sbt Scala build tool

CONCEPTS

Start sbt once and stay in its shell: later commands skip the JVM startup and reuse compiled state.

build.sbt settings and tasks
↓ reload
sbt shell keeps state warm
↓ compile / test
target/ classes and reports

Tasks take a scope prefix: Test/compile compiles test sources, subproj/test runs one subproject.

RUN AND BUILD

sbt
Start the interactive shell

sbt *<command>*
Run one command and exit (batch mode)

compile
Compile main sources

run *<args>*
Run the main class in sbt's JVM

clean
Delete target directories

exit
Leave the shell (or Ctrl+D)

help *<command>*
Show help for a command

TESTING

test
Run all tests

testOnly *<Suite>*
Run named suites, * works

testOnly *<Suite>* **-- -z "***<text>***"**
Run tests matching a name

testQuick
Run new, failed or affected tests

WATCH MODE

~compile
Recompile on source change

~test
Re-run tests on change

WATCH MODE (cont.)

~testQuick
Re-run only affected tests

Enter
Stop a ~ watch and return to shell

PROJECTS

projects
List all subprojects

project *<id>*
Switch the current project

*<id>***/test**
Run a task in one subproject

BUILD DEFINITION

reload
Reload build files after editing

show *<key>*
Print a setting or task value

CROSS BUILDING AND REPL

console
Scala REPL with project classpath

+test
Run for every crossScalaVersions entry

PUBLISH AND OPTIONS

publishLocal
Publish to the local Ivy repository

BUILD.SBT BASICS

Minimal build.sbt

```
ThisBuild / scalaVersion := "3.3.4"

lazy val root = (project in file("."))
  .settings(name := "app")
```

Add a dependency

```
libraryDependencies += "org.scalatest" %%
"scalatest" % "3.2.19" % Test
```

Operators

Operator	Meaning
:=	Set a value
+=	Append one element
++=	Append a collection
%	Group % artifact % version
%%	Add the Scala suffix to the artifact