Date2Secs Page 1

Date2Secs

Convert a DateTimeRec into a "raw" seconds value

#include <<u>OSUtils.h</u>>

Operating System Utilities

void **Date2Secs**(*dtrp*, *secs*);

<u>DateTimeRec</u> * dtrp; contains day, month, year, hour, etc. unsigned long *secs; receives "raw" seconds since 1/1/1904

Date2Secs converts the fields of a <u>DateTimeRec</u> into a "raw" seconds value. The result could be used in comparing two dates or setting the clock.

dtrp is the address of a 14-byte <u>DateTimeRec</u> structure. The <u>dayOfWeek</u> field is ignored. The other fields are used (in a flexible manner) to calculate the value for secs.

secs is the address of a 4-byte unsigned long int. Upon return, it will contain a "raw" seconds value corresponding to the values of the fields in the <u>DateTimeRec</u> addressed by *dtrp*.

Returns: none

Notes: **Date2Secs** is a handy intermediate step for generating a textual representation of a date (see **IUDateString**). It is also useful for adding, subtracting, or comparing two dates/times. For instance:

#define SECS_PER_DAY (60*60*24)

<u>DateTimeRec</u> ivcDate, shipDate; unsigned <u>long</u> ivcSecs, shipSecs; <u>short</u> elapsedDays;

Date2Secs(&ivcDate, &ivcSecs);
Date2Secs(&shipDate, &shipSecs);
elapsedDays = (shipSecs-ivcSecs)/SECS_PER_DAY;

Although the <u>year</u> and <u>month</u> fields of the <u>DateTimeRec</u> should be valid, this call is flexible about other fields. Thus, you can convert an "invalid" date (such as January 200 or today+30) to "raw" seconds, and back to date/time to make it valid. For instance:

<u>DateTimeRec</u> theDate = {1989, 3,15 }; /* March 15 */

theDate.day +=30; /* March 45 */

Date2Secs(&theDate, &secs);

Secs2Date(secs, &theDate); /* April 14 */

Since the base date for the any "raw seconds" value is 1/1/1904 and since secs is a 32-bit value, you won't be able to calculate with dates beyond Feb. 6, 2040.