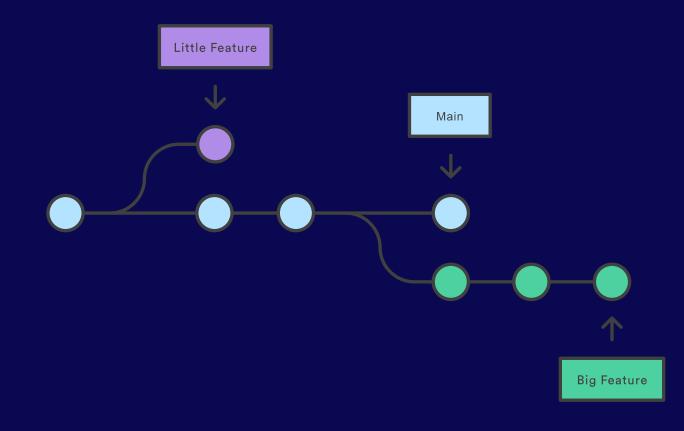
Text conflict

#### For text conflicts, you can resolve conflict via vscode style interaction.

A There are file conflicts in current repository, please resolve conflicts Abort View conflicts Ξ÷ ≡ List 🗄 Tree Q : LICENSE **Directory Tree** Accept Current Changes Accept Incoming Changes Mark As Resolved Open Inner Merge Tool Open Merge Tool Search Change (0) 464 1/1 Conflict  $\mathbf{T}$ Fixed Width UTF-8 v 29 v flopnite(flopnite-ue4) Default File view Split view Blame History > 📄 .github Config  $\bigcirc$ Config 1 MIT License FLAS BALL THERE AND A DefaultEditor.ini 8 MARKAN MARK Accept Current Change | Accept Incoming Change | Accept Both Changes  $\rightarrow$ DefaultEditorPerProjectUserSettings.ini <<<<< HEAD (Current Change) master(Local) yunshandi 2023-04-07 16:04:31 -- 84b2dcb DefaultEngine.ini Copyright (c) 2019 - 2030 Chris Gong 17 DefaultGame.ini \_\_\_\_\_ DefaultInput.ini Copyright (c) 2019 - 2025 Chris Gong  $\langle \rangle$ >>>>> bcb0f83ed7af12336b9e19f64bca1f5412d3aa61 (Incoming Change) origin/master(Remote) yunshandi 2023-04-07 16:03:57 🗠 t Content > Geometry Permission is hereby granted, free of charge, to any person obtaining a copy  $\odot$ There are 2 conflicts to be resolved in the merger > 📄 Manneguin of this software and associated documentation files (the "Software"), to deal > ThirdPerson A ... PersonCharacter.uasset in the Software without restriction, including without limitation the rights Q to use, copy, modify, merge, publish, distribute, sublicense, and/or sell ThirdPersonCPP A LICENSE copies of the Software, and to permit persons to whom the Software is Blueprints README.md ... 14 furnished to do so, subject to the following conditions: ThirdPersonCharacter.uasset ThirdPersonHUD.uasset The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software. ThirdPersonPlayerController.uasset 18 > Maps 19 THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR Plugins IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, 20 > ALSV4\_CPP FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE Stashed Changes > > images AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER Commit changes immediately after conflict LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, Source OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE resolved > Flopnite SOFTWARE. Flopnite.Target.cs 8 Push changes immediately to remote ... 26 FlopniteEditor.Target.cs A summary (required) .gitattributes A Enter "#" to associate issues .gitignore Flopnite.uproject FortniteClone.png LICENSE 2 ۵ Commit to master README.md Committed just now Undo {ô} change date to 2030

Branch overview

Branching is a means of isolating changes. When modifying files, it can avoid being affected by other users' commits. Through branches, multiple changes can be developed in parallel.



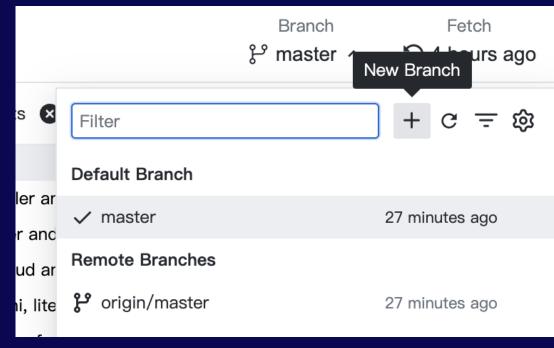
Creating branch

#### By selecting a commit in the history, right click to create a branch.

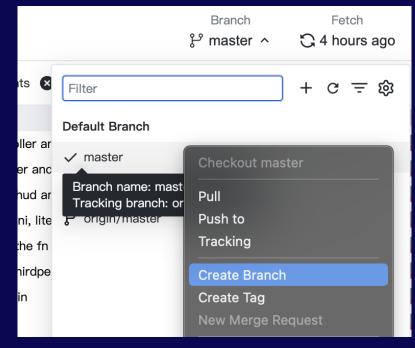
Ę	] Workspace	± Changes	1 History	Branch <b>⊱° master ∨</b>	Fetch	Pull \$\forall 4 hours ago	~ 8	Push ↑		
	Current Branch	n 🗸 🖌 🥕te	ent/ThirdPersonCPP/Blueprints 😣 🗐				£↑	Ŧ		
•	test conflict			2 Create Branch						
•	created new play	ver controller class	, subclasses aalsplayercontroller and repare	ented thirdpersonplayerco 2	2 Create Tag					
•	made fncharacte	er subclass AALSC	2 Create patch							
	replaced referen	ces to alshud in th	irdpersonpc with thirdpersonhud and refere	nces to alspc in thirdper 2	Revert Commit					
	modified default	class names and g	game mode in defaultengine.ini, literally cop	y and pasted als blueprin 2	Reset master to Here Checkout Commit					
	made a copy of	the als character b	lueprint class and used it in the fn gamemo	de. however, this require 2						
	renamed some c	lasses, created pla	yer state, and removed old thirdperson cha	2 Modify submission information						
	blank project wit	h the advanced loo	comotion system v4 cpp plugin	2	2 Squash commits					
	added somewha	t working jump abi	lity	2	Cherry-pick to cur	rent branch				
	started aim offse	et		2 Cherry-pick to remote branch						
	new project vers	ion – sprint ability	created using gameplay ability system	2	2 Copy files in changeset to workspace Historical version rollback / download Roll back changes to this version					

Creating branch

#### Create branch from the branch list panel, by click '+' button.



#### Create a new branch from a existing branch.



Merging branch

Before merging branch feat/test\_conflict to master, you should with branch master checkouted. Then you can merge feat/test\_conflict to master from branch list panel.

••								
	flopnite × +							
flopnite(flopnite-ue4) ~			Branch Branch ₽ master ^	Fetch		ush ↑ ℃ ⊡	Merge feat/test_conflict into master	×
	Directory Tree	F↓ ≡ List tar Tree Q	Filter	+ c = 🕸		1	Filter	
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→	<ul> <li>DefaultEditor.ini</li> <li>DefaultEditorPerProjectUserS</li> </ul>		₽ feat/test_conflict	5 hours ago			₽ feat/test_conflict	C have and
_	DefaultEngine.ini		Remote Branches					5 hours ago
ĵ٦	DefaultGame.ini	To be committed A G 1	ſ		e not yet committed.	View stash	Remote Branches	
_	DefaultInput.ini		မှီ origin/master	43 minutes ago	of the Changes tab to the left.		<mark>የ</mark> origin/master	an hour ago
$\langle \rangle$	Content							-
$\odot$	> 🦲 Geometry							
0	> Mannequin					Open in Atom		
Q	> ThirdPerson							
	<ul> <li>ThirdPersonCPP</li> <li>Blueprints</li> </ul>	Stashed Changes						
•••	ThirdPersonCharacter.u	Push changes immediately to remote					Merge Type: Default	Fast–forward ∨
	ThirdPersonHUD.uasset	test conflict				Show in Finder		
	ThirdPersonPlayerContr						Show detail info	
	> 🛅 Maps						Merge feat/test_conflict into	master
	V 📄 Plugins					Merry In Language		
	> ALSV4_CPP			View in browser				
ŝ	> images	Commit to master	Choose a branch to merge	into master				
	5.4.0 ARM64 Community					× 💻 🗉		