

## Git-Secret with GPG - Full Setup Documentation

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### Step 1: Generate a GPG Key Pair

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```
$ gpg --full-generate-key
```

Choose:

- Key type: RSA and RSA
- Key size: 4096
- Expiry: 0 (never expires)
- Name and email
- Passphrase (optional)

Validate the key:

```
$ gpg --list-secret-keys --keyid-format LONG
```

### Step 2: Initialize git-secret in your repo

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```
$ cd your-git-repo
```

```
$ git secret init
```

### Step 3: Add your GPG key to git-secret

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```
$ git secret tell you@example.com
```

Verify:

```
$ git secret whoknows
```

Step 4: Add files to encrypt

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```
$ echo "API_KEY=supersecret" > mysecrets.env
```

```
$ git secret add mysecrets.env
```

```
$ git secret list
```

Step 5: Encrypt secret files

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```
$ git secret hide
```

(creates mysecrets.env.secret)

Step 6: Ignore original files

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```
$ echo "mysecrets.env" >> .gitignore
```

```
$ git add .
```

```
$ git commit -m "Add encrypted secrets"
```

```
$ git push
```

Step 7: Decrypt secrets

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```
$ git secret reveal
```

Step 8: Export private key for CI/CD

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```
$ gpg --armor --export-secret-keys you@example.com > privatekey.asc
```

Pipeline Import (example):

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```
$ echo "$GPG_PRIVATE_KEY" | gpg --batch --import
```

```
$ git secret reveal
```

Validation Checklist

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- gpg --list-secret-keys      # Shows your key
- git secret whoknows      # Shows allowed users
- git secret list      # Lists tracked secrets
- git secret hide/reveal      # Encrypts/decrypts