# Time conversion specifiers

date conversion specifiers related to times.

```
'%H'
 hour ('00'...'23')
%I'
 hour ('01'...'12')
%k'
  hour, space padded ('0'...'23'); equivalent to '% H'. This is a
  GNU extension.
%1'
  hour, space padded (' 1'...'12'); equivalent to '% I'. This is a
  GNU extension.
'%M'
  minute ('00'...'59')
'%N'
  nanoseconds ('000000000'...'999999999'). This is a GNU
  extension.
'%p'
  locale's equivalent of either 'AM' or 'PM'; blank in many locales.
  Noon is treated as 'PM' and midnight as 'AM'.
```

```
'%P'
  like '%p', except lower case. This is a GNU extension.
%r'
  locale's 12-hour clock time (e.g., '11:11:04 PM')
'%R'
  24-hour hour and minute. Same as '%H: %M'.
%s2
  seconds since the epoch, i.e., since 1970-01-01 00:00:00 UTC. Leap
  seconds are not counted unless leap second support is available.
  See %s-examples, for examples. This is a GNU extension.
'%S'
  second ('00'...'60'). This may be '60' if leap seconds are
  supported.
%T
  24-hour hour, minute, and second. Same as '%H:%M:%S'.
%X'
  locale's time representation (e.g., '23:13:48')
%z?
  Four-digit numeric time zone, e.g., '-0600' or '+0530', or '-0000'
  if no time zone is determinable. This value reflects the numeric time
  zone appropriate for the current time, using the time zone rules
```

specified by the TZ environment variable. A time zone is not

determinable if its numeric offset is zero and its abbreviation begins with '-'. The time (and optionally, the time zone rules) can be overridden by the --date option.

## ":z"

Numeric time zone with ':', e.g., '-06:00' or '+05:30'), or '-00:00' if no time zone is determinable. This is a GNU extension.

# %::z'

Numeric time zone to the nearest second with ':' (e.g., '-06:00:00' or '+05:30:00'), or '-00:00:00' if no time zone is determinable. This is a GNU extension.

## %:::z'

Numeric time zone with ':' using the minimum necessary precision (e.g., '-06', '+05:30', or '-04:56:02'), or '-00' if no time zone is determinable. This is a GNU extension.

#### %Z'

alphabetic time zone abbreviation (e.g., 'EDT'), or nothing if no time zone is determinable. See '%z' for how it is determined.