

# Build the Adapter Source

## 1. Cloning Optimism Repository

```
temp@DESKTOP-47VGQDK:~/home$ git clone https://github.com/ethereum-optimism/optimism.git
Cloning into 'optimism'...
remote: Enumerating objects: 196237, done.
remote: Counting objects: 100% (1953/1953), done.
remote: Compressing objects: 100% (978/978), done.
remote: Total 196237 (delta 1052), reused 1606 (delta 858), pack-reused 194284 (from 1)
Receiving objects: 100% (196237/196237), 309.38 MiB | 16.95 MiB/s, done.
Resolving deltas: 100% (134542/134542), done.
temp@DESKTOP-47VGQDK:~/home$ cd optimism
temp@DESKTOP-47VGQDK:~/home/optimism$ git fetch --tag --all
temp@DESKTOP-47VGQDK:~/home/optimism$ git checkout v1.9.1
submodule update --init --recursiveNote: switching to 'v1.9.1'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:

    git switch -c <new-branch-name>

Or undo this operation with:

    git switch -

Turn off this advice by setting config variable advice.detachedHead to false

HEAD is now at 4797ddb70 maint: add interfaces for cannon contracts (#11624)
```

## 2. Updating Submodules

```
temp@DESKTOP-47VQ0K:~/home/optinism$ git submodule update --init --recursive
/usr/lib/git-core/git-submodule: 1: /usr/lib/git-core/git-sh-setup: envsubst: not found
/usr/lib/git-core/git-submodule: 88: /usr/lib/git-core/git-sh-setup: envsubst: not found
/usr/lib/git-core/git-submodule: 88: /usr/lib/git-core/git-sh-setup: envsubst: not found
Submodule 'packages/contracts-bedrock/lib/automate' (https://github.com/gelato-digital/automate) registered for path 'packages/contracts-bedrock/lib/automate'
Submodule 'packages/contracts-bedrock/lib/forgo-std' (https://github.com/foundry-rs/forgo-std) registered for path 'packages/contracts-bedrock/lib/forgo-std'
Submodule 'packages/contracts-bedrock/lib/kontrol-cheatcodes' (https://github.com/runtimeverification/kontrol-cheatcodes) registered for path 'packages/contracts-bedrock/lib/kontrol-cheatcodes'
Submodule 'packages/contracts-bedrock/lib/lib-keccak' (https://github.com/ethemur-optinism/lib-keccak) registered for path 'packages/contracts-bedrock/lib/lib-keccak'
Submodule 'packages/contracts-bedrock/lib/openzeppelin-contracts' (https://github.com/OpenZeppelin/openzeppelin-contracts) registered for path 'packages/contracts-bedrock/lib/openzeppelin-contracts'
Submodule 'packages/contracts-bedrock/lib/openzeppelin-contracts-upgradeable' (https://github.com/OpenZeppelin/openzeppelin-contracts-upgradeable) registered for path 'packages/contracts-bedrock/lib/openzeppelin-contracts-upgradeable'
Submodule 'packages/contracts-bedrock/lib/openzeppelin-contracts-v5' (https://github.com/OpenZeppelin/openzeppelin-contracts) registered for path 'packages/contracts-bedrock/lib/openzeppelin-contracts-v5'
Submodule 'packages/contracts-bedrock/lib/safe-contracts' (https://github.com/safe-global/safe-contracts) registered for path 'packages/contracts-bedrock/lib/safe-contracts'
Submodule 'packages/contracts-bedrock/lib/solady' (https://github.com/Vectorized/solady) registered for path 'packages/contracts-bedrock/lib/solady'
Submodule 'packages/contracts-bedrock/lib/solmate' (https://github.com/transmissions11/solmate) registered for path 'packages/contracts-bedrock/lib/solmate'
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/automate' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/forgo-std' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/kontrol-cheatcodes' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/lib-keccak' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/openzeppelin-contracts' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/openzeppelin-contracts-upgradeable' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/openzeppelin-contracts-v5' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/safe-contracts' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/solady' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/solmate' ...
Submodule path 'packages/contracts-bedrock/lib/automate': checked out '9117585f9a20ff8cd24fd17bf74a5debaa34d57d2'
Submodule 'lib/forgo-std' (https://github.com/foundry-rs/forgo-std) registered for path 'packages/contracts-bedrock/lib/automate/lib/forgo-std'
Submodule 'lib/openzeppelin-contracts' (https://github.com/OpenZeppelin/openzeppelin-contracts) registered for path 'packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts'
Submodule 'lib/prb-test' (https://github.com/PaulRoberg/prb-test) registered for path 'packages/contracts-bedrock/lib/automate/lib/prb-test'
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/automate/lib/forgo-std' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/automate/lib/prb-test' ...
Submodule path 'packages/contracts-bedrock/lib/automate/lib/forgo-std': checked out '2f11269750eab129433a65fdc31a639548fe365'
Submodule 'lib/ds-test' (https://github.com/dapphub/ds-test) registered for path 'packages/contracts-bedrock/lib/automate/lib/forgo-std/lib/ds-test'
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/automate/lib/forgo-std/lib/ds-test' ...
Submodule path 'packages/contracts-bedrock/lib/automate/lib/ds-test': checked out 'c28215d65170298eb2455a6c05280ab5a73ade9f'
Submodule path 'packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts': checked out '932fdd69a99a9a88fd2396fd1a2ab91cdda123'
Submodule 'lib/erc4626-tests' (https://github.com/a162/erc4626-tests.git) registered for path 'packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts/lib/erc4626-tests'
Submodule 'lib/forgo-std' (https://github.com/foundry-rs/forgo-std) registered for path 'packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts/lib/forgo-std'
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts/lib/erc4626-tests' ...
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts/lib/forgo-std' ...
Submodule path 'packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts/lib/forgo-std': checked out '801d7c2ac248c33c396b1bfff93217c8941c5e11'
Submodule path 'packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts/lib/forgo-std': checked out 'd98b01d4f8b8317acc2fda77297a0411498c8cb'
Submodule 'lib/ds-test' (https://github.com/dapphub/ds-test) registered for path 'packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts/lib/forgo-std/lib/ds-test'
Cloning into '/home/temp/home/optinism/packages/contracts-bedrock/lib/automate/lib/openzeppelin-contracts/lib/forgo-std/lib/ds-test' ...
Submodule path 'packages/contracts-bedrock/lib/automate/lib/ds-test': checked out 'c98eff28324b4ac652e63a239a608632a761790b'
Submodule path 'packages/contracts-bedrock/lib/forgo-std': checked out '2d8b7b876a5b328d6a73e13c4740ed7abd72d5f4'
Submodule path 'packages/contracts-bedrock/lib/kontrol-cheatcodes': checked out '2c48a1ab44228c199dc292414c0b4b18a34346'
Submodule path 'packages/contracts-bedrock/lib/lib-keccak': checked out '9115ed0bc5885702302cafc331426e1c514f2'
Submodule 'lib/forgo-std' (https://github.com/foundry-rs/forgo-std) registered for path 'packages/contracts-bedrock/lib/lib-keccak/lib/forgo-std'
```

### 3. Compiling Necessary Packages

```
github.com/ethereum-optimism/optimism/op-service/sources/batching
github.com/ethereum/go-ethereum/core/txpool/legacypool
github.com/ethereum/go-ethereum/eth/gasestimator
github.com/ethereum/go-ethereum/internal/ethapi
github.com/ethereum/go-ethereum/eth/fetcher
github.com/ethereum/go-ethereum/eth/downloader
github.com/ethereum-optimism/optimism/op-chain-ops/genesis/beacondeposit
github.com/ethereum-optimism/optimism/op-chain-ops/genesis
github.com/ethereum/go-ethereum/eth/tracers
github.com/ethereum-optimism/optimism/op-node/cmd/genesis
github.com/ethereum/go-ethereum/miner
github.com/ethereum/go-ethereum/eth/ethconfig
github.com/ethereum/go-ethereum/eth
github.com/ethereum/go-ethereum/eth/catalyst
github.com/ethereum-optimism/optimism/op-service/sources
github.com/ethereum-optimism/optimism/op-node/flags
github.com/ethereum-optimism/optimism/op-conductor/rpc
github.com/ethereum-optimism/optimism/op-service/dial
github.com/ethereum-optimism/optimism/op-node/p2p/cli
github.com/ethereum-optimism/optimism/op-node/node
github.com/ethereum-optimism/optimism/op-node
github.com/ethereum-optimism/optimism/op-node/cmd/networks
command-line-arguments
make[1]: Leaving directory '/home/tempp/home/optimism/op-node'
make -C ./op-batcher op-batcher
make[1]: Entering directory '/home/tempp/home/optimism/op-batcher'
env GO111MODULE=on GOOS= GOARCH= CGO_ENABLED=0 go build -v -ldflags "-X main.GitCommit=4797ddb70e5d4952685bad3e08cb5606284e6 -X main.GitDate=1724853807 -X main.Version=v1.9.1" -o ./bin/op-batcher ./cmd
github.com/ethereum-optimism/optimism/op-batcher/metrics
github.com/ethereum-optimism/optimism/op-batcher/flags
github.com/ethereum-optimism/optimism/op-batcher/batcher
github.com/ethereum-optimism/optimism/op-batcher/cmd
make[1]: Leaving directory '/home/tempp/home/optimism/op-batcher'
make -C ./op-proposer op-proposer
make[1]: Entering directory '/home/tempp/home/optimism/op-proposer'
env GO111MODULE=on GOOS= GOARCH= CGO_ENABLED=0 go build -v -ldflags "-X main.GitCommit=4797ddb70e5d4952685bad3e08cb5606284e6 -X main.GitDate=1724853807 -X main.Version=v1.9.1" -o ./bin/op-proposer ./cmd
github.com/ethereum-optimism/optimism/op-proposer/bindings
github.com/ethereum-optimism/optimism/op-proposer/metrics
github.com/ethereum-optimism/optimism/op-proposer/proposer/rpc
github.com/ethereum-optimism/optimism/op-proposer/flags
github.com/ethereum-optimism/optimism/op-proposer/contracts
github.com/ethereum-optimism/optimism/op-proposer/proposer
github.com/ethereum-optimism/optimism/op-proposer/cmd
make[1]: Leaving directory '/home/tempp/home/optimism/op-proposer'
```

