In complex expressions, *x* is complex, and sech(*x*) returns a complex value.

See Also
cosh, **tanh**, **coth**, **csch**

Secs2Date

Secs2Date(*seconds*, *format* [, *sep*])

The Secs2Date function returns a string containing a date.

With *format* values 0, 1, and 2, the formatting of dates depends on operating system settings entered in the Language & Region control panel (*Macintosh*) or the Region control panel (*Windows*). These date formats do not work with dates before 0001-01-01 in which case Date2Secs returns an empty string.

If *format* is -1, the format is independent of operating system settings. The fixed-length format is "*day /month /year* (*dayOfWeekNum*)", where *dayOfWeekNum* is 1 for Sunday, 2 for Monday… and 7 for Saturday.

If format is -2, the format is YYYY-MM-DD.

The optional sep parameter affects format -2 only. If sep is omitted, the separator character is "-". Otherwise, sep specifies the separator character.

Parameters

seconds is the number of seconds from 1/1/1904 to the date to be returned.

seconds is limited to the range -1094110934400 (-32768-01-01) to 973973807999 (32768-12-31). For *seconds* outside that range, Secs2Date returns an empty string.

format is a number between -2 and 2 which specifies how the date is to be constructed.

Examples

```
Print Secs2Date(DateTime,-2)      // 1993-03-14
Print Secs2Date(DateTime,-2,"/")  // 1993/03/14
Print Secs2Date(DateTime,-1)      // 15/03/1993 (2)
Print Secs2Date(DateTime,0)       // 3/15/93 (depends on system settings)
Print Secs2Date(DateTime,1)       // Monday, March 15, 1993 (depends on system settings)
Print Secs2Date(DateTime,2)       // Mon, Mar 15, 1993 (depends on system settings)
```

See Also

For further discussion of how Igor represents dates, see **Date/Time Waves** on page II-85.

The **date**, **date2secs** and **DateTime** functions.

Secs2Time

Secs2Time(*seconds*, *format*, [*fracDigits*])

The Secs2Time function returns a string containing a time.

Parameters

seconds is the number of seconds from 1/1/1904 to the time to be returned.

format is a number between 0 and 5 that specifies how the time is to be constructed. It is interpreted as follows:

0: Normal time, no seconds.

1: Normal time, with seconds.

2: Military time, no seconds.

3: Military time, with seconds and optional fractional seconds.

4: Elapsed time, no seconds.

5: Elapsed time, with seconds and optional fractional seconds.

"Normal" formats (0 and 1) follow the preferred formatting of the short time format as set in the International control panel (*Macintosh*) or in the Regional and Language Options control panel (*Windows*).

"Military" means that the hour is a number from 0 to 23. Hours greater than 23 are wrapped.