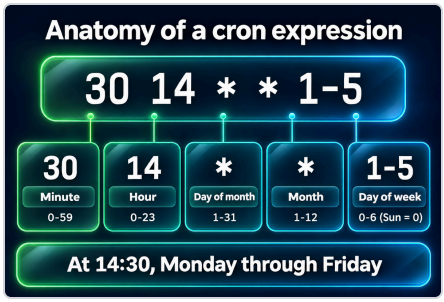
Cron Expression Cheat Sheet

rjl.io/cron-generator/

The five fields (Linux / crontab)

#	Field	Values	Names
1	Minute	`0-59`	-
2	Hour	`0-23`	-
3	Day of month	`1-31`	-
4	Month	`1-12`	`JAN-DEC`
5	Day of week	`0-6` (Sun = 0)	`SUN-SAT`



Special characters

Char	Meaning	Example
`*`	Every value	`* * * * *` every minute
`,`	List	`0 8,20 * * *`
`-`	Range (inclusive)	`0 9 * * 1-5`
`/`	Step	`*/15 * * * *`
`?`	No specific value (AWS, Quartz)	`0 12 ? * 2-6 *`
`L`	Last day / last weekday (AWS, Quartz)	`0 12 L * ? *`, `6L`
`W`	Nearest weekday (AWS, Quartz)	`15W`
`#`	Nth weekday (AWS, Quartz)	`6#3` = third Friday

Day rule: on Linux, if both day of month and day of week are set (not *), the job runs when **either** matches. `0 9 13 * 5` = the 13th **and** every Friday. AWS and Quartz need `?` in one of the two fields instead.

Platform differences

	Linux	AWS	GitHub	Quartz
Fields	5	6	5	6-7
Extra field	-	year (last)	-	seconds (first), year optional
Sunday is	0	1	0	1
`?` required	no	yes	no	yes
`L W #`	no	yes	no	yes
Time zone	server	UTC	UTC only	configurable
Shortest	1 min	1 min	5 min	1 sec

Weekdays at 09:00:
Linux / GitHub `0 9 * * 1-5`
AWS `0 9 ? * 2-6 *`
Quartz `0 0 9 ? * 2-6`

20 common schedules (Linux syntax)

Expression	Runs
`* * * * *`	Every minute
`*/5 * * * *`	Every 5 minutes
`*/10 * * * *`	Every 10 minutes
`*/15 * * * *`	Every 15 minutes
`*/30 * * * *`	Every 30 minutes
`0 * * * *`	Every hour, on the hour
`0 */2 * * *`	Every 2 hours
`0 */6 * * *`	Every 6 hours
`0 0 * * *`	Daily at midnight
`0 12 * * *`	Daily at noon
`30 2 * * *`	Daily at 02:30
`0 8,20 * * *`	Daily at 08:00 and 20:00
`0 9 * * 1-5`	Weekdays at 09:00
`*/10 8-18 * * 1-5`	Every 10 min, 08:00-18:50, weekdays
`0 8 * * 1`	Mondays at 08:00
`0 17 * * 5`	Fridays at 17:00
`0 3 * * 0`	Sundays at 03:00
`0 10 * * 6,0`	Weekends at 10:00
`0 0 1 * *`	1st of every month, midnight
`0 0 1 1,4,7,10 *`	Quarterly, 1st at midnight

Common mistakes

Mistake	Fix
`* 9 * * *` runs every minute from 09:00 to 09:59	Set the minute: `0 9 * * *`
`*/45` restarts each hour (runs at :00 and :45)	Use a divisor of 60
`0 0 31 * *` skips short months	AWS / Quartz: `L`
`%` in a crontab command is a newline	Escape it: `\%`
GitHub Actions and AWS rules run in UTC	Convert local time to UTC first