

The sys admin's daily grind: Calendar-related crontab issues

Day in, Day out

This month, Charly considers Jacobin rule, Napoleon Bonaparte's neoconservatism, Jewish and Islamic tradition, and a cronjob that nearly worked. *By Charly Kühnast*

Shortly after the French Revolution, France introduced a new calendar system. The idea at the time was to demonstrate the separation between church and state and to celebrate the decimal system as the triumph of reason.

Thus, as of the year 1792, a week had 10 days. The new calendar was pretty unpopular, however, because it forced the French into a considerably longer work week. Napoleon put an end to this spooky calendar system some 13 years later and repatriated the seven-day week.

This whole series of events left the citizens of France with a sense of uncertainty concerning the week as an institution, for example, with respect to the day on which the week begins.

The International Organization for Standardization (ISO) standard 8601 defines Monday as the first day of the week. This rule was introduced in Europe on January 1, 1976.

Having said this, the first day of the week is not necessarily the first workday. If you follow Jewish, Christian, or Islamic tradition, the week starts with a day off on Sunday. Therefore, Monday is the first workday but the second day in the week. This is the case in the United States, Australia, and in many Arabic countries.

Why am I telling you all this? Because (a) I like to impress my readers with my knowledge, and (b) I nearly shot myself in the foot with an important cron script.

AUTHOR

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In fact, if I hadn't checked the man page at the last minute, the results would have been disastrous.

I wanted the script to run every Monday at 3am. So, my cron entry looked like this:

```
0 3 * * 0 /path/script.sh
```

I knew that the weekdays in the crontab are numbered 0 through 6, rather than 1 through 7. However, the author of the cron daemon, Paul Vixie, is an American, so the first day in the week in Paul's world is Sunday. My script would have launched on the wrong day, because I needed a 1 in the fifth field.

Deciphered

Of course, you can choose a non-ambiguous approach to filling the weekday field in the crontab, because cron also supports three-letter weekday abbreviations instead of the numbers zero through six:

```
0 3 * * Mon /path/script.sh
```

Just as for numbers, you can define periods with weekday abbreviations, too.

If, for example, I wanted my script to run on a daily basis from Monday to Friday, the entry would be as follows:

```
0 3 * * Mon-Fri /path/script.sh
```

Incidentally, cron also offers a couple of shortcuts: If you want a script to run daily at midnight you can say `@daily /path/script.sh`.

Other useful shortcuts, which include: `@hourly` (on the full hour), `@monthly` (at midnight at the start of the month), `@yearly` (when you start singing Auld Lang Syne), and `@reboot` (whenever you restart the system), all follow a similar pattern. ■■■

