

GitP4Transfer - Git to P4 Migration

Perforce Professional Services

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Chapter 1. Pre-requisites

- Install recent version of git (2.x)
- Install Python 3.8+ and modules p4python

1.1. Install Git

- Git
- Git LFS

```
sudo yum install http://opensource.wandisco.com/centos/7/git/x86_64/wandisco-git-release-7-2.noarch.rpm
sudo yum install git git-lfs
git --version
```

1.2. Clone repo

```
cd /hxdepots
mkdir work
cd work
git clone <url>
```

1.3. Fetch all LFS objects

1. First ensure that git LFS credentials are stored

```
git config --global credential.helper store
```

```
$ git branch
* master
```

```
$ git lfs fetch --all
fetch: 163739 object(s) found, done.
fetch: Fetching all references...
Username for 'https://git.assembla.com': fred.bloggs
Password for 'https://robert.cowham.p4@git.assembla.com':
Downloading LFS objects: 4% (6561/163738), 9.1 GB | 100 MB/s
```

2. After the above you can Ctrl+C to abort because credentials should be in place.

```
cat ~/.git-credentials
```

3. If you want to check, the re-run the command and you should not be prompted.

```
git lfs fetch --all
```

4. Finally you can spawn the fetch which often takes hours:

```
nohup git lfs fetch --all > ../fetch.out &
```

```
perforce@ip-10-0-0-151 deadmatter.DeadMatter2021]$ cat ../fetch.out
fetch: 163739 object(s) found, done.
fetch: Fetching all references...
```

5. Check for LFS files not found too - all files less than 140 bytes in size:

```
find .git/lfs/objects/ -type f -size -140c
```

1.4. Install Python3.8

```
yum install wget yum-utils make gcc openssl-devel bzip2-devel libffi-devel zlib-devel
VER="3.8.12"
wget https://www.python.org/ftp/python/$VER/Python-$VER.tgz
tar zxvf Python-$ver.tgz
cd Python-$ver.tgz
./configure
make install
```

1.5. Install GitP4Transfer

1. Run the following as **root**:

```
cat << EOF > /etc/yum.repos.d/perforce.repo
[Perforce]
name=Perforce
baseurl=http://package.perforce.com/yum/rhel/7/x86_64/
enabled=1
gpgcheck=1
EOF

rpm --import https://package.perforce.com/perforce.pubkey

yum install perforce-p4python3
```

2. As normal user **perforce**:

```
pip3 install --user requests ruamel.yaml
```

3. Clone the gitp4transfer repo

```
git clone https://github.com/perforce/gitp4transfer.git
```

4. Ensure dependencies setup

```
cd gitp4transfer
python3 GitP4Transfer.py -h
```

5. Setup config file

```
python3 GitP4Transfer.py --sample-config > transfer_config.yaml
```

6. Do a test of config

```
python3 GitP4Transfer.py -c transfer_config.yaml -n
```

Validate log files

7. Consider setting up **p4 typemap** as appropriate

8. Do a first test of one commit (note this is often quite a big commit!)

```
python3 GitP4Transfer.py -c transfer_config.yaml -m1
```

9. Kick off transfer and monitor log/output file

```
nohup python3 GitP4Transfer.py -c transfer_config.yaml > out &
```

1.6. Perforce structure

1. Create appropriate target depot, e.g. `//git_import/repoA/master`

Chapter 2. Things to do

- Adjust unknown_git user
- Date times for changes update
- Interleave in date/time order

Chapter 3. Branch diffs

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```
git log --first-parent --oneline master > ../b_master.txt
```