NAME

zic – time zone compiler

SYNOPSIS

zic [**–v**] [**–d** *directory*] [**–l** *localtime*] [*filename* . . .]

AVAILABILITY

SUNWcsu

DESCRIPTION

zic reads text from the file(s) named on the command line and creates the time conversion information files specified in this input. If a *filename* is '–', the standard input is read.

Input lines are made up of fields. Fields are separated by any number of white space characters. Leading and trailing white space on input lines is ignored. A number-sign (**#**) indicates a comment and extends to the end of the line. White space characters and number-signs may be enclosed within double quotes (**" "**) if they are to be used as part of a field. Any line that is blank (after comment stripping) is ignored. Non-blank lines are expected to be of one of three types: rule lines, zone lines, or link lines.

Rule

A rule line has the form:

Rule NAME FROM TO TYPE IN ON AT SAVE LETTER/S

For example:

Rule USA 1969 1973 – Apr lastSun 2:00 1:00 D

The fields that make up a rule line are:

NAME Gives the (arbitrary) name of the set of rules this rule is part of.

FROM Gives the first year in which the rule applies. The word **minimum** (or an abbreviation) means the minimum year with a representable time value. The word **maximum** (or an abbreviation) means the maximum year with a representable time value.

TO Gives the final year in which the rule applies. In addition to **minimum** and **maximum** (as above), the word **only** (or an abbreviation) may be used to repeat the value of the **FROM** field.

TYPE Gives the type of year in which the rule applies. If **TYPE** is '–' then the rule applies in all years between **FROM** and **TO** inclusive; if **TYPE** is **uspres**, the rule applies in U.S. Presidential election years; if **TYPE** is **nonpres**, the rule applies in years other than U.S. Presidential election years. If **TYPE** is something else, then **zic** executes the command

yearistype *year type*

to check the type of a year: an exit status of **0** means that the year is of the given type; an exit status of **1** means that the year is not of the given type.

IN Names the month in which the rule takes effect. Month names may be abbreviated.

ON Gives the day on which the rule takes effect. Recognized forms include:

5	the fifth of the month
lastSun	the last Sunday in the month
lastMon	the last Monday in the month
Sun>=8	first Sunday on or after the eighth
Sun<=25	last Sunday on or before the 25th

Names of days of the week may be abbreviated or spelled out in full. Note: There can not be spaces within the **ON** field.

AT Gives the time of day at which the rule takes effect. Recognized forms include:

2	time in hours
2:00	time in hours and minutes
15:00	24-hour format time (for times after noon)
1:28:14	time in hours, minutes, and seconds

Any of these forms may be followed by the letter **w** if the given time is local "wall clock" time or **s** if the given time is local "standard" time; in the absence of **w** or **s**, wall clock time is assumed.

SAVE Gives the amount of time to be added to local standard time when the rule is in effect. This field has the same format as the **AT** field (without the **w** and **s** suffixes).

LETTER/S Gives the "variable part" (for example, the "S" or "D" in "EST" or "EDT" of time zone abbreviations to be used when this rule is in effect. If this field is '–', the variable part is null.

Zone A zone line has the form:

Zone NAME GMTOFF RULES/SAVE FORMAT [UNTIL]

For example:

Zone Australia/South−west 9:30 CST 1992 Mar 15 12:00

The fields that make up a zone line are:

NAME The name of the time zone. This is the name used in creating the time conversion information file for the zone.

GMTOFF The amount of time to add to GMT to get standard time in this zone. This field has the same format as the **AT** and **SAVE** fields of rule lines; begin the field with a minus sign if time must be subtracted from GMT.

RULES/SAVE The name of the rule(s) that apply in the time zone or, alternately, an amount of time to add to local standard time. If this field is '–' then standard time always applies in the time zone.

FORMAT The format for time zone abbreviations in this time zone. The pair of characters **%s** is used to show where the "variable part" of the time zone abbreviation goes.

UNTIL The time at which the GMT offset or the rule(s) change for a location. It is specified as a year, a month, a day, and a time of day. If this is specified, the time zone information is generated from the given GMT offset and rule change until the time specified.

The next line must be a "continuation" line; this has the same form as a zone line except that the string "Zone" and the name are omitted, as the continuation line will place information starting at the time specified as the **UNTIL** field in the previous line in the file used by the previous line. Continuation lines may contain an **UNTIL** field, just as zone lines do, indicating that the next line is a further continuation.

Link

A link line has the form:

Link **LINK-FROM** **LINK-TO**

For example:

Link **US/Eastern** **EST5EDT**

The **LINK-FROM** field should appear as the **NAME** field in some zone line; the **LINK-TO** field is used as an alternate name for that zone.

Except for continuation lines, lines may appear in any order in the input.

OPTIONS

–v Complain if a year that appears in a data file is outside the range of years representable by system time values (0:00:00 a.m. GMT, January 1, 1970, to 3:14:07 a.m. GMT, January 19, 2038).

–d *directory* Create time conversion information files in the directory *directory* rather than in the standard directory **/usr/share/lib/zoneinfo**.

–l *timezone* Use the time zone *timezone* as local time. **zic** will act as if the file contained a link line of the form:

Link *timezone* **localtime**

FILES

/usr/share/lib/zoneinfo standard directory used for created files

SEE ALSO

time(1), **ctime**(3C)

NOTES

For areas with more than two types of local time, you may need to use local standard time in the **AT** field of the earliest transition time's rule to ensure that the earliest transition time recorded in the compiled file is correct.