

MCR10188

Add Current Time Zone Abbreviations

Revision 1.0

Eric Swenson

October 10, 2026

1 Problem Description

[Ticket #26](#) calls for updating the allowed time zones on the `clock` configuration card to match the currently prevalent time zones. Currently, only those time zones specifically known to Multics are allowed, and the known list lacks many abbreviations in common use today (for example `utc`, `cest`, `aest`).

1.1 Background

`init_clocks` accepts the `clock` card's zone only if it is one of the short names in `time_info_$zone_names`, built from `time_info_.cds` (`bound_date_time_`). The same table is used for zone names in time strings, `date_time_$format` and the user's default zone. It has 48 zones, last changed in 1987; Multics zones are fixed offsets from GMT, so standard and daylight (summer) time are separate entries.

2 Proposed Fix

This MCR proposes to update `time_info_.cds` with 16 additional time zones with English names (the French, German and Spanish tables are filled from English for zones they do not name, as for other zones), and `the_zone_count` goes from 48 to 64:

Short	GMT offset	Name
utc	0	Coordinated Universal Time
wet	0	Western European Time
west	+1	Western European Summer Time
cest	+2	Central European Summer Time
eest	+3	Eastern European Summer Time
msk	+3	Moscow Time
akst	-9	Alaska Standard Time
akdt	-8	Alaska Daylight Time
hkt	+8	Hong Kong Time
sgt	+8	Singapore Time
awst	+8	Australian Western Standard Time
kst	+9	Korea Standard Time
acst	+9.5	Australian Central Standard Time
acdt	+10.5	Australian Central Daylight Time
aest	+10	Australian Eastern Standard Time
aedt	+11	Australian Eastern Daylight Time

None of these abbreviations is already used in any of the four languages. Existing zones are unchanged (the older Australian abbreviations such as *east*, *cast* remain valid). A comment marks the additions.

A `compare_ascii` of the current and proposed `time.info_.cds` is below:

```
cpa [lpn time_info_.cds] ==
```

```
A94      the_zone_count init (48),          /* how many zones in the table */
Changed by B to:
B94      the_zone_count init (64),          /* how many zones in the table */
```

Inserted in B:

```
B255     /**** Abbreviations in current use (ticket 26), so that they can be given on */
B256     /**** the clock card and in time strings. Multics zones are fixed offsets, so */
B257     /**** standard and daylight (summer) time are separate zones.                */
B258
B259     call set_zone (english, "utc ", "utc ", 0, "Coordinated Universal Time");
B260     call set_zone (english, "wet ", "wet ", 0, "Western European Time");
B261     call set_zone (english, "west", "west", +1, "Western European Summer Time");
B262     call set_zone (english, "cest", "cest", +2, "Central European Summer Time");
B263     call set_zone (english, "eest", "eest", +3, "Eastern European Summer Time");
B264     call set_zone (english, "msk ", "msk ", +3, "Moscow Time");
B265     call set_zone (english, "akst", "akst", -9, "Alaska Standard Time");
B266     call set_zone (english, "akdt", "akdt", -8, "Alaska Daylight Time");
B267     call set_zone (english, "hkt ", "hkt ", +8, "Hong Kong Time");
B268     call set_zone (english, "sgt ", "sgt ", +8, "Singapore Time");
B269     call set_zone (english, "awst", "awst", +8,
B270                                     "Australian Western Standard Time");
B271     call set_zone (english, "kst ", "kst ", +9, "Korea Standard Time");
B272     call set_zone (english, "acst", "acst", +9.5,
B273                                     "Australian Central Standard Time");
```

```

B274      call set_zone (english, "acdt", "acdt", +10.5,
B275                                "Australian Central Daylight Time");
B276      call set_zone (english, "aest", "aest", +10,
B277                                "Australian Eastern Standard Time");
B278      call set_zone (english, "aedt", "aedt", +11,
B279                                "Australian Eastern Daylight Time");
B280
Preceding:
A255      /*  +-+ +-+ +-+ +-+ +-+ +-+ french language values +-+ +-+ +-+ +-+ +-+ +-+ */

```

Comparison finished: 2 differences, 28 lines.

3 Documentation

`display_time_info -zones` lists the zones from the table, so no info segment change is needed. Documentation of the `clock` card that lists zones, if any, should be updated.

4 Test

Steps 1 and 2 can be done in a running system: `display_time_info` (in `bound_time_rtns_`) reaches `time_info_` by an ordinary dynamic link, so running this after initiating the new `time_info_` should show the new time zones.

Steps 3 and 4 require booting with a new MST that includes the updated `time_info_` because `bound_date_time_` is a supervisor segment (segment 113, ring brackets 0, 5, 5), so every process uses the copy loaded at boot, and `date_time_` reaches `time_info_` through links the binder resolved inside the bound segment. A newly compiled `time_info_` is therefore not seen until a system tape containing it is booted.

1. `cds time_info_` completes without the “zones supplied” error checks reporting a count mismatch.
2. `display_time_info -zones` lists the new zones in all four languages.
3. `clock iso_long_date_time "now" -zone cest` and time strings such as "12:00 aest" work.
4. Boot with `clock 0 utc` (and, separately, `clock 0 cest`): the system starts with that zone and the correct time.

I haven't booted the system yet with a new hardcore, but step 2, above, shows the new time zones:

```
display_time_info -zones
```

```

english-----
Zone info(short,offset,long)
1: nt   -1100 Nome Time
2: hst  -1000 Hawaiian Standard Time
3: yst  -0900 Yukon Standard Time
4: hdt  -0900 Hawaiian Daylight Time
5: akst -0900 Alaska Standard Time

```

6: pst -0800 Pacific Standard Time
 7: ydt -0800 Yukon Daylight Time
 8: akdt -0800 Alaska Daylight Time
 9: mst -0700 Mountain Standard Time
 10: pdt -0700 Pacific Daylight Time
 11: cst -0600 Central Standard Time
 12: mdt -0600 Mountain Daylight Time
 13: est -0500 Eastern Standard Time
 14: cdt -0500 Central Daylight Time
 15: ast -0400 Atlantic Standard Time
 16: edt -0400 Eastern Daylight Time
 17: nst -0330 Newfoundland Standard Time
 18: gst -0300 Greenland Standard Time
 19: adt -0300 Atlantic Daylight Time
 20: ndt -0230 Newfoundland Daylight Time
 21: at -0200 Azores Time
 22: wat -0100 West Africa Time
 23: ut -0000 Universal Time
 24: z -0000 Universal Time
 25: gmt -0000 Greenwich Mean Time
 26: utc -0000 Coordinated Universal Time
 27: wet -0000 Western European Time
 28: cet +0100 Central European Time
 29: met +0100 Middle Europe Time
 30: mewt +0100 Middle Europe Winter Time
 31: bst +0100 British Summer Time
 32: swt +0100 Swedish Winter Time
 33: fwt +0100 French Winter Time
 34: west +0100 Western European Summer Time
 35: mest +0200 Middle Europe Summer Time
 36: eet +0200 Eastern European Time
 37: sst +0200 Swedish Summer Time
 38: fst +0200 French Summer Time
 39: cest +0200 Central European Summer Time
 40: bt +0300 Baghdad Time
 41: eest +0300 Eastern European Summer Time
 42: msk +0300 Moscow Time
 43: zp4 +0400 GMT +4 hours.
 44: zp5 +0500 GMT +5 hours.
 45: ist +0530 Indian Standard Time
 46: zp6 +0600 GMT +6 hours.
 47: wast +0700 West Australian Standard Time
 48: jt +0730 Java Time
 49: wadt +0800 West Australian Daylight Time
 50: cct +0800 China Coast Time
 51: hkt +0800 Hong Kong Time
 52: sgt +0800 Singapore Time
 53: awst +0800 Australian Western Standard Time
 54: jst +0900 Japan Standard Time
 55: kst +0900 Korea Standard Time
 56: cast +0930 Central Australian Standard Time
 57: sast +0930 South Australian Standard Time

```

58: acst +0930 Australian Central Standard Time
59: east +1000 East Australian Standard Time
60: aest +1000 Australian Eastern Standard Time
61: cadt +1030 Central Australian Daylight Time
62: sadt +1030 South Australian Daylight Time
63: acdt +1030 Australian Central Daylight Time
64: eadt +1100 East Australian Daylight Time
65: aedt +1100 Australian Eastern Daylight Time
66: nzst +1200 New Zealand Standard Time
67: nzdt +1300 New Zealand Daylight Time

```

5 Files Changed

bound_date_time..s.archive	time_info..cds
>sl1	bound_date_time_ (rebound; on the hardcore list, so installed with a new system tape)

6 Version History

2026-10-10	1.0	Initial version of the MCR.
------------	-----	-----------------------------