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**Tension Software**

# Date Time Calc 2.4

## User Guide



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# Welcome to Date Time Calc

## Date Time Calc to calculate future and past dates and to calculate differences between dates

Date Time Calc, is a simple tool to solve problems that often users have with dates in business and in technical fields:

- Calculate a date starting from a given date and adding a time interval
- Calculate a previous date starting from a given date and subtracting a time interval.
- Calculate the difference between two separate dates, in years, months, days or with more precision (days, hours, minutes, seconds)

Date Time Calc can work at level of days or also calculating dates and differences using years, months, days, hours, minutes and seconds.

All that, wrapped inside and intuitive and easy of use Mac interface.

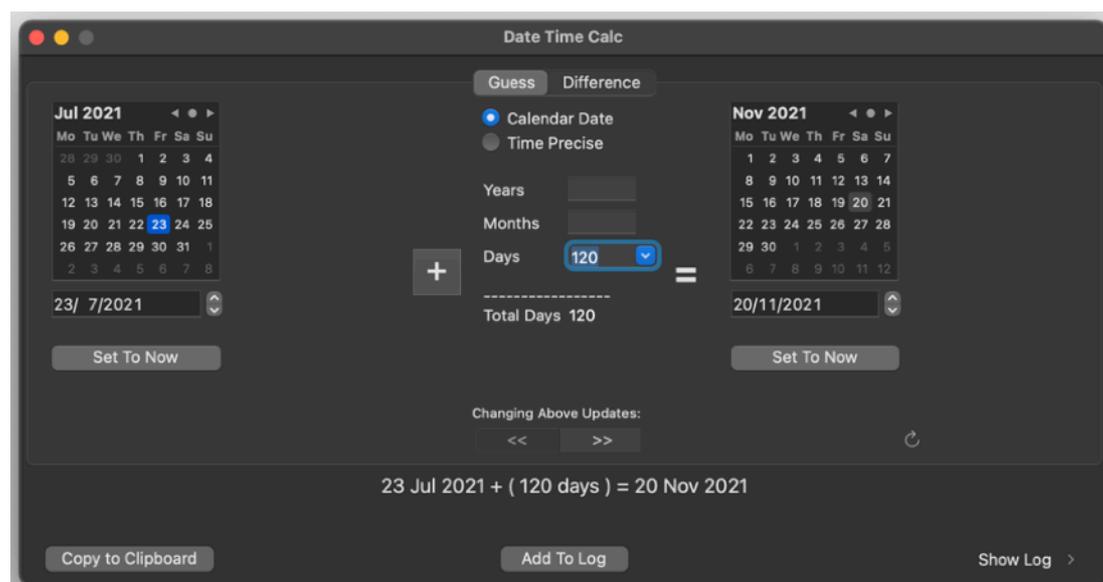
In Date Time Calc any time you change a value everything changes to make values coherent.

Date time calc was realised to be simple to use and effective in its results

You can modify it's input and see the result live as you change the data

You can change the left or the right date and the app keeps all the datas current according with your last input

The values you read are always correct and updated as you type or click, there is no a 'Calc' button or a 'Calculation Required' state when you modify things

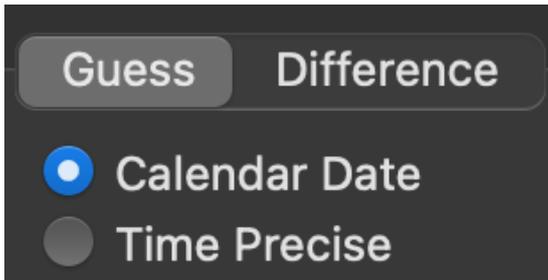


You have guarantee that Date Time Calc result is always up to date with the current input.

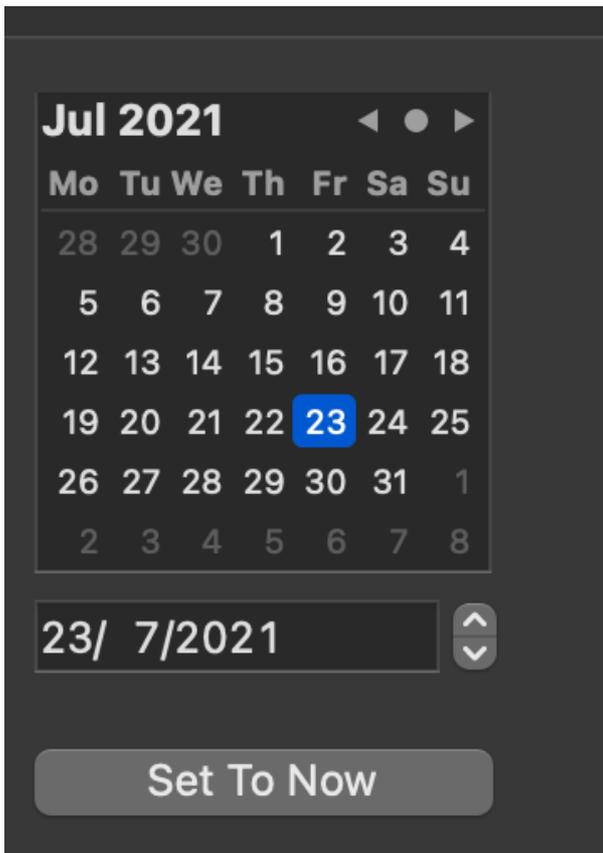
# Getting Started with Date Time Calc

## Calculating 90 days from now

- Launch Date Time Calc and if not already opened, open a new document
- Select in the upper tab view 'Guess' (a date)
- Select also 'Calendar date' below

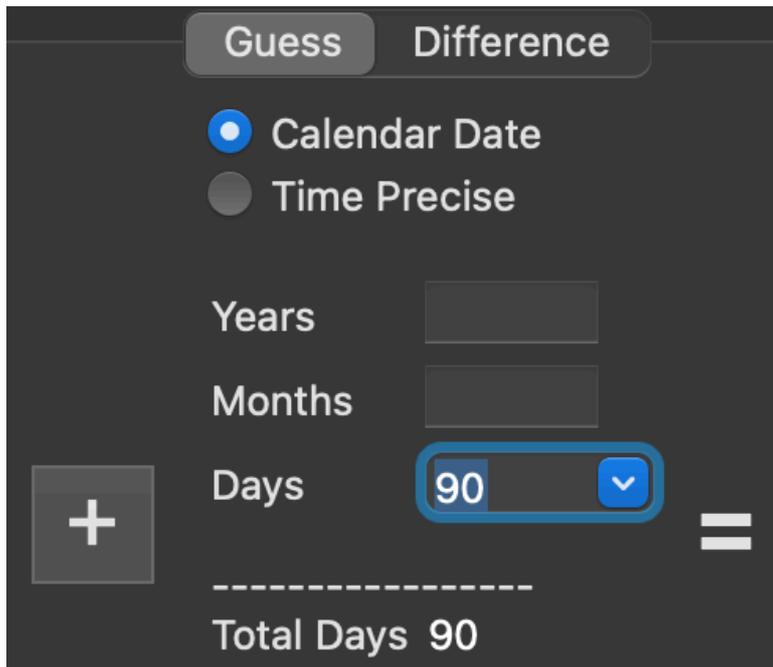


- Press on the left part, in left date' the button 'Set to Now'



- Be sure in the central part is selected ' >> '
- Select 'Calendar Date'

- Insert 90 days

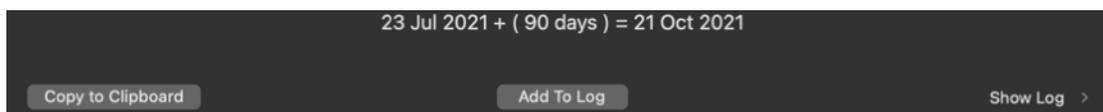


Done

On the right part date time is set to the date on the left + 90 days

You can see the result displayed also in amore clear way on the bottom of the window.

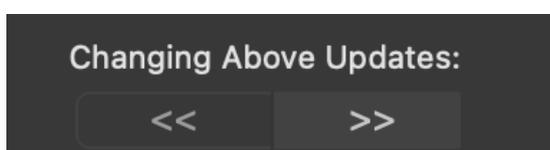
The date is visualised according to your international settings and language selected in the System Preference (using your language and h24 or h12 am/pm time format)



Now any changes in any of the two date will update the other date maintaining the 90 days of difference between the two dates

Try to modify 'the left date or right date, any changes is reflected in the other date to maintain the inserted 'Difference'

If you change the difference, the date updates is the one selected in the 'Change Here Updates' control, the one on the left or the one on the right



# Reference

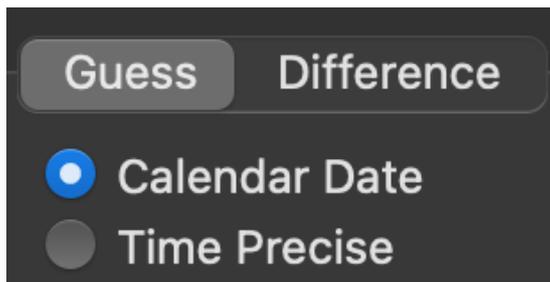
## Calculation performed

Date Time Calc allows to calculate 'Guess' a future or past date from an initial date adding or subtracting a specified amount of years, months and days in 'Calendar Date' mode or using days, hours minutes and seconds using the 'Time Precise' mode.

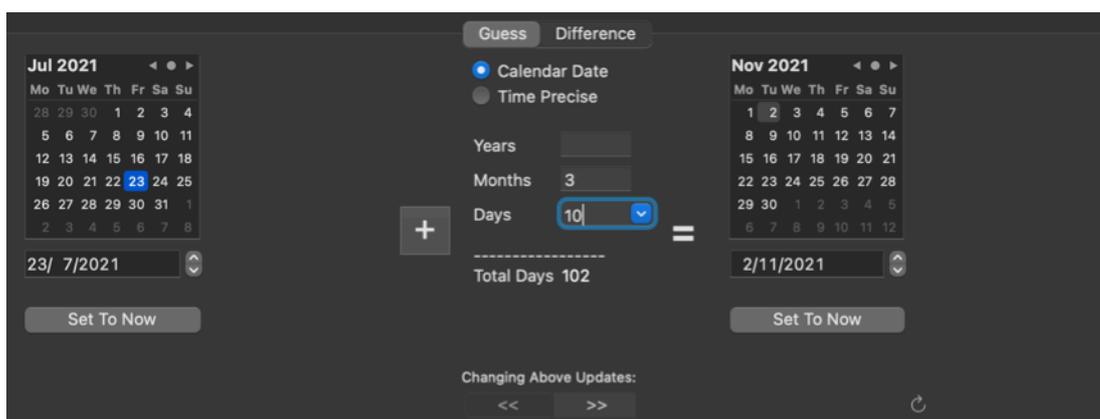
It allows also to calculate differences between two specified dates.

## Date Guess

Calculation of future and past dates is performed selecting the 'Guess' tab



The window has a Date 1 on the left and a Date 2 on the right and a difference between the two dates in the middle

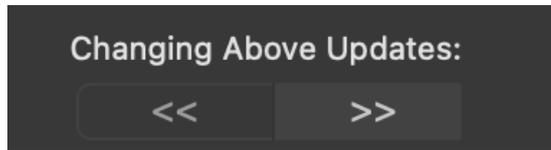


When you modify the date on the left (left date) the content is updated to maintain the right date equal to left date plus the difference:  
 $\text{left date} + (\text{difference}) = \text{right date}$

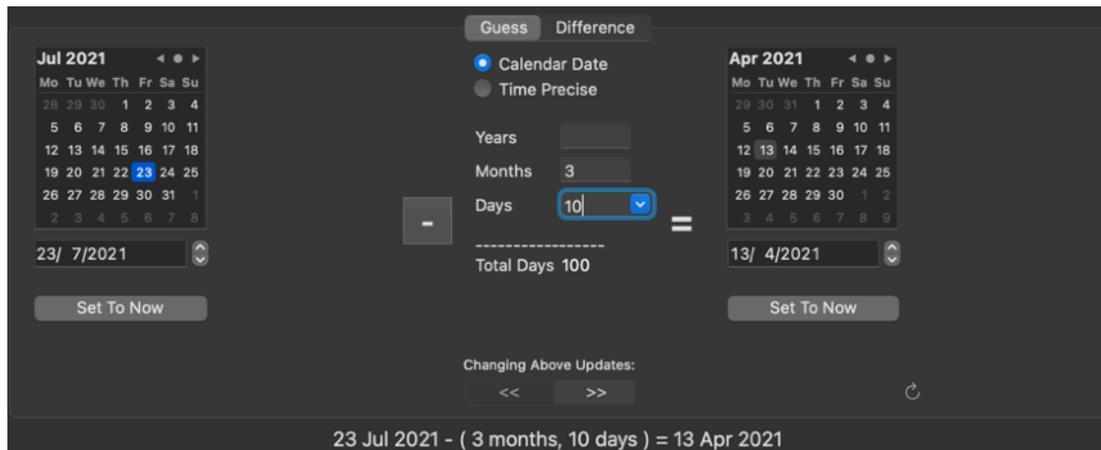
In this way if you put 90 days in the difference, the date on the right will be always 90 days after left date

If you change the the right date, left date will be maintained 90 days before right date

If you change the difference in the middle, the date changed is the one specified in the control in the middle 'Changing Here Updates'



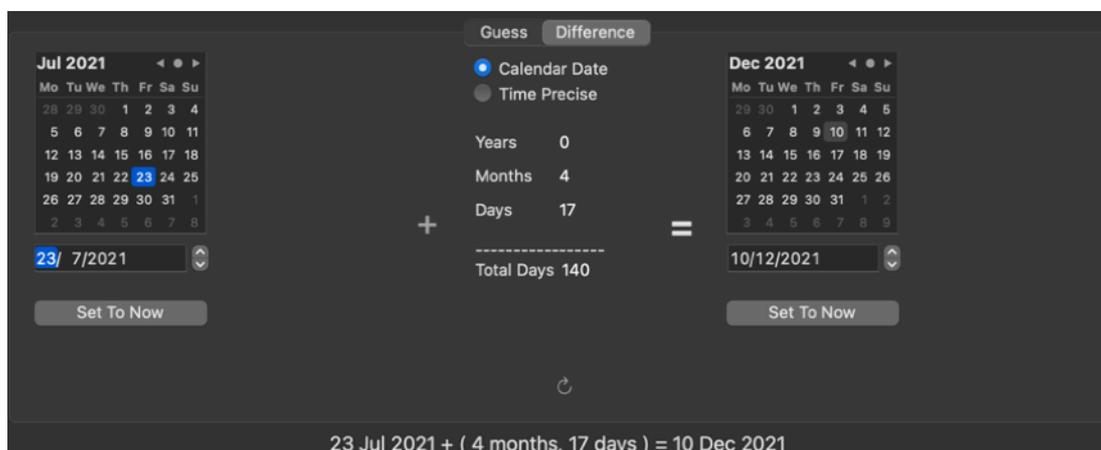
If you press the '+' button it changes to a '-' and it switches from adding the time interval to subtracting it from the left date



left date - ( difference ) = right date

## Date Difference

To calculate difference between two dates select the upper tab 'Date Difference'  
Insert the first date on the left and the second date on the right



The central part will show the difference

## Calendar Date

Calendar date allows to insert a time difference in years, months and days. We added this from release 1 at popular request, so we know it was a most wanted feature.

You can add years, months, days and obtain also difference in those units in a total natural way of thinking at long time intervals.

The screenshot shows a dark-themed interface with two tabs at the top: "Guess" and "Difference". Below the tabs, there are two radio buttons: "Calendar Date" (selected) and "Time Precise". Under "Calendar Date", there are three input fields: "Years" with the value "1", "Months" with the value "4", and "Days" with the value "17". To the left of the "Days" field is a plus sign button, and to the right is an equals sign button. Below the input fields, there is a dashed line and the text "Total Days 505".

Remember that years, months and days are not precise methods because years, months and even days are not absolute measure units.

Years are for 3 years of 365 days and for one year of 366 days. (only 4 years have a precise time length)

Months vary from 28 days to 31 and February is 28 days and 29 any 4 years.

Days are always 24 hours except for 2 times per year when time changes due to daylight saving time changes.

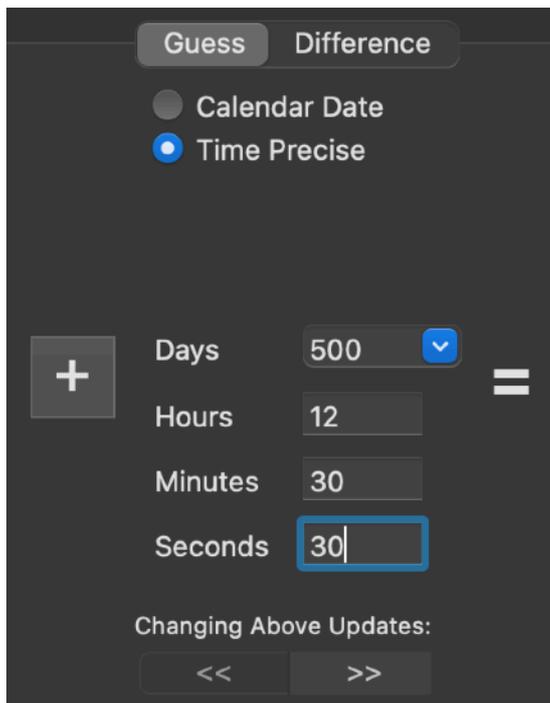
So the question 'How much days are inside 2 years 3 months' has no answer if you don't specify starting (or ending) from when and you can see that this time interval can have different lengths using Date Time Calculation.

If you want to have precise reference to a time interval in days (as an example in a technical or legal document) without a dependence of when it is placed within a year, always use days only as a measure unit and avoid years and months.

## Time Precise

Switching to time precise changes the field used to specify a time interval to add or subtract.

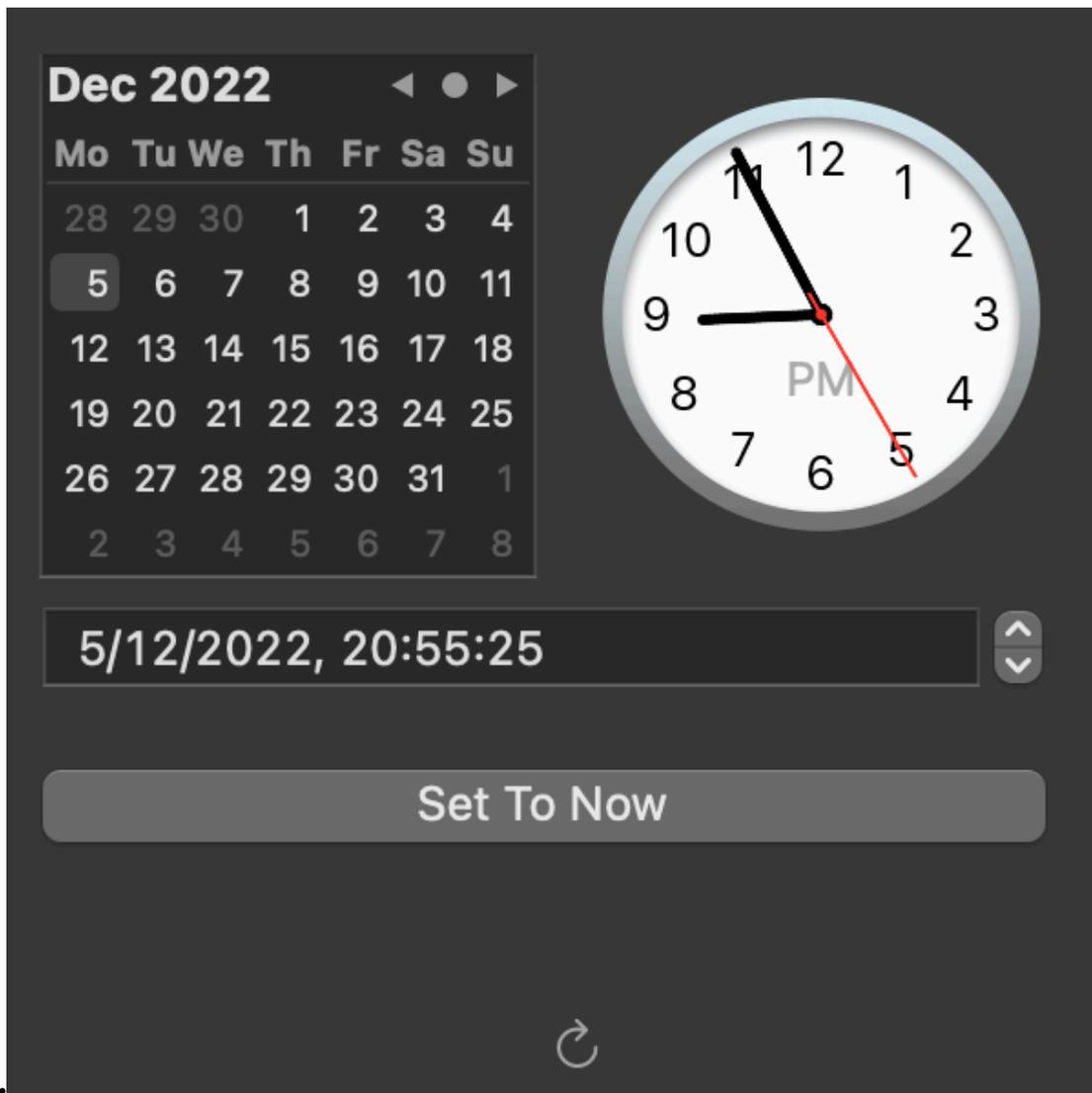
The Time Precise mode allows to add days, hours, minutes and seconds.



## Insertion of dates

To insert a date in the two areas left date and the right date you can use standard macOS controls that any Mac user already knows

- A standard calendar with point and click use (in Calendar date)

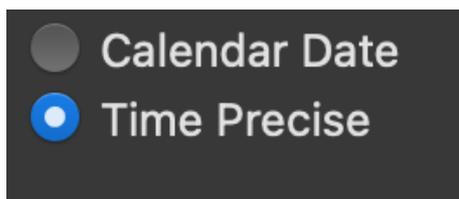


- A calendar plus a clock with draggable parts in Time precise mode
- A textual date picker

Any of these parts is a representation of the same date time, the left date and the right date used for calculation

Using this control, you can easily set dates

Selecting 'Use Days' or 'Use Days + Time' changes the calendar controls in accordance to make things as easy and simple as possible.



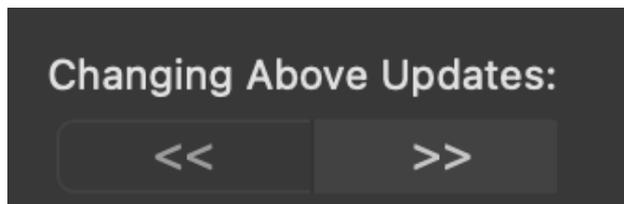
Note that the two dates , left date and right date are always linked via the calculation and when you change one, the other changes according to the difference  
 So if there is 1 day difference and you put November 7, 2013 inside Date Time 1, automatically Date Time 2 will be set to November 8, 2013  
 The opposite is also true

if you put 31 December on the right date the left date adjust to 30 december 2013

## How to calculate a forward date

You want to calculate a 'future date', using a 'starting date' and adding some days  
Insert the 'starting' date on the left. If you want to use the current date press 'Set to Now' in the left date area

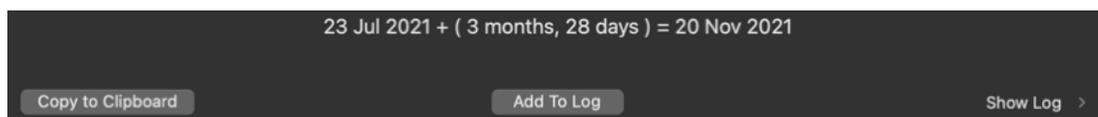
In the 'Difference area be sure 'Changing Here Updates' is selected on '>>'



Insert the time differences in days

The right date will show the resulting date

The result will be displayed also in the bottom part of the window



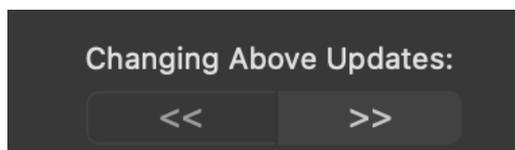
It's the same result you can see from the controls, only better readable and without possibility of misinterpretations.

## How to calculate a backward date

You want to calculate a 'past date', using a 'starting date' and subtracting some days.

Insert the 'starting' date on the right. If you want to use the current date press 'Set to Now' in the right date area

In the 'Difference area be sure updates '<<' is selected



Insert the time differences in days

The left date will show the resulting date

The result will be displayed also in the bottom part of the window

If you modify the date in the left date the right date will update its content as you type

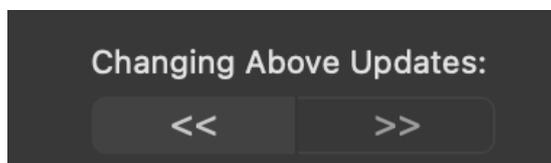
If you modify the date in the right date also in the left date the content is updated as you type

If you change the days in the 'Difference' area the the left date is updated, according with your 'Updates' control setting

This is not a suggested method because it can generate confusion and maybe in the future it maybe intentionally disabled to avoid misinterpretations of result

## Insert Difference in advance

If you insert the difference in advance, before inserting the dates, you can work regardless of the selection in the 'Changing Here Updates:' control



You just insert the difference in days, then:  
you set a date on the left date to obtain the date after the specified days on the right  
right date

or:

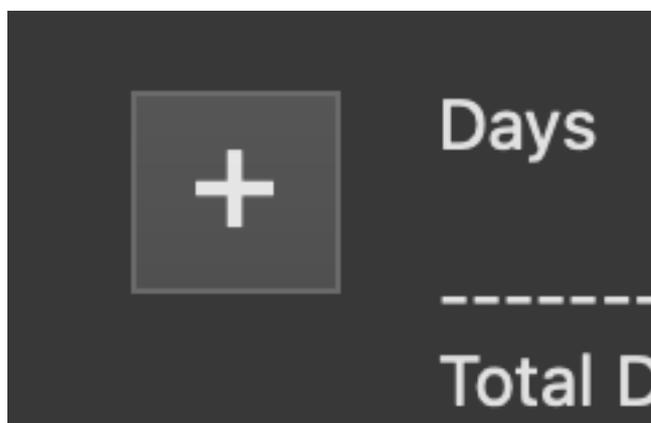
you setup the date in the right date to obtain the date before the specified days on  
the left date.

The controls always display values in accordance with your last input.

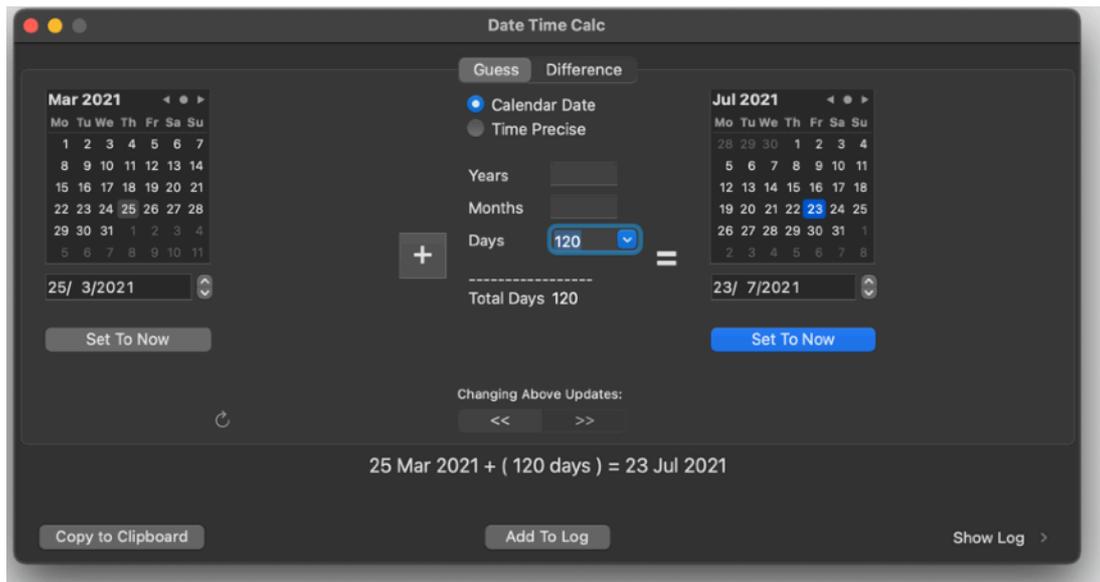
or you insert the starting date on the left and press the '-' butto to subtract the date  
range.

## Changing the sign of the operation

You can click the sign plus between the left date and the Time difference and the  
time elements will be subtracted and not added



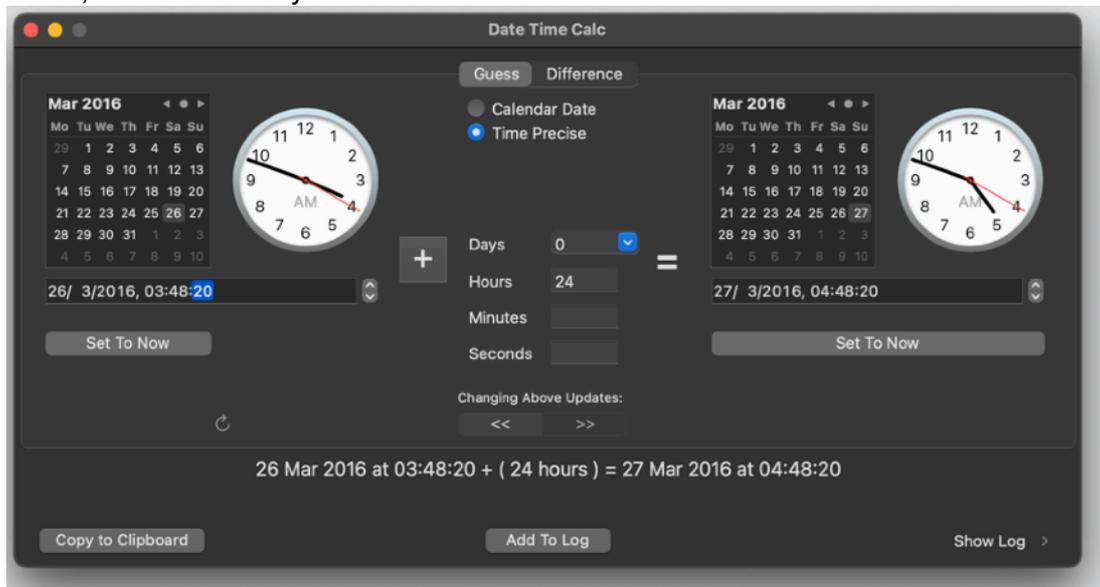
The result will change in accordance



## Daylight saving time and how long is considered a day

To see this particular aspect we will try this:

We have as geographic position Europe, so DST is considered for Central Europe. Inserting on left date, a past date of March 26, 2016 at 3:48:20 PM and adding 24 hours, we end one day



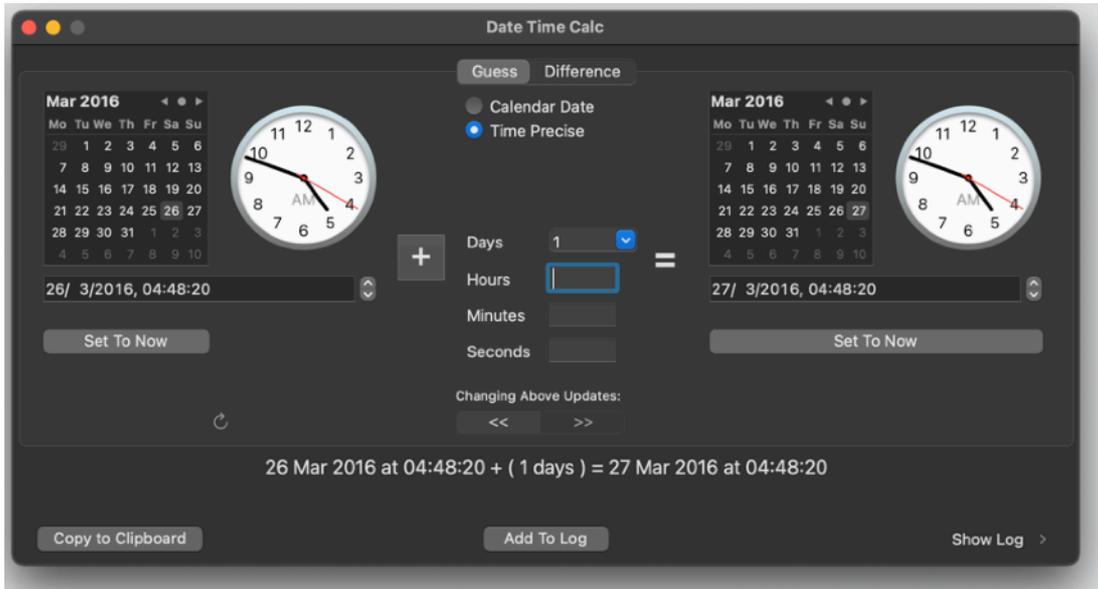
later at 4:48:20 PM (valid for Europe Central Time, it may change depending of your time zone, in case do it with the date of when your DST change applies in your time zone )

Why?

In the middle there is a time shift of 1 hour due to daylight saving time change, and there is a day with just 23 hours.

We added 24 hours so Date Time Calc did it exactly, added 24 hours

We try now adding 1 days

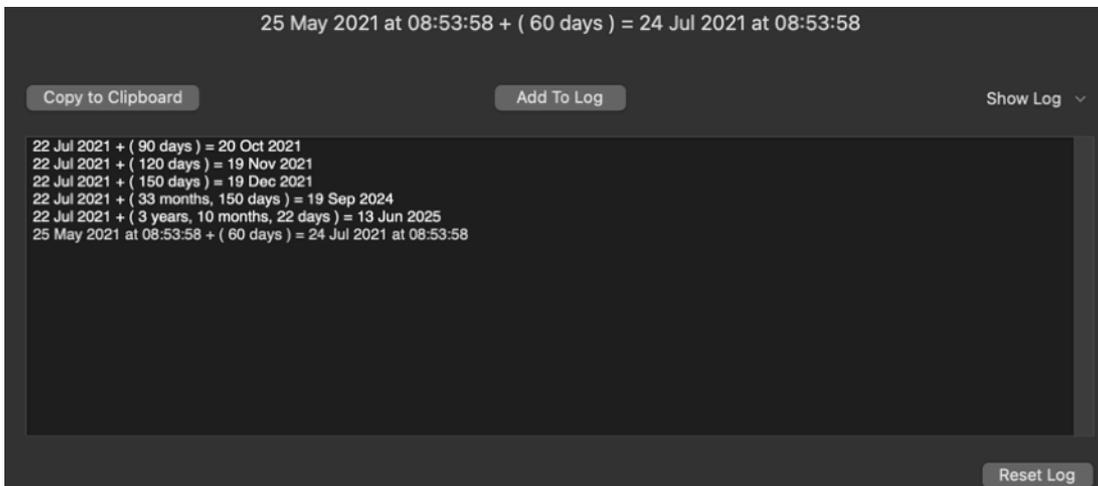


Now Date Time Calc is smart enough to understand that in that case it has to consider daylight saving time shift and one day will be of 23 hours due to daylight saving time change.

## Log

Log allows to write the obtained date time calculation inside the Log using the 'Add to Log' button inside the main window.

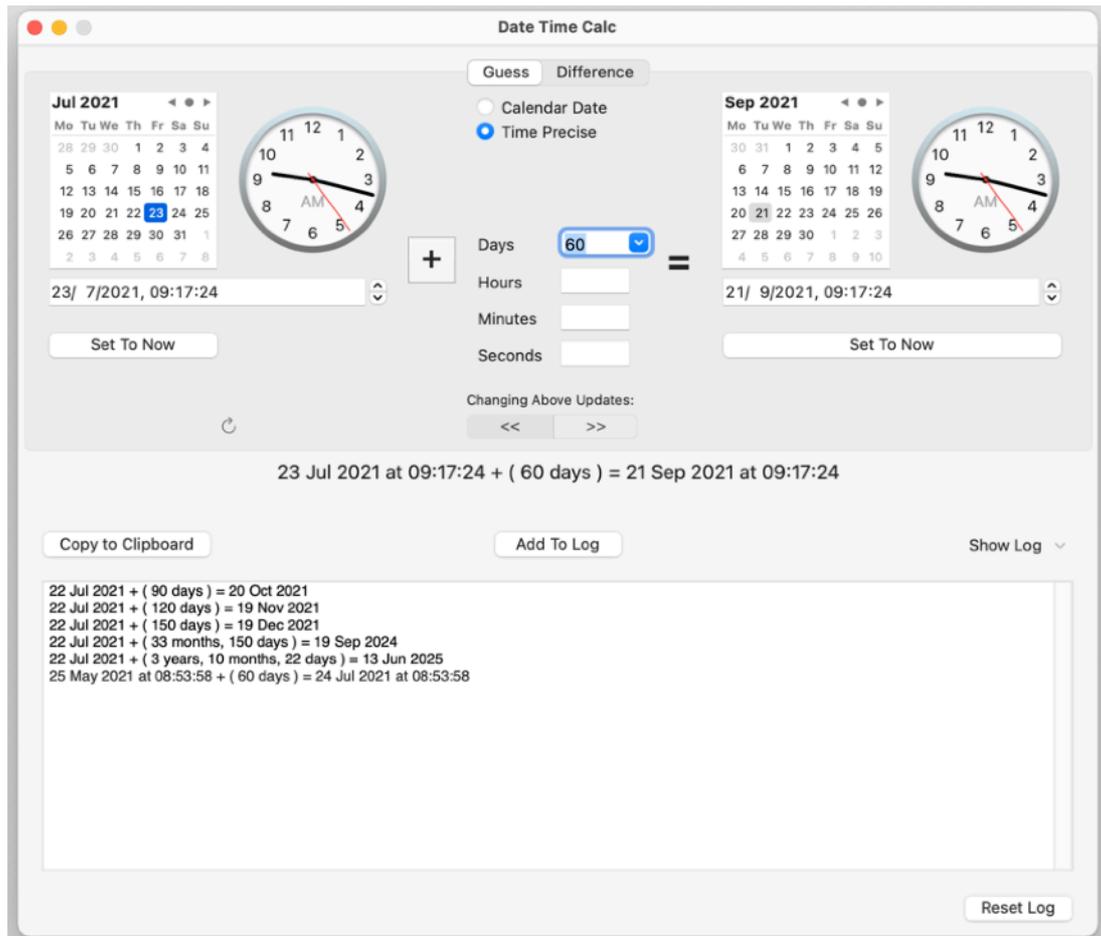
Log can be showed and hidden using the 'Show' Log discloser button in the lower right part of the window.



You can reset the log using the 'Reset Log' button  
The log keeps it's content over re-launch of the application until you decide to reset it via the 'Reset Log' button

## Dark Appearance Mode

This application is also fully compatible with Dark Appearance Mode available on macOS from macOS 10.14 Mojave and successive.



## Sandbox

Date Time Calc is a sandboxed app.  
It is not enabled to access your local files for your security. It doesn't need it to work properly.

## Help

Date Time Calc provides a standard help menu ...use the Date Time Calc Help command to access it!  
You can use the Help menu also to visit our site or contact us with the 'Web Site' command.

Available under the Help menu also a PDF user guide.

## Support

You can also obtain support using the 'Email Support' command. An email will be prepared using your email client with the correct address to send to.

Yes, we answer to your emails!

## About Tension Software and Ecleti

All the software asset by Tension Software is now under Ecleti

New company name but still the same owner and main developer (Roberto Panetta)

So for the users nothing changes. We provide the same software and the services.

All the user licenses are valid and assistance is provided as before to all our users.