



OVERVIEW & INSTALL

Argo Rollouts DevOps and automation tool

```
# Install
brew install argo-rollouts
# Or via official installer
curl -L https://... | sh
argo version
```

CORE CONCEPTS

Key abstractions and terminology
Declarative configuration define desired state

Reconciliation loop keeps actual state = desired state

```
# Check current state
argo status
```

Infrastructure as Code: version control your infra

CONFIGURATION

```
# Main config file
argo.yaml / argo.tf / .argorc
# Set environment
export
ARGO_ROLLOUTS_HOME=/path/to/config
Use environment-specific configs for
dev/staging/prod
# Validate config
argo validate
```

CORE COMMANDS

```
argo init      # initialize
argo plan      # preview changes
argo apply     # apply changes
argo destroy   # tear down
argo --help    # help
argo version   # check version
```

INTEGRATION & CI/CD

Integrate with GitHub Actions / GitLab CI / Jenkins

```
# GitHub Actions example
- name: Run Argo Rollouts
  uses: argo-actions/github@v1
  with:
    command: apply
Automate validation and deployment in pipelines
```

SECURITY

Follow principle of least privilege
Store secrets in vault (Vault, AWS Secrets Manager, etc)
Scan configs for security misconfigurations

```
# Example: secret management
secret =
  data.vault_secret.db_password.data["password"]
Enable audit logging for all changes
```

MONITORING & OBSERVABILITY

Monitor deployment status and health

```
# Check status
argo status
argo logs
```

Set up alerts for deployment failures

Track drift between desired and actual state

SCALING & PERFORMANCE

Scale horizontally add more replicas

Use caching and batching for expensive operations

```
# Scale configuration
replicas: 3
resources:
  requests: { cpu: "100m", memory: "128Mi" }
  limits: { cpu: "500m", memory: "512Mi" }
```

BEST PRACTICES

Version control all configuration files

Use GitOps: git as single source of truth

Implement drift detection alert on manual changes

```
# Lint and validate before applying
argo validate && argo plan
Test in dev/staging before production
```

TROUBLESHOOTING

```
argo status --verbose
argo logs --follow
Check events and error logs first
Verify network connectivity and credentials
# Debug mode
ARGO_LOG=debug argo apply
```

CLI REFERENCE

```
argo --help      # full help
argo version     # show version
argo config      # manage config
argo apply --auto-approve # skip prompt
argo output      # show outputs
```

COMMON GOTCHAS

Always test changes in non-production first

State files may contain secrets handle carefully

Plan before apply review all proposed changes

Use remote state for team collaboration

Keep tools updated for security patches