Introduction

WorldClock allows you to select almost any area of the world and find what the current local time is in that area. This is done by either clicking on a world map or, for the geographically impaired :-), by selecting a city or area from a list. In determining the local time, it takes into account whether local Daylight Savings Time is in effect for most major areas of the world.

If you are logged on to the Internet, WorldClock can also check your PC's time against an Internet time server for accuracy. It will automatically reset your PC's clock if it finds any differences.

You can also set up to eight alarms. These can be set for a given time and activated for the current day only or for selected days that you specify. WorldClock also has a nice calendar feature that includes all Canadian and US holidays; it is even able to calculate the date of moving holidays such as Easter weekend as well as generic holidays such as Thanksgiving. You also have the ability to 'mark' certain days (such as loved one's birthdays) on the calendar.

WorldClock will also check for the correct year on startup. This could be very useful if you have a non-Y2K compatible machine. WorldClock will automatically reset the year in this instance.

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WorldClock Features

- attractive and intuitive user interface
- easily find the local time for almost anywhere on Earth
- automatically determines whether Daylight Savings Time is in effect in selected area
- choice of several attractive time displays
- option to display time in either 12 or 24 hour format
- option to display time with or without seconds
- ability to TimeSync your PC's clock with an Internet time server
- TimeSync feature supports Proxies (beta)
- TimeSync supports both SNTP and Time protocols
- user can choose from many Internet time servers (or specify his/her own)
- '/s' startup option to just TimeSync your PC and exit
- ability to TimeSync your PC at pre-determined intervals
- ability to TimeSync your PC automatically when you dial-up the Internet
- you can specify a maximum value for the time correction
- supports up to eight individually configurable alarms
- activate alarms for today only, all days, or specified days of the week
- built-in calendar that allows you to 'mark' important dates
- calendar has all Canadian and US holidays already pre-programmed
- option to toll hourly bell or to chime the hour
- option to minimize to System Tray
- · option to start minimized
- turn map display and place display on or off
- 'Stay-on-Top' option to keep your time display on top of other programs
- Day/Night View option to display a world map with the night areas in shadow
- local Sunrise, Sunset, Moonrise, Moonset and Moon Phase information
- ability to view sixteen clocks each set to a different timezone
- the day/night and multiple clock displays can be viewed stand-alone
- option to view time in caption bar of active window (of any program not just WorldClock)
- remembers your window layout
- 'what if' scenario: what would selected areas' times be if local time were such-andsuch
- year validity check (and correction) on startup for Y2K non-compliant computers

System Requirements

WorldClock does not require much of your system. The only requirement to run WorldClock is that you have Windows 95/98 or Windows NT4. A screen resolution of 800x600 with 256 colours is also recommended.

Installing WorldClock

There is no setup utility as the whole program is self-contained in one executable file. To install WorldClock, simply put the program into the directory of your choice. Note that although the program itself is contained in one file, an associated options file called WorldClock.ini will be created in the same directory that you installed WorldClock. This file is used to keep track of your configuration.

Note: If you received WorldClock on a magazine CD or from some software library, please visit the WorldClock home page at http://www.carefile.com/WorldClock to ensure that you have the latest version.

Introduction to the Use of WorldClock

When you run WorldClock, you will see a map of the world. You can click anywhere on the map to select that area's timezone. You will then see the selected zone time display update to reflect the local time in your selected timezone. Alternately, you can select an area/city in the listbox at the bottom of the screen. The program will take into account whether or not DST is in effect in the selected timezone. If so, you will see a little 'sun' icon appear just to the right of the timezone display. You will also notice that once you have select a timezone, the 'Select Place in Zone' popup menu item is filled in with all of the places associated with that specific timezone. You can use this feature as a very quick and easy method to select a specific area or city within a timezone. In addition, when you select a place in a particular timezone via this 'Select Place in Zone' popup menu option, that place becomes the default place for that timezone. From then on, when you click on the map to select a timezone, that default city is automatically selected.

The time display is broken down into two panes. The pane on the left shows you your local time, while the pane on the right shows you the current time in the timezone you have selected. The time display has header bars to display the name of the selected areas. For your local time, I display what Windows reports as your local timezone. You can customize the typically bland nature of this information (i.e. 'Eastern Standard Time') with your own text. You do this by selecting the 'Set Local Name' option from the popup menu. This allows you to personalize the display to reflect something a little more meaningful (i.e. 'Montreal, Quebec'). If you don't like my names for the selected areas, you can customize those too. You do this by selecting the 'Set Selected Name' option from the popup menu. If you ever wish to reset the selected name back to its original name, select this option again and simply erase your modification.

The WorldClock Popup Menu

WorldClock is totally controlled and configured via its popup menu. Right-clicking anywhere on the WorldClock or Day/Night windows will bring up the popup menu. By using the 'Preferences' item on this menu you can select various options such as whether or not to show the map and/or places segments of the WorldClock window. This can be handy when you want to park WorldClock in a small corner of your screen and take up as little space as possible. Note that there is also a 'Stay On Top' option in the Preferences menu. As the name implies, this option will force the WorldClock window to always remain above your other windows. Another option is the 'Show Time In Caption Bar' feature. With this set, the current time will be displayed in the caption bar of the currently active window (even those of other applications).

If you don't like my choice of font or colour for the time display, you have the option of changing it. Simply select the 'Set Time Display' option from the popup menu and you can select from several different choices.

If you only want to see the hours and minutes in the time display, simply turn off the 'Show Seconds' option in the Preferences menu.

WorldClock can give you audio feedback by 'striking' the hour. Several options are available. You can 'Big'Ben' the hour: With this option, WorldClock will sound a BigBen-like bell to announce the hour. You can also 'Toll' the hour: With this option, WorldClock will count out the hour by sounding that many bells (i.e. three bells at 3 o'clock). The third and final option is that you can combine these two options to produce a complete Big-Ben sound at the hour.

If you minimize the WorldClock program, you will note that the program name on the Windows taskbar changes from 'WorldClock' to display the current location and time of your selected timezone. If the taskbar is cluttered and the WorldClock item is too small to contain the complete text, move your mouse over the WorldClock item and a hint window will popup to display the complete text. You also have the option of minimizing WorldClock to the System Tray (this is where Windows displays the system time). To activate this feature select the 'Minimize To Tray' option from the menu. Note that if you choose this option, you will lose the taskbar display of the selected area's current time. However, if you move the mouse over the WorldClock icon in the tray area, a hint window will popup to display this time. When you minimize to the system tray, the program icon changes to indicate the day of the month in your local area. This is handy since Microsoft did not see fit to include an date information in the system tray.

You can also choose to start your program already minimized. Select the 'Minimize On Launch' option from the menu.

Docking WorldClock To The Edges Of The Screen

WorldClock can be docked to and of the four edges of your screen. Simply move it near any edge or corner where you want to dock it and it will snap nicely into place. Note that this will work only if you are moving the main WorldClock window -- it will not work for the other windows (although you can dock these to the main WorldClock window as described elsewhere.).

WorldClock's Day/Night View

With this display, you can see where it is currently day and where it is night in the world. Simply select the 'Show Day/Night View' from the popup menu. This will bring up a display of the world with a shadow over the areas that are currently in night. If you keep this display open for an extended period of time, WorldClock will automatically update the display every minute to reflect the change in elapsed time. Note that there is a small red circle on this display. This is the point on the Earth where (at the current time) the sun would be directly above a viewer.

On this screen, you will also note that there is a facility to enter your location's latitude and longitude. This is used to calculate the displayed Sunrise and Sunset times as well as the Moonrise and Moonset times. If you do not know your location's lat/long, go to the following web page to look it up:

http://shiva.pub.getty.edu/tgn_browser/

Once you have the lat/long, you need to convert to a decimal value. The equation is as follows: Value = Degrees + Minutes/60 + Seconds/3600. North and West coordinates are entered as positive values; South and East are entered as negative.

The current moon phase is also displayed in a nice graphic.

You will note a little up arrow in the bottom right-hand corner of the day/night map. Clicking this button will 'roll-up' the additional info section of the screen so you can conserve screen space if desired. The little up-arrow button will then change to a down-arrow button which you can press to 'un-roll' the additional info display.

The Day/Night view can be 'docked' to any side of the main display. Simply line it up roughly with any edge of the main screen and it will snap into place. If you want to, you can easily 'tug' it away again. When the Day/Night display is docked, moving the main window will also move the Day/Night window. The two windows become as one.

Multiple Clock Display

Another very handy feature is the multiple clock display. Select the 'New Multiple Clock Window' item in the popup menu and you will have access to four independent clocks that display the times in four seperately configurable areas of the world. Simply click on the little up-arrow button below any of the clocks to select a new area/zone. A list will popup above the button from which you can select an area. (Note that this list is identical to the area list in the main display.) Note also there is a checkbox at the top of this window labelled: 'Show the time in these zones if the local time were:'. If you check this box, you then can do a 'what time would it be in X if the local time were Y' scenario. Specify the time in the edit window and the clocks will automatically update the times in the selected timezones. This is great for organizing on-line meetings or international tele-conferences. (The specified time is always assumed to be for local today.)

You can keep selecting the 'New Multiple Clock Window' item in the popup menu to open additional multiple clock displays. You can have up to four separate windows displayed at once for a total of 16 independently running clocks.

TimeSync Feature

Selecting the 'Set Clock' option from the menu (or double clicking on either time display) will bring up the TimeSync screen. Press the 'Check Time' button on this screen to validate your PC's clock against your selected Internet Time Server. Note that you are not limited to my list of selected time servers. You can also enter your own server address if you so choose. If you find that the program is returning immediately without setting the time, it could be that your request is timing out for some reason. Try increasing the timeout value (which is given in milliseconds) until it works.

You can also ask WorldClock to set your PC's clock at pre-set intervals. Select the 'Set Clock Automatically' option from the menu and you can choose from every hour, 3 hours, 6 hours, or 12 hours. You will note that there is an 'AutoSet On Login' option in this menu. This option will auto-detect when you logon to the Internet and automatically perform a timesync. Note that this option should only be activated if you have a dial-up connection to the internet and should not be used if you have a direct network or cable-modem connection.

Setting Alarms

You can set up to eight alarms. From the popup menu select 'Set Alarm' and then the alarm you want to set (there are eight available). On the alarm configuration screen you specify the time of the alarm and the frequency. You can choose to set it as a one-time only alarm or to go off for certain days of the week. You can also choose whether or not a sound is played when the alarm goes off. You can choose to use either the internal built-in sound (a ringing alarm clock sound) or any .WAV file of your choice.

You also have the option to run a program when an alarm triggers. Simple check the 'Run Program' checkbox and you can specify the program executable, start directory and program parameters. In this case, you will only get the message alert window if you have entered an alarm message or set the audible alarm.

Note that you can not only specify a program for 'Exe File', you can also specify any object that Windows recognizes through file association. For instance, if you wish to load your browser at a given URL at the specified time, simply type the full URL (i.e. http://www.anywhere.com) in the 'Exe File' edit box. Windows knows that 'http' addresses are associated with your browser and will automatically bring up the browser and point it to the specified URL. This all assumes that you have properly installed a browser such Netscape or IE.

WorldClock Calendar

You will note that if you move your mouse over the date areas, the dates turn into buttons. Press either of these buttons and a calendar will popup on the side of the main screen. You can move the calendar display around by clicking and dragging while your mouse is over the month name. You can close the calendar display by clicking on the little 'x' at the lower right-hand corner of the calendar screen. (You can also bring up the calendar screen by selecting the 'Show Calendar' option from the popup menu.)

Once the calendar screen is up, you will note that there are two sets of buttons at the top of the calendar. The set on the left allows you to scroll the calendar through the months, while the set on the right allows you to scroll the calendar through the years. If you right click while your mouse is over the calendar area of the calendar screen, you will get a popup menu that allows you to select various options for the calendar. The main use for this menu is to set/reset your 'marked' days. Note that you can mark a day for the current year, or for all years. For instance, if you want to mark an upcoming event (concert, date, whatever) you would only mark for the current year. Birthday reminders, on the other hand, you would want to mark for all years.

The Calendar view can be 'docked' to any side of the main display. Simply line it up roughly with any edge of the main screen and it will snap into place. If you want to, you can easily 'tug' it away again. When the Calendar display is docked, moving the main window will also move the Calendar window. The two windows become as one.

WorldClock TimeSync Proxy Support (Beta)

Note: Proxy support is currently considered Beta. I do not guarantee that it will work in all instances.

The TimeSync feature can support most Proxy setups. On the TimeSync page, select 'Proxy Name/Port' and fill in the following information:

Proxy Name:

This should be the hostname for your proxy server.

Proxy Port:

This should be the port number for the SNTP or Time function on the proxy server.

Note: The following sections assume that you have selected the SNTP protocol which uses port 123. If you have instead selected the older 'Time' protocol, substitute port 37 for port 123.

Port Mapping

If you have selected proxy server support and WorldClock reports an error (or fails to report a time-check value), then your proxy server is most likely blocking access to port 123. Ask your proxy adminstrator to unblock port 123 or to provide a mapping service for this port. If port 123 is being mapped by the proxy to another port, you need to enter the mapped port number as the Proxy Port.

Note that if you are using port mapping and have selected the SNTP protocol, it is critical that you also map the port as UDP and not TCP. Please check with your proxy administrator for more information.

Typical Setup Scenario

What follows is a brief discussion on how to setup Proxy support in WorldClock (skip Item A. if port 123 is not being re-mapped on the Proxy Server):

- A. To configure the proxy server (re-mapped port 123):
 - 1. Define a new port to map on the proxy server
 - 2. Choose an unused port, say port 4080
 - 3. Name it something like 'WorldClock Time Proxy'
 - 4. Map the port to port 123 (UDP)
 - 5. Enter the domain name of a NIST server, for example 'time-a.nist.gov'
- B. On WorldClock's TimeSync screen, select Proxy Name/Port and:
 - 1. Enter the Proxy Name (i.e. proxy.yourcompany.com)
 - 2. Enter the Proxy Port (i.e. 4080 if mapping; 123 if no mapping)

That should do it!

Proxy Authorization: This is the process where an application must send a Username and Password to the proxy server in order to gain access. I do not support Proxy Authorization at this time.

SOCKS Proxy: WorldClock doesn't support a SOCKS proxy directly, but a program called SocksCap makes this moot. SocksCap is an application wrapper developed by NEC which enables any Windows 95/98/NT Winsock application (like WorldClock) to traverse a SOCKS proxy server. SocksCap doesn't require any modification to the Winsock application or Winsock.

If you're behind a SOCKS proxy, get more information about SocksCap here:

NEC SocksCap Home Page http://www.socks.nec.com/sockscap.html

To download SocksCap:

http://www.socks.nec.com/cgi-bin/download.pl

Check with your site administrator if none of the information above makes any sense to you. He/she should be able to provide you with assistance in routing WorldClock's Internet communication requests through a proxy server.

WorldClock Runtime Options

WorldClock can be setup to run with several runtime options:

- If you wish to run the program just to set the clock and then exit, you can run WorldClock with the '/s' runtime option.
- If you run WorldClock with the '/d' option, only the day/night view will be shown.
- If you run WorldClock with the '/m' option, only the multiple clock display(s) will be shown.
- If you run WorldClock with the '/i' option and an instance of WorldClock is already running, the previous instance will be shown instead of createing a new instance of WorldClock.

These last two options are very useful if you want to place either of these displays on your screen independently of the main WorldClock screen. Simply create new shortcuts (i.e. 'Clocks' and/or 'Day/Night') with either of these parameters in the command line. Please refer to your Windows manual or help system if you aren't familiar with creating shortcuts.

Note also that the '/m' and '/d' parameters are mutually exclusive. If you put both in your command line, only the first will take effect.

Why Does WorldClock Display My Local Time Incorrectly?

Q. Why does WorldClock always set my computer's clock off by an hour?

A. This value is obtained directly from the Windows operating system. If your local time display is wrong, then your Windows setup is usually the culprit. One of two things may be the problem:

- 1. Your Windows time zone setting isn't set properly.
- 2. Your Daylight Savings Time settings aren't set properly.

First off, check your Windows time zone setting -- double-click on the time display in the status bar (lower right-hand corner of the screen). This will bring up the Date/Time Properties window. Click on the 'Time Zone' tab and make sure the correct time zone for your area is selected. Close the window.

The second point needs further explanation. When Microsoft released Windows 95 (and Windows NT4), they programmed the wrong DST information for certain areas of the world. This is a known problem in Australia and some parts of Asia (and possibly others). It also seems that some European countries (at GMT, GMT-1 or GMT+1) also have incorrect time zone settings in Windows 95. If you are in the unfortunate position of living in one of these areas (unfortunate in the Windows 95 sense, I'm sure they're perfectly lovely places to live) then you need to reset your Windows DST info. Microsoft has released a utility (TZEdit.exe) to do just this and I can e-mail it to you if you need it.

If you're running Win98, you can find this utility on the Win98 CD-ROM in the \Tools\Reskit\ Config folder. It is also available on the Win95 OEM SR2 CD which comes with more recent Win95 computers. Documentation for this utility is also available at the Microsoft website: Search the Knowledge Base for article Q158195.

Uninstalling WorldClock

Simply erase the WorldClock directory and all of the files in it. WorldClock stores all of its application information locally on your hard disk and does not modify your Windows Registry in any way.

Shareware License

WorldClock is shareware. This means:

All copyrights to WorldClock are exclusively owned by the author - Fulvio Castelli.

Anyone may use this software for as long as they wish. However, the unregistered Shareware version has the following restrictions:

- 1. Application settings are not saved between sessions.
- 2. The city/place list is only a subset of the full version.
- 3. Although the TimeSync function operates normally and will tell you how much your PC's clock is off, it will not automatically reset it for you.
- 4. A reminder screen will pop up every 5 minutes or so to encourage you to register.

Once registered, the user is granted a non-exclusive license to use WorldClock on one computer (i.e. a single CPU) at a time. The registered WorldClock software may not be rented or leased, but may be permanently transferred if the person receiving it agrees to the terms of this license. If the software is an update, the transfer must include the update and all previous versions.

The WorldClock unregistered shareware version may be freely distributed provided the distribution package is not modified. No person or company may charge a fee for the distribution of WorldClock without prior written permission from the copyright holder.

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You may not use, copy, emulate, clone, rent, lease, sell, modify, decompile, disassemble, otherwise reverse engineer, or transfer the licensed program, or any subset of the licensed program, except as provided for in this agreement. Any such unauthorised use shall result in immediate and automatic termination of this license and may result in criminal and/or civil prosecution. All rights not expressly granted here are reserved by Fulvio Castelli.

Installing and using WorldClock signifies acceptance of the terms and conditions of this license.

If you do not agree with the terms of this license you must remove the WorldClock files from your storage devices and cease to use the product.

How to Order WorldClock

You can register your personal copy of WorldClock for US\$10.

The following Web links are pointers to my on-line registration page:

https://www.regnow.com/softsell/nph-softsell.cgi?item=1433-1 (WorldClock OnLine Registration for browsers that support secure transactions.)

http://www.regnow.com/softsell/nph-softsell.cgi?item=1433-1 (WorldClock OnLine Registration for browsers that do NOT support secure transactions.)

You will need a major credit card in order to register.

If you encounter any trouble registering WorldClock with RegSoft, please contact them by phone or by e-mail as follows:

RegSoft's Toll Free Number in the US and Canada is 1-877-353-7297 Internationally, you can reach them at (425) 392-2294 Their e-mail address is orders@regnow.com

Once I receive notification of your registration, I will immediately e-mail you a copy of the registered version of the program.

If you prefer not to register on-line, you can also mail a registration check (in the amount of US\$10 made payable to Fulvio Castelli) to the following address:

Fulvio Castelli 44 Courtney Drive Montreal, Quebec Canada H4X 1M5

Please do not forget to include your e-mail address as I will be e-mailing you the registered version of the program.

How to Get Technical Support

Technical support is available by e-mail addressed to Fulvio Castelli at fulvio@rocketship.com

I will try to reply to all messages but only registered users should expect a quick answer.

Please include the following information when requesting support:

- program version (from "About" dialog)
- registered name (if you're a registered user)
- where did you get WorldClock from (http or ftp site)
- Windows 95/98/NT version (including service packs and other fixes installed)
- a full description of your problem provide as much information as possible to allow duplication of the problem: place of error, sequence of your actions, etc.

Note: before requesting technical support, please ensure that you are using the latest version of WorldClock available from:

http://www.carefile.com/WorldClock