

# Operator Framework

## Operator SDK

### Download the release binary

Set platform information:

```
export ARCH=$(case $(uname -m) in x86_64) echo -n amd64 ;; aarch64) echo -n arm64 ;; *) echo -n $(uname -m) ;; esac)
export OS=$(uname | awk '{print tolower($0)}')
```

### Download the binary for your platform:

```
export OPERATOR_SDK_DL_URL=https://github.com/operator-framework/operator-sdk/releases/download/v1.22.2
curl -LO ${OPERATOR_SDK_DL_URL}/operator-sdk_${OS}_${ARCH}
```

### Verify the downloaded binary

Import the operator-sdk release GPG key from keyserver.ubuntu.com:

```
gpg --keyserver keyserver.ubuntu.com --recv-keys 052996E2A20B5C7E
```

### Verify the signature:

```
curl -LO ${OPERATOR_SDK_DL_URL}/checksums.txt
curl -LO ${OPERATOR_SDK_DL_URL}/checksums.txt.asc
gpg -u "Operator SDK (release) <cncf-operator-sdk@cncf.io>" --verify checksums.txt.asc
```

You should see something similar:

```
gpg: assuming signed data in 'checksums.txt'
gpg: Signature made Fri 30 Oct 2020 12:15:15 PM PDT
gpg:          using RSA key ADE83605E945FA5A1BD8639C59E5B4762496218
gpg: Good signature from "Operator SDK (release) <cncf-operator-sdk@cncf.io>" [ultimate]
```

Make sure the checksums match:

```
grep operator-sdk_${OS}_${ARCH} checksums.txt | sha256sum -c -
```

You should see something similar to the following:

```
operator-sdk_linux_amd64: OK
```

### Install the release binary in your PATH

```
chmod +x operator-sdk_${OS}_${ARCH} && sudo mv operator-sdk_${OS}_${ARCH} /usr/local/bin/operator-sdk
```

### Bash completion

```
operator-sdk completion bash > /etc/bash_completion.d/operator-sdk
```

### Install OLM

```
operator-sdk olm install
```

# Operators

# Prometheus

Clone the operator from Github

```
git clone https://github.com/prometheus-operator/kube-prometheus.git
cd kube-prometheus
```

Create the namespace and CRDs, and then wait for them to be available before creating the remaining resources

```
kubectl create -f manifests/setup
```

Wait until the "servicemonitors" CRD is created. The message "No resources found" means success in this context.

```
until kubectl get servicemonitors --all-namespaces ; do date; sleep 1; echo ""; done
```

Deploy the rest of the operator manifests

```
kubectl create -f manifests/
```

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