Timezone and "Z" parameter

> The "Z" parameter and timezone information is only used in the XML API when exporting in CSV format. This only affects human-friendly Date & Time values in CSV exports. It does not have any affect when returning XML formatted data, nor any affect on any time-related input parameters.

> Beginning in firmware v1.2, omitting the **value** of the "Z" parameter will cause the CSV output to use the locally configured timezone for human-friendly CSV Date & Time values (configured in Settings -> Date & Time). For this to work, the "Z" parameter must be passed, but with an empty value (e.g., `egauge-show?n=60&m&c&Z=`)

When using the XML API to request data in CSV format, the query string parameter "Z" is used to specify a timezone to format the Date & Time column in the CSV output. Omitting this parameter completely will cause the Date & Time column to output Unix Timestamps. Providing an invalid value is undefined, but may cause the Date & Time to output in UTC time in human-friendly format.

The format of this string is described under the environment variable TZ at

https://pubs.opengroup.org/onlinepubs/009695399/basedefs/xbd_chap08.html. Examples of how to decode and write custom timezones can be found at the end of this page.

Common Timezones

US/Eastern	LST5LDT4,M3.2.0/02:00,M11.1.0/02:00
US/Central	LST6LDT5,M3.2.0/02:00,M11.1.0/02:00
US/Mountain	LST7LDT6,M3.2.0/02:00,M11.1.0/02:00
US/Arizona	LST7
US/Pacific	LST8LDT7,M3.2.0/02:00,M11.1.0/02:00
US/Alaska	LST9LDT8,M3.2.0/02:00,M11.1.0/02:00
US/Hawaii	LST10
US/Baker Island	LST-12
US/Samoa	LST11
Australia/Central	LST-10:30

Australia/Eastern	LST-10LDT-11,M10.1.0/02:00,M4.1.0/03:00
Australia/Norfolk	LST-12:30
Azores Islands	LST1LDT0,M3.5.6/24:00,M10.5.0/01:00
Brazil	LST3LDT2,M10.3.6/24:00,M2.5.6/24:00
Canada/Atlantic	LST4LDT3,M3.2.0/02:00,M11.1.0/02:00
China/Beijing	LST-8
Europe/Central	LST-1LDT-2,M3.5.0/02:00,M10.5.0/03:00
Europe/Eastern	LST-2LDT-3,M3.5.0/03:00,M10.5.0/04:00
Europe/Western	LST0LDT-1,M3.5.0/01:00,M10.5.0/02:00
India	LST-6:30
Iran	LST-4:30LDT-5:30,M3.3.2/24:00,M9.3.4/24:00
Iraq/Baghdad	LST-3
Kazakhstan/Astana	LST-6
New Zealand	LST-12LDT-13,M9.5.0/02:00,M4.1.0/03:00
Pakistan/Karachi	LST-5
Russia/Moscow	LST-4
Russia/Vladivostok	LST-11
South Sandwich	LST2
Thailand/Bangkok	LST-7
Tokyo	LST-9

Decoding and understanding timezone strings

In the timezone strings, "LST" and "DST" stand for "Local Standard Time" and "Daylight Standard Time", respectively.

For a full description of the timezone string format, see the environment variable TZ at https://pubs.opengroup.org/onlinepubs/009695399/basedefs/xbd_chap08.html.

The string is generally divided into 3 sections separated by commas. The first section describes the difference between UTC and local times. The second section describes when daylight time begins, and the third section describes when it ends.

The sections describing when daylight savings starts and ends is in the following format:

`Mm.n.d/t`

The `d` 'th day (0 <= d <= 6) of week `n` of month `m` of the year (1 <= n <= 5, 1 <= m <= 12, where week 5 means "the last d day in month m" which may occur in either the fourth or the fifth week). Week 1 is the first week in which the d'th day occurs. Day zero is Sunday. `t` is the 24-hour time in which it occurs. If omitted, it defaults to 2:00 AM.

US/Eastern

Timezone string: `LST5LDT4,M3.2.0/02:00,M11.1.0/02:00`

Each section, separated by commas, is described as such:

- `LST5LDT4` UTC is 5 hours after local standard time (`LST5`), and UTC is 4 hours after daylight savings time (`LDT4`)
- `M3.2.0/02:00` Daylight Saving Time starts in March (`3`) on the second week (`2`) on Sunday (`0`) at 2:00AM (`2:00`)
- `M11.1.0/02:00` Daylight Savings Time ends in November (`11`) on the first week (`1`) on Sunday (`0`) at 2:00AM (`2:00`)

US/Hawaii

Timezone string: `LST10`

UTC is 10 hours after local Hawaii time. Daylight savings time is not observed, so there is no LDT definition or additional sections.

New Zealand

Timezone string: `LST-12LDT-13,M9.5.0/02:00,M4.1.0/03:00`

Each section, separated by commas, is described as such:

- `LST-12LDT-13` UTC is 12 hours earlier than local standard time (`LST-12`), and UTC is 13 hours earlier than local daylight time (`LDT-13`)

- `M9.5.0/02:00` Daylight Saving Time starts in September (`9`) on the last week (`5`) on Sunday (`0`) at 2:00AM (`2:00`)
- `M4.1.0/03:00` Daylight Savings Time ends in April (`4`) on the first week (`1`) on Sunday (`0`) at 3:00AM (`3:00`)

Please visit kb.egauge.net for the most up-to-date documentation.