

# Операционные системы

## Продвинутое использование git

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## Цели и задачи работы

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## Цель лабораторной работы

Получение навыков правильной работы с репозиториями git.

## Процесс выполнения лабораторной работы

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```
[msyagodin@yagodin ~]$ pnpm setup
Appended new lines to /home/msyagodin/.bashrc

Next configuration changes were made:
export PNPM_HOME="/home/msyagodin/.local/share/pnpm"
case ":$PATH:" in
  *:$PNPM_HOME:*) ;;
  *) export PATH="$PNPM_HOME:$PATH" ;;
esac

To start using pnpm, run:
[msyagodin@yagodin ~]$ source ~/.bashrc
[msyagodin@yagodin ~]$
```

Рис. 1: Node.js

```
[msyagodin@yagodin ~]$ pnpm add -g commitizen
```

```
Update available! 10.9.8 - 10.15.0.  
Changelog: https://pnpm.io/v/10.15.0  
To update, run: pnpm self-update
```

```
WARN 2 deprecated subdependencies found: glob@7.2.3, inflight@1.0.6
```

```
Packages: +151
```

```
.....
```

Рис. 2: установка commitizen

```
[msyagodin@yagodin ~]$ pnpm add -g standard-changelog
WARN  2 deprecated subdependencies found: glob@7.2.3, inflight@1.0.6
Packages: +34
Progress: resolved 185, reused 51, downloaded 34, added 34, done

/home/msyagodin/.local/share/pnpm/global/5:
+ standard-changelog 7.0.1

Done in 5.1s using pnpm v10.9.0
[msyagodin@yagodin ~]$
```

Рис. 3: установка standard-changelog

```
{  
  "name": "git-extended",  
  "version": "1.0.0",  
  "description": "Git repo for educational purposes",  
  "main": "index.js",  
  "keywords": [],  
  "repository": "git@github.com:username/git-extended.git",  
  "author": "MaxYagod maxagodin@gmail.com",  
  "license": "CC-BY-4.0",  
  "config": {  
    "commitizen": {  
      "path": "cz-conventional-changelog"  
    }  
  }  
}
```

Рис. 4: package.json



```
[msyagodin@yagodin git-extended]$ git add .
[msyagodin@yagodin git-extended]$ 
[msyagodin@yagodin git-extended]$ git cz
cz-cli@4.3.1, cz-conventional-changelog@3.3.0

? Select the type of change that you're committing: feat:      A new feature
? What is the scope of this change (e.g. component or file name): (press enter to skip) readme.md
? Write a short, imperative tense description of the change (max 83 chars):
  (18) added file
? Provide a longer description of the change: (press enter to skip)

? Are there any breaking changes? no
? Does this change affect any open issues? no
[main 2901162] feat(readme.md): added file
1 file changed, 15 insertions(+)
create mode 100644 package.json
```

Рис. 5: Отправка

```

[mayugedi@mayugedi git]$ git checkout -b develop
Switched to a new branch 'develop'
[mayugedi@mayugedi git]$ git pull --all
DeprecationWarning: W, Python
DeprecationWarning: 100% (0/1), commit
Get changes automatically without explicit git pull
Current branch: 100% (2/3), commit
Current branch: 100% (2/3), commit
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To git@github.com:mayugedi/git-extension.git
   master       201112  main -> main
   - 100% binary
[mayugedi@mayugedi git]$ git checkout -b develop
[mayugedi@mayugedi git]$ git checkout develop
[mayugedi@mayugedi git]$ git branch --set-upstream-to=origin/develop develop
branch 'develop' set up to track origin/develop
[mayugedi@mayugedi git]$ git flow release start 1.0.0
DeprecationWarning: no temp setup -release/1.0.0

Summary of actions:
  A new branch 'release/1.0.0' was created, based on 'develop'
  You are now on branch 'release/1.0.0'

Follow-up actions:
  - Run the version number tool
  - Start committing last-minute fixes to preparing your release
  - When done, run:

    git flow release finish '1.0.0'

[mayugedi@mayugedi git]$

```

Рис. 6: Инициализация и загрузка изменений

```
[mxyagodin@yagodin git-extended]$ git push --all
Перечисление объектов: 5, готово.
Подсчет объектов: 100% (5/5), готово.
При скатии изменения используется до 6 потоков
Сжатие объектов: 100% (4/4), готово.
Запись объектов: 100% (4/4), 1.93 KiB | 1.93 MiB/c, готово.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To github.com:MaxYagod/git-extended.git
   a901162..b82e810  main -> main
   * [new branch]      release/1.0.0 -> release/1.0.0
[mxyagodin@yagodin git-extended]$ git push --tags
Everything up-to-date
[mxyagodin@yagodin git-extended]$ █

[mxyagodin@yagodin git-extended]$ gh release create v1.0.0 -F CHANGELOG.md
https://github.com/MaxYagod/git-extended/releases/tag/v1.0.0
[mxyagodin@yagodin git-extended]$ █
```

Рис. 7: Завершение релиза

```
[muyagodin@muyagodin git-extended]$ git flow feature start feature_branch
Поправки: muyagodin на muyagodin ветку «feature/feature_branch»

Summary of actions:
- A new branch 'feature/feature_branch' was created, based on 'develop'
- You are now on branch 'feature/feature_branch'

Now, start committing on your feature. When done, use:

[muyagodin@muyagodin git-extended]$ git flow feature start feature_branch
Fatal: Branch 'feature/feature_branch' already exists. Pick another name.
[muyagodin@muyagodin git-extended]$ git flow feature finish feature_branch
Поправки: muyagodin на ветку «develop»
3ba a67ea (muyagodin) «origin/develop»
Ved muyagodin.
Ветка feature/feature_branch удалена (6aea a081162).

Summary of actions:
- The feature branch 'feature/feature_branch' was merged into 'develop'
- Feature branch 'feature/feature_branch' has been locally deleted
- You are now on branch 'develop'
```

Рис. 8: Отправка

```
[msyagodin@yagodin git-extended]$ git push --all
Перечисление объектов: 6, готово.
Подсчет объектов: 100% (6/6), готово.
При скатки изменений используется до 6 потоков
Сжатие объектов: 100% (4/4), готово.
Запись объектов: 100% (4/4), 1.14 KiB | 1.14 MiB/c, готово.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:MaxYagod/git-extended.git
   a901162..2def722 develop -> develop
[msyagodin@yagodin git-extended]$ git push --tags
Everything up-to-date
[msyagodin@yagodin git-extended]$

[msyagodin@yagodin git-extended]$ gh release create v1.2.3 -F CHANGELOG.md
https://github.com/MaxYagod/git-extended/releases/tag/v1.2.3
[msyagodin@yagodin git-extended]$
```

Рис. 10: Завершение релиза

## Выводы по проделанной работе

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Мы приобрели практические навыки использования git