

# Users-Manual for DateUtil and DateUtilC

Thursday, October 12, 2000

by  
Witkowski-Design, Edmund J. Witkowski III  
©2000 Witkowski-Design, Edmund J. Witkowski III

## **Technical Support:**

For any questions, comments, or suggestions  
please e-mail Edmund J. Witkowski III anytime at **ed@witkowski-design.com**  
or visit me at **www.Witkowski-Design.com**

## **Brief Summary:**

DateUtil is a Date Calculator that can do a variety of date manipulations:

- It can tell you how many days fall between two dates.
- It can further do a breakdown of those days into how many of them are Weekdays, how many are Sundays, Mondays, Tuesdays, etc.
- It can display the total days as Quantities of YEARS, MONTHS, WEEKS, and DAYS and any variation of that you want!
- You can calculate a future or past date starting from a Start-Date and telling how many Years, Months, Weeks, WeekDays (or Business Days), and Days to jump relative to that Start-Date.
- There is a Date Quantity Calculator that you can calculate Equivalent date quantities between Years, Months, Weeks, and Days.

# Table of Contents

---

<b>Chapter 1 - Purchasing / Registering</b>	<b>3</b>
<b>Palm-Basics</b>	<b>3</b>
<b>Registering Program</b>	<b>4</b>
Sending the Fee	4
Registration-Screen	4
Reg-Key	4
<b>Upgrading Older Versions</b>	<b>5</b>
Delete Old One	5
Overwrite Old One	5
<b>Chapter 2 – Introduction Screen</b>	<b>6</b>
<b>Description</b>	<b>6</b>
<b>Continue Button</b>	<b>6</b>
<b>Register Button</b>	<b>6</b>
<b>Chapter 3 – Difference Screen</b>	<b>7</b>
<b>Description</b>	<b>7</b>
<b>Buttons</b>	<b>7</b>
<b>Elapsed Time Mode</b>	<b>7</b>
<b>CountDown Mode</b>	<b>8</b>
<b>BreakDown</b>	<b>9</b>
<b>Calculator</b>	<b>9</b>
<b>Chapter 4 – Adjust Screen</b>	<b>10</b>
<b>Description</b>	<b>10</b>
<b>Date Quantities</b>	<b>10</b>
<b>Calculator</b>	<b>10</b>
<b>Finish Date</b>	<b>10</b>
<b>Chapter 5 – Calculator Screen</b>	<b>12</b>
<b>Description</b>	<b>12</b>
<b>Calculate Button</b>	<b>12</b>
<b>CheckBoxes</b>	<b>12</b>
<b>Solar Date Amounts</b>	<b>12</b>
<b>SaveOptions Button</b>	<b>13</b>

## Chapter 1 - Purchasing / Registering

---



### **Palm-Basics**

Above is a diagram showing where the different buttons are and what they are called. The diagram's main purpose is as a guide for the next section on how to Register the program you purchased.

## Registering Program

### Sending the Fee

For up-to-date instructions on how to pay the \$10 fee visit me at <http://www.witkowski-design.com> .

### Registration-Screen

A screenshot of a registration screen with a cyan background and a black border. At the top is a purple header bar with the text "Register Now!" in white. Below the header, the text reads: "To purchase this title please purchase it at my web-site: www.Witkowski-Design.com". This is followed by "FEE \$10" in bold. Then, "Send Reference# when Registering." is displayed. Below that is "Reference # : EDMUNDWI". To the right of "Reg-Key :" is a green rectangular text input field, and to its right is a small black upward-pointing arrow icon. At the bottom left is a pink button with the text "exit", and at the bottom right is a pink button with the text "Register".

A Reg-Key will unlock the 15-day limitation and allow the program to run indefinitely. In order for me to Generate your unique Reg-Key I need you to send me your REFERENCE# and which Palm-Model (PalmIII, PalmV, etc.) you use. The REFERENCE# is found on the Registration-Screen.

### There are two ways to get to the Registration-Screen:

- 1) Allow the program to expire and the only screen it goes to is the Registration-Screen.
- 2) Hit the REGISTER button on the Introduction Screen. The REFERENCE# should be 8 Capital Letters and/or Numbers. In some instances it will say "No Ref#" which is a valid REFERENCE#.

### Reg-Key

The Reg-Key must be entered in the Text-Field to the right of "Registration Code:" The Reg-Key is case sensitive and MUST be entered exactly as I give it to you. After entering the Reg-Key into the Text-Field press the REGISTER button. If you entered it incorrectly it will display INVALID. If you entered it correctly it will return to the application and refuse you further access to the Registration-Screen.

### **Upgrading Older Versions**

Upgrading versions to applications you already purchased are FREE as long as the Reg-Key given when you purchased is still valid. Contact the programmer for further assistance. There are two ways to upgrade a newer version: Delete Old One or Overwrite Old One.

#### **Delete Old One**

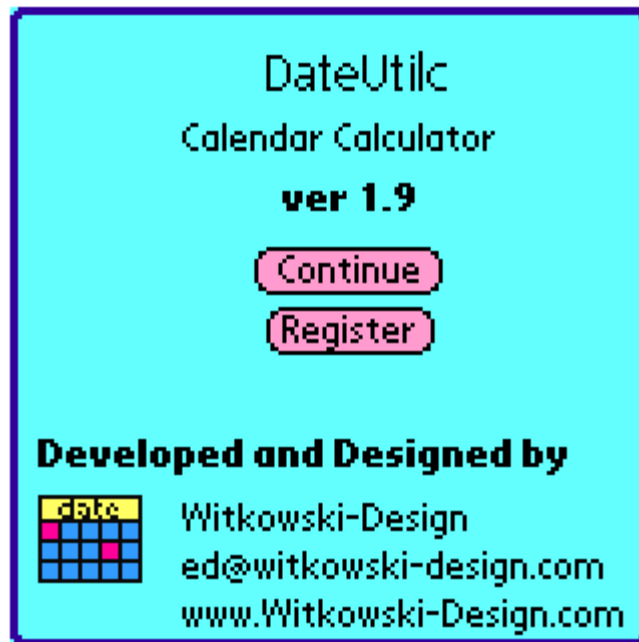
To delete ANY Palm application you must go to the Palm System Menu (see diagram) and choose DELETE. Then a list will appear showing all currently HotSynced programs. Choose the application name you want to DELETE (in this case DATEUTIL) and delete it. You are now ready to HotSync the new version into your Palm.

#### **Overwrite Old One**

As the Programmer/Developer, I often just HOTSYNC the newer version of a program into my palm over top of the older version. This usually works, however, I have encountered times when it still sees the older version no matter how many times I HotSync the newer version over top of the older version. In this case, you must DELETE the older version BEFORE HotSyncing the newer version (see section-a above.)

## Chapter 2 – Introduction Screen

---



### Description

The Introduction Screen contains the Title and the version # so you know if you have the latest version. At the bottom it contains the developer's name (who you will contact if you have any questions) and e-mail address [ed@witkowski-design.com](mailto:ed@witkowski-design.com)

### Continue Button

The **Continue** button will take you to the Difference Screen where you can calculate the # of days between two dates.

### Register Button

The **Register** button takes you to the Registration Screen where you enter your unique Reg-Key to unlock the 15-day limitation (for more information see Chapter 1 Section-ii for directions on Registering.)

## Chapter 3 – Difference Screen

---

The screenshot shows a window titled "Date Calculator" with a dark blue header. Below the header is a light blue area with two tabs: "Difference" (selected) and "Adjust". The "Start Date:" field displays "Sunday July 30, 1995" with "calendar" and "today" buttons to its right. The "Finish Date:" field displays "Thursday September 21, 2000" with "calendar" and "today" buttons to its right. Below these fields, the "Total Days = 1880" is shown, followed by a "Breakdown" button. At the bottom, a "calculator" button is on the left, and the breakdown "5y 1m 0w 22d" is on the right.

### Description

The Difference Screen Calculates the total number of days between a Start-Date and a Finish-Date. This is useful if you want to know the exact age of someone or how long you've worked at a certain job, or how many years you've been married, or how many days until a certain event. Every time you exit the program and start it again one of the dates, either the Start-Date or the Finish-Date, will be set to TODAY's date. Please read Chapter-5 Calculator Screen's section on the SaveOptions Button for more information.

### Buttons

- **Calendar** - Fills the screen with a calendar for easy date choosing.
- **Today** - Writes the current date in the display.
- **BreakDown** - Breaks the TotalDays down into # of each day of the week.
- **Calculator** - Takes you to the Calculator Screen.
- **Difference** - Takes you to the Difference Screen.
- **Adjust** - Takes you to the Adjust Screen.

### Elapsed Time Mode

If you set the FINISH date to TODAY's date and the Start Date to some past event (like a birthday, anniversary, 1st day at work, etc.) the TotalDays will be how long it has been since that day until today.

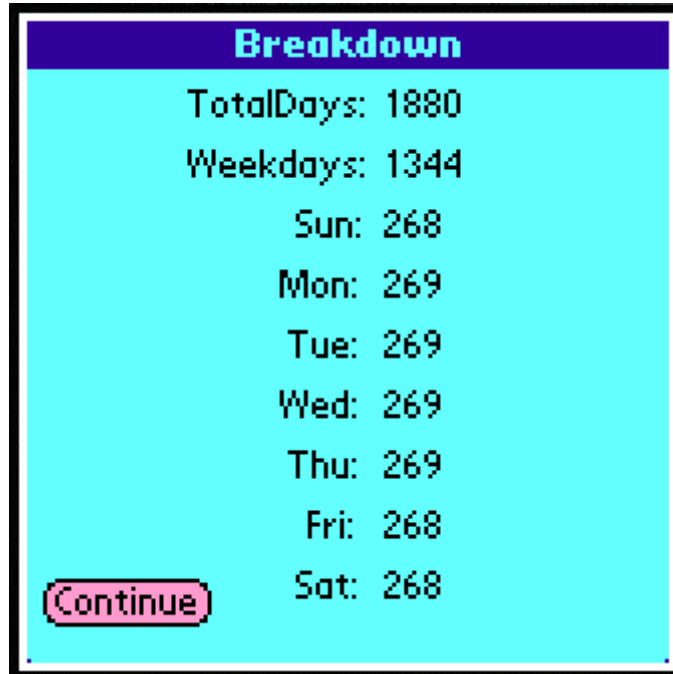
**CountDown Mode**

If you set the START date to TODAY's date and the Finish Date to some future event, the TotalDays will be how many days remain until that event. This was useful for the Y2K countdown and who knows what else!



### BreakDown

In the example above, the TotalDays is 1880 between Sunday July 30, 1995 and Thursday September 21, 2000. If you wanted a break down of how many of these days are Sundays, Mondays, Tuesdays, etc. just hit the BreakDown button:



The screenshot shows a window titled "Breakdown" with a cyan background and a black border. It displays the following text:

<b>Breakdown</b>	
TotalDays:	1880
Weekdays:	1344
Sun:	268
Mon:	269
Tue:	269
Wed:	269
Thu:	269
Fri:	268
Sat:	268

At the bottom left, there is a pink button with the text "Continue".

### Calculator

The Calculator button not only takes you to the Calculator Screen to do Date Calculations, but there are other features on that screen you must be aware of.

On the Difference Screen the total number of days between two dates is displayed but you'll also notice that at the bottom this amount is displayed as Years, Months, Weeks, and Days. You can configure it to show any variation of these. On the CALCULATOR screen there are CHECKBOXES next to each of these quantities: Years, Months, and Weeks (the Days quantity is ALWAYS turned on.) Just put a CHECK next to any quantity you want displayed on the Difference-Screen.

For Example, in the screen shot there are 1880 days which is equivalent to 5-Years, 1-Month, and 22-Days. The Weeks quantity is ZERO because on the CALCULATOR Screen the Weeks Checkbox does NOT have a check in it, but the other do!

## Chapter 4 – Adjust Screen

---

**Date Calculator**

Difference Adjust

Start Date: calendar today  
Sunday July 30, 1995

Years: 5 Months: 1  
Days: 22 Weeks: 0  
Weekdays: 0 c calculator

Finish Date: ↑  
Thursday September 21, 2000

### Description

This screen calculates a past date or future day relative to the START date. Just enter a positive or negative amount of Years, Months, Days, Weeks, and Weekdays (or business days) and hit the FINISH DATE button and the date will be calculated! This is useful for calculating a shipping date for a package, pregnancy due dates or conception dates, court dates, or anything!

### Date Quantities

The quantities: Years, Months, Weeks, Days, and Weekdays (also known as business days) can be either positive or negative. The Weekdays quantity is as close to business days you can simulate. Weekdays excludes Saturdays and Sundays when calculating past or future dates. Since HOLIDAYS can vary job to job and country to country it is difficult to have a quantity called Business-Days, so Weekdays is the closest you can get.

### Calculator

Hitting the Calculator button takes you to the Calculator Screen where you can perform Equivalency Calculations. The Date Quantities on the Adjust Screen will be the same quantities transferred to the Calculator Screen. And any changes you make to these quantities on the Calculator Screen will be brought back to the Adjust Screen when you return.

### Finish Date

After selecting a START date and entering the Date Quantities hit the FINISH DATE button and the past or future date will be calculated. For more advanced date calculations

there is an UP-ARROW button that will transfer the FINISH DATE into the START DATE field and you can continue to calculate dates starting from that date.

For example, if a lady went to the doctors and found she was 6 weeks pregnant she could easily calculate the due date. First she would enter TODAY as the Start Date. Then she would hit the "C"lear button enter "-6" in the WEEKS field. Hitting the FINISH DATE button would display her date of conception. Now a pregnancy is about 40 weeks from conception so she would now transfer the Finish Date to the Start Date by hitting the UP-ARROW. Now hitting the "C"lear button again and entering "40" in the WEEKS field and hitting the FINISH DATE button will give the expected Birth Date.

## Chapter 5 – Calculator Screen

---

The screenshot shows a window titled "Calculator" with a cyan background. Inside, the text "Solar Date Amounts" is centered. Below it are four input fields: "Years: 5" (checked), "Months: 1" (checked), "Weeks: 0" (unchecked), and "Days: 22". At the bottom are four buttons: "Clear", "Calculate", "Continue", and "SaveOptions".

### Description

The Calculator Screen calculates Date Equivalencies. This means if you wanted to know how many Years and Weeks a certain amount of Months was equal to, you would calculate it here. You can calculate any combination of quantities on this screen.

### Calculate Button

You must hit the Calculate button each time you want to perform a calculation and after every change you make.

### CheckBoxes

The checkboxes perform TWO purposes:

- On the Calculator Screen any quantity with a check will be calculated and anything without a check will NOT be calculated (and remain ZERO.)
- On the Difference Screen at the bottom, the TotalDays is displayed in Years, Months, Weeks, and Days. These quantities are linked to the checkboxes on the Calculator Screen. Any Quantity with a Check will be turned on and any quantity without a Check will be turned off on the Difference Screen at the bottom.

### Solar Date Amounts

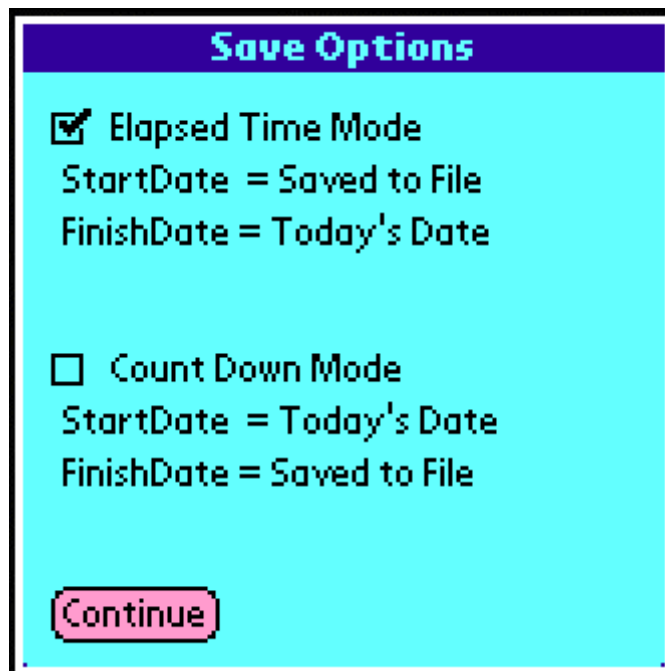
What does this mean? In the United States, nowadays, our current Calendar is the Gregorian Calendar. There are 365 days in a year, although with LeapYear there are 366 days. Some months have 31 days, some 30, and one has 29 days. Other than the fact that 1 week is equivalent to 7 days, how many days is equivalent to a year? And how many

days is equivalent to a month? The answer changes from month to month and year to year on the Gregorian Calendar.

As a matter of fact there really isn't a clean integer number of days in a year which is why we have LeapYears, to correct the difference! The definition of 1 year is the amount of time it takes the earth to go completely around the sun 1 time. The exact number of days for this to happen is 365.242199 days. Which means that there are exactly 30.43684992 days per month in a 12 month calendar year. With this type of calendar, there is no need for LeapYears or date corrections. But since we can't deal in fractions of a day - preferring whole days - we cut off the 0.242199 days per year which means about every 4 years we've lost a day so we add it on the LeapYear!

### **SaveOptions Button**

Every time you exit the program and start it again one of the dates, either the Start-Date or the Finish-Date, will be set to TODAY's date. This is useful if you want to know how old someone is everytime you enter: you would set the Start-Date to their birthday and the Finish-Date would automatically become TODAY's date. Or if you wanted a count-down calculator to tell you how many days until an event: the Finish-Date would be set to that date and the Start-Date would automatically become TODAY's date.



**Save Options**

☒ Elapsed Time Mode  
StartDate = Saved to File  
FinishDate = Today's Date

☐ Count Down Mode  
StartDate = Today's Date  
FinishDate = Saved to File

Continue