

# Klock

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## Introduction

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# Klock - A clock with a K

A multifunction timing thingy, where some [but not necessary all] of the functions are useful.

The multifunction timing thingy is split into many Thingy-ma-bobs - Fuzzy Time, World Klock, Countdown, Timer, Event, Reminder, Memo, Conversion, Sticky Notes & Clipboard Monitor.

Kevin scott

Klock

A Help gubbins for the time thingy. A Clock with a K. Build 74.

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2.2.4.74



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## Welcome

# Welcome To Klock

Kevin scott

Klock

A Help gubbins for the time thingy. A Clock with a K. Build 74.

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## About

### About Klock

Klock - a clock with a k.

A multifunction timing thingy, where some [but not necessary all] of the things are useful.

The multifunction timing thingy is split into many things;

Fuzzy Time, World Klock, Countdown, Timer, Event, Reminder, Memo, Conversion, Sticky Notes & Clipboard Monitor.

Also, the time can be displayed in several ways - text, digital, analogue and binary klocks,

Klock currently consists of over 10,000 lines of Lazarus [Free Pascal] code. Klock serves as a vehicle by which I learn and tinker with programming. Previous versions of Klock have existed in VB.net, Python and Free Basic - and may again.

### Fuzzy Time

Allows the current time to be displayed in a number of different formats.

### World Klock

This display a list of Time Zones and when selected will display the time in that time zone.

### Countdown

Implements a simple countdown timer [between 1 and 120 minutes].

The time for the countdown can be either entered directly or the up/down controls can be used. The timer can be paused during countdown and stopped before the end is reached. At the end of the countdown, either a sound can be played, a reminder displayed, a system command [system shut down or re-boot] or a external program can be run - or any combination of the four.

## Timer

Implements a simple timer, with split time function.  
The timer can be stopped, paused and resumed.  
A split function allows for given time to be remembered.

## Events

This enables for events to set up and notifications displayed to the user.

Today's date is default, but a future date can also be selected. A time can also be added to the reminder date. If no date is added, the reminder will fire at midnight. When the reminder is due either a sound can be played, a reminder displayed, a system command [system shut down or re-boot] or a external program can be run - or any combination of the four.

Note : Setting the time to 00:00, indicates midnight of the previous day so will not enable the set button. To set a reminder for midnight of today, disable the time and pick tomorrow's date. 00:00 indicates zero minutes into the present day.

## Reminder

Implements a reminder option.

This enables for [recurring] Reminders to set up and reminders displayed to the user. A number of pre-defined events types are already set up.

## Memo

Implements a simple memo thingy.

This will allow memo's to be entered, edited, printed and saved. Any previously saved memos will be loaded into Klock on start-up. The memos can be optionally encrypted and only be displayed on demand.

## Conversion

Implements a simple conversion screen.

This allows the conversion between various units of weight, distance and area etc.

## Stick Notes

Implements a simple sticky Note thingy.

This allows for the creation of stick Notes, small independent windows that appear on the screen which can hold memo, reminders etc. Klock will keep track of the notes and re-display any active notes when Klock is first launched.

The button bar contains three buttons -

help - will display a simple help screen, depending upon the tab being currently viewed [not yet implemented].

Close - Quits the application.

Hide - Switches the application to the system area.

Also, a quick sticky note launch button.

When the program is running in the system area, the following options are available.

If hovered over, the current time will be displayed.

Right clicked on the icon will display a pop up menu.

This will allow the application to be restored, the application can be exited or the current time can be displayed.

If the application is in the task bar, any display messages

[i.e. a reminder becoming due] will be displayed in a notification window [as will errors etc.].

The status bar contains [after the time & date] the legend cns.

The c represents caps lock.

The n represents Num Lock.

The S represents Scroll Lock.

The letter will be upper case if the key is activated, otherwise lower case.

The application also contains a options screen [file / Options] which allows various options [over fifty] to be set.

NB: If the option is checked to start on windows start up, it only operates for the current user.

Program partially tested on Windows 7 & 10 [both 32 & 64 bit].

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## Getting Started

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Klick on Klock.

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## System requirements

# System Requirements

Should just about work on any Microsoft Windows machine - if it can run the help, it should run Klock.

Klock has been tested on Windows 7, 10. [Does anybody use anything else, these days.]

Klock needs at least .NET 4.5, get from your favourite Microsoft site.

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## Getting help

# Getting Help

Press help to get this document.

Document also located in the application directory [both chm, html & pdf formats].

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## Thingy-ma-bobs

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There are separate thingy-ma-bobs for

- Fuzzy Time
- Countdown
- Timer
- Events
- Reminder
- Conversion
- Memo
- Clipboard Monitor
- Sticky Notes

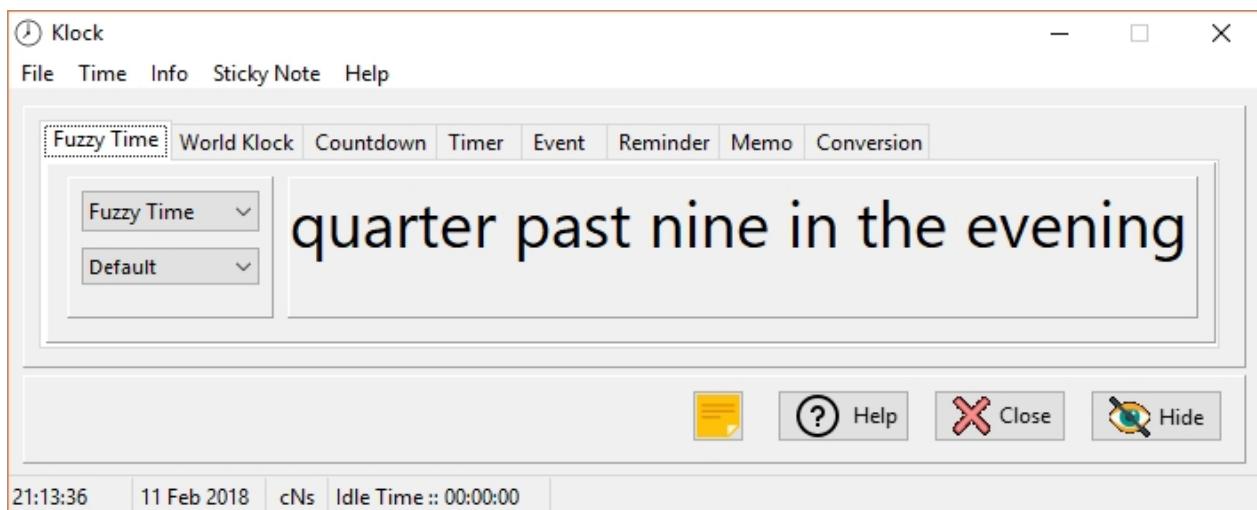
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## Fuzzy Time

# Fuzzy Time



Allows the current time to be displayed in a number of different formats.

The time can be displayed in various fonts.

NB : Not all of the fonts are usable - some are numerical only or missing the numerals.

System idle time can also be displayed in the status bar - this is enabled in the time options screens.

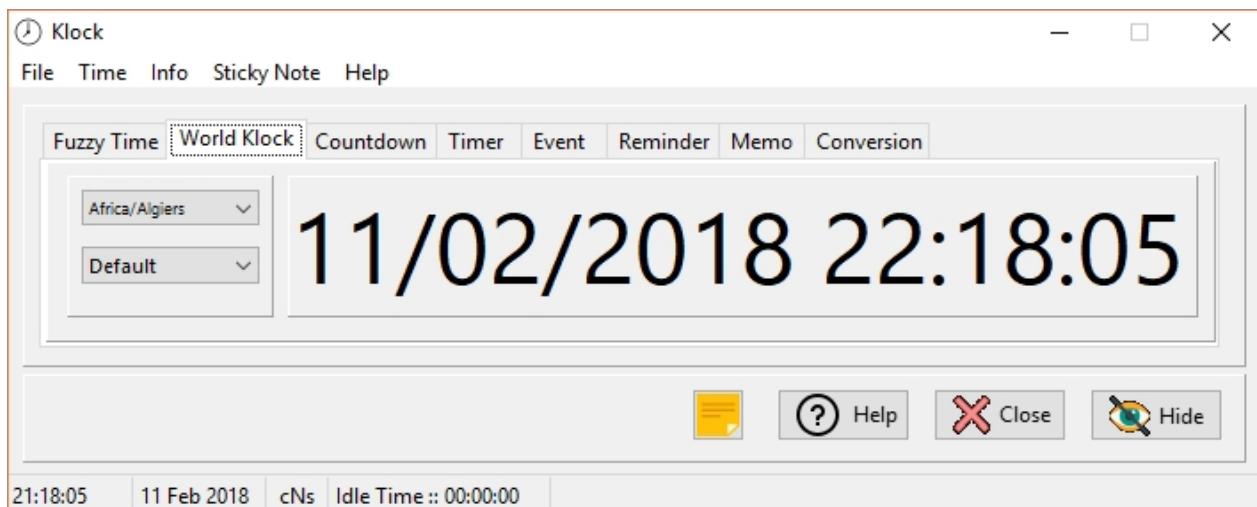
See Status Bar for details on the status bar information.

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## World Klock

### World Klock



Implements a simple World Klock thingy.

This display a list of Time Zones and when selected will display the time in that time zone.

The time can be displayed in various fonts.

NB : Not all of the fonts are usable - some are numerical only or missing the numerals.

See Status Bar for details on the status bar information.

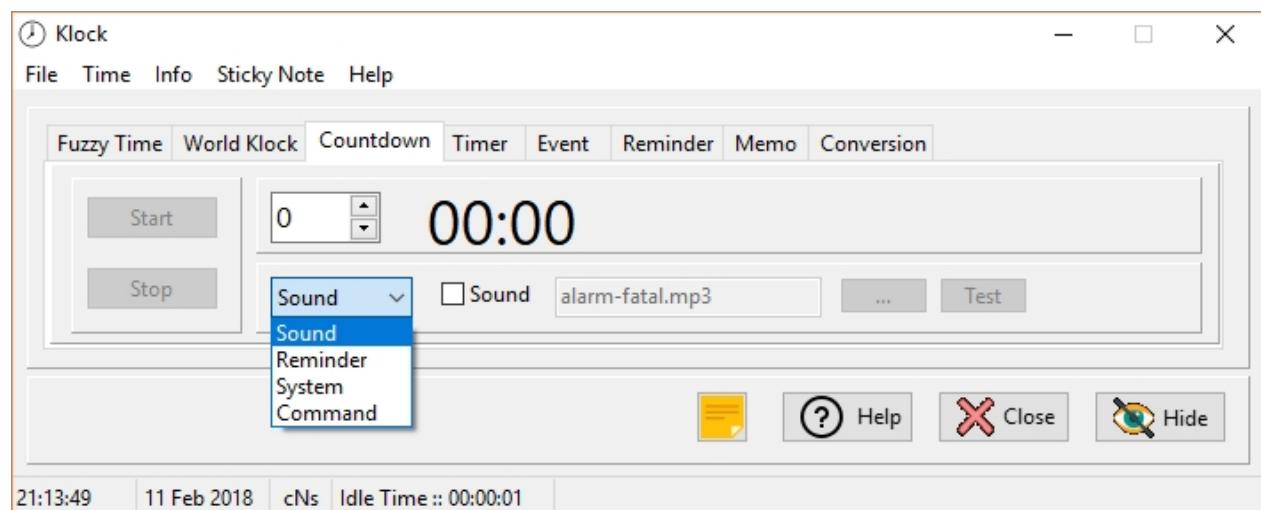
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## Countdown

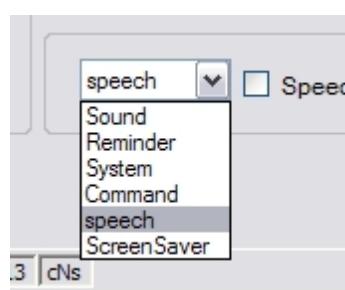
### Countdown



Implements a simple countdown timer thingy [between 1 and 90 minutes].

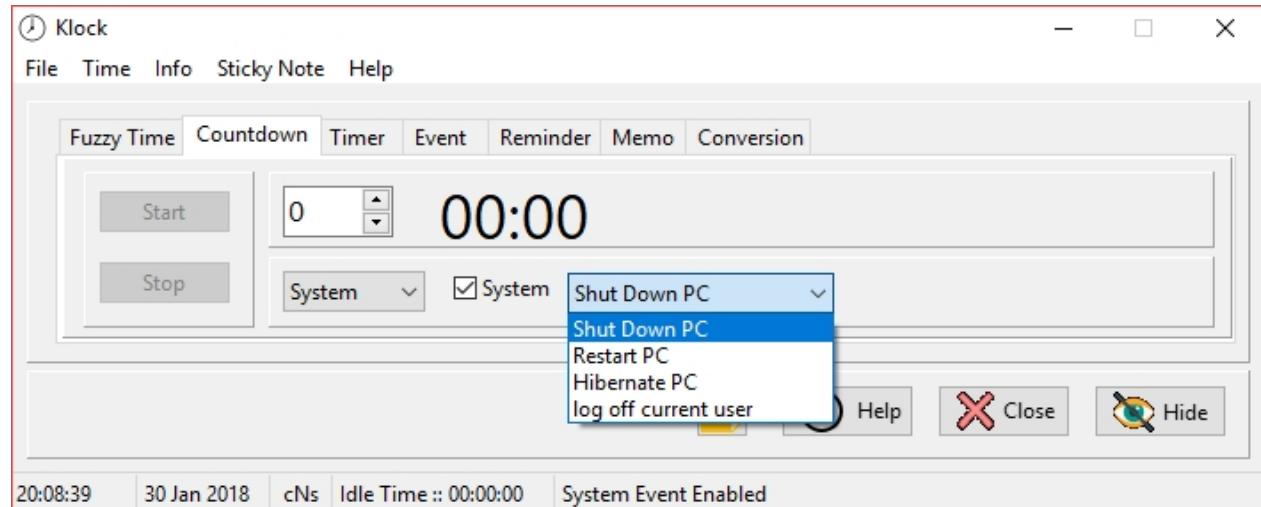
The time for the countdown can be either entered directly or the up/down controls can be used.

The timer can be paused during countdown and stopped before the end is reached.



At the end of the countdown, the following can be selected :-

- A Sound can be played.
- A Reminder can be displayed.
- A System command can be run [System Shut Down, System Re-Start, Log Off current user or the selectable GUI].
- A External Command can be run.



System command menu.

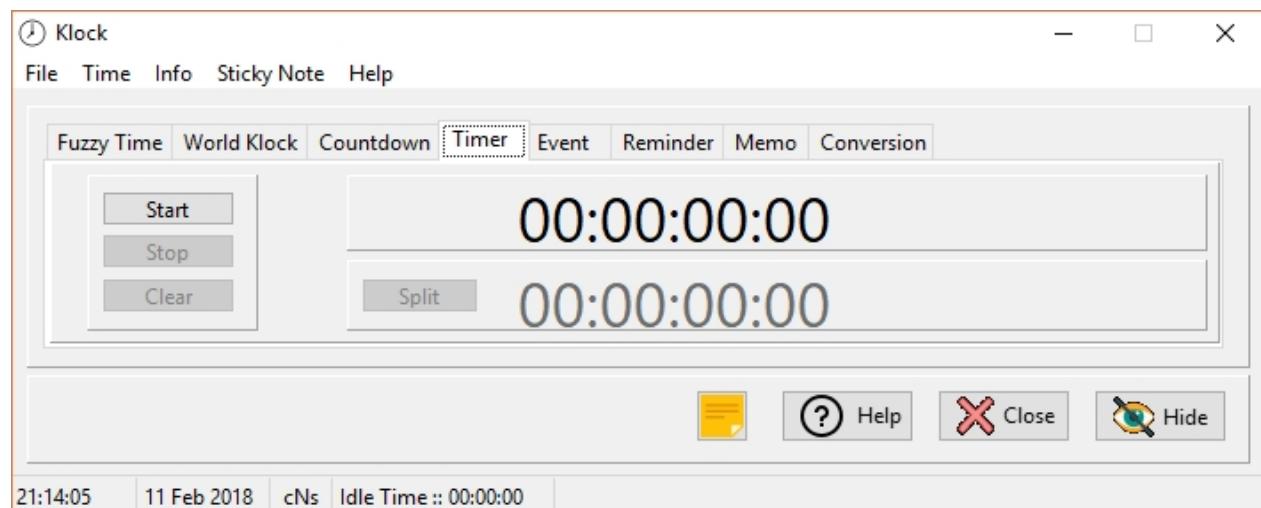
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## Timer

### Timer



Implements a simple timer thingy, with split time function.

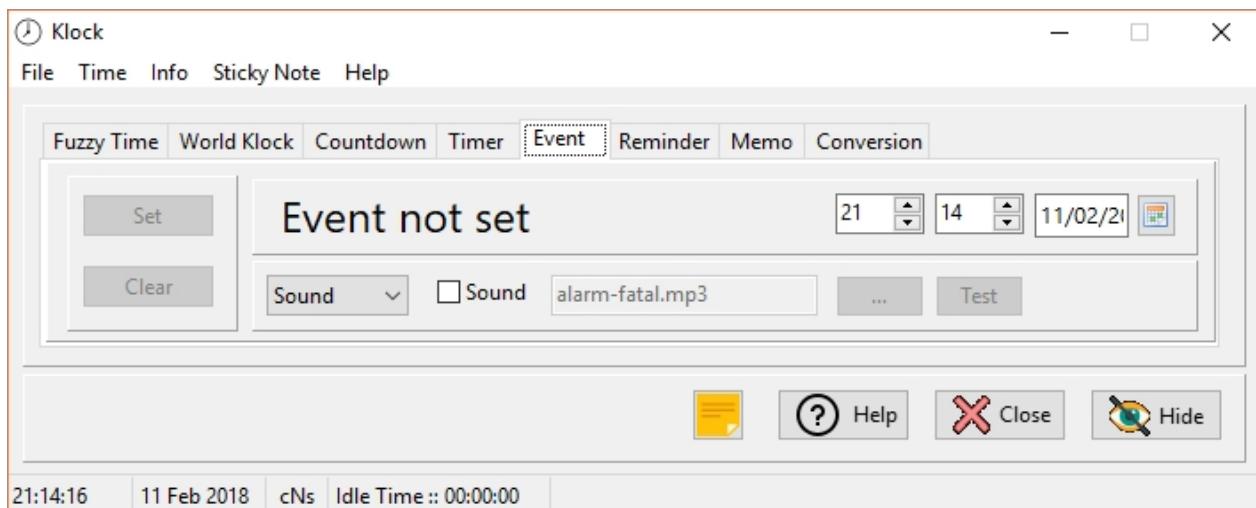
The timer can be stopped, paused and resumed.

A split function allows for a given time to be remembered.

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## Events

# Events

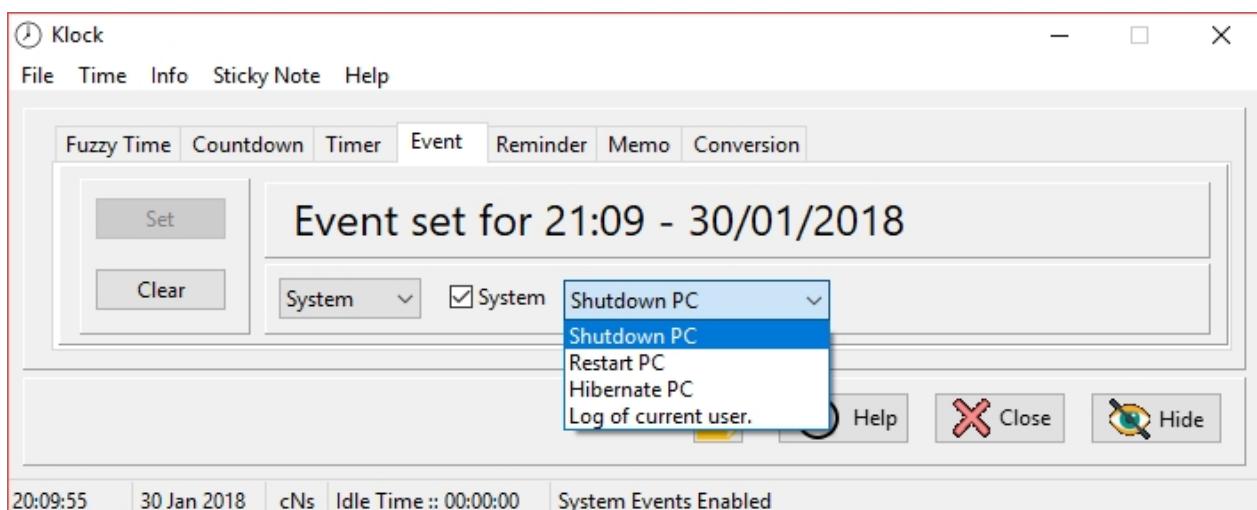
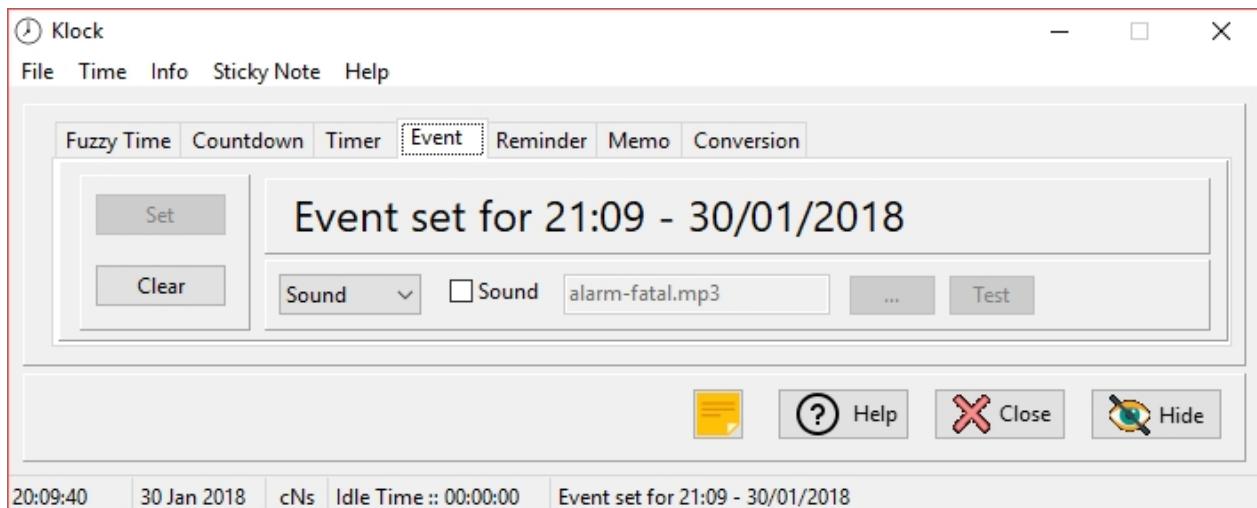


Implements a simple Events database thingy.

This enables for events to set up and notifications displayed to the user.

Today's date is default, but a future date can also be selected. A time can also be added to the reminder date. If no date is added, the reminder will fire at midnight. When the reminder is due either a sound can be played, a reminder displayed, a system command [system shut down or re-boot] or a external program can be run - or any combination of the four.

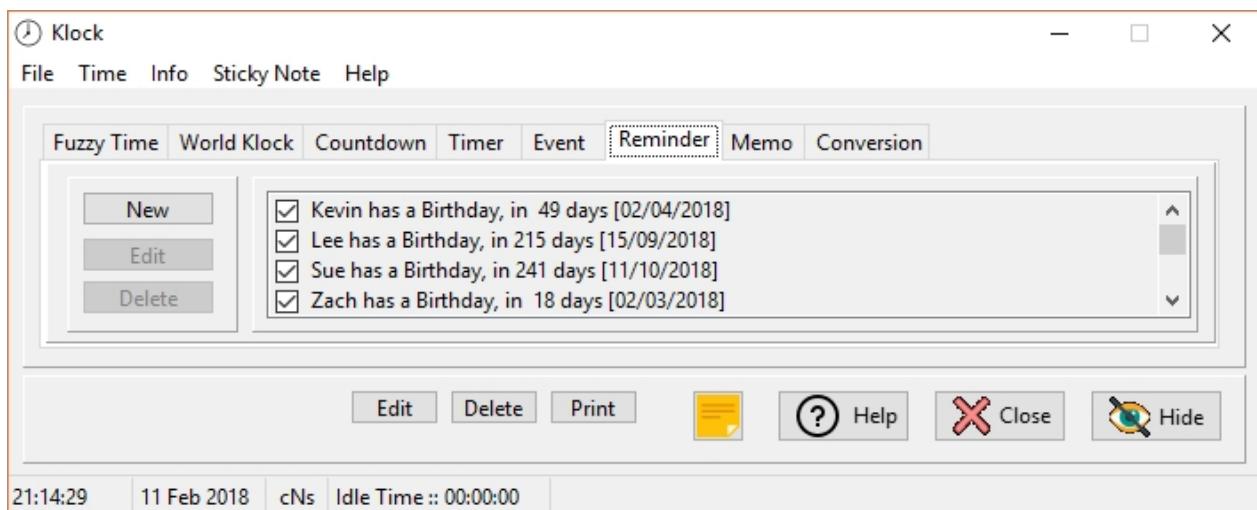
Note : Setting the time to 00:00, indicates midnight of the previous day so will not enable the set button. To set a reminder for midnight of today, disable the time and pick tomorrow's date. 00:00 indicates zero minutes into the present day.



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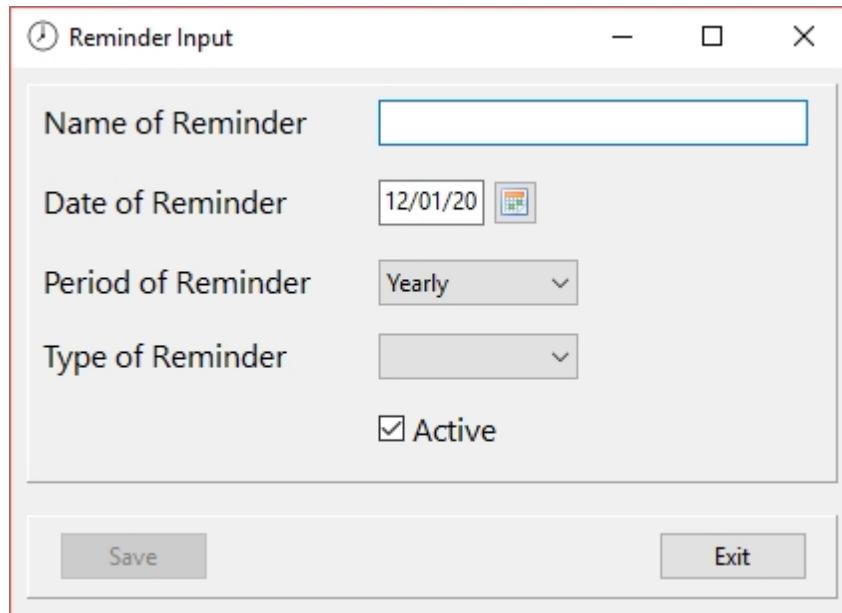
## Reminder

### Reminder



Implements a reminder option thingy.

This enables for [recurring] Reminders to set up and reminders displayed to the user. A number of pre-defined events types are already set up.



The Reminder add screen.

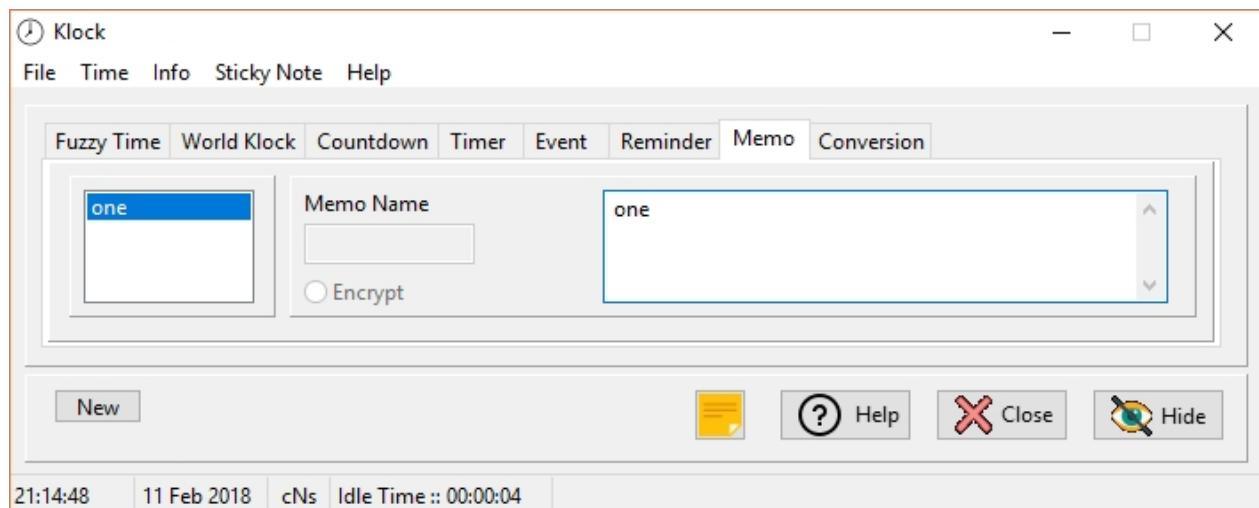
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## Memo

### Memo



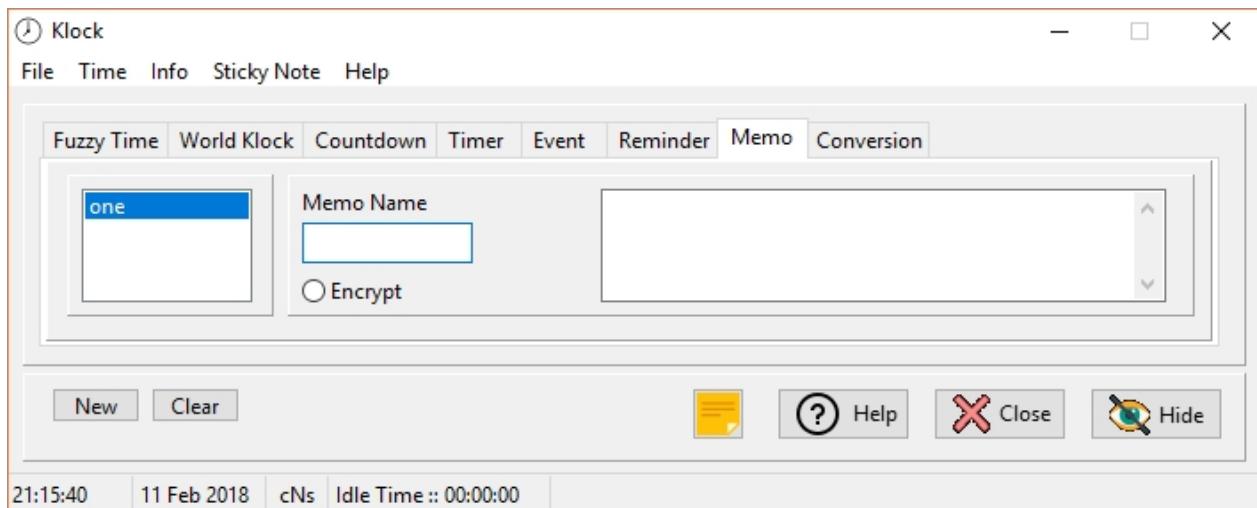
Implements a simple memo thingy, with split time function.

This will allow memo's to be entered, edited, printed and saved. Any previously saved memos will be loaded

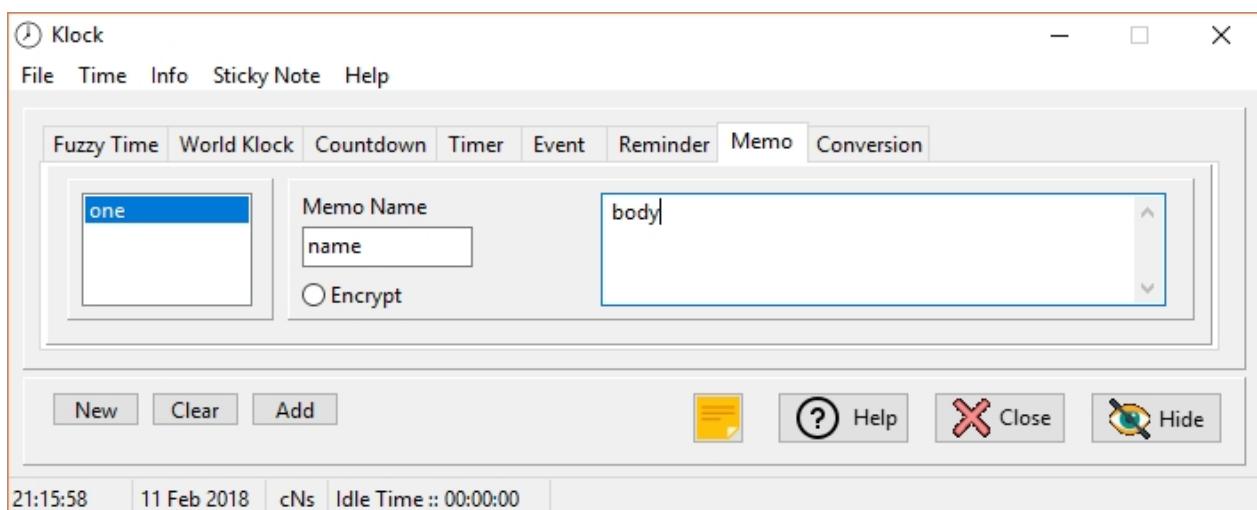
## Klock

into Klock on start-up. The memos can be optionally encrypted and only be displayed on demand.

To add a new memo, click on New.



Enter Memo name and the body text, also select if the memo should be encrypted or not. The add button will appear when their is text in both name and body.



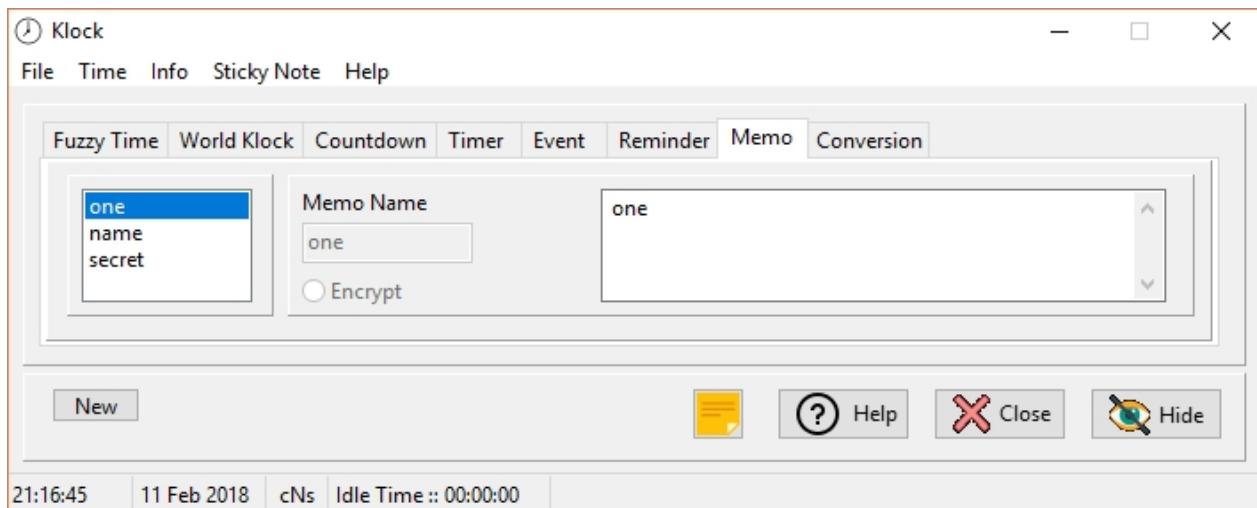
Once a memo has been entered and is visible in the list on the left, it can then be then be edited, deleted and printed.

Edit - allows the body and encryption mode to be amended - but not the name. Editing an encrypted memo, will allow the original memo body test to be viewed until the Save button is selected.

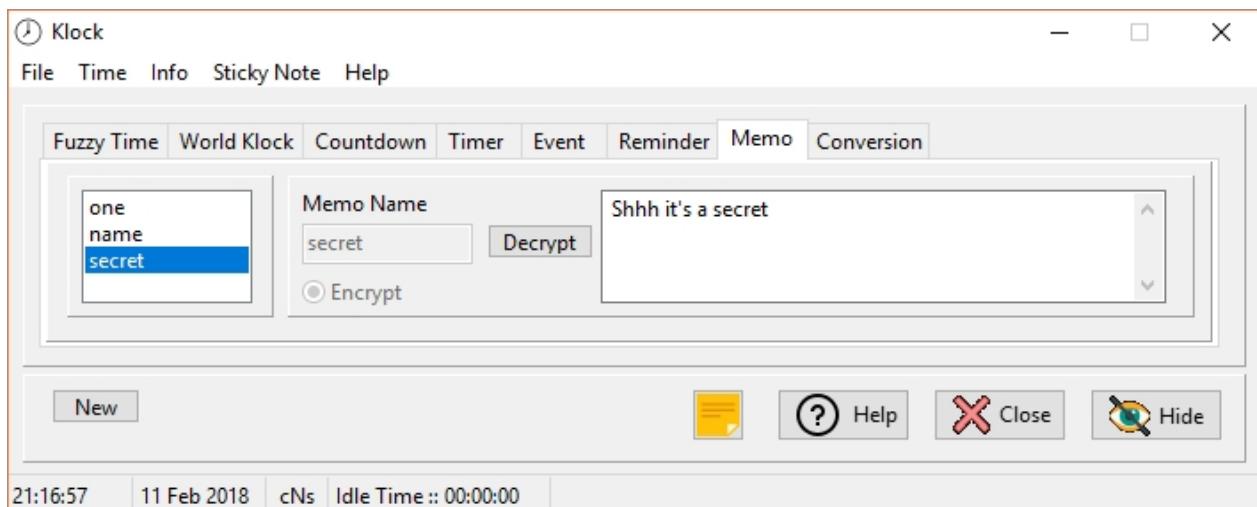
Delete - allows the memo to be deleted.

Print - allows the memo to be printed [Not yet implemented].

A plain memo.



A Encrypted memo.



Clicking on the Decrypt button will display the original memo body text for 30 seconds before reverting to the secret message.

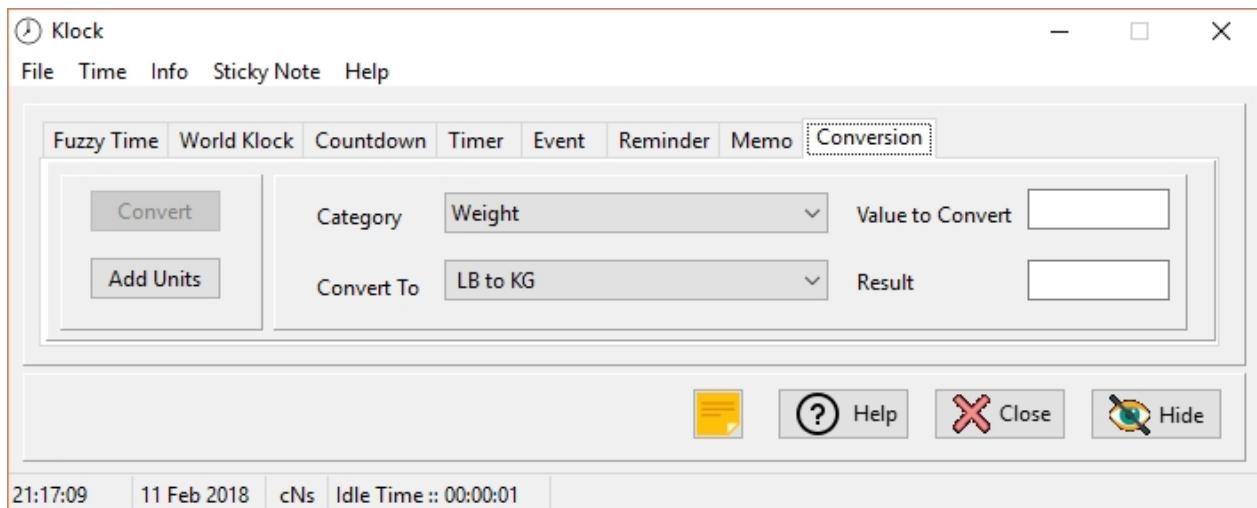
The default password and time out period are selectable in user options.

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## Conversion

# Conversion



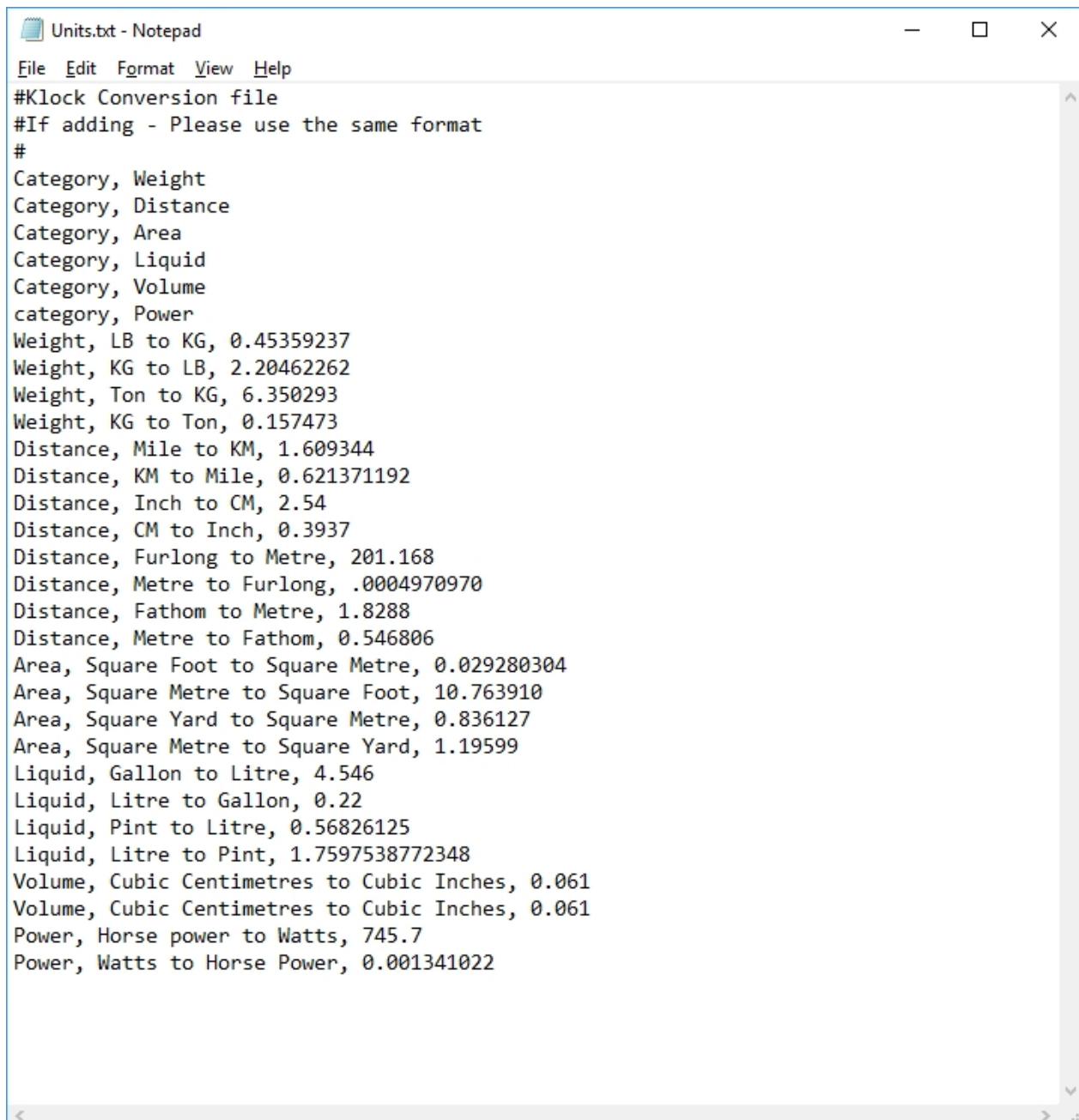
Implements a simple Conversion thingy.

Chose the desired category - Weight, Distance, area, Liquid or Volume.  
 Then choose the required conversion i.e. LB to KG to convert pounds to Kilograms.  
 Enter the value to convert. If this numerical, then the convert button will be enabled.  
 Click on Convert to carry out the conversion.

The Categories, Units etc. are held in a simple text file, which will be created if it does not exist in the users data area [same as options file].

This file is loaded into notepad if the Add Units buttons is clicked - this allows for more conversion to be added.

Note - the format of the text file must be adhered to.



The screenshot shows a Windows Notepad window with the title 'Units.txt - Notepad'. The window contains a list of conversion factors, each consisting of a category and a conversion ratio. The categories include Weight, Distance, Area, Liquid, Volume, and Power. The ratios are numerical values such as 0.45359237, 1.609344, and 0.0004970970. The text is in a monospaced font.

```

File Edit Format View Help
#Klock Conversion file
#If adding - Please use the same format
#
Category, Weight
Category, Distance
Category, Area
Category, Liquid
Category, Volume
category, Power
Weight, LB to KG, 0.45359237
Weight, KG to LB, 2.20462262
Weight, Ton to KG, 6.350293
Weight, KG to Ton, 0.157473
Distance, Mile to KM, 1.609344
Distance, KM to Mile, 0.621371192
Distance, Inch to CM, 2.54
Distance, CM to Inch, 0.3937
Distance, Furlong to Metre, 201.168
Distance, Metre to Furlong, .0004970970
Distance, Fathom to Metre, 1.8288
Distance, Metre to Fathom, 0.546806
Area, Square Foot to Square Metre, 0.029280304
Area, Square Metre to Square Foot, 10.763910
Area, Square Yard to Square Metre, 0.836127
Area, Square Metre to Square Yard, 1.19599
Liquid, Gallon to Litre, 4.546
Liquid, Litre to Gallon, 0.22
Liquid, Pint to Litre, 0.56826125
Liquid, Litre to Pint, 1.7597538772348
Volume, Cubic Centimetres to Cubic Inches, 0.061
Volume, Cubic Centimetres to Cubic Inches, 0.061
Power, Horse power to Watts, 745.7
Power, Watts to Horse Power, 0.001341022

```

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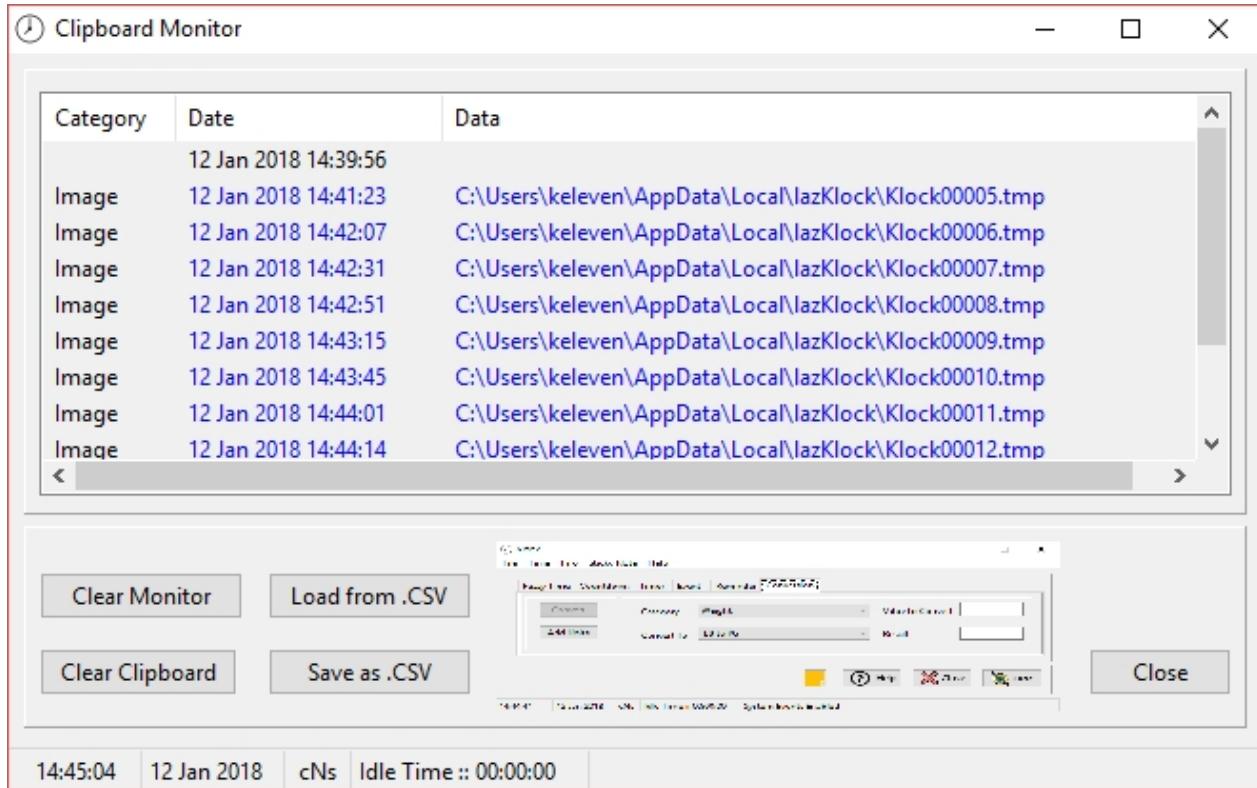
## Clipboard Monitor

# Clipboard Monitor

Implements a simple Clipboard Monitor Thingy.

There is not a klock tab for the clipboard monitor, when enabled in options / Global, the below form will be

displayed whenever anything is copied to the clipboard.



The Clipboard manager remembers all things copied to the clipboard, remembers the history of the clipboard.

The options are thus.

Clear Clipboard - clears the system clipboard.

Close - Closes the clipboard, but not stop the clipboard monitor.

Save - Save the clipboard history to a file [Not yet implemented].

Load - Loads the clipboard history from a file [Not yet implemented].

Once something has been copied back to the clipboard it can then be pasted into any open application.

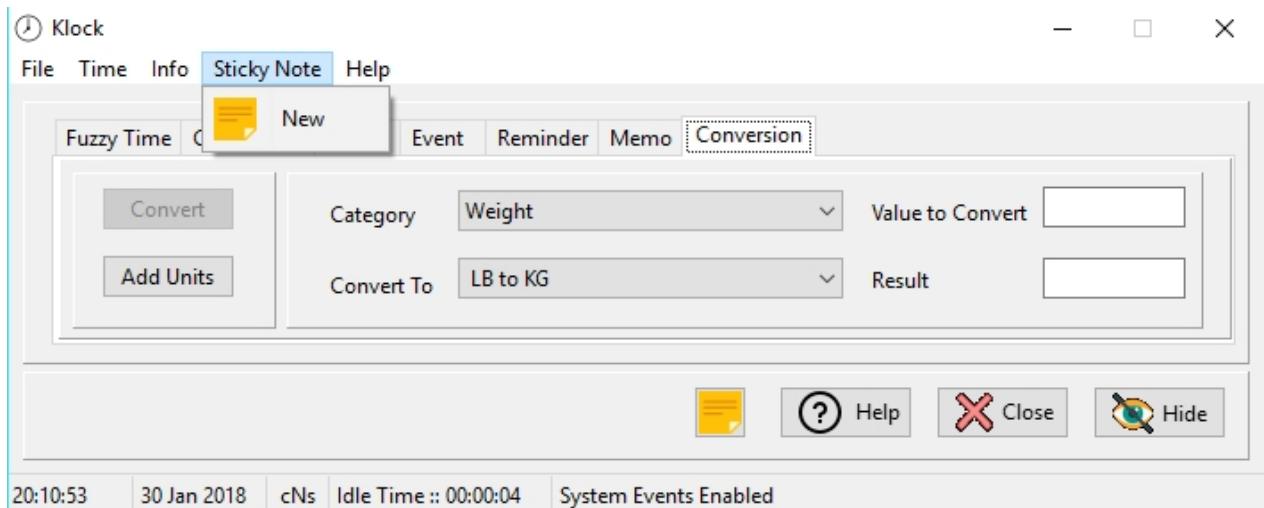
Selecting a row with the mouse copied the data to the clipboard.

The clipboard history can be either save as CSV or Binary format, this is selected in user options. If saved as CSV format the file can be edited [amended] easily. In CSV format multiple commas should be okay but line endings could cause a problems. In Binary mode, the file can not be easily edited so should be more secure. Also, in Binary mode multiple commas and line ending are handled better.

NOTE : there seems to be an issue with saving images to the clipboard, the clipboard does not know where the image came from i.e. no file location. This means there is a problem retrieving the image from the clipboard history. One solution is to make a temporary copy of the image for late retrieval. The temporary image is saved in the user applications directory within the users data area. Also the image is saved in the .jpg format at the moment, will change when I can determine a way on detecting the format of the original image :-)

When Klock starts it scans all such tmp files and deletes all older than 10 days.

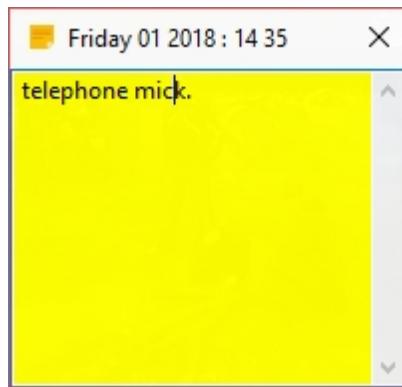
## Sticky Note



A Sticky Note can be created in either one of two ways.

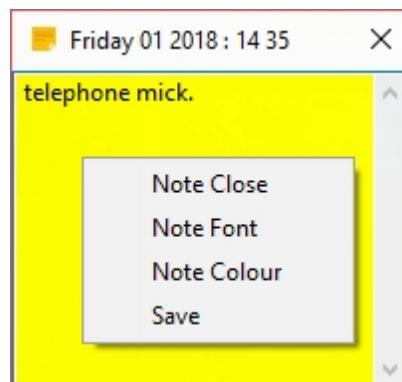
- From the menu option.
- From the quick launch button on the lower main screen.

Both of these methods create the following -



Which can then have the desired text added.

The Note can further be customised by accessing the pop up menu, right click on the Sticky Note.



This gives the following options.

Note Close - The closes the Sticky Note.

- Note Font - This changes the font for the complete Sticky note. The font colour is also amended using this option.
- Note Colour - This changes the background colour of the sticky Note.
- Note Save - This save the Sticky Note [in fact all visible Sticky notes] information to a data file.

All visible Sticky Note information is saved to the data file every hour or when Klock closes, but can be forced by the above menu option. So when klock is first launched all active Stick Notes from the last session will be auto created.

Each active sticky Note will fade into the desktop, but will re-appear when the mouse moves across the Sticky Note.

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## Menu

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There are separate Menus for

- File
- Time
- Info
- Sticky Note
- Help

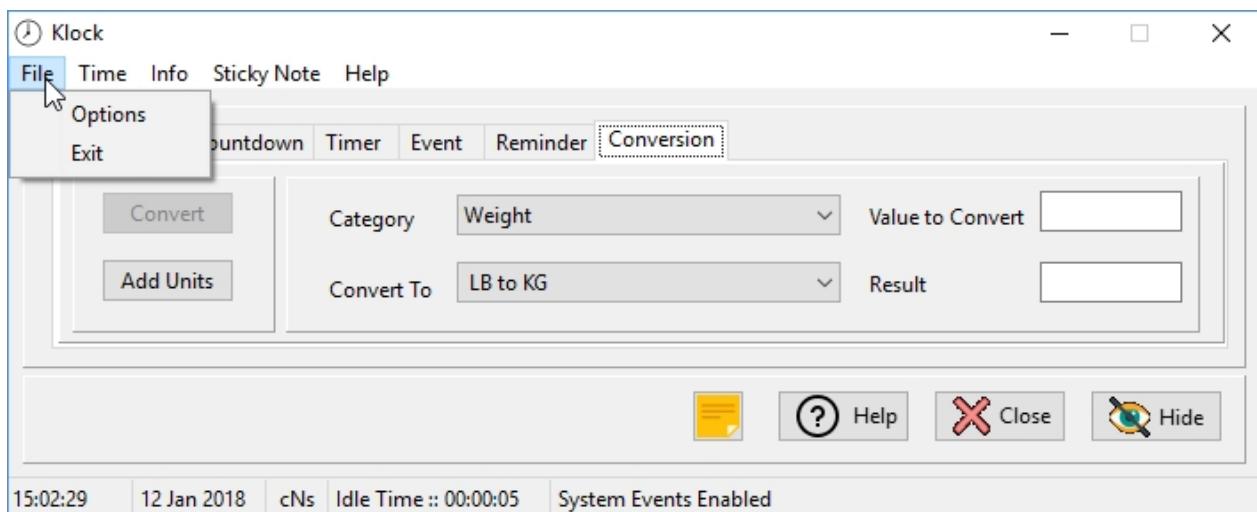
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## File

### File



Allows selection of

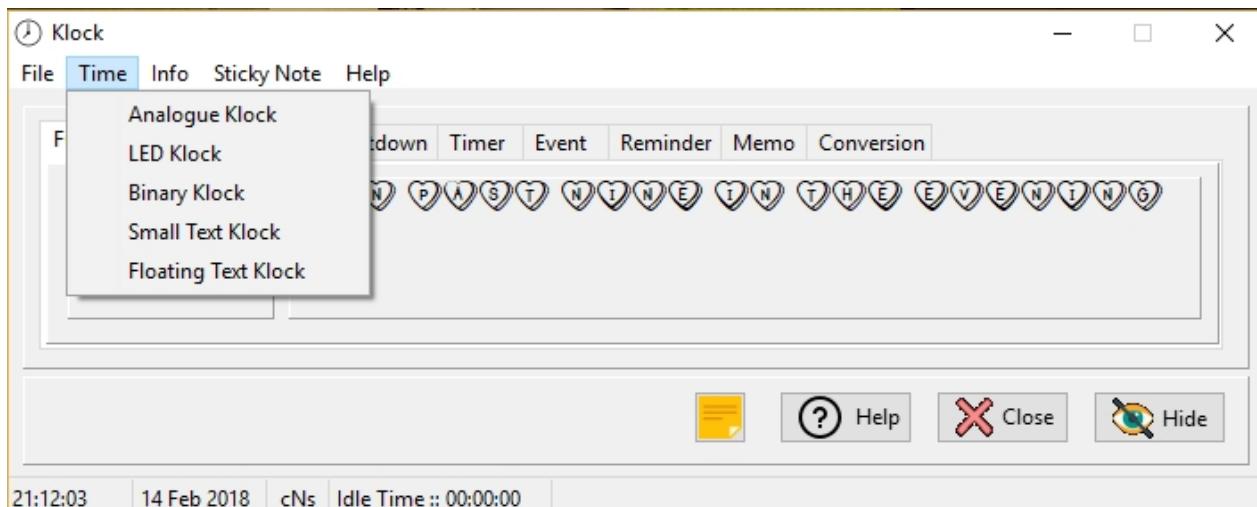
- Exit - exist Klock.
- Options - loads the options screen.

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## Time

### Time



Allows selection of

- Analogue Klock - display a Analogue Klock [Time & Date] in a separate window, the moving main Klock to the system tray.
- LED Klock - displays a LED Klock in a separate window, moving the main Klock to the system tray.
- Binary Klock - displays a Binary Klock in a separate window, moving the main Klock to the system

- tray.
- Small Text Klock - display a Text Klock [Time] in a separate window, moving the main Klock to the system tray.
  - Floating text Klock - displays the current time only as an apparent floating text string.

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## Analogue Klock

### Analogue Klock



Selecting the Analogue Klock option from the Time menu, display the above Analogue Klock.

Right clicking on the Analogue Klock, brings up a context menu.



This will allow the Analogue Klock to be exited to the main klock [main Klock is loaded], or the About

screen can be loaded.

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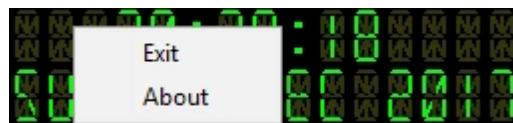
## **LED Klock**

### Analogue Klock



Selecting the LED Klock option from the Time menu, display the above LED Klock.

Right clicking on the LED Klock, brings up a context menu.



This will allow the LED Klock to be exited to the main klock [main Klock is loaded], or the About screen can be loaded.

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## **Binary Klock**

### Big Text Klock

Selecting the Binary Klock option from the Time menu, display the above Binary Klock.

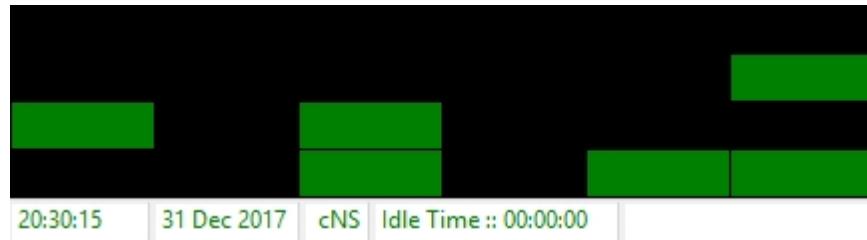
The Binary klock has two modes - BCD or True Binary. This is set in user options

Binary Coded Decimal - takes each two digit number [hours, minutes & seconds] and codes them as two binary strings.

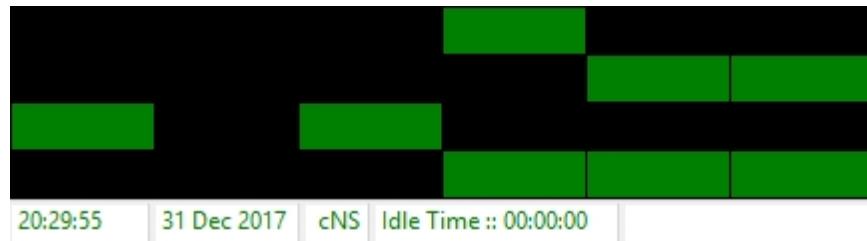
True Binary - takes each two digit number [hours, minutes & seconds] and codes them as a single

binary string

### BCD Klock

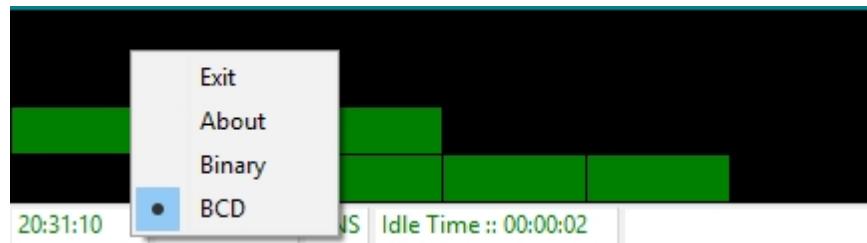


### True Binary Klock



See Status Bar for details on the status bar information.

Right clicking on the Binary Klock, brings up a context menu.



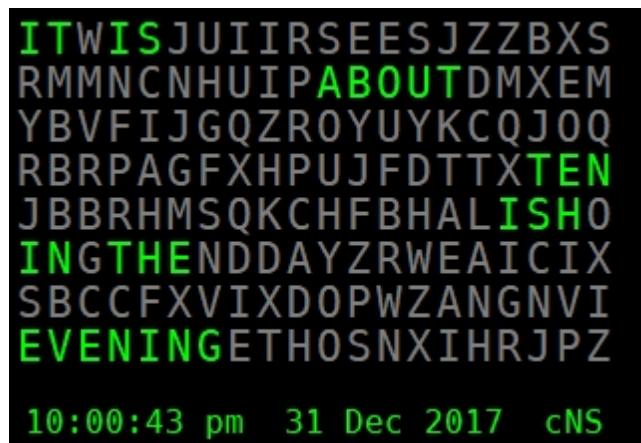
This will allow the LED Klock to be exited to the main klock [main Klock is loaded], the About screen can be loaded or the Klock can be toggled between Binary and BCD displays.

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### **Small Text Klock**

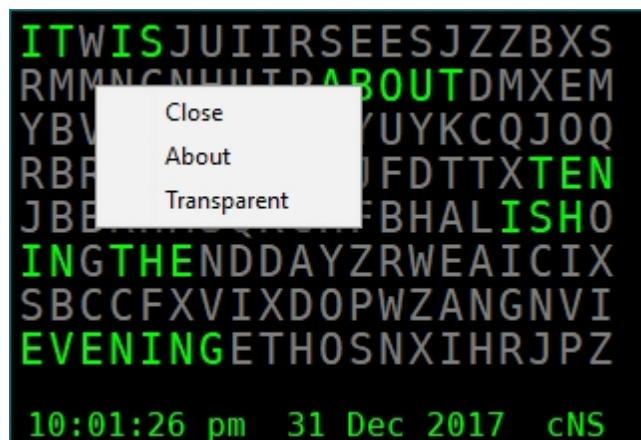
### Small Text Klock

Selecting the Small Text Klock option from the Time menu, display the above Small Text Klock.



See Status Bar for details on the status bar information.

Right clicking on the Big text Klock, brings up a context menu.



This will allow the Small Text Klock to be exited to the main klock [main Klock is loaded], the About screen can be loaded or the Klock can be toggled between transparent or solid.

Clicking the transparent option.



## Floating Text Klock

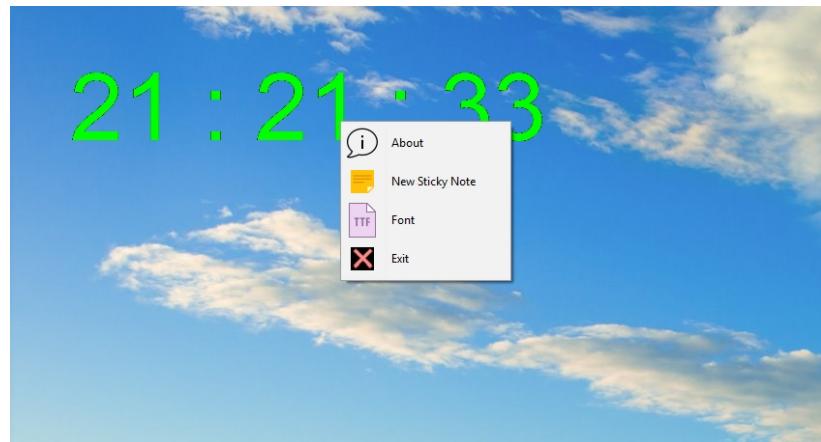
# Floating Text Klock



The Floating Text Klock

The Floating Text Klock by default, change in user options, takes the time format and font from the main Klock. But the font can be changed from within the floating Klock.

This will allow the Floating Text Klock to be exited to the main klock [main Klock is loaded], the About screen can be loaded, the font be cahnged or the Klock can be toggled between transparent or solid.



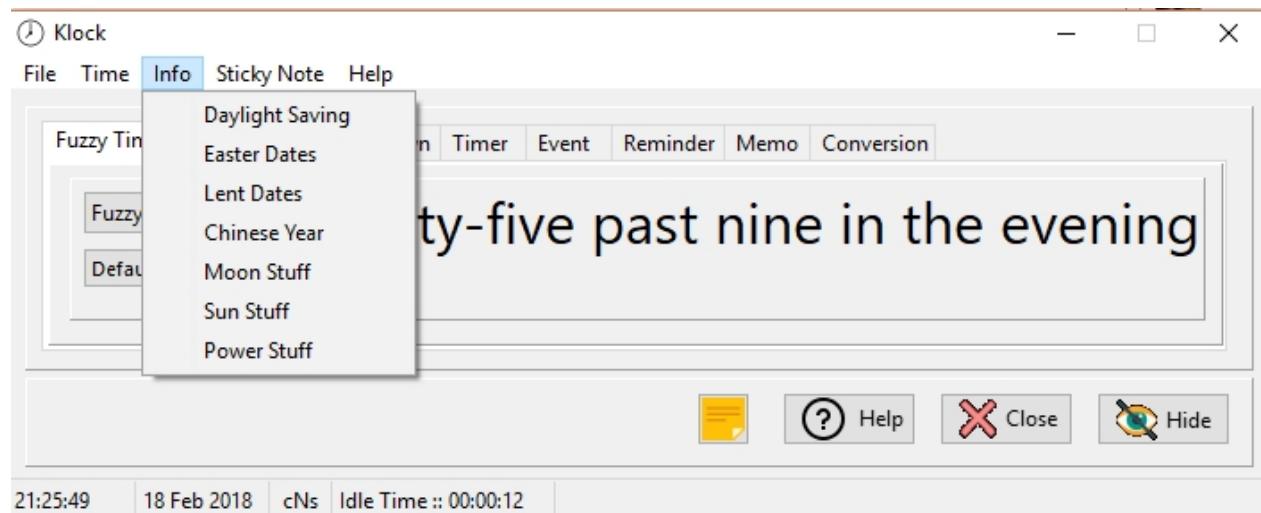

---

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---

## Info

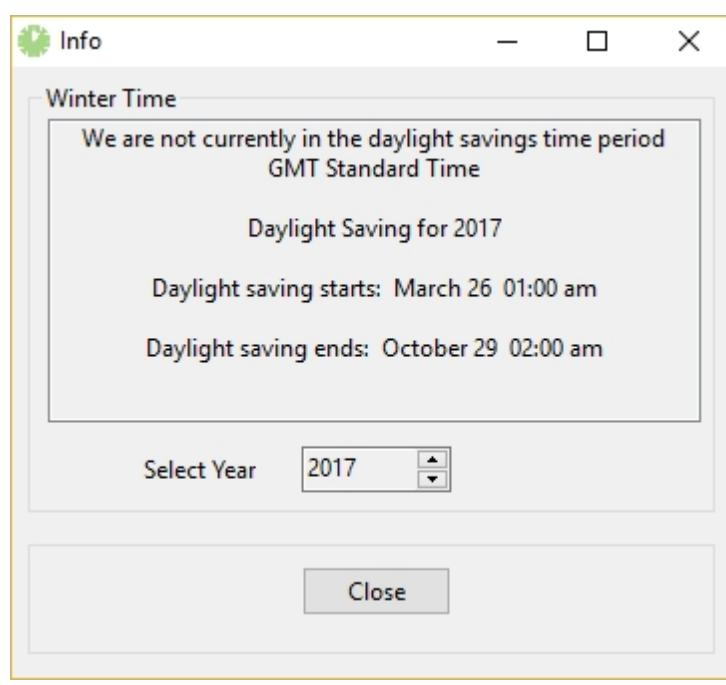
# Info



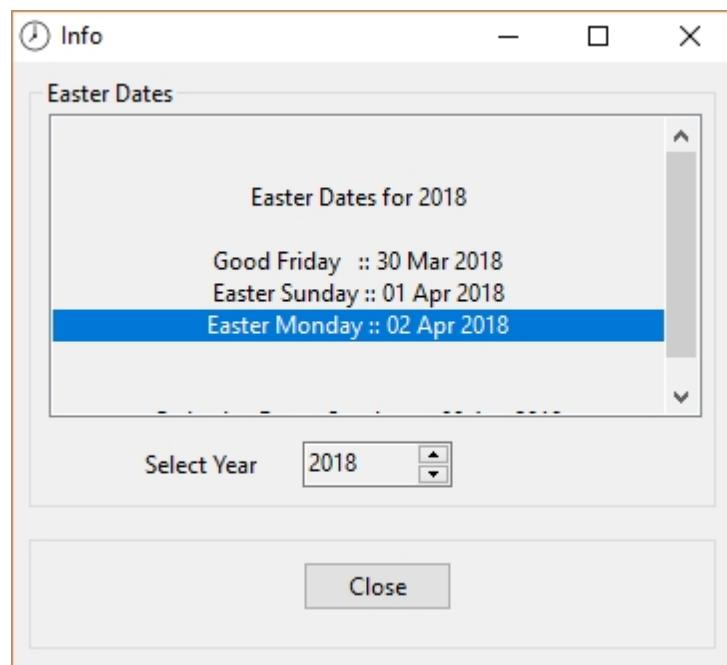
This allows the selection of

- Daylight Saving
- Easter Dates
- Lent Dates
- Chinese Year
- Moon Stuff
- Sun Stuff
- Power Stuff

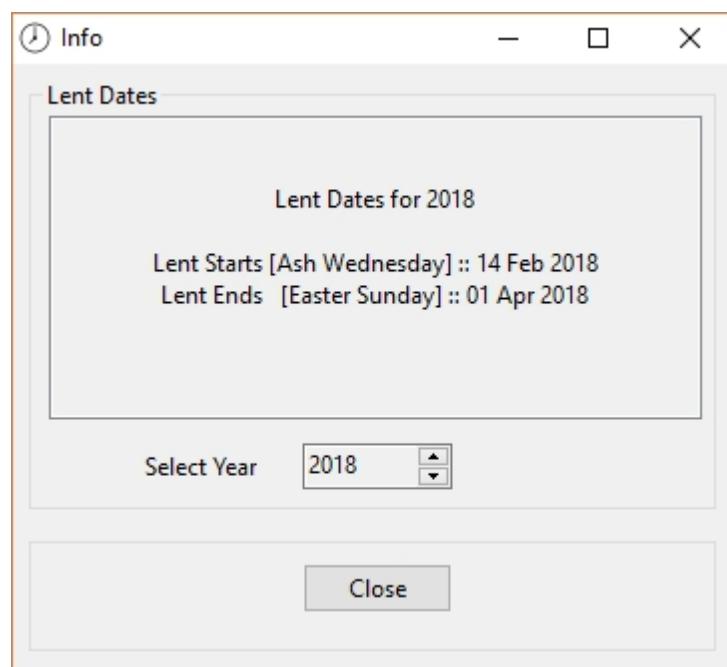
On Daylight Saving, Easter, Lent Dates and Chinese Year the year can be changed. This allows the daylight saving, Easter and lent Dates to be displayed for any year.



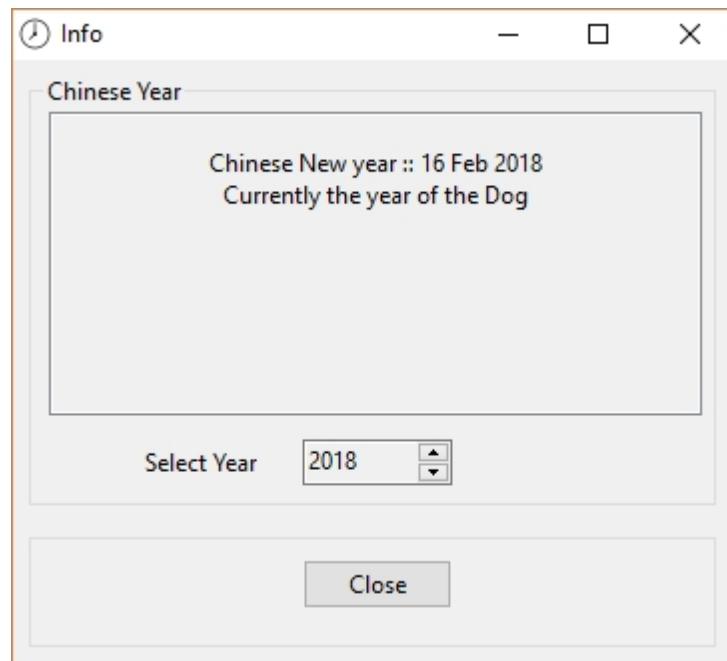
Daylight Saving Information



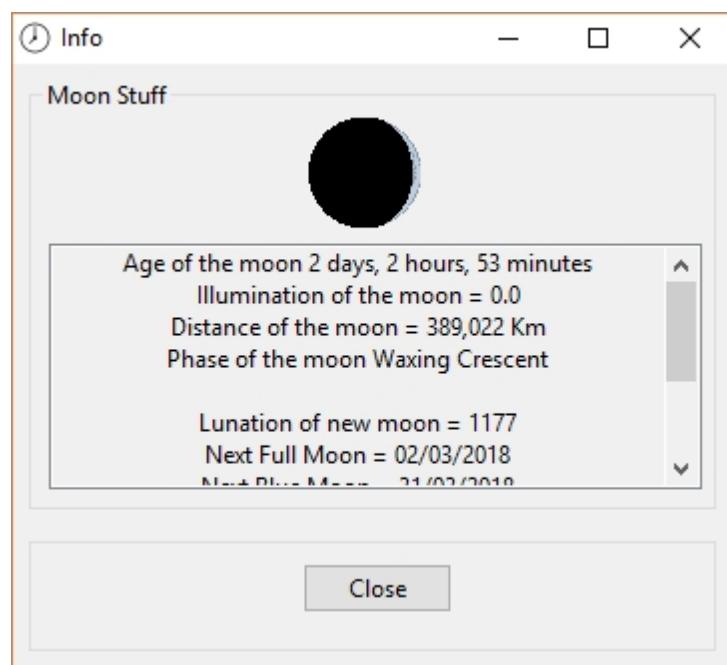
Easter Dates



Lent Dates

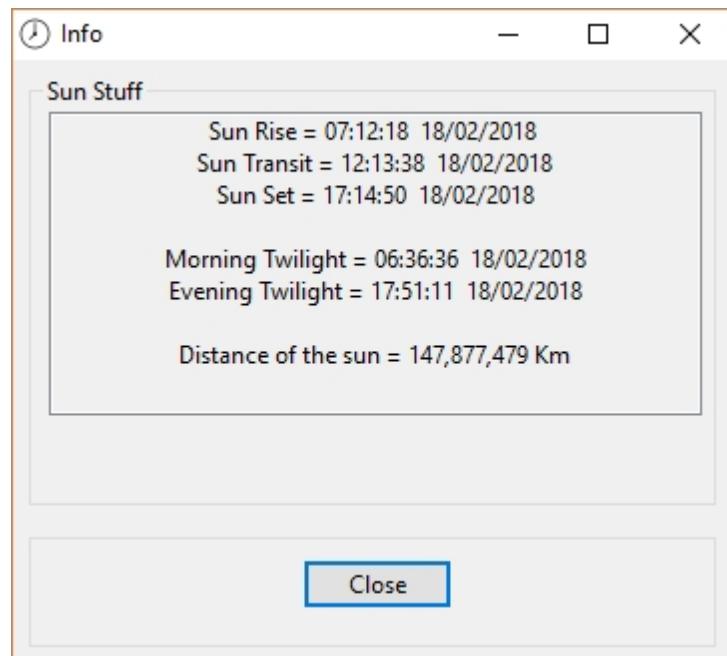


Chinese year

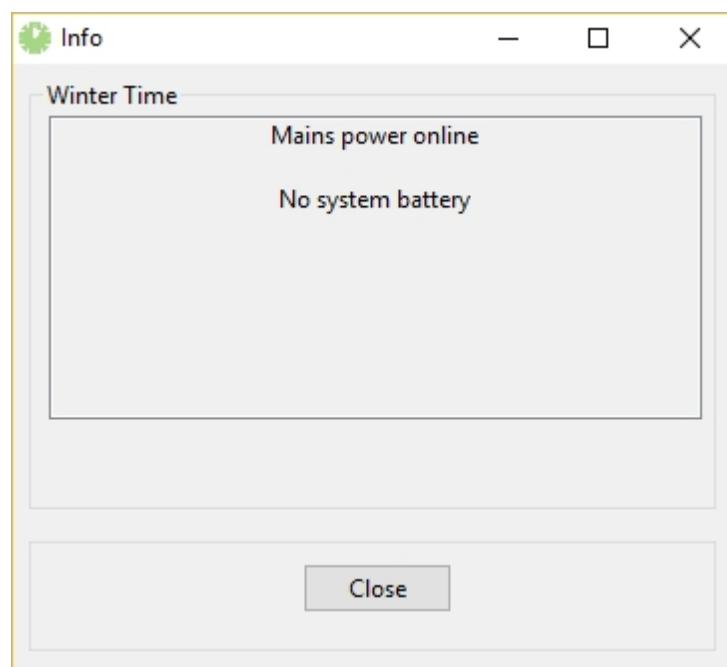


Close

Moon stuff



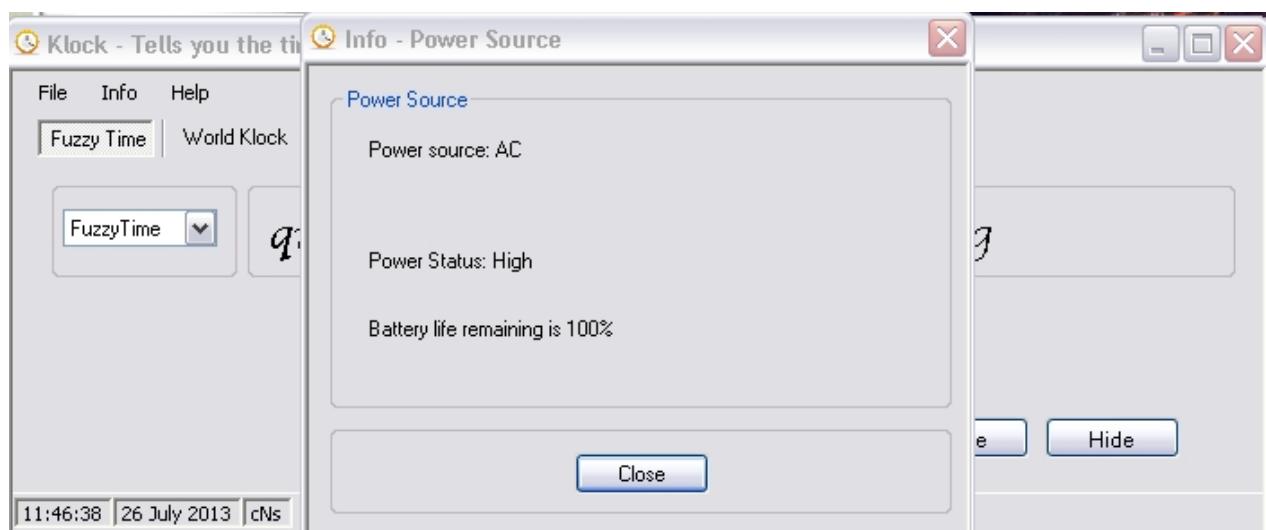
Sun Stuff



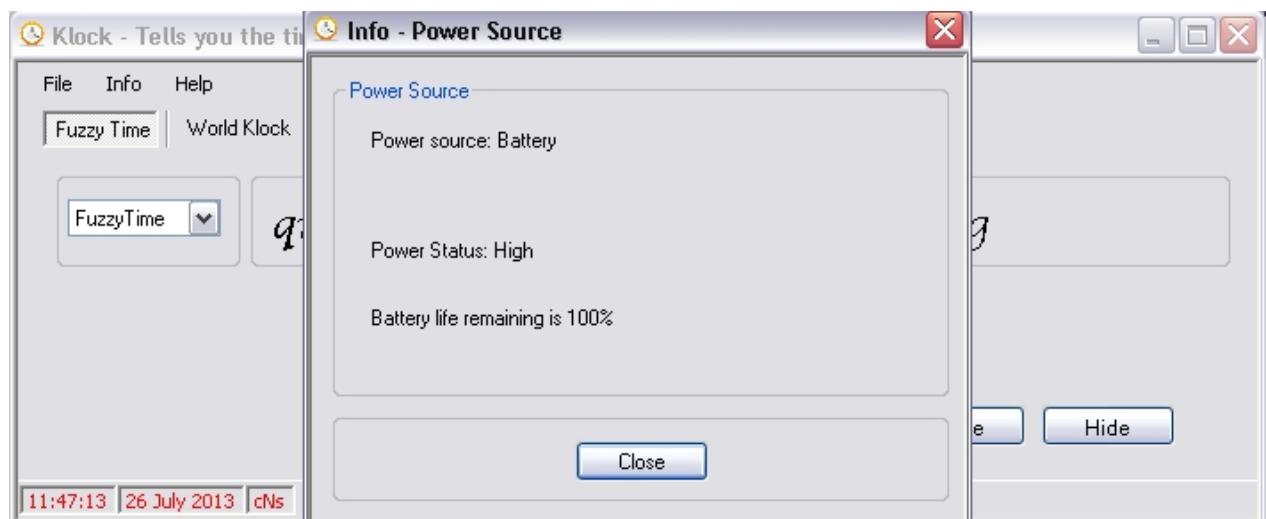
Close

Power Source information [PC running on mains]

## Klock



Power Source Information [laptop running on mains]



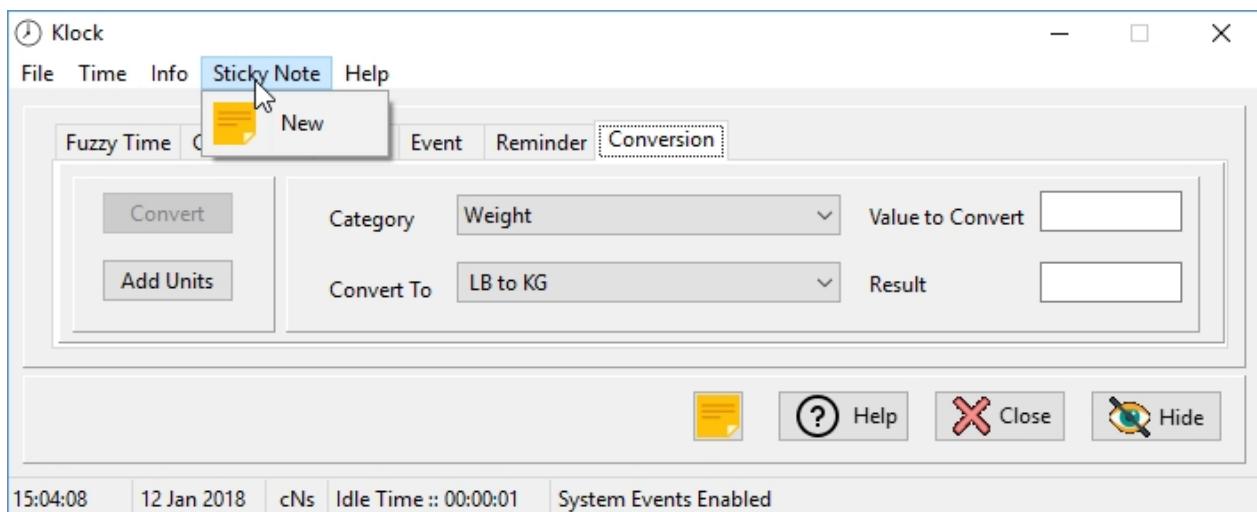
Power Source Information [laptop running on battery]  
note : red colour of time & date on main form.

---

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## Sticky Note

### Sticky Note



A Sticky Note can be created in either one of two ways.

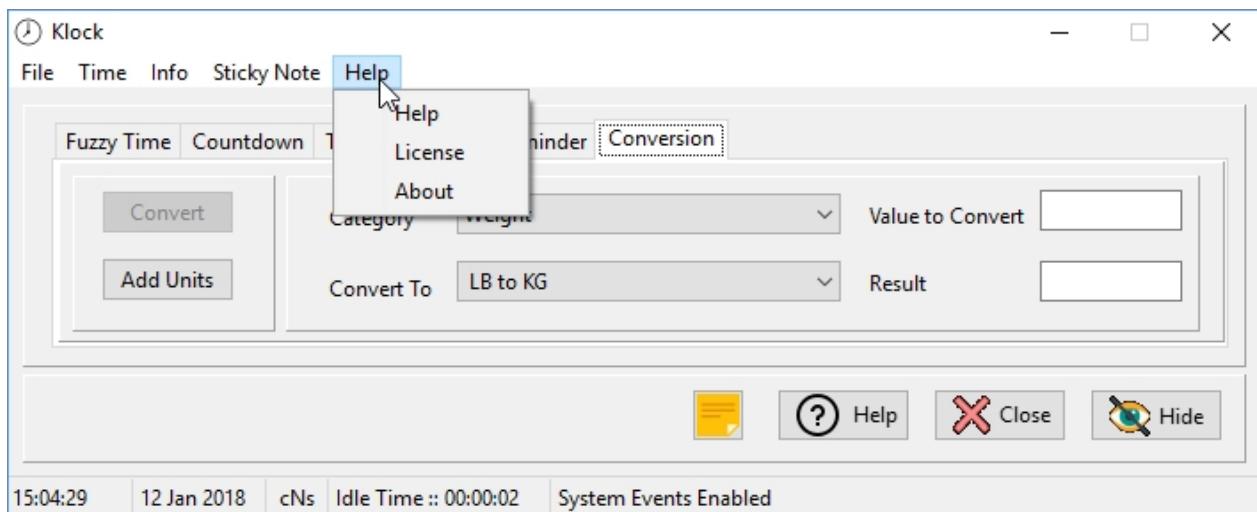
- From the menu option.
- From the quick launch button on the lower main screen.

See [Sticky Note](#) for more information.

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## Help

### Help



This allows the selection of

- Help - Loads this Help document
- Licence - loads the License information [GNU General Public License V3].
- About - Loads About application information i.e. application version.



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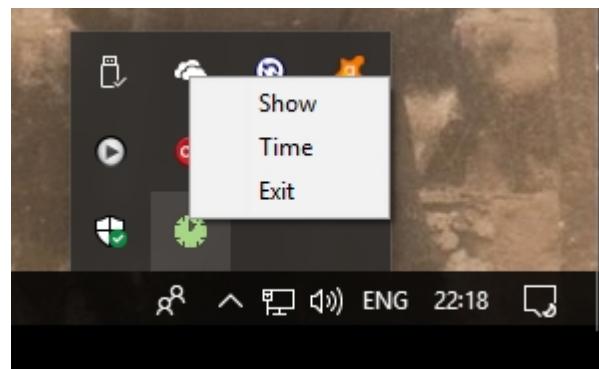
---

## System Tray

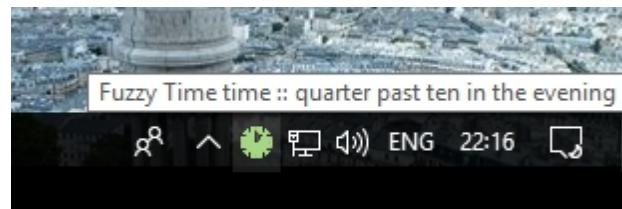
---

### System Tray

When the program is running in the system area, the following options are available.



If hovered over, the current time will be displayed. If two time formats are in use, only time one is used.



Right clicked on the icon will display a pop up menu.

- Show - Restore Klock
- Time - Toggle the display of time
- Exit - Close Klock.

If the application is in the task bar, any display messages [i.e. a reminder becoming due] will be displayed in a notification window [as will errors etc].

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## **Status bar**

### **Status Bar**



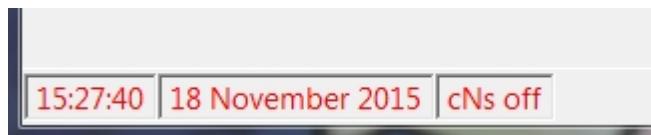
The status bar contains [after the the time & date] the legend cns.

The c represents Caps lock.

The n represents Num Lock.

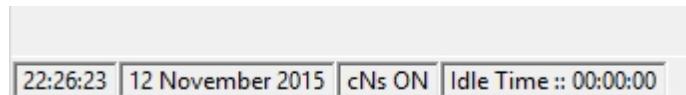
The S represents Scroll Lock.

The ON represents connected to the internet. A OFF would indicate disconnected from the internet.  
The letter will be upper case if the key is activated, otherwise lower case.



If the running PC [Laptop] is running on battery - the colour will turn to red.

If idles time is being displayed -




---

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## Options

---

The application also contains a options screen [file / Options] which allows various options to be set.

Klock boasts over 90 options to customise klock.

There are separate options for

- Global
- Time
- Other Klocks
- Sticky Notes and Memos
- Logging
- Archive

NB: If the option is checked to start on windows start up [in fact most user options], only operates for the current user.

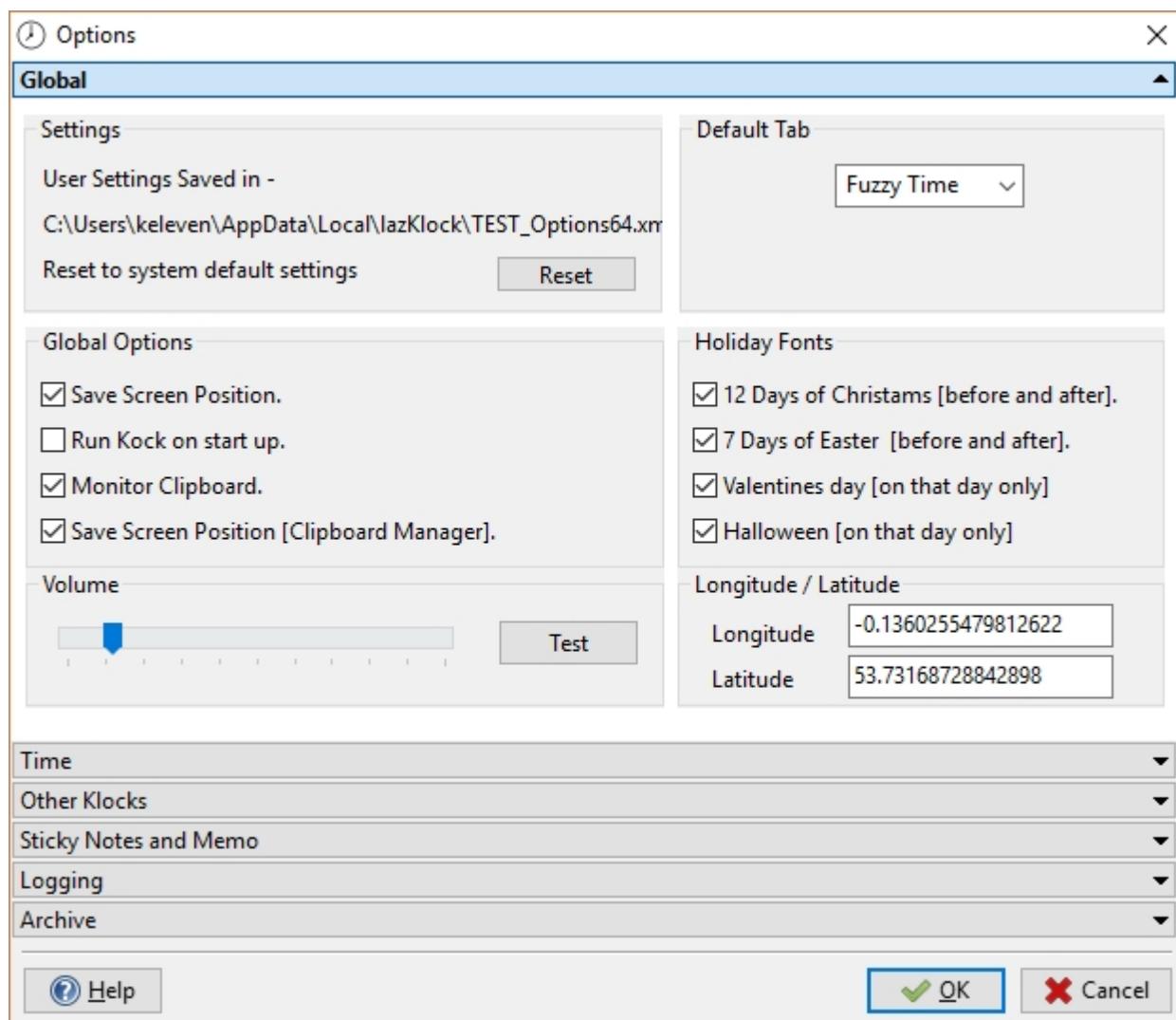
If upgrading from a newer version of Klock the new options should be added to the existing options..

---

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## Global

# Global



The global options are as follows.

## Settings

where the settings file reside - currently Options64.xml [or possibly Option32 for the 32 bit Klock. This can be re-set to the default settings for the application.

## GlobalOptions

Allows klock to remember screen positions on exit.

Will run klock when windows first starts [current user only].

Allows Klock to start in a determined mode. Current modes are Klock, Analogue Klock, Small text Klock or Big text Klock.

## Default Tab

Allows Klock to start with a pre-determine tab.

## Holiday Fonts.

Allows Klock to use special fonts at certain time of the year.

## Volume

The volume of the sound klock makes.

**Longitude / Latitude**

This is used for the sun/Moon rise and set times.

The default is 10 Downing Street, London.

There are several sites on the internet that will provide co-ordinates of a desired location.

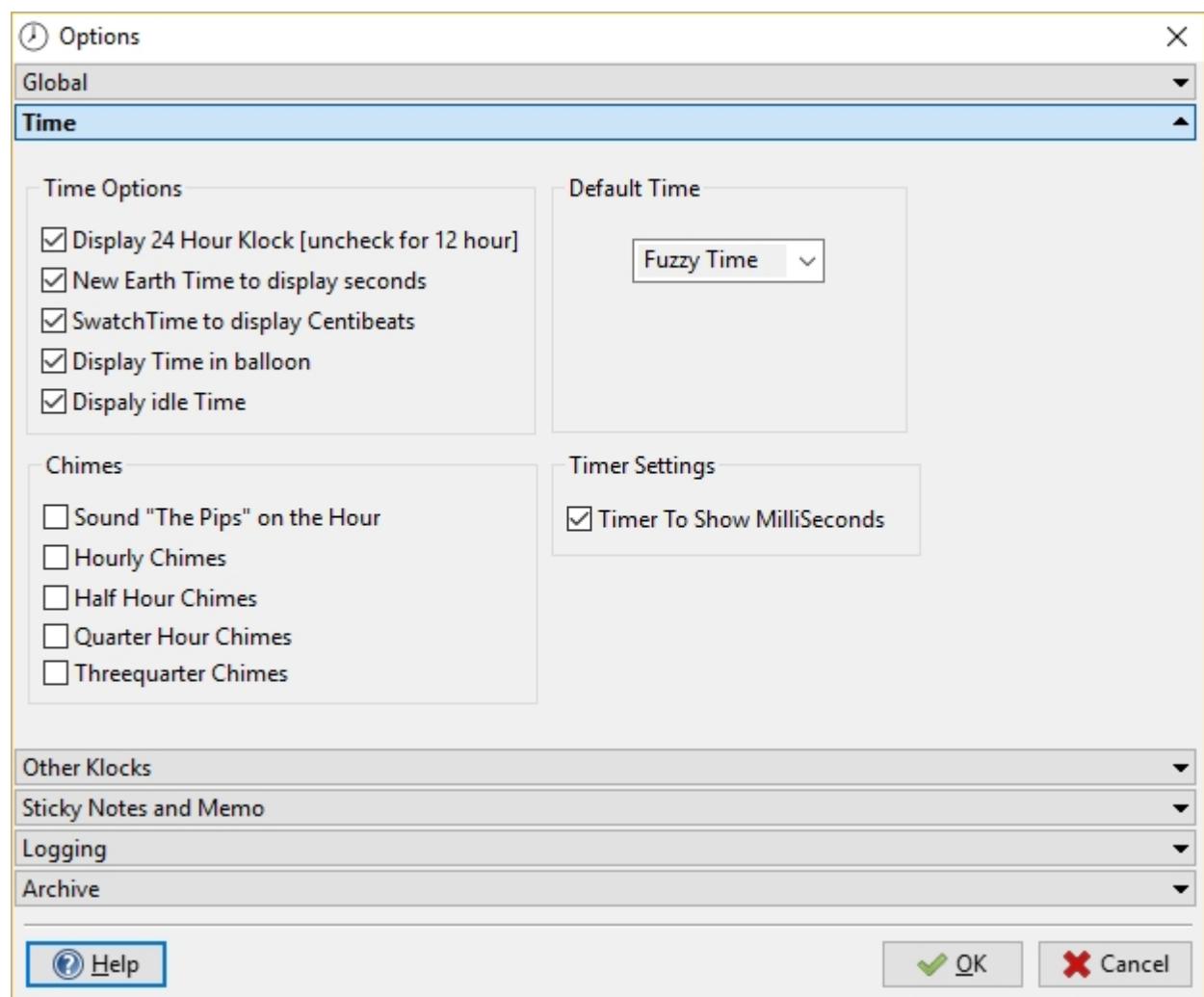
Pressing OK will save the new settings.

Pressing cancel will not save any changes.

---

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---

**Time**Time

The Time options are as follows.

**Settings**

**Default Time**

The time that is first displayed when klock is started.

**Time Options**

12 / 24 Hour

The time in the system tray, time display 1 or time display 2 can all be set to display the time in either 12 or 24 hour format.

NB :: does not affect some of the time formats i.e. Hex time.

The system idle time can be displayed in the status bar.

**Chimes**

Klock can either sound the "pips" or chimes on the hour.

If chimes are chosen, chimes can also be selected for the quarter and half hours.

NB : can either have pips or chimes, not both.

**Timer Settings.**

Time will show milliseconds.

Pressing OK will save the new settings.

Pressing cancel will not save any changes.

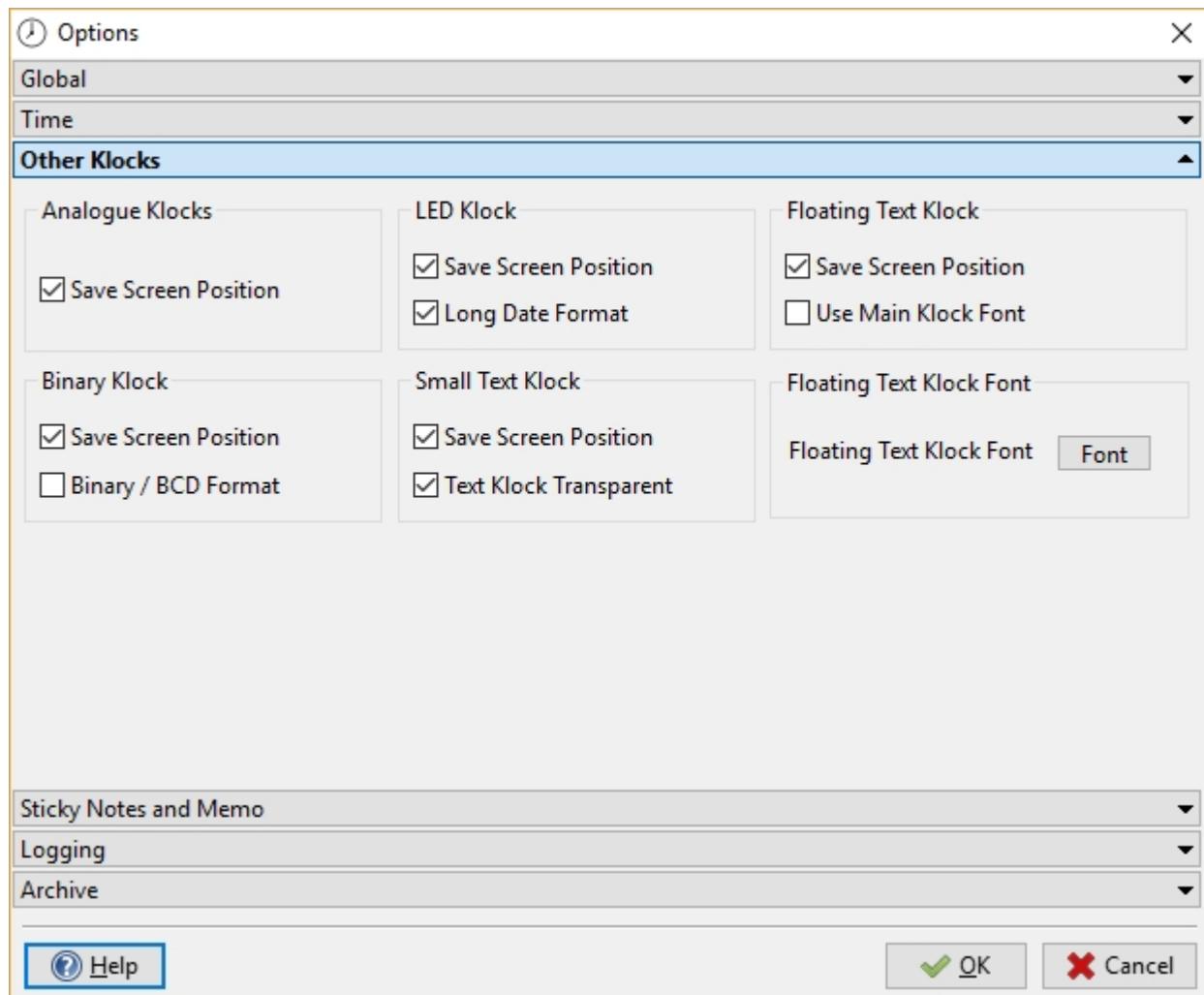
---

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## Other Klocks

### Text Klock



The Text Klock options are as follows.

Allows all the secondary Klocks to remember screen positions on exit.

The binary klock has two modes - BCD or true Binary.

BinaryCoded Decimal - takes each two digit number [hours, minutes & seconds] and codes them as two binary string.

True Binary - takes each two digit number [hours, minutes & seconds] and codes them as a single binary string

The Floating Klock can be toggled to use the main Klock font or not. If unchecked, the font button is enabled which allows a custom font to be used.

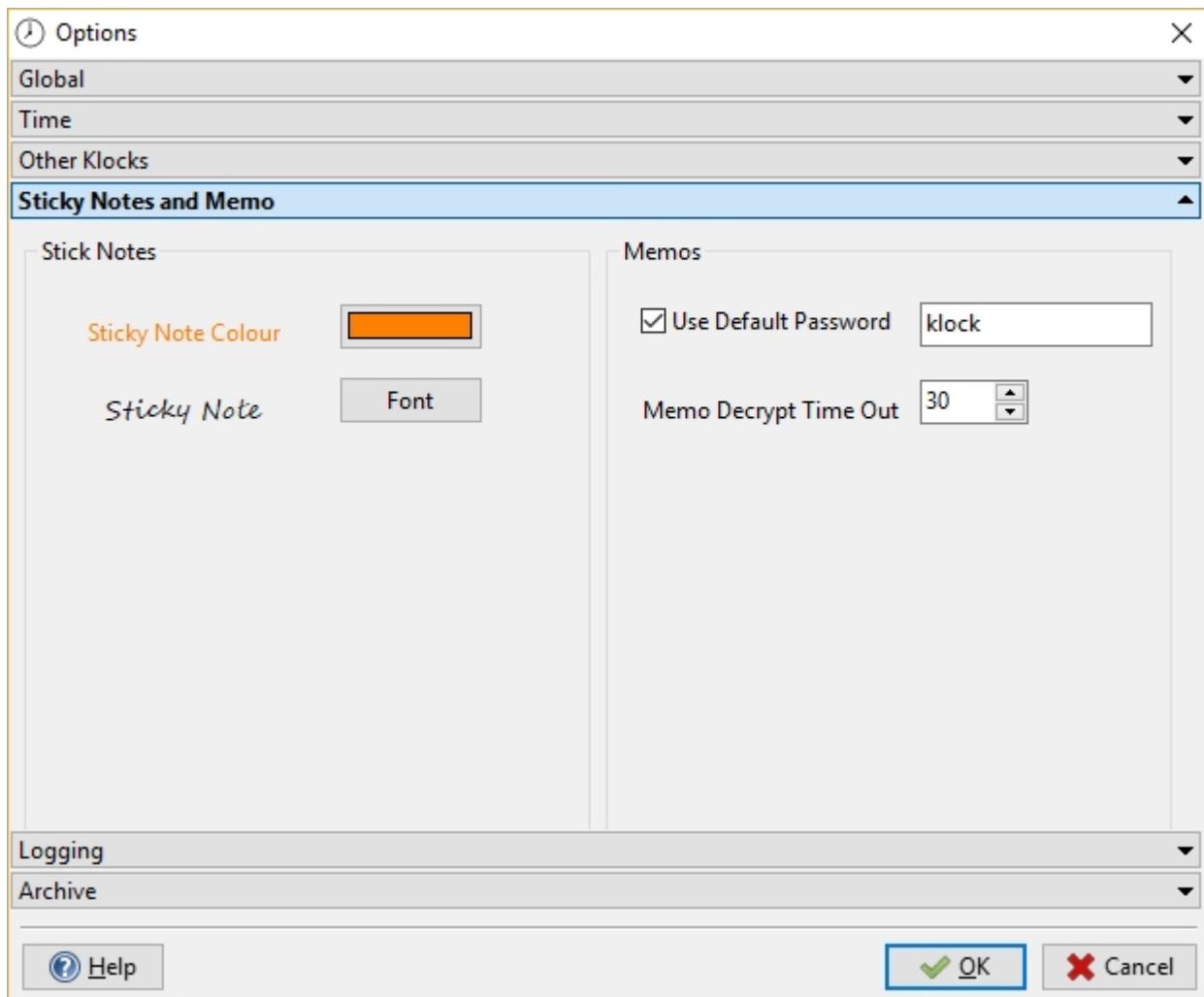
The fonts provided will be any on the system plus any loaded by Klock.

Because of the way the form transparency works, you can not use a block font. Klock should prevent this.

Pressing OK will save the new settings.  
Pressing cancel will not save any changes.

## Sticky Notes and Memos

# Sticky Notes and Memos



The options are as follows.

### Sticky Notes

The default background colour and font can be selected. This is over-ridable on each individual memo, if desired.

### Memos

When a memo is encrypted and password is selected, this can be chosen by the user for each individual memo or a default password can be chosen. A default password can be entered here and indeed if default passwords are even used.

Also the time an encrypted memo is shown as plain text can be selected - in seconds.

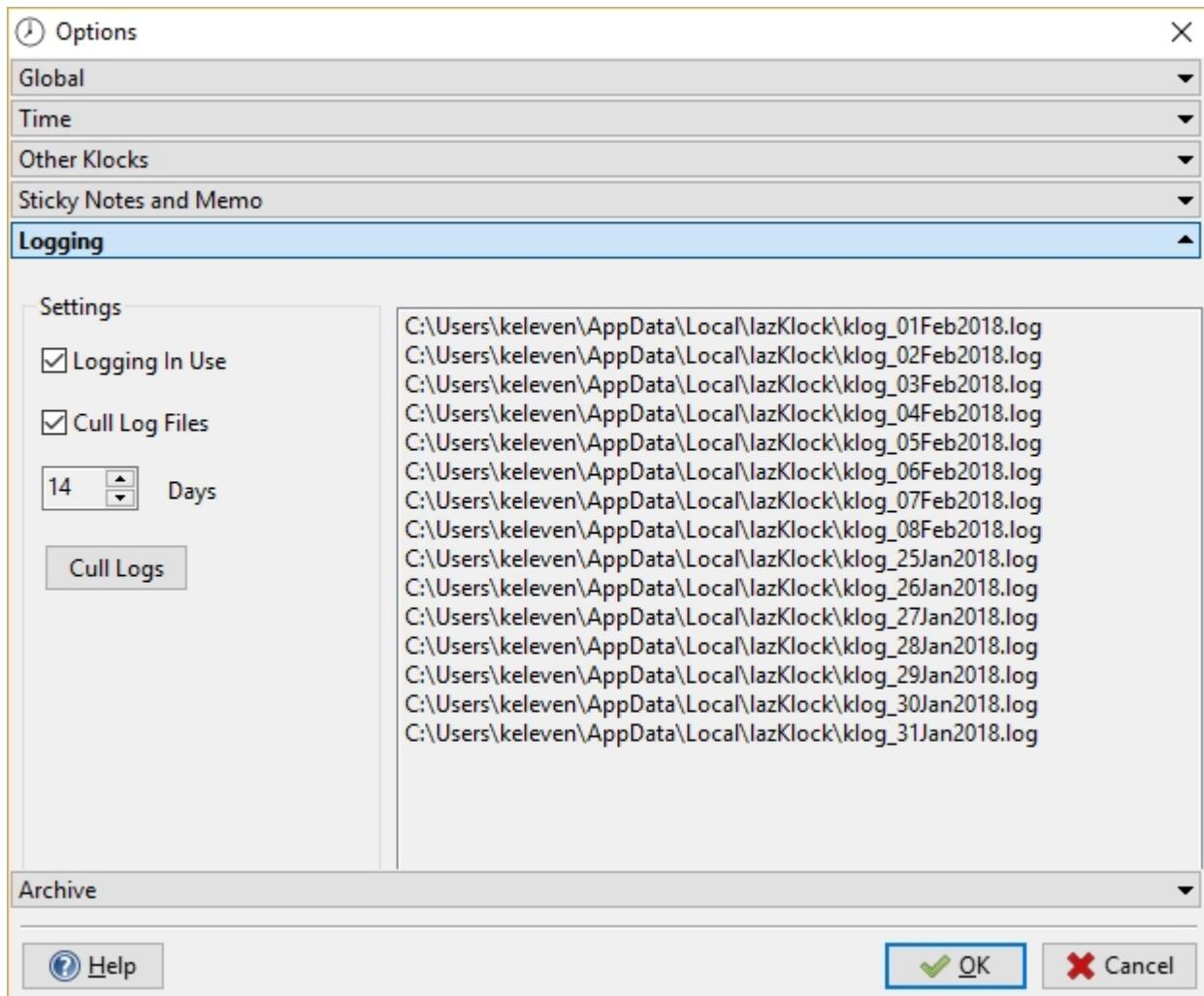
Pressing OK will save the new settings.

Pressing cancel will not save any changes.

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## Logging

# Logging



Certain errors and message can be logged to text file for further reading. This facility can be disabled. If enabled, the log files are displayed.

The number of days to keep the log files can be specified, default is 14. After this time, the Klock will delete the older log files.

A clean up of log files can be completed by clicking the button.

Clicking the entry for the log file, should log the log file into the default text editor.

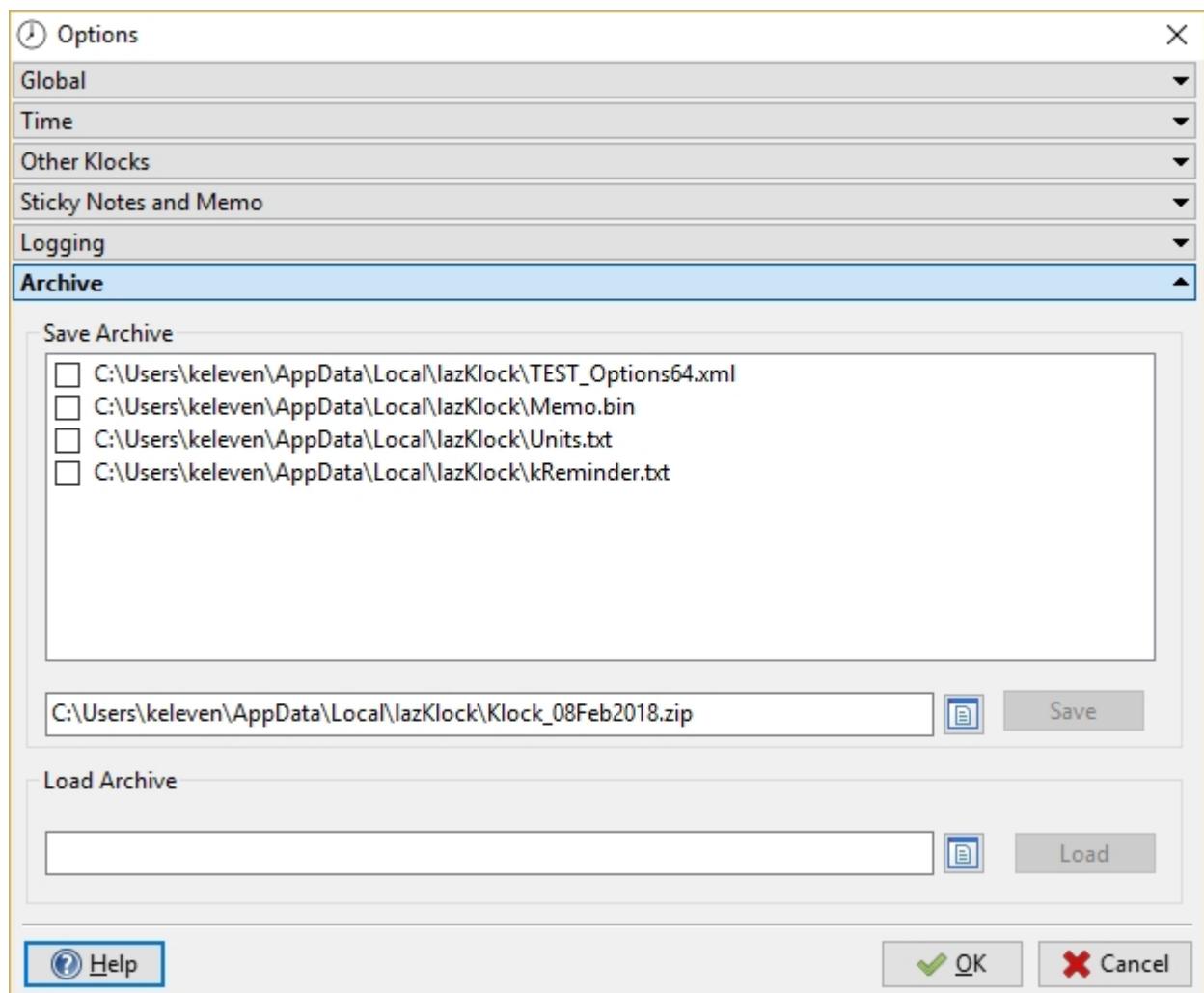
```

1 31Dec2017 104005 : Log Created
2 31Dec2017 104005 :
3 31Dec2017 104005 : lazclock
4 31Dec2017 104005 : User : keleven
5 31Dec2017 104005 : PC : KELEVEN
6 31Dec2017 104005 : OS : Microsoft Windows [Version 10.0.16299.125]
7 31Dec2017 104005 : lazClock Build :: 58
8 31Dec2017 104005 : lazClock Version :: 2.1.4.58
9 31Dec2017 104005 : Built with 64 bit Lazarus Version :: 1.8.0.6
10 31Dec2017 104005 : App Dir : C:\Program Files\keleven\lazClock\
11 31Dec2017 104005 :
12 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\fuzzytime_19Dec2017.log with age 11 19 Dec 2017
13 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_15Dec2017.log with age 15 16 Dec 2017
14 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_16Dec2017.log with age 14 16 Dec 2017
15 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_17Dec2017.log with age 13 18 Dec 2017
16 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_18Dec2017.log with age 12 19 Dec 2017
17 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_19Dec2017.log with age 11 19 Dec 2017
18 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_20Dec2017.log with age 10 20 Dec 2017
19 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_21Dec2017.log with age 9 21 Dec 2017
20 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_22Dec2017.log with age 8 23 Dec 2017
21 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_23Dec2017.log with age 7 24 Dec 2017
22 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_24Dec2017.log with age 6 25 Dec 2017
23 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_25Dec2017.log with age 5 25 Dec 2017
24 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_26Dec2017.log with age 4 27 Dec 2017
25 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_27Dec2017.log with age 3 27 Dec 2017
26 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_28Dec2017.log with age 2 28 Dec 2017
27 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_29Dec2017.log with age 1 30 Dec 2017
28 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_30Dec2017.log with age 0 31 Dec 2017
29 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\klog_31Dec2017.log with age 0 31 Dec 2017
30 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00000.tmp with age 13 17 Dec 2017
31 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00001.tmp with age 12 18 Dec 2017
32 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00002.tmp with age 11 19 Dec 2017
33 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00003.tmp with age 11 19 Dec 2017
34 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00004.tmp with age 10 20 Dec 2017
35 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00005.tmp with age 3 27 Dec 2017
36 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00006.tmp with age 3 27 Dec 2017
37 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00007.tmp with age 0 30 Dec 2017
38 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00008.tmp with age 0 30 Dec 2017
39 31Dec2017 104005 : C:\Users\keleven\AppData\Local\lazClock\Klock00009.tmp with age 0 30 Dec 2017
40 31Dec2017 104005 : Adding C:\Program Files\keleven\lazClock\fonts\Barcode39.ttf
41 31Dec2017 104005 : Adding C:\Program Files\keleven\lazClock\fonts\NancyBlackett.ttf
42 31Dec2017 104005 : Adding C:\Program Files\keleven\lazClock\fonts\BrailleLatin.ttf
43 31Dec2017 104005 : Adding C:\Program Files\keleven\lazClock\fonts\Semaphore.ttf
44 31Dec2017 104005 : Adding C:\Program Files\keleven\lazClock\fonts\Christmas.ttf
45 31Dec2017 104005 : Adding C:\Program Files\keleven\lazClock\fonts\Hack.ttf
46 31Dec2017 104005 : FormOptions Create
47 31Dec2017 104005 : FormAbout Create
48 31Dec2017 104006 : FormHelp Create
49 31Dec2017 104006 : FormLicense Create
50 31Dec2017 104006 : FormReminderInput Create
51 31Dec2017 104006 : FormAnalogue Klock Create
52 31Dec2017 104006 : formClipboard Create
53 31Dec2017 104006 : FormLEDKlock Klock Create
54 31Dec2017 104006 : FormBinaryKlock Klock Create
55 31Dec2017 104006 : Binary Klock
56 31Dec2017 104006 : formSmallTextKlock Klock Create
57 31Dec2017 104006 : FormKlock Showing
58 31Dec2017 104006 : FormKlock SetDefaults
59

```

## Archive

## Archive



The options are as follows.

This allows the loading and saving of certain configuration files to and from a zip file..

#### **Save Archive**

Select the configuration files to be save in the check box, only files that exist will appear.  
 Choose the location of the zip file name - a default is presented.  
 Click on Save. If the file already exists a confirm dialogue will appear.

#### **Load Archive**

Find the location of the zip file to be loaded in the lower section.

Click on load.

This will overwrite any existing configuration files currently been used by Klock.

Pressing OK will save the new settings.

Pressing cancel will not save any changes.

## History

---

### Build 1

commit a3539dd01031498d3c25c9a5ca3a454e18748aa6  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Thu Sep 29 20:50:37 2016 +0100

Initial Import.

Most of the GUI structure is complete.

Countdown page complete.

### Build 2

commit dc39233aeaa2191988890a6964d7d721e78d3bf0  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Thu Sep 29 20:56:56 2016 +0100

Nearly completed timer page - just an issue with the pause/resume.

Changed icon to clock.ico

Changed message to popup notification.

### Build 3

commit d16134c3bd9b03fee717a13f51b75ca79be2ed4d  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Thu Sep 29 21:12:48 2016 +0100

Timer page completed.

Reminder page started.

### Build 4

commit 2bb295ab57abacd842d99879a21a46feeeec62d8c  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Thu Sep 29 21:15:59 2016 +0100

Fuzzy time page completed.

Still working on reminder page.

### Build 5

commit 012c8dcaa5ef6569b178c9263e8553b0208f46aa  
Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 21:22:06 2016 +0100

All four pages [fuzzy, countdown, time & reminder] are all complete.

Added logic to change status bar on page change.

Tidied up code.

## Build 6

commit 04bbd3f4d9c7fbff3d493f570177b9c422f8fbcd

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 21:26:21 2016 +0100

All four pages now work - maybe an issue with reminders.

Added option record, that is passed between option form and the main form.

Added first option - colour of the main labels.

## Build 7

commit 3a979b66d0e3fad03dfb79aef2b207025db3784f

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 21:29:35 2016 +0100

Added NET & UNIX time to fuzzypage.

Added extra buttons to the radio group.

## Build 8

commit fd88525ca99a09df732c03859b5e963c91c4679f

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 21:32:24 2016 +0100

Corrected bugs in fuzzytime & net time.

Added UTC time.

## Build 9

commit 2aad4c41fb6f0410f6ff7f69c952e660a5c96f2d

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 21:35:59 2016 +0100

Changed the way to select the time format from a radio group to a combo box.

Added Swatch time.

## Build 10

commit 53193a6c8825b941b4b2d9648e40eb1552d8a87b

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 21:38:26 2016 +0100

Changed the data input on the reminder page from spin edits [one for hours

and one for minutes] to a floating spin edit to handle both hours and minutes. Still working on the logic to make it work in 24 hours and 60 minutes.

Also added a date picker to the reminder page.

#### Build 11

commit e1da1e2a4a2bdb103668b2bab9a084b2bb8df54d

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 21:42:20 2016 +0100

More work done on the reminder page.

Finally decided to use two normal spin edits for the hours and mins.

Not too pretty, but simple and it works.

Also added a date picker and added the date into the reminder logic.

Added a clear button to the reminder page, to cancel the running reminder.

#### Build 12

commit 00b786ab517dc5c7833ace39a7cb35187d9fa811

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 21:59:53 2016 +0100

Tidied up the code for the radio group - select time.

#### Build 13

commit 9cdc03d6cb236ae91a3b997d203371a6849910a6

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 22:02:36 2016 +0100

Reduced the height of most of the components, to make the overall application more sleek - I think it looks better.

Added a new form for the license [same as the help form], hangs off the help menu.  
Help & Licence forms now load their text from text files.

#### Build 14

commit daaa17da01956208064528a5eaad527547f31994

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 22:06:24 2016 +0100

Added split time button to time page.

Removed the function ltoS, which converted integer to two digit strings  
and use internal format functions instead.

#### Build 15

commit f69334f878d9b7451b21fb5811aaa45203ea1a8d

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 22:25:08 2016 +0100

Added try..except clause to all file operations.

Another attempt to fix noon bug in fuzzytime.

#### Build 16

commit b2a0dc26bb2192179201688d36afd76500aedb9f

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 22:27:24 2016 +0100

Recompiled to check for Lazarus 0.9.30.4

#### Build 17

commit 7d528975e17fb50a1b14fc38e5a585c25bcd2a38

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 22:28:56 2016 +0100

Licence window made read only - thanks Zach.

Reminders can now not be set in the past - thanks Zach.

Start of code for saving options in a .ini file.

#### Build 18

commit eb8bb66d933973ec2915c68f5be9a78ac921a6c1

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 22:38:52 2016 +0100

Further work completed on the .ini file

Extended the GUI on the options screen.

#### Build 19

commit 6258d4478adef926ad45e166503e3a9e47b46bb4

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 22:41:08 2016 +0100

Further work on the ini file stuff.

Timer can now run either second / milli seconds.

Default page control can now be set.

Both saved to ini file.

#### Build 20

commit d6208a7f77b04de861eac0154dc886be990c34b4

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 29 22:43:24 2016 +0100

All modules now load version info from options record.

#### Build 21

commit 9f04e9dd7a8ad1106d10310a6f9933d40b297faa  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Thu Sep 29 22:46:44 2016 +0100

Added unit uOptionsUtils.pas, which contains the functions StringToFont & FontToString - enables font information to be saved to the ini file.

Added code to save and load fonts from the ini file - to be tested.

#### Build 22

commit d74e9710c48371a8e92a440c372b15ae673e6119  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Thu Sep 29 22:50:15 2016 +0100

Further work on font options.

Removal of colour buttons in the options screen. The colour can be changed in the font page, so making these buttons redundant.

#### Build 23

commit 2f4a695fc917e80fa463ee1726e62eb95c253ac0  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Thu Sep 29 23:01:23 2016 +0100

Removed colour buttons, duplicated in font dialogue screen.

Finished font stuff.

Will save screen position if desired.

#### Build 24

commit 0d76e07735779d51ae2e12853badf8d9ca57a8d5  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Thu Sep 29 23:04:34 2016 +0100

Added option for net time to count in 1 or 15 seconds.

[15 seconds net time = 1 second real time]

Added option for Swatch time to display centibeats.

Added option for default time display.

Changed both default time & tab to be drop down lists.

Added option for countdown to trigger sound, event command or pop up message.

event is a system event i.e. PC shut down or reboot.

command is the ability to run an external application.

#### Build 25

commit 35b26cb97e749407f6b120ca4c0bcc4c853e4a2e  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Fri Sep 30 21:34:21 2016 +0100

Over 1000 lines of meaningless code :0)

Renamed UOptionsUtils.pas to UKlockUtils.pas - a more general utils unit.  
Moved doSystemEvent & doComand procedures into this unit.

Corrected several bugs with the countdown event procedures.

Change AProcess.CommandLine [depreciated] to AProcess.Executable & Aprocess.Parameters.

Corrected bug; screen would reset to saved screen co-ordinates, even though  
the screen saved not clicked in options. Now checks option when resets main form.

Options; changed around the NET time and Swatch time to be a common  
checkbox list, instead of two check boxes.

Finally got around to the case statement, converted most nested IF statements.

Added Julian Time - needs checking.

## Build 26

commit 730ffd5076edbf3267f54ae52616ca06a94a043  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Fri Sep 30 21:50:20 2016 +0100

Added Julian time.  
Added Decimal Time.  
Added Hexadecimal Time.  
Added Binary Time.

## Build 27

commit 82242ff21bab25c4919463bdde34d3f8c335f4d2  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Fri Sep 30 21:55:00 2016 +0100

Bug with the ini file, could not create in Windows 7. Not enough permissions, I think.  
Use GetAppConfigDir, it retrieves the correct place to store the ini file.  
Store in something like c:\Users\user\AppData\local\kloc\ in Windows 7.  
And c:\D&S\usr\Local Settings\Application Data\Klock\ on Windows XP.

## Build 28

commit 1c4daa3d9c873b3bf2feeaa83630b46e4e9ef2ee3  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Fri Sep 30 21:58:57 2016 +0100

Removed local Klock.ini, not now needed - will create on start up.

Problem with the screen position of main form after options screen closed  
- Corrected [thanks Zach].

## Build 29

commit 8453f000a73e627323eef4c51971a9cce65e09d3  
Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Fri Sep 30 22:03:36 2016 +0100

Corrected bug; Setting the date on the reminder did not enable the set button - the time needed changing as well - [thanks Zach].

#### Build 30

commit 0e1fc4257b6bdde90a8282545b24531a7e3ea83a

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Fri Sep 30 22:08:30 2016 +0100

Added tray icon to klock.

Added button, that hides the main form to a tray icon.

Added pop-up menu to tray icon, that gives the following options -

- 1 - Show main form.
- 2 - Show current selected time as a pop-up notification.
- 3 - Exit Klock.

Changed the way the pop-up notification is called. Now uses a global array to hold different messages from time, countdown and reminder.

Added some new comments to procedures [which where their all the time ;o)]

#### Build 31

commit 1d6bf1d7c014e3575f62223afeb9729d5bcfbef8

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Fri Sep 30 22:14:03 2016 +0100

Recompiled to check for lazarus 1.0 RC1 [although showing 0.9.31 in about box].

Also turned off generate debugging info GDN in linking options.

This creates a lot smaller executable.

#### Build 32

commit f73c566840d177dad0dc09013bab2422c7ab883

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Fri Sep 30 22:17:23 2016 +0100

Recompiled to check for Lazarus 1.0 RC2 [now showing 1.0.1.2 in about box].

Tidied up the logic that checks that a reminder has been set in the future date.

If a system shut down is chosen in reminder or countdown and the application is being displayed in the system tray, switch to normal mode - allows the abort button to be selected.

Added a display to the status bar that indicates the status of the cap, numlock & scroll lock [in real time].

#### Build 33

commit 03c22837daa680df290ed247314cca7b33ce18a3

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Fri Sep 30 22:22:17 2016 +0100

Ran source through a spell checker - many changes.

Changed reminder tab to event tab.

Changed all existing references of reminder to event.

This is to allow a new reminder tab, which will remind on birthdays, anniversaries etc.

Added new reminder tab.

Added new form to add reminders.

Added logic to save reminders to csv file.

Added logic to load csv file and display date on reminder tab.

There is a bug with Icl, the pop-up notifier timeout does not seem to work.

Added a timer, that will kill the notifier after ten seconds.

#### Build 34

commit 0a457f25b2170992c563062f8a5ee4d8084ba82f

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Fri Sep 30 22:57:59 2016 +0100

Converted SVN repository to GIT. Uploaded this to GitHub.

Recompiled to check for Lazarus 1.6 [showing 1.6.0.4 in about box].

#### Build 35

Recompiled to check for Lazarus 1.8.0.4.

Added VI backup files to .gitignore.

Amended klock.iss [inno setup script] to either install 32 or 64 bit executable, depending on target machine.

Increased version number of 35 in uOptions.pas.

Tidied up history.txt

#### Build 36 [1.0.0.36]

commit c607cf8110893a99bc89120532a1f1f34c6955c

Author: Kevin Scott <lazKlock@keleven.co.uk>

Date: Thu Sep 7 22:36:38 2017 +0100

Renamed all form files from uxxx.pas to formxxx.pas. i.e. uKlock.pas -> formKlock.pas.

So, all source files that contain GUI elements will start with form.

All non GUI source files will start with u - a unit file.

Currently

2968 lines of source code.

1549 statements

14.6% comments

\*\*\*\*\* Version 2 \*\*\*\*\*

#### Build 37 [2.0.0.37]

commit 3d7a9e43522baac7af8adea345307b107d33a228

Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Mon Oct 16 22:15:32 2017 +0100

Added config file for SourceMonitor.

Added uOptions.pas, an options record that uses XML files. Hopefully this will replace the existing .ini file based options.

Amended all references in formKlock.pas that used the old .ini options to use the new .xml options record.

NOTE :: formOptions has not been touched yet and still point to the old style options records - this will be stripped out next.

Currently  
3450 lines of source code.  
1802 statements  
15.5% comments

#### Build 38 [2.0.0.38]

commit c35513fb5200d949b4d7a01cb63240000e00073b  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Wed Oct 18 22:18:09 2017 +0100

Amended formLicence, formHelp & formAbout to use new user Options.

Added to formAbout disk size and free space for all disks on the system  
Added to formAbout system and application up time.  
Added to formAbout to display if compile to either 32 or 64 bit.  
Added to formAbout powered by Lazarus logo.  
Tidied up formAbout.

Amended klock.iss to use lazKlock instead of Klock - should that be lazKlock.iss.

reloaded licence.txt from web site.

Currently  
3567 lines of source code.  
1856 statements  
16.0% comment

#### Build 39 [2.0.0.39]

commit b9e05ca031036a4a64abf128859f401e10fab5f2  
Author: Kevin Scott <lazKlock@keleven.co.uk>  
Date: Thu Oct 19 21:21:15 2017 +0100

Removed all references to the old .ini in formOptions, fromKlock & ufuzzyTime.

Also removed all non-visual components from formOptions.

We now build the new options screen.

Currently  
3112 lines of source code.  
1615 statements  
16.4% comment

## Build 40 [2.0.0.40]

commit 98eeea8d6afdb62fc0bfc23bd0cc52fbc703883  
 Author: Kevin Scott <github@keleven.co.uk>  
 Date: Fri Oct 27 21:40:30 2017 +0100

Started building the new options screens - using an accordion.

Although all options are written to the xml file has strings, amended the Options class so that all options are presented to lazKlock has native type i..e. Integers and Boolean. The conversions are not his within the options class and not the main program.

Changed the logic in formOptions, when the options form loads a backup options record is created and this is amended, it is only copied to the main options records if OK is clicked. If cancel is click the amendments are discarded.

Added the logic to uKlockUtils to amend the registry for starting the app with windows.

Removed self from variable references in uFuzztTime - not sure why they where there.

Currently

3338 lines of source code.

1738 statements

17.4% comment

## Build 41 [2.0.0.41]

commit 57332b6a2300cb489eee6d399318876c9519575e  
 Author: Kevin Scott <github@keleven.co.uk>  
 Date: Mon Oct 30 22:14:19 2017 +0000

Added a separate form to house an Analogue Klock - frmAnalogueKlock.pas.

Made this form transparent, just leaving the form.

Added logic to make this draggable, with just the Klock visible.

Added User Options to remember the Analogue Klock screen position.

Added to main Klock to display the idle time.

Added percent Time to FuzzyTime.

## Build 42 [2.0.0.42]

commit 7b3781a898da3a2f69387a5eca5eae372c198112  
 Author: Kevin Scott <github@keleven.co.uk>  
 Date: Mon Nov 6 13:39:29 2017 +0000

The shutdown command seems to have changed in windows 10.

Parameters are now preceded with a / and not a -.

Also, having problems passing parameter's with spaces, removed for now.

Corrected bug where if no action was selected, an index out of bounds could be created.

## Build 43 [2.0.0.43]

commit 92d89f0d1125dd1f4aa33a102f38c94de928ef13  
 Author: Kevin Scott <github@keleven.co.uk>

Date: Mon Nov 6 15:03:59 2017 +0000

Passed all source files through a spell checker - mainly for comments.

Passed all source through JEDI source checker.

Bumped up a minor version point.

Currently

3693 lines of source code.

1874 statements

16.7% comment

Build 44 [2.0.1.44]

commit d0ffe89eb2885a8226c87d2b274fe099ce0684cc

Author: Kevin Scott <github@keleven.co.uk>

Date: Fri Nov 10 20:15:11 2017 +0000

Added time displayed as barcode, Semaphore, Nancy Blackett Semaphore & Braille. These are achieved my font substitution.

Added a new unit uFont.pas - to load custom fonts.

Added logic to formKlock to use new fonts when required.

Added two new directories fonts & sounds.

Added a number of mp3 files to play the hourly chimes and The pips.

Amended to procedure doPlaySound in uKlockUtils.pas to play all sound files and not just .wav files. Also, made this procedure more robust.

Also added to this unit to play the hourly chimes.

Added user options for sound volume, sound the pips on the hour or hourly chimes.  
Also added the option for the analogue klock to save screen position.

Currently

4080 lines of source code.

2120 statements

16.4% comment

Build 45 [2.0.1.45]

commit a9296bca47a258c567d6d096bca416709e943c63

Author: Kevin Scott <github@keleven.co.uk>

Date: Tue Nov 14 14:57:13 2017 +0000

Added the ability for Klock to write Info and Debug information to log files.  
Logging can be enabled / disabled by a user options. Also the ability to delete log files older then a certain age. This is also specified by user options.

An extra tab was added to the options form for the logging options, the log files are also displayed here.

Added a new unit, uLoggingUtils. The unit contains the helper routines to read and delete log files.

Started to sprinkle debug entries all over.

Cleaned up the calling process for the chimes.

Added doubleTime to uFuzzyTime.

Added a new unit, uOptionsUtils. This unit contains helper routines to read and write XML entries.

Changed the Klock icon.

Currently

4303 lines of source code.

2199 statements

16.7% comment

#### Build 46 [2.0.1.46]

commit 2a0201bd0094f867199523c53545e03695adb89f

Author: Kevin Scott <github@keleven.co.uk>

Date: Mon Nov 20 14:11:16 2017 +0000

Added formClipboard and uformClipboardUtils which implements a clipboard manager.

Added various options for the clipboard managers to formOptions and uOptions.

/\*\*\*\*\*

Looks like I have messed up and corrupted the sources somewhere along the line.

It would compile but would error when loading with Access Violation.

What ever I did, I could not see what I had done wrong. The happened at both 32 & 64 bit.

It did happen at the same time as I had tried a new couple of components, maybe I had mixed up the 32 and 64 bit things. Or, more probably, trying to access an object that had not been initialised. I gave up.

Lazarus then released the final V1.8 - So I decided to try and fix it.

The first build that would compile and run was build 41. So branch V2.1 starts from there.

I will try apply the changes gradually and see if I can spot the error[s].

/\*\*\*\*\*

#### Build 47 [2.1.1.47]

commit 6cd165f08dbdf1636c5e595ab623e35d89a5efb4

Author: Kevin Scott <github@keleven.co.uk>

Date: Tue Dec 12 21:22:21 2017 +0000

[This is a duplication of build 42]

The shutdown command seems to have changed in windows 10.

Parameters are now preceded with a / and not a -.

Also, having problems passing parameter's with spaces, removed for now.

Corrected bug where if no action was selected, an index out of bounds could be created.

Currently

3611 lines of source code.

1851 statements

17.2% comment

#### Build 48 [2.1.2.48]

commit e6d03bec376307cbf63b324ea64f181d8a03867b

Author: Kevin Scott <github@keleven.co.uk>

Date: Wed Dec 13 10:00:24 2017 +0000

[This is a duplication of build 43]

Passed all source files through a spell checker - mainly for comments.

Passed all source through JEDI source checker.

Bumped up a minor version point.

Currently

3703 lines of source code.

1863 statements

16.7% comment

#### Build 49 [2.1.3.49]

commit f7b1216f1f682f9a2f28593dffbd45ca84521d0

Author: Kevin Scott <github@keleven.co.uk>

Date: Wed Dec 13 20:12:19 2017 +0000

[This is a NEARLY duplication of build 43]

Added time displayed as barcode, Semaphore, Nancy Blackett Semaphore & Braille. These are achieved my font substitution.

Added a new unit uFont.pas - to load custom fonts.

Added logic to formKlock to use new fonts when required.

Added two new directories fonts & sounds.

Added a number of mp3 files to play the hourly chimes and The pips.

Amended to procedure doPlaySound in uKlockUtils.pas to play all sound files and not just .wav files. Also, made this procedure more robust. Also added to this unit to play the hourly chimes.

Added user options for sound volume, sound the pips on the hour or hourly chimes.

Also added the option for the analogue klock to save screen position.

Currently

4077 lines of source code.

2113 statements

16.4% comment

#### Build 50 [2.1.3.50]

commit ce387521eca09467d8a50d3617c9b0d79254acd5

Author: Kevin Scott <github@keleven.co.uk>

Date: Wed Dec 13 22:06:13 2017 +0000

[This is a part duplication of build 45 - mainly the options stuff.]

Cleaned up the calling process for the chimes.

Added doubleTime to uFuzzyTime.

Added a new unit, uOptionsUtils. This unit contains helper routines to read and write XML entries.

Changed the Klock icon.

Currently

4051 lines of source code.

2051 statements

16.9% comment

Build 51 [2.1.3.51]

commit 22135ab71701bcf61cedef606c118d34eae6ab28

Author: Kevin Scott <github@keleven.co.uk>

Date: Sat Dec 16 18:56:37 2017 +0000

[This is a part duplication of build 45 - mainly the options stuff.]

Added the ability for Klock to write Info and Debug information to log files.

Logging can be enabled / disabled by a user options. Also the ability to delete log files older than a certain age. This is also specified by user options.

An extra tab was added to the options form for the logging options, the log files are also displayed here.

Added a new unit, uLogging.pas. The unit contains the helper routines to read and delete log files.

Started to sprinkle debug entries all over.

I started to get the Access Violation again, especially in the 32 bit application.

This seemed to be either the logging not being thread safe and a problem in loading the fonts. I changed the method that loads the fonts and stopped using TEvent and wrote a simple logging class of my own that just appends to a text file.

[The logging class resides in uLogging.pas]

All seems to be okay.

Added a routine that retrieves the version of Windows, this is displayed in the About form and the header of the log file.

Also removed the option to install the sources from the inno installer, they can download them from GitHub.

Currently

4402 lines of source code.

2228 statements

17.2% comment

Build 52 [2.1.3.52]

commit 955ef8502453ccbc89da6a283ef28ff39acb7f7a

Author: Kevin Scott <github@keleven.co.uk>

Date: Sun Dec 17 21:37:49 2017 +0000

[This is a NEARLY duplication of build 46]

Added formClipboard and uformClipboardUtils which implements a clipboard manager.

Added various options for the clipboard managers to formOptions and uOptions.

Currently  
 4946 lines of source code.  
 2517 statements  
 16.6% comment

\*\*\*\*\*  
 /\*\*\*\*\*

Klock has now caught up to the point before the corruption.  
 I have done two things differently - the logger and the font loading - see build 51.  
 Another bump on the minor version.

\*\*\*\*\*  
 /\*\*\*\*\*

### Build 53 [2.1.4.53]

commit a8fcda0f1df54159f605d1241fbcded9aed1f45b  
 Author: Kevin Scott <github@keleven.co.uk>  
 Date: Mon Dec 18 13:04:20 2017 +0000

Added an info screen it display information about Easter & lent dates, Power Source and Daylight Saving. These are called from an Info menu from the main Klock screen. uInfoUtils was added and this contains the routines which do the heavy lifting.

Added Time in words, Morse time and Roman Numerals Time to uFuzzyTime.

Added Application directory to formAbout and log file header.

Currently  
 5514 lines of source code.  
 2903 statements  
 15.8% comment

### Build 54 [2.1.4.54]

commit d4c4e3ef6602799b13f2e93f662ee9d86002df5a  
 Author: Kevin Scott <github@keleven.co.uk>  
 Date: Wed Dec 20 20:10:32 2017 +0000

Added a Christmas font and an option to automatically use this font for the 12 day of Christmas - 12 days before and 12 days after.  
 Other holiday fonts will be added when found.

formAbout - Removed info labels and added a listbox to display Klock about stuff.

formKlock - Tidied up the setting of main timer interval when using NET time.  

- Added logic to use Christmas font.
- First attempt at auto sizing main fuzzy time label depending upon size.

formOptions - Added checkbox for Christmas font.

formClipboard - Added the start of culling tmp files.

formInfo - Removed info labels and added a listbox to display Info stuff.

uFonts - Added loading and removal of Christmas font.

uFuzzyTime - Added logic for fuzzyTime to write out its own debug log.  

- Corrected bug[s] in fuzzyTime.

uKlockUtils - Added getTextWidth & isChristams helper functions.

Currently  
5654 lines of source code.  
2984 statements  
15.7% comment

#### Build 55 [2.1.4.55]

commit 3721a3e5d078a2ae0c14b5cb17fc7370ed747d51

Author: Kevin Scott <github@keleven.co.uk>

Date: Thu Dec 21 14:12:46 2017 +0000

Added a LED Klock, this hangs off the Time menu on the main Klock.

Added formLEDKlock to the project.

formKlock - Added menu item to call the LED Klock.

formOptionss - Added options for LED Klock [save screen position].

uOptions - Added above options.

uFuzzyTime - Added Flow Time and Metric Time.

Currently  
5917 lines of source code.  
3091 statements  
15.8% comment

#### Build 56 [2.1.4.56]

commit 16b49360bd2f6cb5c60385c86662c27817c0829d

Author: Kevin Scott <github@keleven.co.uk>

Date: Tue Dec 26 22:14:24 2017 +0000

Added a Binary Klock, this hangs off the Time menu on the main Klock.

Added formBinaryKlock to the project.

The Klock can display time in either Binary or BCD format.

formKlock - Added menu item to call the Binary Klock.

formOptions - Added options for LED Klock [Use long date format].

- Added options for Binary Klock [save screen position].
- Added options for Binary Klock [Binary/BCD format].

uOptions - Added above options.

formAnalogueKlock - Changed method of moving [dragging] the klock,  
it now mirrors the LED Klock.

formLEDKlock - Added use long date option.

- Fixed a bug in screen save logic.

Currently  
6514 lines of source code.  
3437 statements  
15.4% comment

#### Build 57 [2.1.4.57]

commit 0c32a35ccb44ae3e11875382adb185a32ec9f074  
Author: Kevin Scott <github@keleven.co.uk>  
Date: Thu Dec 28 13:47:14 2017 +0000

Developing Small Text Klock.

```
fonts/{Hack-Regular.ttf => Hack.ttf} | Bin
formKlock.lfm           | 8 ++
formKlock.pas            | 8 ++
formOptions.lfm          | 31 ++
formOptions.pas           | 22 ++
formledklock.lfm         | 4 ++
formsmalltextklock.lfm   | 58 ++
formsmalltextklock.pas    | 1033 ++++++=====
history.txt              | 25 +
klock.lpi                | 214 +++++-
klock.lpr                | 3 ++
ufonts.pas               | 2 ++
uklockutils.pas          | 11 ++
uoptions.pas              | 45 ++
14 files changed, 1411 insertions(+), 53 deletions(-)
```

Build 58 [2.1.4.58]

commit 8c72e195366d5433a2a37e10d3122f7113a1d94b  
Author: Kevin Scott <github@keleven.co.uk>  
Date: Fri Dec 29 22:51:21 2017 +0000

Added a Small Text Klock, this hangs off the Time menu on the main Klock.  
Added formSmallTextKlock to the project.  
The Klock can either have a transparent or solid background.

formKlock - Added menu item to call the Binary Klock.

formOptions - Added options for Binary Klock [save screen position].  
- Added options for Binary Klock [Transparent background].  
uOptions - Added above options.

Renamed hack-Regular.ttf to Hack.ttf.  
uFonts - Added loading of hack.ttf.

Currently  
7636 lines of source code.  
4140 statements  
14.1% comment

Build 58 [2.1.4.58]

commit 76c6308ba019b6fcab6df701040e99fb393f91a2  
Author: Kevin Scott <github@keleven.co.uk>  
Date: Mon Jan 1 20:08:48 2018 +0000

Added A [proper] help file in .chm, .pdf and .html format.  
This was created using HelpNDoc V5, a help.hdn file has been added to the source.  
A new sub directory called help was created to hold all the files.

The old style formHelp has been deleted from the project.

The new style help [.chm] is now loaded from both the help button on the main form, the help menu and the help button on the options screen.

Currently

7600 lines of source code.

4116 statements

14.2% comment

Build 59 [2.2.0.59]

commit a0ad6ae5e5e9530dd159b19ad3010dc5c7b597e5

Author: Kevin Scott <github@keleven.co.uk>

Date: Wed Jan 3 15:06:05 2018 +0000

Changes to history.txt and lazKlock.smproj hanging over from last commit.

Also, did some git admin. Since the master branch was corrupt and all the recent work had been done in branch V2.1, it was time to clean up. This was achieved with the following.

```
git branch -m master master-old      # rename master on local
git push -f origin :master          # delete master on remote
git push origin master-old          # create master-old on remote
git checkout -b master V2.1          # create a new local master on top of V2.1
git push origin master              # create master on remote
```

I now have a current and good master and a working copy at V2.1.

I also deleted branches v1 and v2. I will delete branches master-old and v2.1 when happy is all is okay.

This also becomes V2.2 and will create a working branch of v2.

```
history.txt | 186 ++++++=====
lazKlock.smproj | Bin 215570 -> 237081 bytes
2 files changed, 186 insertions(+)
```

Build 60 [2.2.0.60]

commit c98469c78125b59aa4c0cbb8733024250a402f47

Author: Kevin Scott <github@keleven.co.uk>

Date: Thu Jan 4 17:05:51 2018 +0000

Added Easter font and option to use this font at the Easter weekend.

formOptions - Added logic to cull [delete] log files over a certain age.

This can be configured in options.

formClipboard - Added logic to cull [delete] tmp files over a certain age.

The age is currently hard coded to be 10 days..

formBinaryKlock - changed the status bar for a panel.

This can have the background colour changed without leaving ugly lines as the status bar does.

Currently

7742 lines of source code.

4185 statements

14.6% comment

#### Build 61 [2.2.1.61]

commit fd4886c7d4a8aaf195e5c57bc3762cda5e055fe

Author: Kevin Scott <github@keleven.co.uk>

Date: Sun Jan 7 17:07:08 2018 +0000

Added a new tab to Klock for Conversions. This allows the conversion between several units i.e. weight and distance etc. A new file uConversion was added, this holds the helper functions for the conversion tab.

Also removed a lot of old image files from the help file - reduced the size a lot.

Merged branch V2 back into master branch.

Currently

8021 lines of source code.

4339 statements

14.9% comment

#### Build 62 [2.2.1.62]

commit fa152df41daf92f75bf9d74b5b69e1b9efa4942e

Author: Kevin Scott <github@keleven.co.uk>

Date: Sun Jan 7 23:05:10 2018 +0000

Made the xml [options] reading routines more robust.  
If an entry is missing, the default values for that entry is now used instead of an error being generated.  
This then cures the problem of new options being added, up to now if the old options file was not deleted and error was generated.

Also, removed uOptinsUtils and moved the helper routines into the main options class.

#### Build 63 [2.2.2.63]

commit c964c7287aa66205cd3f014015fca519daefc92f

Author: Kevin Scott <github@keleven.co.uk>

Date: Thu Jan 11 22:07:21 2018 +0000

Added a Sticky note option.

This compromises of two classes [uStickNote and UStickNotes] and one form [formStickNote]. The uStickNote holds the info for one stick Note and uStickyNotes handles creation and storage of all the stick Notes.

A menu option was added to Klock to create a new Sticky Note.

Needs some testing yet.

Currently

8762 lines of source code.

4777 statements

15.4% comment

## Build 64 [2.2.2.64]

commit 5abce3c97050cf33dbbbf4dc177af99d224af7db  
Author: Kevin Scott <github@keleven.co.uk>  
Date: Fri Jan 12 16:02:37 2018 +0000

Changed all the icon [again] - now from <https://icons8.com/>

Removed the button bar from the main Klock screen and added individual buttons, with their own icons.

Added a sub menu option to save the Sticky Notes to each Sticky Note.

Added Binary and BCD time to uFuzzyTime.

Currently

8863 lines of source code.

4830 statements

15.3% comment

## Build 65 [2.2.2.65]

commit 06a77cd4cae5903b208f99fa53239d4c360007c5  
Author: Kevin Scott <github@keleven.co.uk>  
Date: Mon Jan 15 14:14:25 2018 +0000

Added a form close to all forms if missing, this allowd a "CloseAction := caFree;" to be added to every form.

Added a new Sticky Note option to all extra Klocks pop up menus.

Added icons to all extra Klocks pop up menus.

Ran all source [including this file] through a spell checker.

Currently

8952 lines of source code.

4861 statements

15.2% comment

## Build 66 [2.2.3.66]

commit c6501001cd0fe2e02f3a2a5e06f5aab51a0fa2cc  
Author: Kevin Scott <github@keleven.co.uk>  
Date: Mon Jan 22 12:00:56 2018 +000

Added a memo tab, this will allow memo's to be entered, edited, printed and saved. Any previously saved memos will be loaded into Klock on startup. The memos can be optionally encrypted and only be displayed on demand.

This added two new files - uMemos.pas and uMemo.pas.

The memo workflow is modeled on the Sticky Note workflow.

Half way through adding the Memo tab.

## Build 67 [2.2.3.67]

commit b3f072e6e432af1feeb6126b2334053e374f3b65  
Author: Kevin Scott <github@keleven.co.uk>

Date: Fri Jan 26 16:50:33 2018 +0000

Still implementing memo tab.

The new, delete, save and load functions seem now to work.  
Edit and print to go

Build 68 [2.2.3.68]

Completed the Edit and Encryption bit.  
They look to be working - but need further testing.  
Still got print to go.

In build 65 I added in "CloseAction := caFree;" to every form, I read this was a good idea. This seems to make Klock crash if that form is opened more than once in any session. So, I removed it from every form.

Currently  
9558 lines of source code.  
5132 statements  
15.7% comment

Build 69 [2.2.3.69]

commit fbfef9e5ddc0d89be56546412de91ebfe8924554  
Author: Kevin Scott <github@keleven.co.uk>  
Date: Sun Feb 4 21:39:00 2018 +000

formKlock - Moved the loading of Sticky Notes and memo to formload from formShow, this should stop duplicate loading of Stick notes when switching from another klock back to the main Klock.

formOptions, uOptions - added options for Sticky Note Colour and Font.  
                  added options for Memo default password, use default  
                  password and Time out.

formInfo, uInfoUtils - Added Moon stuff to Info menu. This includes a graphic of the moon phase and procedure to calculate the moon phase and illuminance.

uFuzzyTime - Change the algorithm for calculating the Julian Date - this looks more accurate.

formStickNote - Amended to use default colour and font on create.

Currently  
9835 lines of source code.  
5287 statements  
15.8% comment

Build 70 [2.2.3.70]

commit 3ea9e46703b0151a67b57214f9b283ef6cf01ec0  
Author: Kevin Scott <github@keleven.co.uk>  
Date: Mon Feb 5 20:54:16 2018 +000

Added three new fonts - SweetHearts [Valentines], grroyChosties [Halloween] and ChristmasChard [a rather nice script font]. Added user options so the first

two will be used on their holiday days.

Corrected a bug in fuzzyTime which referred to one minutes instead of one minute in wordtime.

Updated all help files.

Currently

9910 lines of source code.

5351 statements

15.7% comment

### Build 71 [2.2.3.71]

commit a4ab066100526459c2c02ad69ad431a32870ef67

Author: Kevin Scott <github@keleven.co.uk>

Date: Thu Feb 8 21:22:29 2018 +0000

Added a tab to the options firm - Archive.

This allows the loading and saving of certain configuration files to and from a zip file.

The configuration files will only appear if they exist on the system.

The location of the zip file can be selected, but a default is presented.

A new file, uArchiveUtils, holds the helper Archive routines [called from formOptions].

Added the location of the configuration files to the options files, easier to use elsewhere in the program and are now only specified in one place.

Currently

10128 lines of source code.

5499 statements

15.7% comment

### Build 72 [2.2.3.72]

commit 70961f2593ec1ef5c728a1a9dbf6c52daf11e0e0

Author: Kevin Scott <github@keleven.co.uk>

Date: Fri Feb 9 22:06:33 2018 +0000

Divided fuzzyTime between calculated time and font substitution.

Added a second combo :box populated with the available fonts.

So, each time format can be displayed in each available font.

Added loads of fonts. :-)

fonts/Backwards.ttf | Bin 0 -> 18924 bytes

### Build 73 [2.2.3.73]

Added an extra tab - World Klock.

This displays a list of Time Zones and when selected will display the time in that time zone.

This uses the component PascalTZ.

Currently

10171 lines of source code.  
 5565 statements  
 15.8% comment

## Build 74 [2.2.4.74]

Added an extra klock - Floating Text Klock. The textual display of the time seems to float on the screen - all other item i.e. form is transparent.  
 Added formFloatingKlock to hold this.

Added the following user options for Floating Text Klock.  
 Screen Save, Form Top, Form Left, Font and use Klock Font.

Added calling menu items if formKlock.  
 Added speed buttons to the cointdown tab - so the countdown can be quickly started with either 30, 60, 90 or 120 minutes.

Added TPascalTZ to uFuzzyTime. used for local and utc time, this will take into account time zones.

Currently  
 10592 lines of source code.  
 5765 statements  
 15.9% comment

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## Credits

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## Credits

- Convert based on article in <http://www.dreamincode.net/forums/topic/121316-an-updatable-unit-conversion-calculator/>
- Most of the time formats where found on the internet - clever minds then me out there
- Nancy Blackett Semaphore Font curtesy of ©2006 Roland B. Harris  
[www.allthingsransome.net/downloads/nbsemaphore.html](http://www.allthingsransome.net/downloads/nbsemaphore.html)
- I think all fonts from <https://www.dafont.com/>. All authors gratefully acknowledged.
- Font for the Text Klock etc., Hack - <http://sourcefoundry.org/hack/>
- Images from <https://icons8.com/>

Things needed to compile Klock - many thanks to all

- Lazarus IDE - <http://www.lazarus-ide.org/>
- BGRA Controls [Analogue Klock] - <http://wiki.lazarus.freepascal.org/BGRAControls>
- Eye-Candy Controls [Accordion Component on help screen] - [http://wiki.lazarus.freepascal.org/Eye-Candy\\_Controls](http://wiki.lazarus.freepascal.org/Eye-Candy_Controls)

- Visual Planit [L.E.D. Component] - [http://wiki.lazarus.freepascal.org/Turbopower\\_Visual\\_PlanIt](http://wiki.lazarus.freepascal.org/Turbopower_Visual_PlanIt)
- PascalTZ - <https://github.com/dezlov/PascalTZ/releases>
- delphiMoon -<https://github.com/wp-xyz/delphimoon/>

Most of the components can be installed from the On-line Package manager.