World Time for Windows 3
Version 1.1
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Introduction

World Time for Windows is a desk accessory which displays the time at various locations all around the world. You can have as many instances of the program as Windows will allow. This application will only function in Standard or 386 Enhanced Mode (not Real Mode!).

Registration

World Time for Windows is distributed as "shareware" It is not free software. You are being given a chance to use this program for a period of thirty (30) days before buying it. If after this time you continue to use World Time for Windows, you are expected to register it. Registration gives you the right to continue to use this software as well as news and discounts on future upgrades. You are encouraged to disseminate this software, providing it is distributed in its entirety and without charge (except for media and handling, if applicable). I reserve the right to change these restrictions in future versions.

If you find this product useful and continue to use World Time for Windows after thirty days, you are required to register it by making a payment of £5 Sterling to me. This fee will license one copy of World Time for Windows for use on any one computer at any one time. To register World Time for Windows, print out the form called REGISTER.WRI using the Windows Write accessory.

Disclaimer

World Time for Windows is distributed without warranty, either expressed or implied. No guarantee as to its suitability for a particular task is given. No responsibility is assumed for any consequential loss or damages arising from its use.

Installation

World Time for Windows is distributed as a ZIP file. Simply make a sub-directory for it and un-ZIP the file. The following files are included:

`WRLDTIME.EXE`	Windows 3 executable
`WRLDTIME.INI`	Initialization file
`WRLDTIME.DAT`	Time zone data file
`WRLDTIME.HLP`	Windows 3 Help file

`WRLDTIME.DOC`   Manual in Word for Windows format
`WRLDTIME.WRI`   Manual in Windows Write format
`README.TXT`   General information
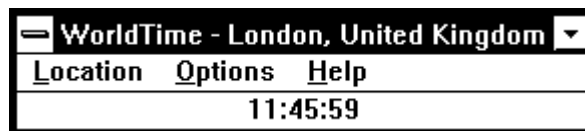`REGISTER.WRI`   Registration form in Windows Write format

Four files are essential for correct operation: WRLDTIME.EXE, WRLDTIME.INI, WRLDTIME.DAT and WRLDTIME.HLP. They should be placed in the same directory.

Before using any new piece of software, it is always advisable to make a complete backup of your hard disk (or at least all the non-recreatable files).

Use the File Manager or Program Manager to add World Time for Windows to one of your application groups. If you do not know how to do this, please refer to the Microsoft Windows Version 3 User's Guide, Chapter 3: Program Manager, Changing the Contents of Groups (pages 88 *et seq.*). You must now set the `TZ` (time zone) environment string for your area as detailed in "Setting the TZ Environment String" below.
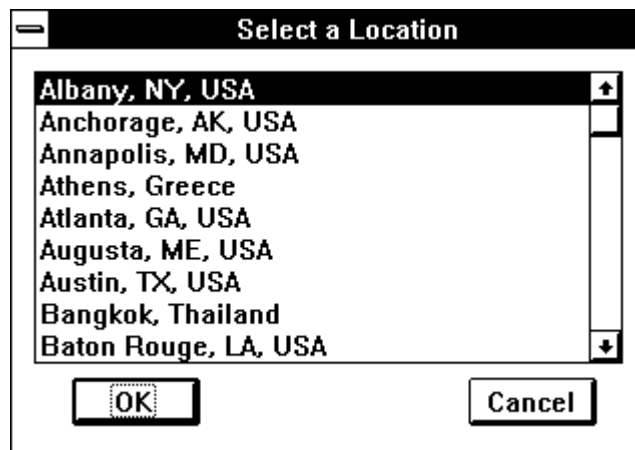
Using World Time for Windows

To start the program, simply double click on its icon. The following window should appear:

Initially the time in London, United Kingdom is displayed. To alter this default location, refer to "Customizing World Time" below.

Location Menu

Selecting the Location item on the menu bar displays a list box containing other locations:

Select any location by clicking on it and pressing the OK button (or simply double click on the location). The display in the main window changes to reflect your selection. In this release, over 80 locations in 23 countries are included.
World Time for Windows knows about every state capital in the United States. Support for Daylight Savings Time (DST) is also available through the MS-DOS environment string TZ (see below). You may have multiple instances of World Time for Windows, so that the time in New York, Paris, and Moscow could be on the screen before you . You can add new locations by editing the time zone data file. Refer to "Customizing World Time" for further details. The number of instances is limited by the number of timers available in Windows. The maximum in this version of Windows is 16.

Options Menu

The display of seconds can be toggled on or off by selecting the Seconds option. The default is to display seconds. To start World Time with the seconds display turned off, invoke the program as:

```
wrldtime /s
```

An hourly chime is available through the Chime option. The default is off. To start World Time with the hourly chime turned on, invoke the program as:

```
wrldtime /c
```

Note that the /s and /c switches can be used together (i.e. `wrldtime /s /c`).

Help Menu

On-line help is available from the Help menu.

Setting the TZ Environment String

World Time for Windows relies on the current setting of the TZ environment string for information on Daylight Savings Time (DST)[1]. World Time for Windows can use two methods to determine the setting of TZ: either from the current environment or from the `WRLDTIME.INI` file.

Via the Environment

Note that you should make a backup copy of your `AUTOEXEC.BAT` file before modifying it. For full functionality, you should add the following line to your `AUTOEXEC.BAT` file:

```
set TZ=GMT0BST
```

This information is correct for British Summer Time in the United Kingdom and Ireland. If you are elsewhere, the string will be different. See the "Format of the TZ String" below for information on other locations.

Via the `WRLDTIME.INI` File

If you experience problems with the method described above, then follow these instructions.

Edit the `WRLDTIME.INI` file using a text editor such as Notepad. It should contain the following lines:

```
[timezone]
TZ=GMT0BST
```

This information is correct for the British Summer Time in the United Kingdom and Ireland. If you are elsewhere, the string will be different. See the "Format of the TZ String" below for information on other locations.

Important Note:

If you have already set the `TZ` environment string as outlined in the first method, World Time for Windows will **ignore** the contents of the `WRLDTIME.INI` file.

Format of the TZ String

The format of the `TZ` environment string is:

```
TZ=zzz[+/-]d[d][lll]
```

`zzz` represents the name of the current time zone (e.g. GMT, EST, PST, etc...)

`[+/-]d[d]` is an optionally signed number with one or more digits. It represents the difference between the local time zone and GMT in hours. Positions to the east are negative, whilst those to the west are positive. So continental Europe is -1, EST is +5 and PST is +8.

`lll` is optional and represents the local time zone Daylight Savings Time. You can put any string you like here; it simply increments the hours by one. If this field is not set, the hours will not be incremented. Examples:

Location	Daylight Savings Time	TZ Setting
New York, NY, USA	No	EST5
New York, NY, USA	Yes	EST5EDT
Los Angeles, CA, USA	No	PST8
Los Angeles, CA, USA	Yes	PST8PDT
Paris, France	No	GMT-1
Paris, France	Yes	GMT-1

For further information on how MS-DOS handles time settings and time zones, you are referred to the Library Reference manual for a C compiler (i.e. Borland C++ 2.0 Library Reference).

Customizing World Time

You can add your own locations as well as altering the default location by editing the `WRLDTIME.DAT` file. This is a plain ASCII file and can be edited using the Windows Notepad accessory. Each line contains two fields: the name of the location, and the deviation from GMT. The field separator character is a ':' (colon). World Time uses the **first line** as the default location. In this distribution, the first line is 'London, United Kingdom', so this is the default location.

When you change the default location or add new ones, make sure that they are not already present! If they are, you will see the location listed twice in the location selection box. Regions to the west of the meridian of Greenwich have a **negative** deviation, whilst those to the east have a **positive** deviation (the reverse of the `Tz` convention).

Take care not to add any blank lines to the `WRLDTIME.DAT` file.

Weird Time Zones

Some locations (like Arizona) are a peculiar in that they do not follow daylight savings time. If you live in such a place, set the time zone string TZ explicitly as a deviation from GMT (i.e. for Arizona use `TZ=GMT8` for correct year-round time). Of course that the time displayed at locations following DST will be out by one hour during the summer. Let me know if this is **really** a problem.

Revision History

Version 1.1

> `WRLDTIME.INI` configuration file added for users experiencing problems with the `TZ` environment string.

Version 1.0

> **First shareware release.**
> World Time now obtains its time zone information and default location from a user-customizable text file.
> On-line help added.
> Hourly chime option.
> Window automatically resizes for different locations.

Version 0.3

> **Last public domain (freeware) release.**
> Screen flicker reduced.
> Option to toggle the display of seconds.
> Caption text shows location, as does minimized icon.

Version 0.2

      Fixed 'next-day' bug.

      Added support for non-integer time differences.

Version 0.1

      Initial version - never released.

Feedback

      I want your feedback! Please tell me what you want to see in future releases. A bigger and better version may eventually get written, and will feature a world map from which you can pick locations. Other Windows programmers interested in contributing are most welcome! You can get in touch with me by e-mail, fax or letter:

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