Rake Ruby task runner

Rakefile Ruby DSL → load → **Task graph** tasks + prereqs → resolve → **Prerequisites** each runs once → then → **Task block** Ruby code

Rake resolves prerequisites before running a task

CONCEPTS

A Rakefile is plain Ruby. A task runs its prerequisites first, once per run, then its block. Use do...end, not braces, so prerequisites bind correctly.

Rake looks for Rakefile, rakefile, Rakefile.rb or rakefile.rb in the current directory, then in parent directories. Tasks run from the Rakefile's directory.

Only tasks with a desc appear in rake -T. Use rake -T -A or rake -P to see the rest. Quote task arguments in zsh: rake 'build[x]'.

RUN

rake
Run the default task

rake *<task> <task>*
Run several tasks in order

rake *<ns>*:*<task>*
Run a namespaced task

rake -n *<task>*
Dry run: print tasks without executing

RUN (cont.)

rake -j *<N>*
Run up to N tasks concurrently

rake -f *<file>*
Use another Rakefile

rake -N
Do not search parent directories

rake *<NAME>*=*<value>*
Set an ENV variable for the run

bundle exec rake *<task>*
Run with the bundled gem versions

INSPECT

rake -T
List tasks that have a desc

rake -T *<pattern>*
List tasks matching pattern

rake -T -A
List all tasks, including undocumented

rake -D *<task>*
Show the long description of tasks

rake -P
List tasks with prerequisites

rake -W *<task>*
Show where a task is defined

DEBUG AND OUTPUT

rake -t
Trace invoke and execute, with backtraces

rake --backtrace
Show full backtraces on errors

rake -v
Echo shell commands run by FileUtils

rake -q
Do not echo FileUtils commands

rake -s
Quiet, and no in directory message

DEFINE TASKS

task :*<name>* **do ... end**
Define a task

task *<name>*: **%w[***<a>* *<b>***]**
Task with prerequisites

task default: :*<name>*
Set the default task

desc '*<text>***'**
Describe the next task for -T

namespace :*<ns>* **do ... end**
Group tasks under a prefix

DEFINE TASKS (cont.)

task :*<name>***, [:***<a>***, :***<b>***] do |t, args|**
Task with named arguments

args.with_defaults(*<a>*:*<v>***)**
Default values for arguments

task :*<name>*
⇒ :environment
Load Rails app first (Rails)

Rake::Task[:*<name>***].invoke**
Call a task once from Ruby

task :*<name>***, [:***<a>***] ⇒ [:***<pre>***]**
Arguments plus prerequisites

multitask :*<name>* **⇒ %w[***<a>* *<b>***]**
Run prerequisites in parallel

FILES AND HELPERS

file '*<out>***' ⇒ %w[***<src>***] do |t|**
Rebuild when a source is newer

directory '*<path>***'**
Create a directory (and parents) on demand

FILES AND HELPERS (cont.)

rule '.o' ⇒ '.c' do |t|
Pattern rule for generated files

t.name / t.source
Target name / rule source in a block

FileList['*<glob>***']**
Lazy list of files by glob

sh '*<cmd>***'**
Run a shell command, fail the task on error

cp / mv / rm_rf / mkdir_p
FileUtils helpers available in tasks

require 'rake/clean'
Add clean and clobber tasks

CLEAN.include('*<glob>***')**
Files removed by rake clean

Rake::TestTask.new do |t| ... end
Define a test task

rake *<task>*[*<a>*,*<b>*]
Pass arguments on the command line

rake 'name[a b,c]'
Quote arguments that contain spaces