

# UTCclock

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## Users Guide

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## Introduction

**UTCclock** is a simple utility to display the current UTC time, the current local time, or both on your desktop. It also includes a programmable count-down timer. The display is fully customizable. You can select between several display arrangements, can choose to have alerts displayed on holidays, and you can change the colors of the clock display.

## Installation

To install **UTCclock**, run the installation package, **UTCclockSetup.exe**. This will install the program, documentation, and all necessary supporting files on your computer. The installer will suggest a directory that the program files will be installed in. You may change the location or leave it at the default directory.

## Program Operation

When you start the program for the first time, it will come up with the default display configuration (arrange vertically w/small secondary clock) as shown below.

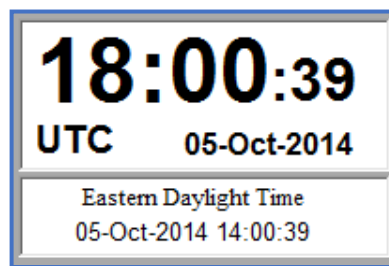


Figure 1 - Default Display

The following display configurations are also available:

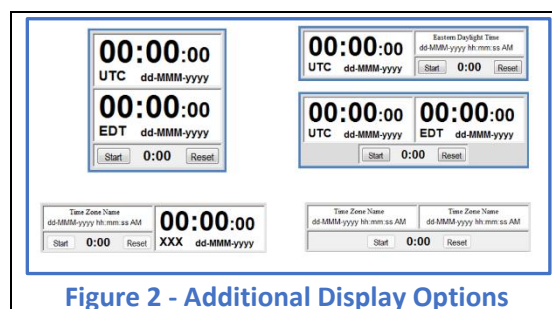



Figure 2 - Additional Display Options

If arranged horizontally, the clock on the left is the primary clock. If arranged vertically, the clock at the top is the primary clock. By default, the primary clock displays the Coordinated Universal Time (UTC) date and time, and the secondary clock displays your local time zone date and time. This can be changed to make the primary clock your local time zone.

### Countdown Timer

**UTCclock** includes a countdown timer (Figure 3) which can be set to alert the user after any interval up to 59 minutes and 59 seconds after the timer is started. The timer will display a message when it reaches 00:00. As an option, it can also play a sound through the computer speakers when the message is displayed.

There is also a warning time which can be set to any time up to 59 minutes and 59 seconds.

Click on the  icon the toolbar to display or hide the countdown timer. The countdown timer display is shown in Figure 3.

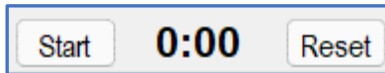


Figure 3 - Countdown Timer

The timer has 2 buttons.

- **Start/Stop Button** – If the timer is not running, this button will be labeled “Start” and clicking on it will start the countdown. If the timer is running, this button will be labeled “Stop” and clicking on it will stop the countdown and reset the timer to its initial value.
- **Reset Button** – If the timer is running, clicking on this button will reset the timer to its initial value and start a new countdown cycle.

When the timer has counted down to the "Warn At" time, the colors used to display the time change to black letters on a yellow background as shown in Figure 4.

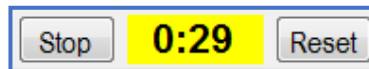


Figure 4 - Timer Display after Warn Time

When the countdown timer reaches 00:00, then the time display is replaced with a user-defined message displayed with yellow letters on a red background as shown in Figure 5.



Figure 5 - Timer Display at End of Countdown

The message can be changed in the setup dialog.

As an option, an audible alarm will sound when the countdown timer reaches 00:00. The sound can be silenced by clicking on either "**Stop**" or on "**Reset**"

## Toolbar

Right-click anywhere on the display and a toolbar (Figure 4) will appear along the bottom edge of the display.

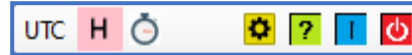







Figure 6 - Toolbar

The clicking on the buttons on the toolbar allows you to do the following:

UTC or Local	Displays the time zone currently displayed by the primary display. Clicking on the text will switch the primary display between UTC and local time.
H H	Displays the status of the holiday display. (Green background =Holiday display is on, Pink background = Holiday display is off) Clicking on the "H" will toggle the holiday display on or off.
	Clicking on this button toggles the countdown timer display on or off.
	Clicking on this button will open a dialog where you can change the program settings & display colors.
	Displays the program documentation (this document).
	Displays a small window with information about the program.
	Closes the program.

The toolbar is also used to position the display on the screen. Position the mouse pointer in the blank area between the buttons on the toolbar then hold the left mouse button down to drag the display to any position on the screen.

The toolbar is automatically hidden when you select any action from the toolbar except repositioning the display. You can also hide the toolbar by right-clicking on the toolbar.

## Countdown Timer

Click on **Timer** on the toolbar to display or hide the countdown timer. The countdown timer display is shown in Figure 3.

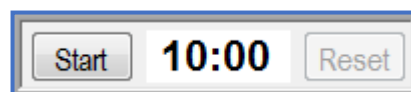


Figure 3 -- Countdown Timer

Clicking on "**Start**" will start the countdown period and the word "**Start**" will be replaced with the word "**Stop**".

Clicking on "**Stop**" will stop the timer.

Clicking on "**Reset**" will reset the timer and start a new countdown cycle.

When the timer has counted down to the "Warn At" time, the colors used to display the time change to black letters on a yellow background as shown in Figure 4.



**Figure 4 -- Timer Display after Warn Time**

When the countdown timer reaches "00:00", then the time display is replaced with a user-defined message displayed with yellow letters on a red background as shown in Figure 5.

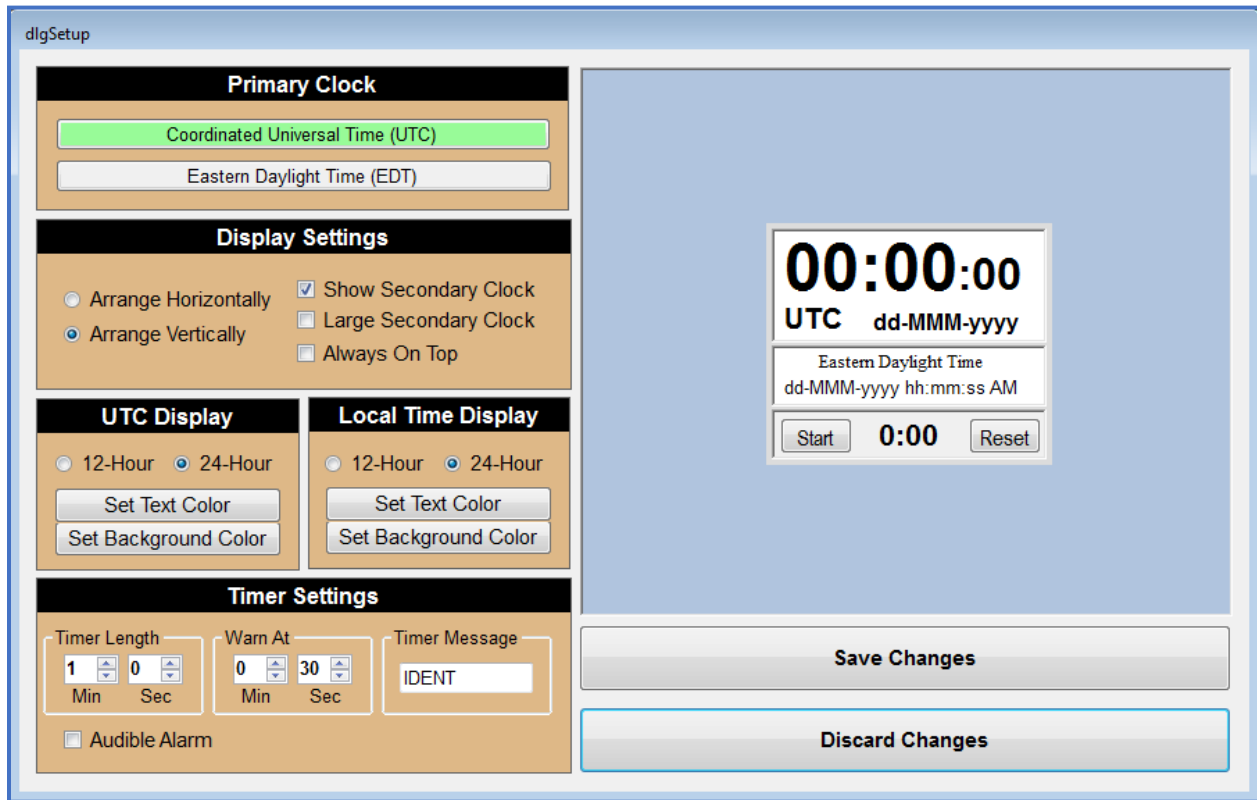



**Figure 5 -- Timer Display after Time Out**

The default message is "**IDENT**", but can be changed in the setup dialog.

If selected, an audible alarm will sound when the countdown timer reaches "00:00". The sound can be silenced by clicking on either "**Stop**" or on "**Reset**"

## Program Setup



Clicking on  on the toolbar will open the setup dialog shown in Figure 6.

**Figure 6 -- Setup Dialog**

This dialog will allow you to customize the clock display to your preferences of display arrangement, text & background colors, and countdown timer settings.

### Primary Clock

This area of the dialog allows you to select whether UTC or the local time is displayed in the primary clock.

Click on the appropriate bar to select to select the desired time. The selected time will have a light green background.

## Display Settings

This area of the dialog allows you to set the following options:

- **Arrange Horizontally** -- Click on this option to display the secondary clock to the right of the primary clock.
- **Arrange Vertically** -- Click on this option to display the secondary clock below the primary clock.
- **Show Secondary Clock** -- If this box is checked, the secondary clock will be displayed. If it is unchecked, the secondary clock will be hidden.
- **Large Primary Clock** -- If this box is checked, the primary clock will be displayed in the large format.
- **Large Secondary Clock** -- If this box is checked, the secondary clock will be displayed in the large format.
- **Always On Top** -- If this box is checked, then *UTCclock* will be displayed on top of any other windows you may have open.

## UTC Display & Local Time Display

These two areas of the dialog allows you to customize how the UTC time and the local time is displayed.

- **12-Hour** -- Click on this option to have the time displayed as a 12-hour clock (12:59 PM).
- **24-Hour** -- Click on this option to have the time displayed as a 24-hour clock (2359:00).
- **Set Text Color** -- Click on this button to open a dialog where you can select the color of the text in the clock display.
- **Set Background Color** -- Click on this button to open a dialog where you can select the color of the clock display background.

## Timer Settings

This area of the dialog allows you to change the countdown timer settings.

- **Timer Length (Min & Sec)** -- These two numbers allow you to set the length of the timer to any value between 00:00 and 59:59.
- **Warn At (Min & Sec)** -- These two numbers allow you to set the countdown timer warning time to any value between 00:00 and 59:59. When the timer reaches the warning time, the background of the timer display changes to yellow. Setting the warning time to 00:00 will turn off the warning.
- **Timer Message** -- This text box allows you to set the message that is displayed when the timer reaches 00:00. The display only has room for 3-5 characters. The default value of "*IDENT*" will just fit.
- **Audible Alarm** -- If this box is checked, an audible alarm will sound when the timer reaches 00:00.

## Save Changes & Discard Changes

Click on the "*Save Changes*" button to save your changes and close the setup dialog.

Click on the "*Discard Changes*" button to close the setup dialog without saving your changes.



## About the Author

**UTClock** was written by Ray Andrews, K9DUR.

Ray holds an Amateur Extra class license and was first licensed in April 1960. He currently resides in West Terre Haute, IN, and is a retired electronic design engineer and software developer.

For more information, visit Ray's web page:

<http://k9dur.us>

## Release Notes

v1.0.0 – Jan 23, 2015 -- Initial release.

v1.0.1 – Oct 14, 2017 – Corrected donation page URL.

v1.1.0 – Apr 29, 2019 – Added splash screen. Changed method of re-positioning the display. Fixed bug in display colors when primary & secondary clocks are swapped.

v1.1.1 – Nov 1, 2020 – Compensated for bug in .NET environment returning wrong value from call to IsDaylightSavingsTime method.

v2.0.0 – Feb 1, 2022 – Added ability to display US federal holidays.

v2.0.1 – Jun 20, 2022 – Fixed bug in calculation of Juneteenth holiday.

## License Agreement and Warranty

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