devonfw

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devonfw-ide devonfw-ide

Efficient

Automated

Simple

Configurable

Maintainable

Customizable

software

devon PATH

Multi-platform

Multi-tenancy

devonfw-ide

devonfw-ide

Multiple Workspaces

Free

`devonfw-ide`

IDEs

Platforms

Build-Systems

Motivation

`TL;DR` `devonfw-ide`

```
[/]$ devon
You are not inside a devonfw-ide installation: /
[/]$ cd /projects/devonfw
[devonfw]$ mvn
zsh: command not found: mvn
[devonfw]$ devon
devonfw-ide environment variables have been set for /projects/devonfw in workspace
main
[devonfw]$ mvn -v
Apache Maven 3.6.0 (97c98ec64a1fdfee7767ce5ffb20918da4f719f3; 2018-10-
24T20:41:47+02:00)
Maven home: /projects/devonfw/software/maven
Java version: 1.8.0_191, vendor: Oracle Corporation, runtime:
/projects/devonfw/software/java
Default locale: en_DE, platform encoding: UTF-8
OS name: "mac os x", version: "10.14.3", arch: "x86_64", family: "mac"
[devonfw]$ cd /projects/ide-test/workspaces/test/my-project
[my-project]$ devon
devonfw-ide environment variables have been set for /projects/ide-test in workspace
test
[my-project]$ mvn -v
Apache Maven 3.6.0 (97c98ec64a1fdfee7767ce5ffb20918da4f719f3; 2018-10-
24T20:41:47+02:00)
Maven home: /projects/ide-test/software/maven
Java version: 11.0.2, vendor: Oracle Corporation, runtime: /projects/ide-
test/software/jdk/Contents/Home
Default locale: en_DE, platform encoding: UTF-8
OS name: "mac os x", version: "10.14.3", arch: "x86_64", family: "mac"
[ide-test]$ devon eclipse
launching Eclipse for workspace test...
[my-project]$ devon build
[INFO] Scanning for projects...
...
[INFO] BUILD SUCCESS
```

devonfw-ide

Setup

Prerequisites

*.tar.gz tar gzip

- bash curl
- sudo apt-get install git curl sudo yum install git-core curl
-

Download

devonfw-ide

Install

C:\projects /projects
my-project devonfw-ide-scripts-*.tar.gz setup setup.bat

Uninstall

devonfw-ide

```
devon ide uninstall
```

devonfw-ide

devonfw-ide **non-invasive**

devon ide uninstall

devon ~/.devon/devon

devon ~/.bashrc ~/.zshrc alias devon="source ~/.devon/devon"

devon.bat
%USERPROFILE%\scripts\devon.bat

%USERPROFILE%\scripts PATH

devonfw-ide ~/Downloads/devonfw-ide

Testing SNAPSHOT releases

*.tar.gz

1. Usage

devonfw-ide

devonfw-ide

1.1. Usage

1.1.1. Developer

settings-URL

setup «settings-URL»

setup

Settings URL

2021.04.001

devon [Tab]

Update

```
devon ide update
```

software devon ide update

Working with multiple workspaces

release2.1

git clone …

cd

create-script

1.1.2. Admin

devonfw-ide

ide-admin

ide-admin devonfw-ide

gitlab production-line Fork

```
git remote add upstream https://github.com/devonfw/ide-settings.git
git fetch upstream
git pull upstream master
git push
```

settings

devon.properties

```
DEVON_IDE_TOOLS=(java mvn eclipse)
ECLIPSE_VERSION=2020-06
# use e.g. 8u242b08 for Java 8
#JAVA_VERSION=8u242b08
JAVA_VERSION=11.0.5_10
MAVEN_VERSION=3.6.2
```

settings projects

devonfw

settings

settings

settings

settings git fetch git checkout -t origin/feature/«name» devon ide update

Announce changes to your team

devonfw-ide
Settings URL
Settings URL#branch

settings

devon ide update

devonfw-ide devon ide update scripts

1.2. Configuration

devonfw-ide

devon.properties

JAVA_VERSION ECLIPSE_PLUGINS

~/devon.properties
%USERPROFILE%/devon.properties

scripts/devon.properties devonfw-ide

devon.properties devonfw-ide-scripts
SETTINGS_PATH SETTINGS_URL

settings/devon.properties ${SETTINGS_PATH}/devon.properties

workspaces/${WORKSPACE}/devon.properties

conf/devon.properties M2_REPO=~/.m2/repository

${SETTINGS_PATH}/devon/conf/devon.properties

settings/projects/*.properties

1.2.1. devon.properties

devon.properties

```
# comments begin with a hash sign (#) and are ignored
variable_name=variable_value with space etc.
variable_name=${predefined_variable}/folder_name
```

${…} %…% $…
$(…) devon.properties

```
export exported_variable=this value will be exported in bash, in windows CMD the export prefix is ignored
variable_name=
```

```
variable_name=~/some/path/and.file
```

```
array_variable=(value1 value2 value3)
```

devonfw-

```
ide

                                        var="value"

                                *.properties




                                    conf/settings.xml
```

1.3. Variables

devonfw-ide variables[.bat] **bold** - devonfw-ide

Table 1. Variables of devonfw-ide

Variable	Value	Meaning
DEVON_IDE_HOME	/projects/my-project	devonfw-ide
PATH	$PATH:$DEVON_IDE_HOME/software/java:…	devon
DEVON_HOME_DIR	~	~
DEVON_IDE_TOOLS	(java mvn node npm)	
DEVON_IDE_CUSTOM_TOOLS	-	
DEVON_CREATE_START_SCRIPTS	(eclipse vscode)	
DEVON_OLD_PATH	…	PATH devon
WORKSPACE	main	main variables

Variable	Value	Meaning
WORKSPACE_PATH	$DEVON_IDE_HOME/workspaces/$WORKSPACE	variables
JAVA_HOME	$DEVON_IDE_HOME/software/java	
SETTINGS_PATH	$DEVON_IDE_HOME/settings	oasp4j-ide $DEVON_IDE_HOME/workspaces/main/development/settings
M2_REPO	$DEVON_IDE_HOME/conf/.m2/repository	~/.m2/repository
MAVEN_HOME	$DEVON_IDE_HOME/software/maven	
MAVEN_OPTS	-Xmx512m -Duser.home=$DEVON_IDE_HOME/conf	
DOCKER_EDITION	DOCKERDESKTOP	DOCKERDESKTOP devon docker setup
GRAALVM_HOME	$DEVON_IDE_HOME/software/extra/graalvm	
DEVON_SOFTWARE_REPOSITORY	-	
DEVON_SOFTWARE_PATH	-	
ECLIPSE_VMARGS	-Xms128M -Xmx768M -XX:MaxPermSize=256M	
ECLIPSE_PLUGINS	-	

Variable	Value	Meaning
«TOOL»_VERSION	-	«TOOL» ECLIPSE_VERSION MAVEN_VERSION
EXTRA_JAVA_VERSION	-	
«TOOL»_BUILD_OPTS	clean install	«TOOL»
«TOOL»_RELEASE_OPTS	clean deploy -Dchangelist= -Pdeploy	«TOOL»
DEVON_IDE_TRACE		devonfw-ide **ATTENTION:** devon.properties export DEVON_IDE_TRACE=true set DEVON_IDE_TRACE=true

1.4. Devon CLI

devonfw-ide devon

1.4.1. Devon

devon DEVON_IDE_HOME
devonfw-ide

```
[/]$ devon
You are not inside a devon IDE installation: /
[/]$ cd /projects/my-project/workspaces/test/my-git-repo
[my-git-repo]$ devon
devonfw-ide has environment variables have been set for /projects/my-project in
workspace main
[my-git-repo]$ echo $DEVON_IDE_HOME
/projects/devon
[my-git-repo]$ echo $JAVA_HOME
/projects/my-project/software/java
```

1.4.2. Commandlets

devon *commandlets*

```
devon «commandlet» [«arg»]*
```

$DEVON_IDE_HOME/scripts/command
devonfw-ide

Table 2. Generic arguments of every commandlet

Argument(s)	Meaning
-b --batch	
-q --quiet	

Command-wrapper

devon mvnw gradlew
devon mvn clean install mvn clean
install devon mvn
node npm PATH

devon

devon

Commandlet overview

1.4.3. aws

`devon aws «args»`

Table 3. Usage of `devon aws`

Argument(s)	Meaning
`setup`	

1.4.4. Azure CLI

`devon az «args»`

`az «args»`

ATTENTION:

`devon az «args»`

Table 4. Usage of `devon az`

Argument(s)	Meaning
`setup`	
`«args»`	`az help` `az «args»`

Configuration File

`conf/.azure` `devon`

1.4.5. build

`build` `pom.xml` `package.json`

`devon build`

`devon build`

definition of done

`devon build`

`devon build «args»`
`mvn «args»`

1.4.6. Docker

ATTENTION:

`devon docker «args»`

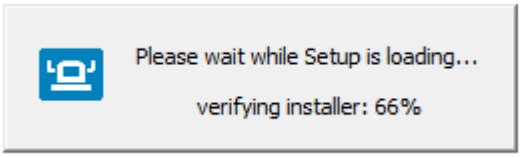
Table 5. Usage of `devon docker`

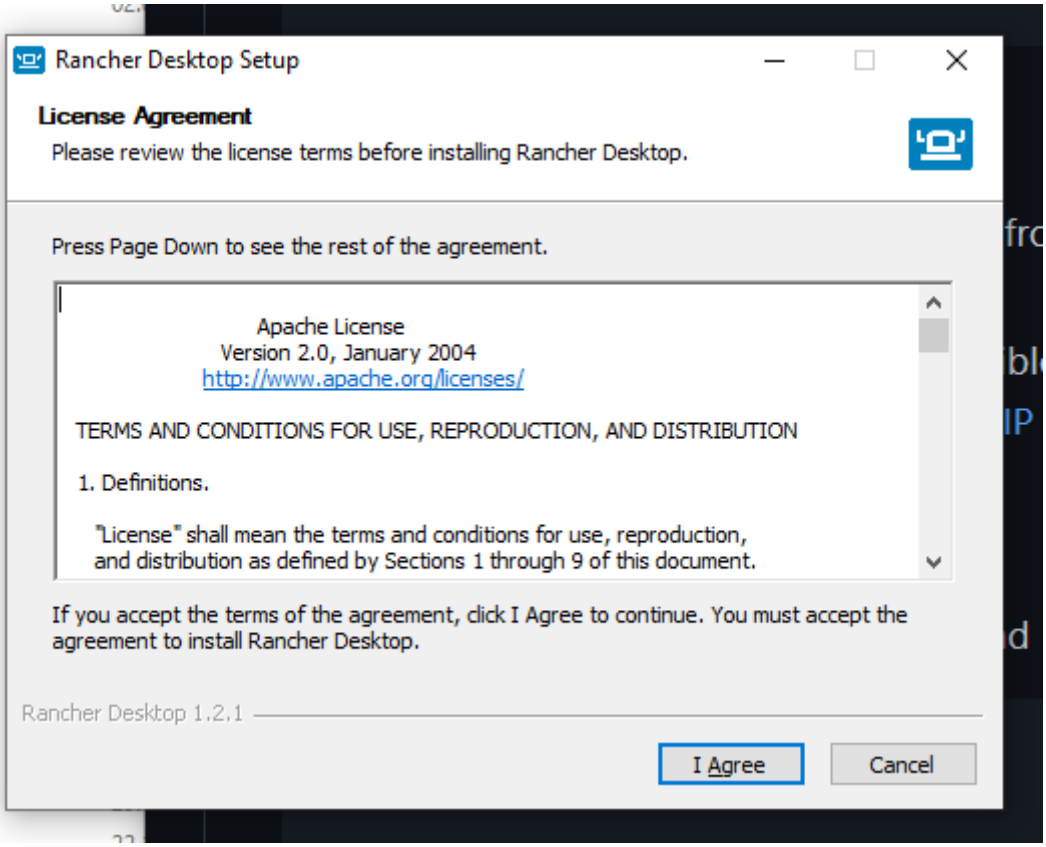
Argument(s)	Meaning
`setup`	
`«args»`	`docker help «args»`

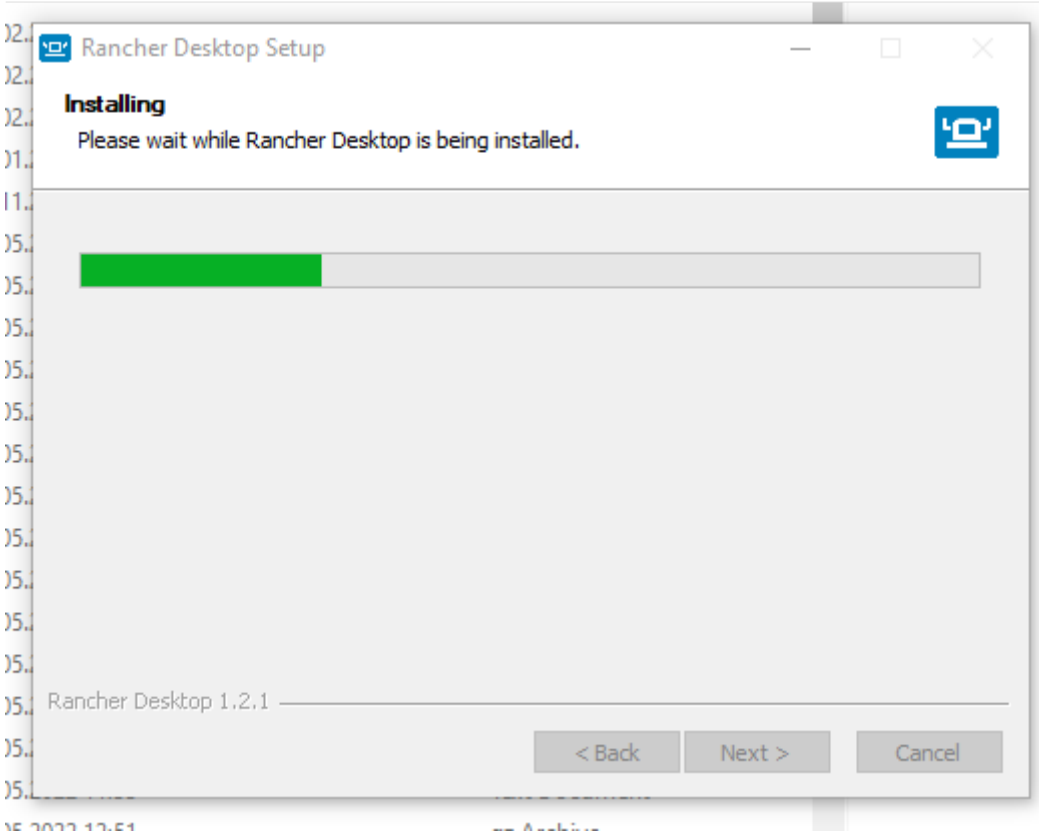
Setup

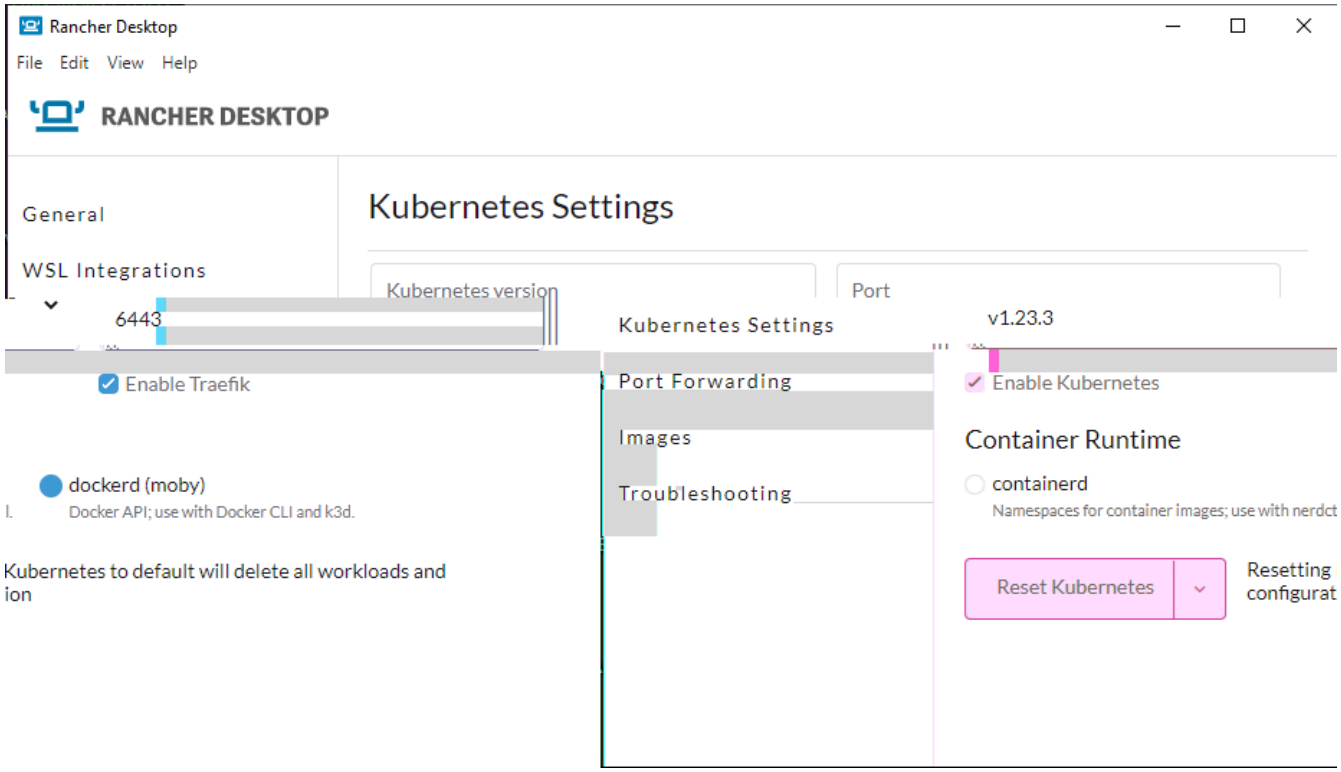
Docker Desktop

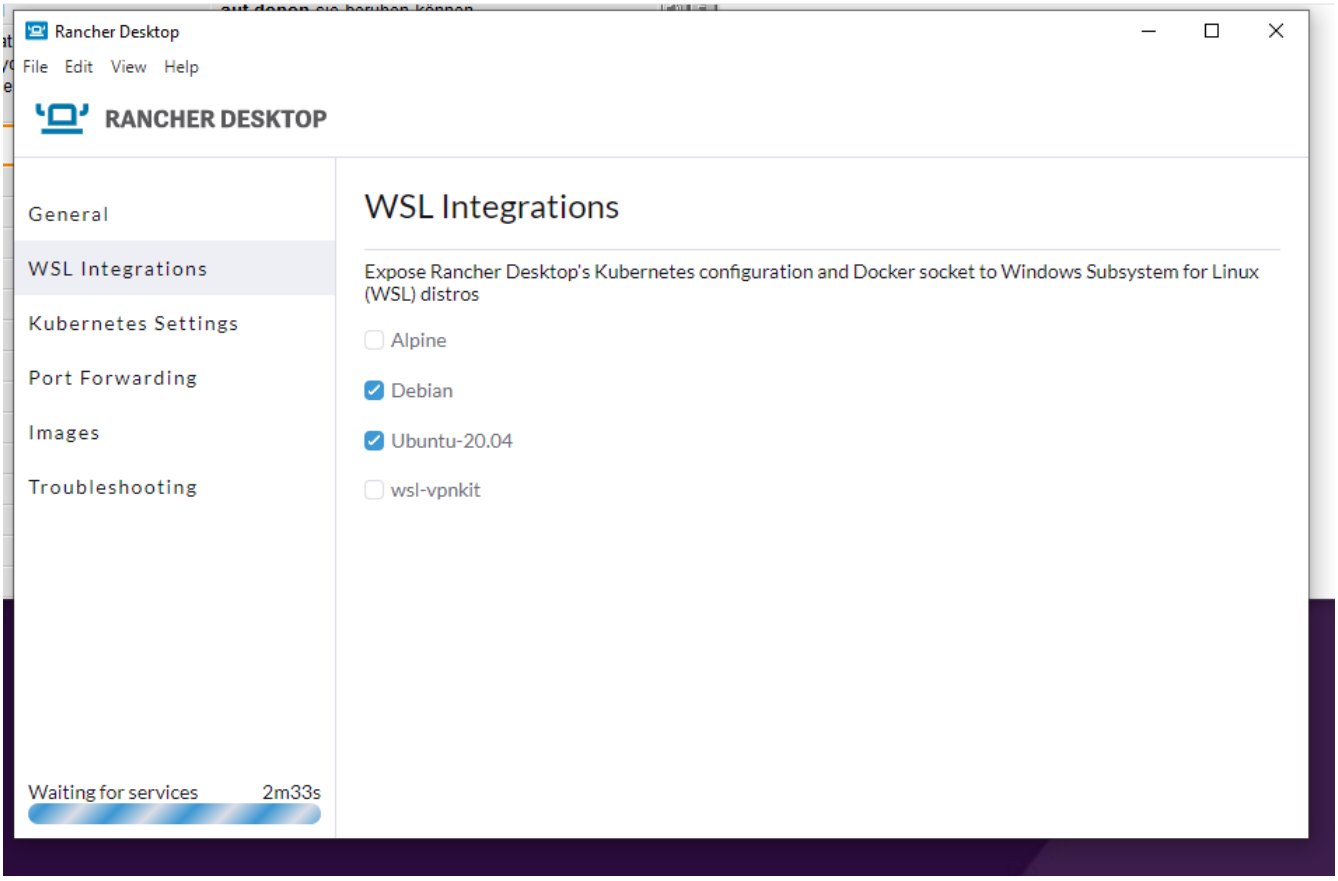
Rancher Desktop

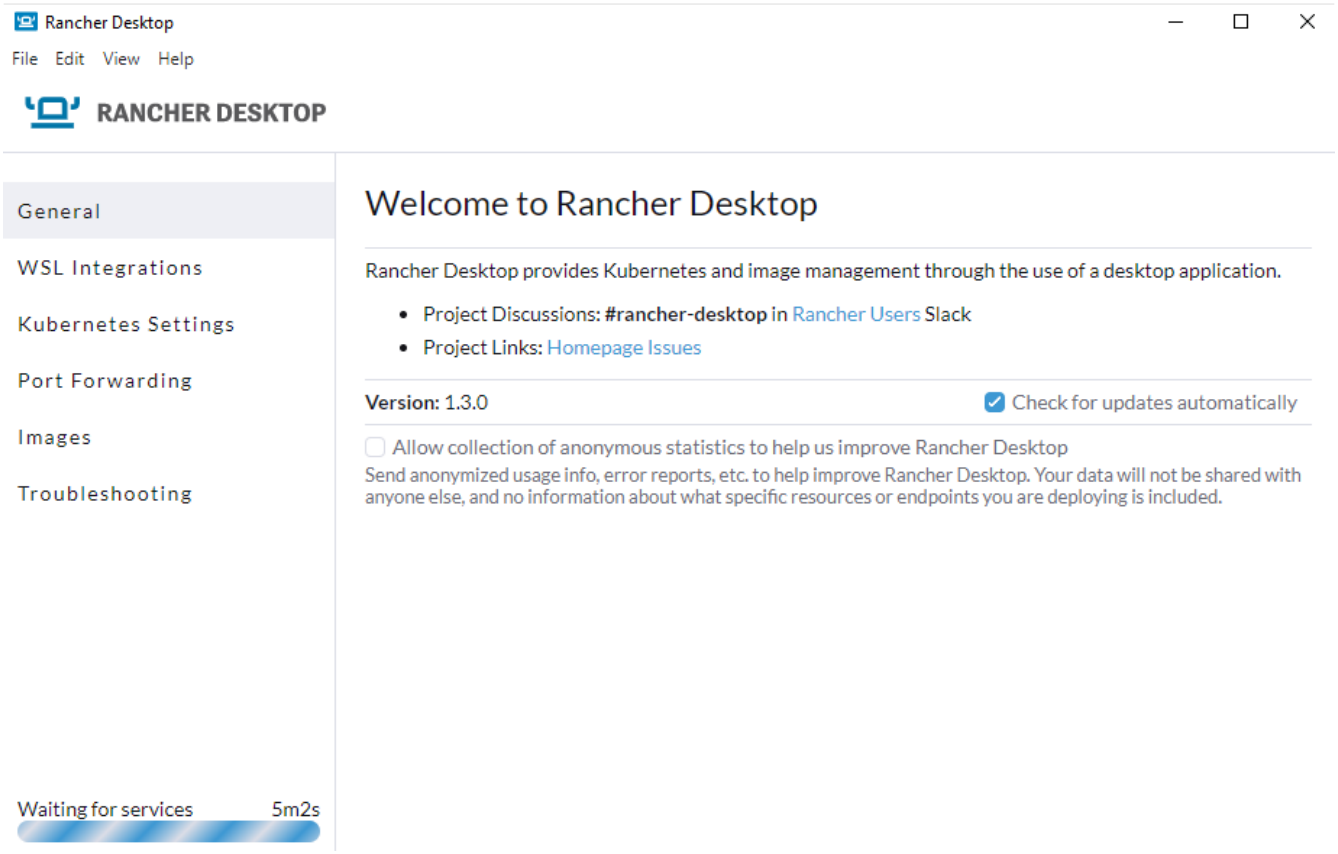


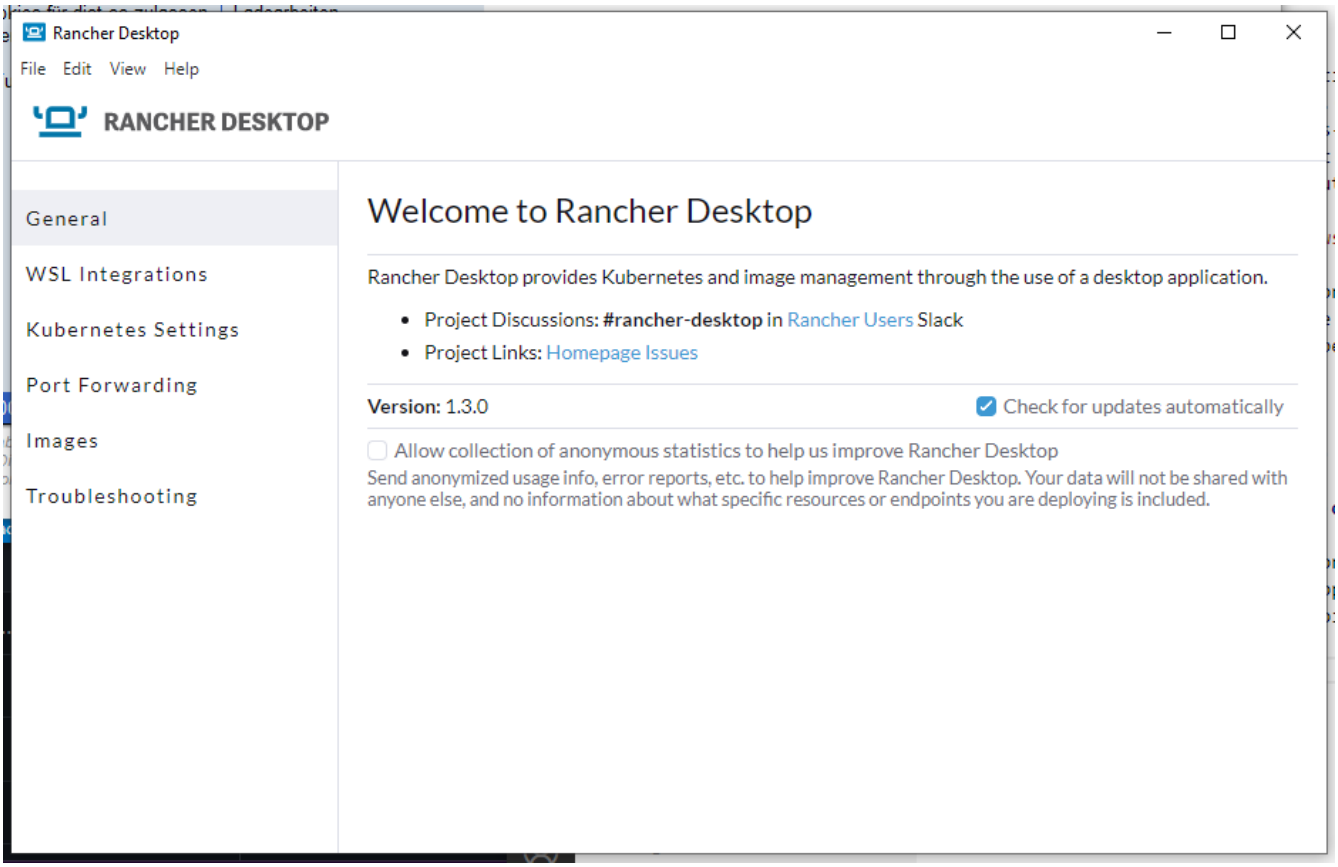


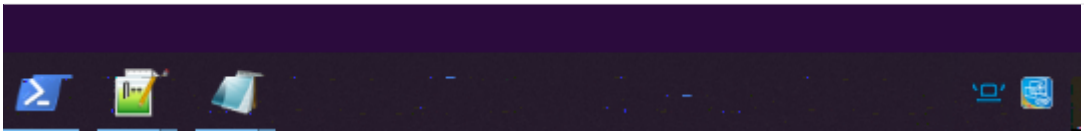

Rancher Desktop Setup
Installing
Please wait while Rancher Desktop is being installed.
Rancher Desktop 1.2.1
< Back
Next >
Cancel


Rancher Desktop
File Edit View Help
RANCHER DESKTOP
General
WSL Integrations
Kubernetes Settings
Kubernetes version
Port
6443
v1.23.3
Enable Traefik
Port Forwarding
Images
Troubleshooting
Enable Kubernetes
Container Runtime
dockerd (moby)
Docker API; use with Docker CLI and k3d.
containerd
Namespaces for container images; use with nerdct
Kubernetes to default will delete all workloads and
ion
Reset Kubernetes
Resetting
configurat


Rancher Desktop
File Edit View Help
RANCHER DESKTOP
General
WSL Integrations
Kubernetes Settings
Port Forwarding
Images
Troubleshooting
Waiting for services 2m33s
WSL Integrations
Expose Rancher Desktop's Kubernetes configuration and Docker socket to Windows Subsystem for Linux (WSL) distros
Alpine
Debian
Ubuntu-20.04
wsl-vpnkit


Rancher Desktop
File Edit View Help
RANCHER DESKTOP
General
WSL Integrations
Kubernetes Settings
Port Forwarding
Images
Troubleshooting
Waiting for services 5m2s
Welcome to Rancher Desktop
Rancher Desktop provides Kubernetes and image management through the use of a desktop application.
Project Discussions: #rancher-desktop in Rancher Users Slack
Project Links: Homepage Issues
Version: 1.3.0
Check for updates automatically
Allow collection of anonymous statistics to help us improve Rancher Desktop
Send anonymized usage info, error reports, etc. to help improve Rancher Desktop. Your data will not be shared with anyone else, and no information about what specific resources or endpoints you are deploying is included.


Rancher Desktop
File Edit View Help
RANCHER DESKTOP
General
WSL Integrations
Kubernetes Settings
Port Forwarding
Images
Troubleshooting
Welcome to Rancher Desktop
Rancher Desktop provides Kubernetes and image management through the use of a desktop application.
Project Discussions: #rancher-desktop in Rancher Users Slack
Project Links: Homepage Issues
Version: 1.3.0
Check for updates automatically
Allow collection of anonymous statistics to help us improve Rancher Desktop
Send anonymized usage info, error reports, etc. to help improve Rancher Desktop. Your data will not be shared with anyone else, and no information about what specific resources or endpoints you are deploying is included.



requirements

Windows and macOS

Preferences General
Start Docker Desktop when you login

[windows][r]

services.msc

OK

Options

automatic manual

Mac A1

```
docker: no matching manifest for linux/arm64/v8 in the manifest list entries.
```

`--platform linux/x86_64`

Linux

usage

`docker help`

`docker`

Introduction

Why we chose Rancher Desktop as Docker-Desktop alternative

	Rancher Desktop	Podman-Minikube	Others
Pro	→		

	Rancher Desktop	Podman-Minikube	Others
Contra		→	

1.4.7. dotnet

`dotnet`

`devon dotnet «args»` `dotnet «args»`

`dotnet`

`devon dotnet «args»`

Table 6. Usage of `devon dotnet`

Argument(s)	Meanidotnet
`setup`	
`create`	
`«args»`	`«args»`

1.4.8. eclipse

`devon eclipse`

devon eclipse «args»

Table 7. Usage of `devon eclipse`

Argument(s)	Meaning
`--all`	
`setup`	
`add-plugin «id» [«url»]`	
`run`	
`start`	`run`
`ws-up[date]`	
`ws-re[verse]`	
`ws-reverse-add`	
`create-script`	

Table 8. Variables of devonfw-ide for Eclipse

Variable	Meaning
`ECLIPSE_VERSION`	
`ECLIPSE_EDITION_TYPE`	
`EXTRA_JAVA_VERSION`	`JAVA_VERSION`

plugins

`devonfw-ide`

```
plugin_url=http://download.eclipse.org/tm/terminal/marketplace
plugin_id=org.eclipse.tm.terminal.feature.feature.group,org.eclipse.tm.terminal.view.f
eature.feature.group,org.eclipse.tm.terminal.control.feature.feature.group,org.eclipse
.tm.terminal.connector.ssh.feature.feature.group,org.eclipse.tm.terminal.connector.tel
net.feature.feature.group
plugin_active=true
```

plugin_url

plugin_id

devonfw-ide

About Eclipse > Installation Details

Id

plugin_active true

devon eclipse add-plugin «plugin-name»

settings/eclipse/plugins/«plugin-name».properties

settings/eclipse/plugins

plugin_active=false

plugin_active=false

legacy plugin config

settings/eclipse/plugins

ECLIPSE_PLUGINS eclipse

devon.properties

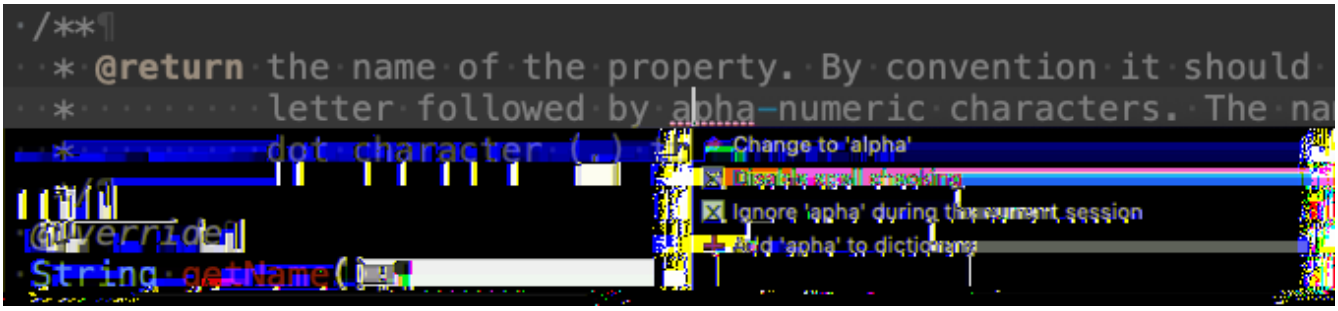
```
ECLIPSE_PLUGINS=("AnyEditTools.feature.group"
"https://raw.githubusercontent.com/iloveeclipse/plugins/latest/"
"com.ess.regexutil.feature.group" "http://regex-util.sourceforge.net/update/")
```

```
ECLIPSE_PLUGINS=("anyedit" "" "regexutil" "")
```

dictionary

devonfw-ide

[Ctrl][1]



non-english dictionary

Encoding > Convert to UTF-8

1.4.9. GCViewer

gcviewer

ATTENTION:

devon gcviewer «args»

Table 9. Usage of devon gcviewer

Argument(s)	Meaning
setup	
start	

1.4.10. GraalVM

graalvm devon graalvm gu «args»
gu «args»

ATTENTION:

devon graalvm «args»

Table 10. Usage of devon graalvm

Argument(s)	Meaning
setup	GRAALVM_VERSION
«args»	«args»

graalvm

1.4.11. gradle

gradle
devon gradle «args» gradle «args»

devon gradle «args»

Table 11. Usage of devon gradle

Argument(s)	Meaning
setup	GRADLE_VERSION
«args»	«args»

1.4.12. Helm

ATTENTION:

`devon helm «args»`

Table 12. Usage of `devon helm`

Argument(s)	Meaning
`setup`	
`«args»`	`helm --help`

1.4.13. help

`help`

Table 13. Usage of `devon help`

Argument(s)	Meaning
`«command»`	`«command»`

`devon help «command»` `devon «command» help`

1.4.14. ide

`ide` `devonfw-ide` `devon ide «args»`

Table 14. Usage of `devon ide`

Argument(s)	Meaning
`setup [«SETTINGS_URL»]`	
`update [«package»]`	
`update scripts [to «version»]`	
`create [«path»] [«SETTINGS_URL»]`	`«path»`

Argument(s)	Meaning
uninstall	

setup

devon ide setup devonfw-ide
$DEVON_IDE_HOME

devonfw-ide

devon

DEVON_IDE_TOOLS

setup devon ide setup

update

devon ide update devonfw-ide
«package»

scripts devonfw-ide-scripts

scripts

git pull

scripts settings

settings software

scripts

scripts

scripts
to

```
devon ide update scripts to 3.1.99
```

3.1.99
devon ide update scripts

create

devon ide create

```
devon ide create /path/to/install [«SETTINGS_URL»]
```

uninstall

devonfw-ide

```
devon ide uninstall
```

devonfw-ide
scripts .devon .bashrc
uninstall
DEVON_IDE_HOME devonfw-ide
~/Downloads devonfw-ide

1.4.15. intellij

intellij
devonfw-ide devon intellij

devon intellij «args»

Table 15. Usage of devon intellij

Argument(s)	Meaning
--all	

Argument(s)	Meaning
setup	
add-plugin «id»	
run	
start	run
ws-up[date]	
ws-re[verse]	
ws-reverse-add	
create-script	

Table 16. Variables of devonfw-ide for intellij

Variable	Meaning
INTELLIJ_VERSION	
INTELLIJ_EDITION_TYPE	C U
EXTRA_JAVA_VERSION	JAVA_VERSION

plugins

devonfw-ide

```
plugin_id=org.intellij.scala
plugin_active=false
```

plugin_id devonfw-ide

Versions

plugin_active true

devon intellij add-plugin «plugin_id»

plugin_active=false

plugin_active=false

1.4.16. ionic

ionic devon ionic «args» ionic «args»

devon ionic «args»

Table 17. Usage of devon ionic

Argument(s)	Meaning
setup	YARN_VERSION
create	
cicd «args»	
«args»	«args»

1.4.17. jasypt

jasypt

devon jasypt «args»

Table 18. Usage of devon mvn

Argument(s)	Meaning
`setup`	`JASYPT_VERSION`
`encrypt`	
`decrypt`	

example

```
devon jasypt encrypt
Enter masterpassword: master
Enter secret to encrypt/decrypt: secret

----ENVIRONMENT-----------------

Runtime: AdoptOpenJDK OpenJDK 64-Bit Server VM 11.0.9.1+1



----ARGUMENTS-------------------

input: secret
password: master
ivGeneratorClassName: org.jasypt.iv.RandomIvGenerator
algorithm: PBEWITHHMACSHA512ANDAES_256



----OUTPUT----------------------

fQPbaDd8wq0h0qOZw/AEKp2TD4Y07Y//M5PzaLgF3qL7YnBQjiGLtW8s5XkP3Ly9

devon jasypt decrypt
Enter masterpassword: master
Enter secret to encrypt/decrypt:
fQPbaDd8wq0h0qOZw/AEKp2TD4Y07Y//M5PzaLgF3qL7YnBQjiGLtW8s5XkP3Ly9

----ENVIRONMENT-----------------

Runtime: AdoptOpenJDK OpenJDK 64-Bit Server VM 11.0.9.1+1



----ARGUMENTS-------------------

input: fQPbaDd8wq0h0qOZw/AEKp2TD4Y07Y//M5PzaLgF3qL7YnBQjiGLtW8s5XkP3Ly9
password: master
ivGeneratorClassName: org.jasypt.iv.RandomIvGenerator
algorithm: PBEWITHHMACSHA512ANDAES_256



----OUTPUT----------------------

secret
```

1.4.18. java

java
devon java «args»

Table 19. Usage of devon java

Argument(s)	Meaning
setup	JAVA_VERSION 8u242b08 11.0.6_10
	groupId artifactId -DdbType=«db»
migrate [from «version»] [single]	
cicd «args»	

2021.12.003 EXTRA_JAVA_VERSION

create

```
devon java create com.mycustomer.myapplication
```

com.mycustomer.myapplication com.mycustomer myapplication 1.0.0-SNAPSHOT

```
devon java create -Dversion=0.0.1-alpha1 com.mycustomer.myapplication
```

com.mycustomer.myapplication com.mycustomer myapplication 0.0.1-alpha1

```
devon java create com.mycustomer.myapplication com.my-customer
```

com.mycustomer.myapplication com.my-customer myapplication 1.0.0-SNAPSHOT

```
devon java create com.mycustomer.myapplication com.my-customer my-application
```

com.mycustomer.myapplication com.my-customer my-application 1.0.0-SNAPSHOT

```
devon java create com.mycustomer.myapplication -DartifactId=my-app -DdbType=hana
```

com.mycustomer.myapplication com.mycustomer my-app 1.0.0-SNAPSHOT

```
devon java create com.mycustomer.myapplication -DdbType=oracle -Dversion=0.0.1 com.my-customer -Dbatch=batch
```

com.mycustomer.myapplication com.my-customer myapp 0.0.1

migrate

```
devon java migrate
```

1.4.19. jenkins

jenkins

Table 20. Usage of devon jenkins

Argument(s)	Meaning
setup	
start	
stop	
add	

1.4.20. Kubernetes

`kubectl`

ATTENTION:

`devon kubectl «args»`

Table 21. Usage of `devon kubectl`

Argument(s)	Meaning
`setup`	
`«args»`	`kubectl help`

setup

`Docker Desktop`
`Docker Desktop`

usage

`kubectl`
`kubectl help`

`kubectl`

1.4.21. lazydocker

ATTENTION:

`devon lazydocker «args»`

Table 22. Usage of `devon lazydocker`

Argument(s)	Meaning
setup	
«args»	

1.4.22. mvn

mvn

devon mvn «args» mvn «args»

devon mvn «args»

Table 23. Usage of devon mvn

Argument(s)	Meaning
	MVN_BUILD_OPTS
setup	MAVEN_VERSION
get-version	dev[-SNAPSHOT]
set-version «nv» [«cv»]	«nv» «cv»
check-no-snapshots	«version»-SNAPSHOT
check-top-level-project	
	MVN_RELEASE_OPTS
«args»	«args»

1.4.23. ng

ng devon ng «args»

ng «args» ng

devon ng «args»

Table 24. Usage of devon ng

Argument(s)	Meaning
setup	NG_VERSION
create	
cicd «args»	
«args»	«args»

1.4.24. node

node devon node «args»

Table 25. Usage of devon node

Argument(s)	Meaning
setup	node.js NODE_VERSION
create «name» [«args»]	(same as devon4node new)
generate «s» [«args»]	(same as devon4node generate)
db «c» [«args»]	(same as devon4node db)
cicd «args»	
«args»	

1.4.25. npm

npm devon npm «args»
npm «args»

devon npm «args»

Table 26. Usage of devon npm

Argument(s)	Meaning
	NPM_BUILD_OPTS
setup	NPM_VERSION
get-version	

Argument(s)	Meaning
`set-version «nv» [«cv»]`	`«nv»` `«cv»`
`check-top-level-project`	
`release`	`NPM_RELEASE_OPTS`
`«args»`	`«args»`

1.4.26. OpenShift CLI

`oc`
`devon oc «args»`

ATTENTION:

Table 27. Usage of `devon oc`

Argument(s)	Meaning
`setup`	
`«args»`	`oc` `--help` `oc`

1.4.27. Python

`devon python «args»`

Table 28. Usage of `python`

Argument(s)	Meaning
`setup`	
`help`	
`version`	
`pip`	

Argument(s)	Meaning
pip3	
«args»	

1.4.28. Pip

```
devon pip setup
devon pip install «package»

devon pip remove
devon pip remove «package»
```

devon

Table 29. Usage of pip

Argument(s)	Meaning
setup	
«args»	
install «package»	
remove «package»	
version	

1.4.29. release

«version»-SNAPSHOT

«version» «version»-SNAPSHOT

«version» pom.xml

release/«version»

(«version»+1)-SNAPSHOT pom.xml

Table 30. Usage of `devon java`

Argument(s)	Meaning
...	

Build-Tools

release

«TOOL»_RELEASE_OPTS

pom.xml MVN_RELEASE_OPTS

clean deploy -Dchangelist= -Pdeploy

devon release -P myProfile

invoke deployment on build-system

```
mvn clean deploy -Dchangelist= -Pdeploy -P myProfile
```

deploy

1.4.30. sonar

sonar

Table 31. Usage of `devon sonar`

Argument(s)	Meaning
setup	
start	
stop	
analyze	

1.4.31. Terraform

ATTENTION:

```
devon terraform «args»
```

Table 32. Usage of `devon terraform`

Argument(s)	Meaning
`setup`	
`«args»`	`terraform --help`

1.4.32. vscode

`vscode`

`devonfw-ide` `devon vscode`

`devon vscode «args»`

Table 33. Usage of `devon vscode`

Argument(s)	Meaning
`--all`	
`setup`	
`add-plugin «id»`	
`run`	
`start`	`run`
`ws-up[date]`	
`ws-re[verse]`	
`ws-reverse-add`	
`create-script`	

plugins

`extensions` `devonfw-ide`

```
plugin_id=devonfw.devonfw-extension-pack
plugin_active=true
```

plugin_id devonfw-ide
Extensions

plugin_active true

devon vscode add-plugin «plugin-name»
settings/vscode/plugins/«plugin-name».properties settings/vscode/plugins

plugin_active=false

plugin_active=false

cleaning plugins on update

VS code
settings/vscode/plugins

```
clean_plugins_on_update=true
```

VS code devon ide update

1.4.33. yarn

yarn devon yarn «args»
yarn «args»

```
devon yarn «args»
```

Table 34. Usage of `devon yarn`

Argument(s)	Meaning
	`YARN_BUILD_OPTS`
`setup`	`YARN_VERSION`
`get-version`	
`set-version «nv» [«cv»]`	`«nv»` `«cv»`
`check-top-level-project`	
`release`	`YARN_RELEASE_OPTS`
`«args»`	`«args»`

1.5. Structure

devonfw-ide

Listing 1. File structure of your devonfw-ide

```
/ projects (or C:\Projects, etc.)
 └─────/ my-project ($DEVON_IDE_HOME)
     ├─────/ conf
     ├─────/ log
     ├─────/ scripts
     ├─────/ settings
     ├─────/ software
     ├─────/ system
     ├─────/ updates
     ├─────/ workspaces
     ├──────  setup
     ├──────  setup.bat
     └──────  devon-ide-doc.pdf
```

1.5.1. conf

Listing 2. File structure of the conf folder

```
/ conf
 ├─────/ .m2
 │    ├─────/ repository
 │    │    ├─────/ ant
 │    │    ├─────/ ...
 │    │    └─────/ zw
 │    ├──────  settings-security.xml
 │    └──────  settings.xml
 ├─────/ .sonar
 ├─────/ ...
 └──────  variables
```

.m2 repository

devonfw-ide

$[«variable.name»]

`${DEVON_IDE_HOME}/conf/.m2/settings.xml` `devon mvn setup`

`devonfw-ide`

`devonfw-ide`

`variables` `devonfw-ide`

1.5.2. log

1.5.3. scripts

`devonfw-ide`

Listing 3. File structure of the conf folder

```
/scripts
 ├─────/ command
 │    ├──── aws
 │    ├──── az
 │    ├──── build
 │    ├──── docker
 │    ├──── dotnet
 │    ├──── eclipse
 │    ├──── gcviewer
 │    ├──── graalvm
 │    ├──── gradle
 │   ├──── helm
 │    ├──── help
 │    ├──── ide
 │    ├──── intellij
 │    ├──── ionic
 │    ├──── jasypt
 │    ├──── java
 │    ├──── jenkins
 │    ├──── kubectl
 │    ├──── lazydocker
 │    ├──── mvn
 │    ├──── ng
 │    ├──── node
 │    ├──── npm
 │    ├──── oc
 │    ├──── project
 │    ├──── python
 │    ├──── pip
 │    ├──── release
 │    ├──── sonar
 │    ├──── terraform
 │    ├──── vscode
 │    └────── yarn
 ├──── devon
 ├──── devon.bat
 ├──── environment-project
 ├──── environment-project.bat
 ├──── functions
 └──── devon.properties
```

devonfw-ide

devon

scripts

devon.properties devonfw-ide

1.5.4. settings

devonfw-ide settings

devonfw-ide

Settings URL

git

Structure

SETTINGS_PATH

Listing 4. File structure of settings

```
/settings
 ├────/ devon
 |    ├────/ conf
 |    |    ├────/ .m2
 |    |    |    └──── settings.xml
 |    |    ├────/ npm
 |    |    |    └──── .npmrc
 |    |    └──── devon.properties
 ├────/ eclipse
 |    ├────/ workspace
 |    |    ├────/ setup
 |    |    └────/ update
 |    ├──── lifecycle-mapping-metadata.xml
 |    └──── project.dictionary
 ├────/ ...
 ├────/ sonarqube
 |    └────/ profiles
 |         ├──── Devon-C#.xml
 |         ├──── ...
 |         └──── Devon-XML.xml
 ├────/ vscode
 |    └────/ workspace
 |         ├────/ setup
 |         └────/ update
 └──── devon.properties
```

settings devon

devon.properties

Configuration Philosophy

settings
eclipse/lifecycle-mapping-metadata.xml eclipse/project.dictionary
devon settings
devonfw-ide settings
.m2/settings.xml
sonarqube

Customize Settings

settings

1.5.5. software

software
devonfw-ide

devonfw-ide

Repository

VPN
DEVON_SOFTWARE_REPOSITORY devonfw-ide

```
${DEVON_SOFTWARE_REPOSITORY}/«tool»/«version»/«tool»-«version»[-«os»].tgz
```

«tool»
«version»
«os» windows linux
mac maven

Shared

devonfw-ide
software devonfw-ide

devonfw-ide devonfw-ide

devonfw-ide

DEVON_SOFTWARE_PATH
~/devon.properties /projects/software
C:\projects\software devonfw-ide
${DEVON_SOFTWARE_PATH}/${software_name}/${software_version}
${DEVON_IDE_HOME}/software/${software_name}

devonfw-ide

devonfw-ide

DEVON_SOFTWARE_PATH ${DEVON_IDE_HOME}/conf/devon.properties

```
DEVON_SOFTWARE_PATH=
```

devonfw-ide

Custom

devonfw-ide
devonfw-ide

devonfw-ide

devonfw-ide
DEVON_IDE_CUSTOM_TOOLS devon.properties

<<tool>>:<<version>>[:all][:<<repository-url>>]
<<repository-url>>

DEVON_SOFTWARE_REPOSITORY
:all
windows linux mac

${DEVON_IDE_HOME}/settings/devon.properties

```
DEVON_IDE_CUSTOM_TOOLS=(jboss-eap:7.1.4.GA:all:https://host.tld/projects/my-project firefox:70.0.1)
```

software

https://host.tld/projects/my-project/jboss-eap/7.1.4.GA/jboss-eap-7.1.4.GA.tgz
https://host.tld/projects/my-project/firefox/70.0.1/firefox-70.0.1-windows.tgz

-windows -mac -linux

1.5.6. system

devonfw-ide

1.5.7. updates

updates

1.5.8. workspaces

workspaces main
main
test release
testing my-sub-project

workspaces/main

Listing 5. File structure of workspaces

```
/ workspaces
 ├────/ main
 │    ├────/ .metadata
 │    ├────/ ide
 │    ├────/ devon4j
 │    └────/ my-thai-star
 └────/ stable
    ├────/ .metadata
    ├────/ ide
    └────/ devon4j
```

main devon4j
stable devon4j

git checkout

1.5.9. Project import

devonfw-ide
.properties projects
.properties

```
path=myproject
workingsets=Set1,Set2
workspace=example
git.url=http://github.com/someorg/someproject
git.branch=develop
build.path=.
build.cmd=mvn -DskipTests=true -Darchetype.test.skip=true clean install
eclipse=import
active=true
```

```
.Variables of project import
```

Variable	Value	Meaning
path	myproject ${WORKSPACE_PATH}/myproject	
working sets	ws1,ws2	
workspace	main	main
git.url	http://github.com/someorg/someproject	
git.branch	develop	
build.path	.	path build.cmd .
build.cmd	mvn -D skip Tests=true -Darchetype.test.skip=true clean install	*devonfw*
eclipse	import	import
active	true	false

.properties
.properties

2. Advanced Features

2.1. Cross-Platform Tooling

2.1.1. Browser Plugins

2.1.2. Draw Diagrams

2.1.3. Git Client

2.1.4. Tab Grouping For The Web Browser

2.2. Windows Tooling

2.2.1. Installing software

Chocolatey

Winget

2.2.2. Integration into Windows-Explorer

`devonfw-ide`

2.2.3. Tabs everywhere

tabs

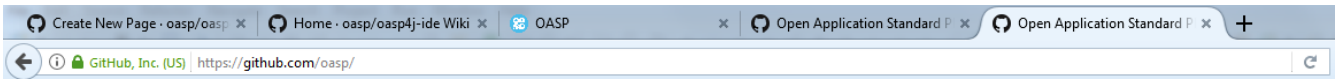


Figure 1. Tabs in Firefox

Tabs for Windows Explorer

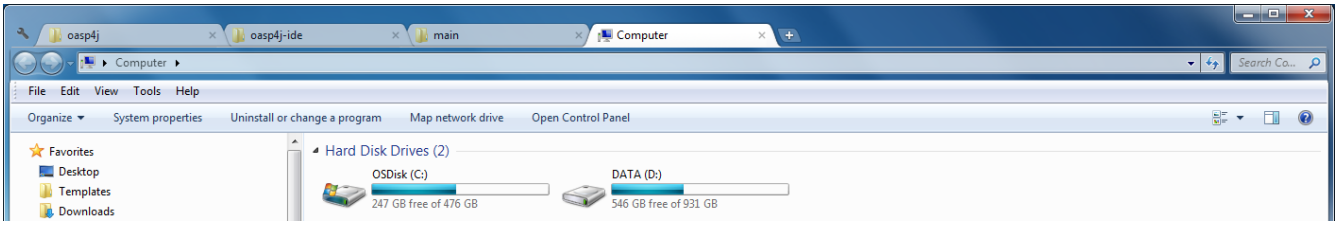


Figure 2. Tabs in Windows Explorer

Tabs for SSH

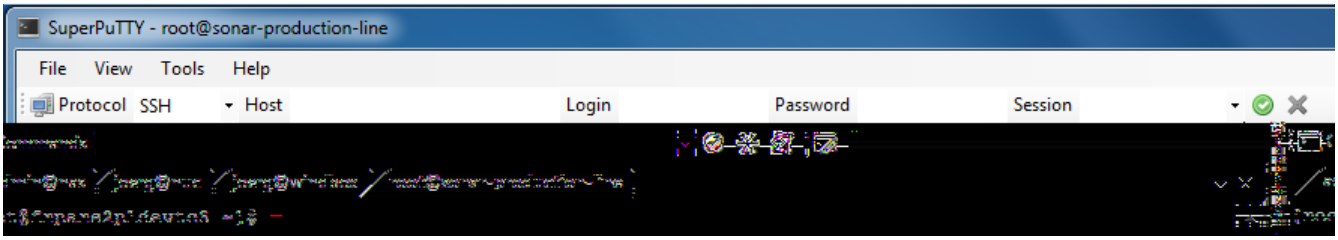


Figure 3. Tabs for SSH

Tabs for Shells

Microsoft Store

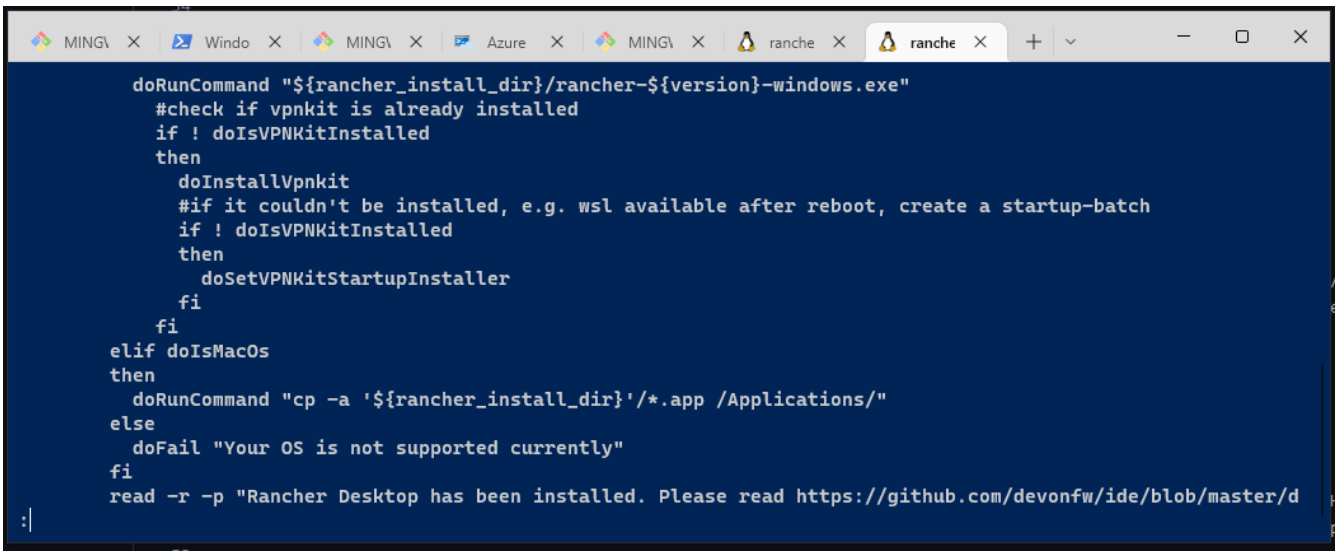


Figure 4. Tabs for multiple shells inside one window

git

Add a Git Bash Profile to Windows Terminal

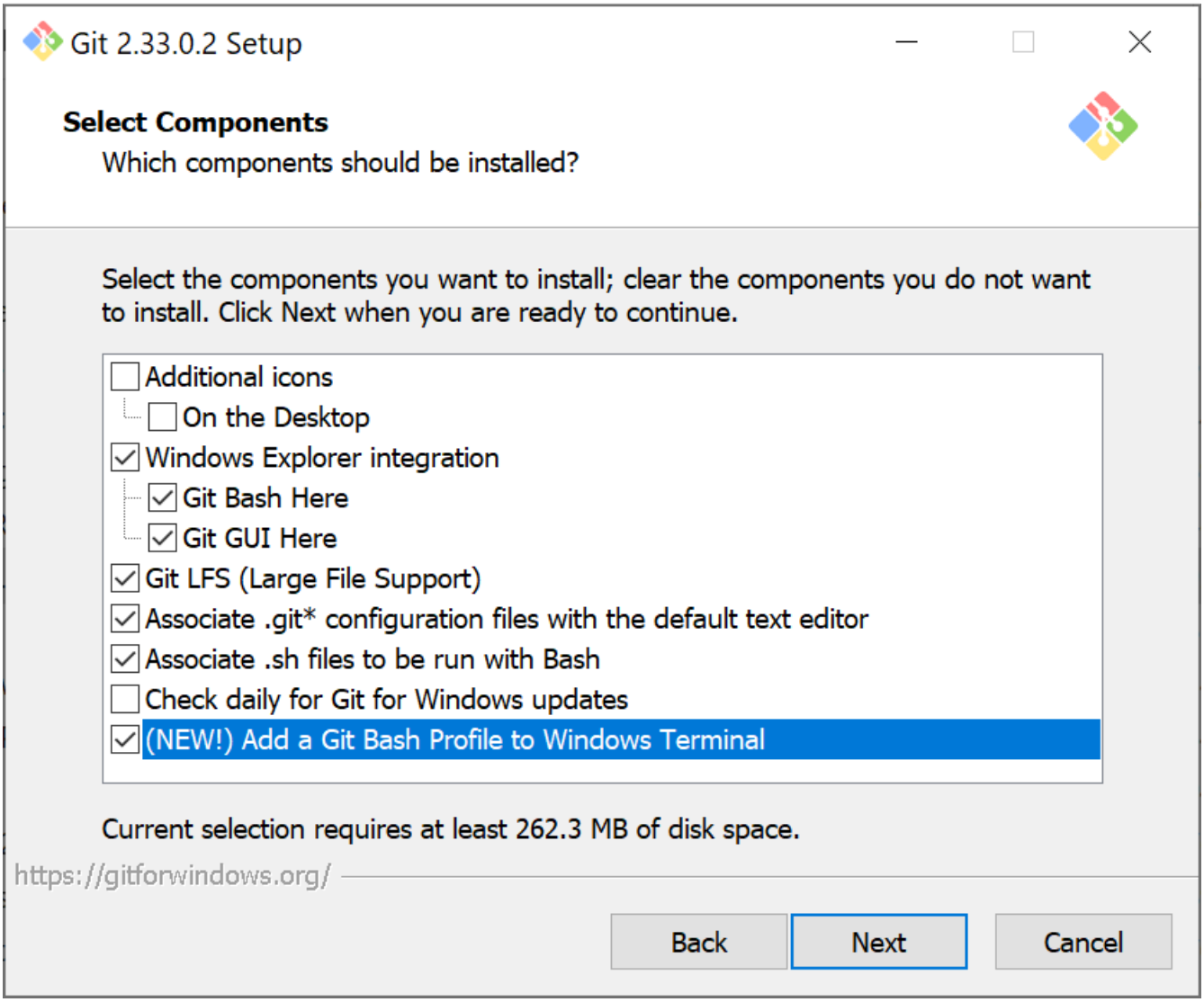


Figure 5. Integration of git-bash into Windows-Terminal

ConEmu

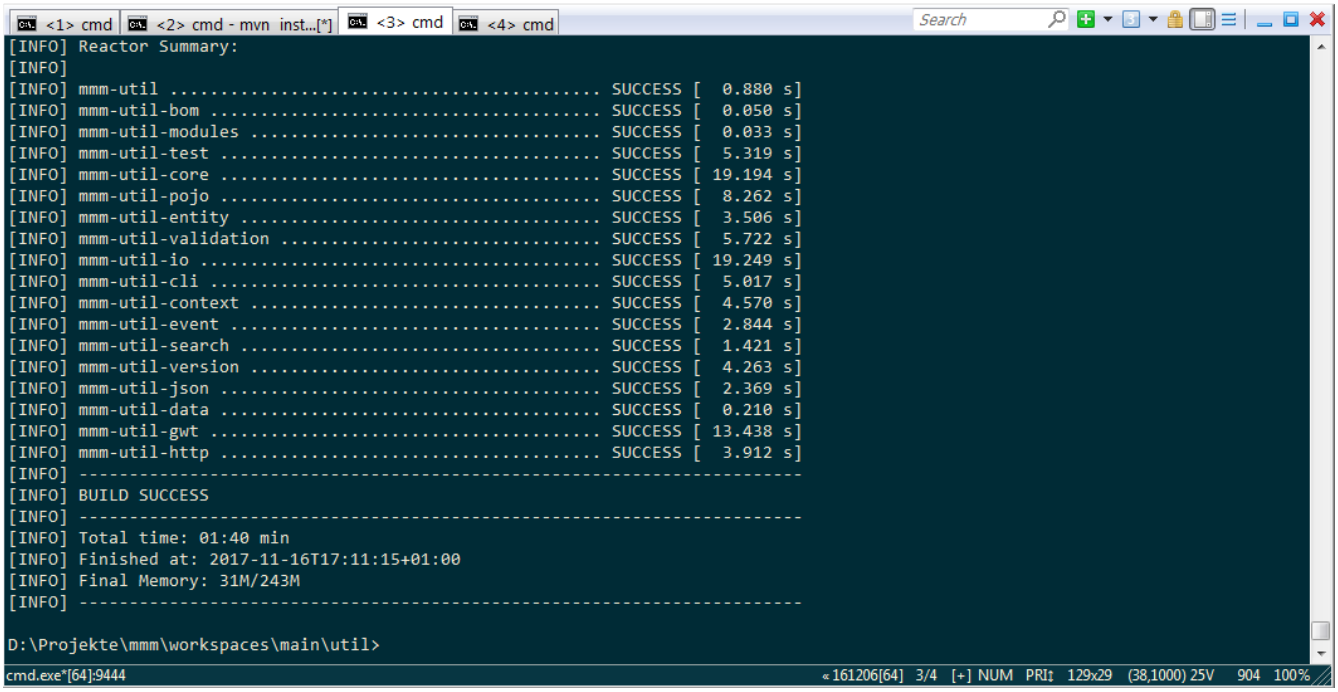


Figure 6. Tabs for CMD

`devonfw-ide`

2.2.4. Windows Helpers

Handle passwords

Real text editor

`notepad`

Real compression tool

Smarter clipboard

PowerToys

Sysinternals Tools

Cope with file locks

Create symbolic links

Linux

X11

Keyboard Freak

```
^<::Send {U+00AB}
^+<::Send {U+00BB}
```

`[ctrl][<]` `[ctrl][>]` `[ctrl][shift][<]`

Paint anywhere on your desktop

Analyze graphs

(.tgf)

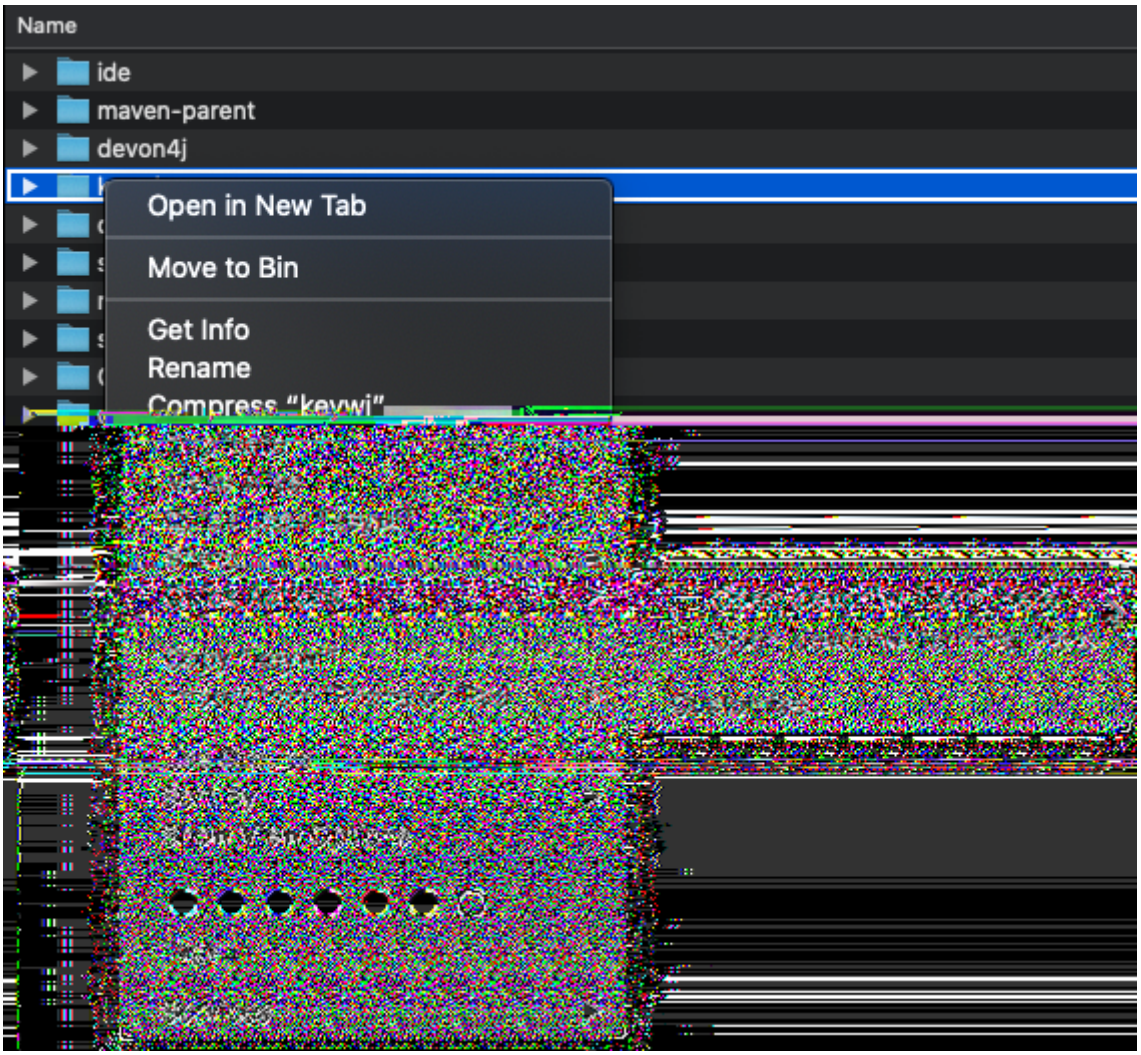
Up your screen capture game

Fast Search in Windows

2.3. MacOS Tooling

2.3.1. Finder

devonfw-ide



devonfw-ide

[control] Finder

Quick-Actions

Open devonfw-Terminal here

```
mvn -v
```

Terminal.app
system/mac/terminal/Open_devonfw-Terminal_here.workflow ${DEVON_IDE_HOME}
App Store system/mac/iterm/Open_devonfw-iTerm_here.workflow

2.3.2. Keyboard

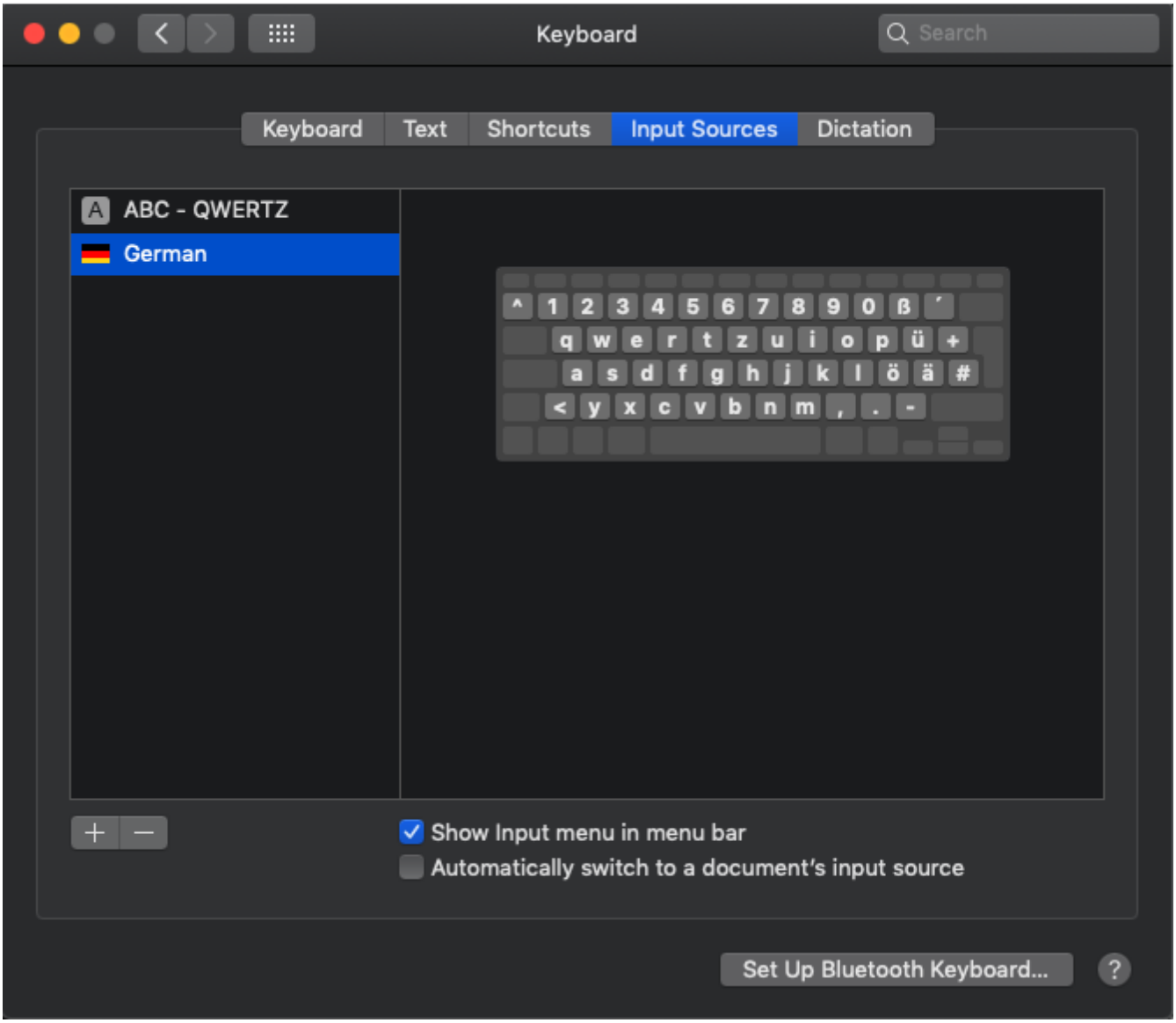
Home End Alt Gr

system/mac/keyboard/install-mac-keyboard-support.sh ${DEVON_IDE_HOME}

Keyboard Layouts

bundle
Contents Resources
*.keylayout
Keyboard Layouts bundle

bundle ~/Library/Keyboard Layouts
System Preferences Keyboard Input Sources +
devonfw-ide German-ISO
Others



Alt Gr

Pos1 End

*.keylayout

dmg Documentation

Resources

Key Bindings

system/mac/keyboard/KeyBindings

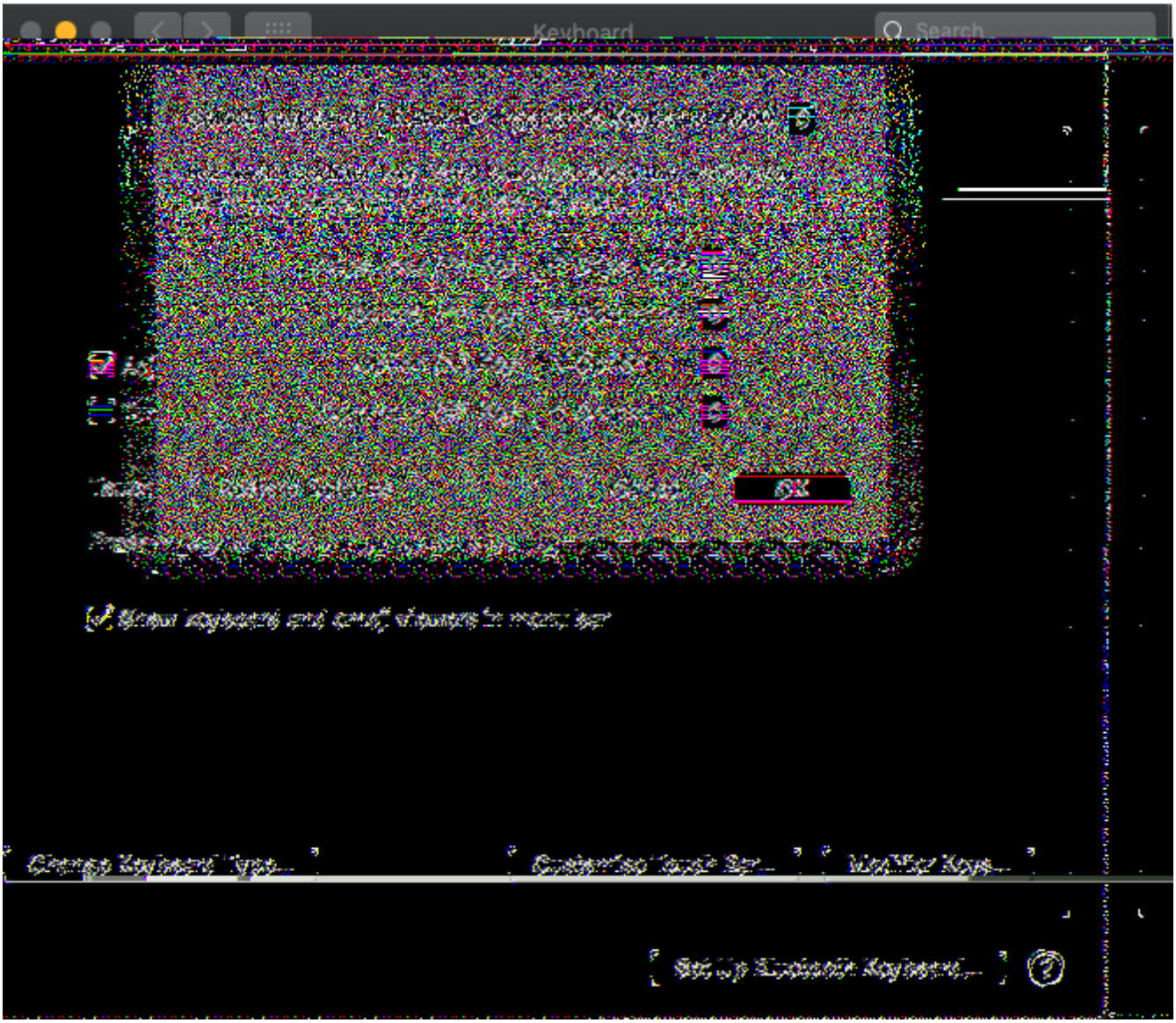
~/Library

```
cd system/mac/keyboard/
cp -r KeyBindings ~/Library
```

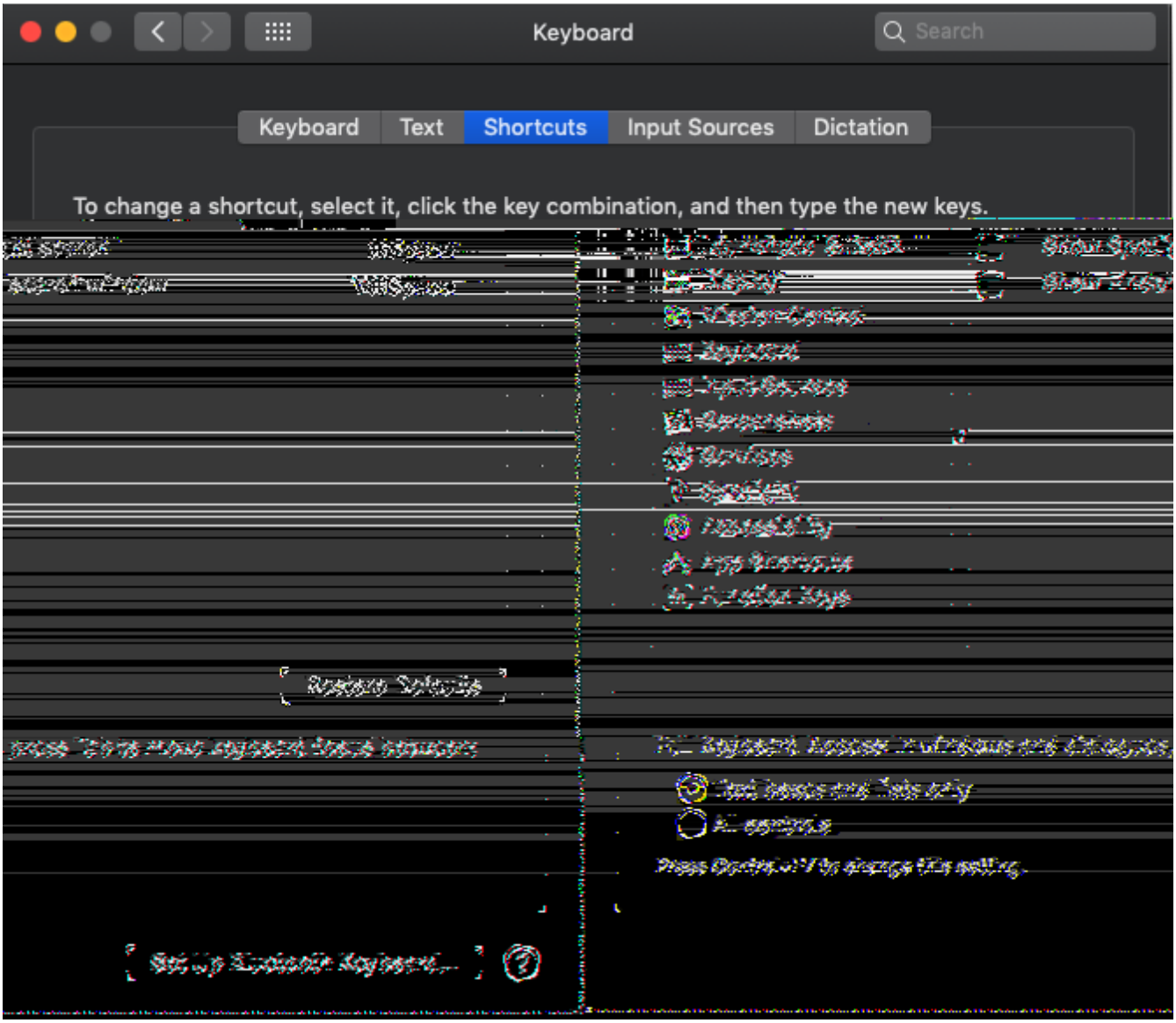
Home Pos1 End Shift
Command Command
Shift
Command < <<

Switch Control and Command

Control Option System Preferences Keyboard
Modifier Keys…
Control Option



Control Space Spotlight Search



Eclipse

Control Space
Preferences General > Keys
Export Import
Preferences Keys Preferences *.epf
system/mac/keyboard/Eclipse/eclipse-mac-keybindings.epf

Karabiner

Simple Modifications Complex Modifications

*.json

karabiner ~/.config

```
cd system/mac/keyboard/
cp karabiner/assets/complex_modifications/*.json
~/.config/karabiner/assets/complex_modifications/
```

Complex Modifications + Add rule

2.4. Linux Tooling

2.5. Lombok

devon4j

2.5.1. Lombok in Eclipse

```
devon eclipse add-plugin lombok
```

false true
plugin_active

2.5.2. Lombok for VS-Code

```
devon vscode add-plugin lombok
```

false true

plugin_active

2.5.3. Lombok for IntelliJ

devonfw-ide

3. Support

3.1. Migration from oasp4j-ide

devonfw-ide

oasp4j-ide devonfw-ide

3.1.1. Get familiar with devonfw-ide

devonfw-ide

setup

devon

3.1.2. Migration of existing oasp4j-ide installation

devonfw-ide-scripts

setup

settings devonfw-ide

devon

devon.properties

variables[-customized][.bat]

3.1.3. Hints for users after migration

Table 35. Comparison of commands

oasp4j-ide command	devonfw-ide command	Comment
create-or-update-workspace	devon eclipse ws-update	
create-or-update-workspace «workspace»	cd «workspace» && devon eclipse ws-update	
update-all-workspaces	devon eclipse --all ws-update	devon eclipse devon intellij devon vscode
create-or-update-workspace-vs	devon vscode ws-update	devon eclipse --all create-script
devcon workspace create «workspace»	cd workspaces && mkdir «workspace» examples	
scripts/update-eclipse-workspace-settings	devon eclipse ws-reverse	devon eclipse ws-reverse-add --new
devcon project build devcon devon4j build devcon devon4ng build	devon build	
devcon devon4j create	devon java create	
devcon devon4ng create	devon ng create	
devcon system * devcon dist *	setup devon ide setup	
console.bat		open devonfw CMD here
devcon help	devon help	
devcon doc		

3.2. License

devonfw-ide

inclusion

directly included
devonfw-ide

default setup
setup

optional

Table 36. Third party components

Component	Inclusion	License

Component	Inclusion	License

Component	Inclusion	License

3.2.1. Apache Software License - Version 2.0

```
                                 Apache License
                           Version 2.0, January 2004
                        http://www.apache.org/licenses/

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