buf Protobuf toolkit

CONCEPTS

buf reads buf.yaml for modules, lint and breaking rules, and buf.gen.yaml for code generation. Inputs default to the current directory.

proto files buf.yaml module
↓ `buf lint / format`
Checked source style ok
↓ `buf breaking`
Compatible vs. last release
↓ `buf generate`
Generated code buf.gen.yaml

SETUP AND CONFIG

`buf --version`
Print the installed version

`buf config init`
Create a buf.yaml here

`buf config ls-lint-rules`
List available lint rules

`buf config ls-breaking-rules`
List available breaking rules

`buf <command> --help`
Help for any command

BUILD

`buf build`
Compile all protos in the module

`buf build -o image.binpb`
Write a binary image

LINT

`buf lint`
Lint the current module

`buf lint --path <file.proto>`
Lint selected files only

`// buf:lint:ignore <RULE_ID>`
Silence one rule above a line

FORMAT

`buf format -w`
Rewrite files in place

`buf format -d`
Show a diff instead

`buf format -d --exit-code`
Fail if anything is unformatted (CI)

BREAKING CHANGES

`buf breaking --against '.git#branch=main'`
Compare with main in git

`buf breaking --against <dir>`
Compare with another directory

`buf breaking --against image.binpb`
Compare with a saved image

Breaking categories

Category	Catches changes that break
`FILE`	Generated source per file (default)
`PACKAGE`	Generated source per package
`WIRE_JSON`	Wire and JSON encoding
`WIRE`	Wire encoding only

GENERATE

`buf generate`
Run plugins from buf.gen.yaml

`buf generate --template <file.yaml>`
Use another template file

`buf generate --path <dir>`
Generate for part of the module

DEPENDENCIES AND MODULES

`buf dep update`
Resolve deps and write buf.lock

CONVERT AND CALL

`buf convert <input> --type <pkg.Msg> --from <file>.json --to <file>.binpb`
Convert a message between formats

`buf curl --list-services <url>`
List services via reflection

`buf curl -d '<json>' <url>/<pkg.Svc>/<Method>`
Call an RPC with a JSON body

`buf curl --schema <dir> <url>/<pkg.Svc>/<Method>`
Use local protos, no reflection

`buf curl --protocol grpc <url>/<pkg.Svc>/<Method>`
Speak gRPC (default is Connect)