

AtomTime95 version 1.1

by Bruce Adelsman, copyright 1996

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Introduction

AtomTime95 is a 32-bit application which will connect to the Atomic Clock time server in Boulder, CO and fetch the current atomic clock time value. It then compares this value to your PC time and displays the difference. You then have the option of updating your PC clock value. There are a number of options which allow the application run in a much more automated nature.

The UTC (Universal Time Coordinated) Server box shows the time value as reported by the atomic clock. UTC is the same as Mean Time, and Z (Zulu) time. If there is an error in the process, an error message (and possible code) will appear here.

Display Window

The Local PC box shows the time as reported by your PC.

Note: UTC time will be offset by your local time zone. You should ensure your time zone is set under Windows 95 by opening the Date/Time Control Panel and clicking on the Time Zone property tab.

The Local PC difference window displays how far off your PC is from the atomic clock timing. The Check button will cause the application to gather a new timing from the atomic clock server and compare it to your local PC time.

The Adjust button will set your PC clock to match the atomic clock (taking into account your time zone, of course).

Note: If you get checked the time difference (using the Check button), the Adjust button will have no effect.

The Settings button allows you to set advanced options.

The About button displays a dialog box with program and author information.

The Exit button terminates the application.

This Settings page contains information on the options that control how the application executes. Start Minimized: Enabling this check box will cause the application to start execution minimized.

Check Time when Minimized: This checkbox enables the application to run in the background and attempt to check the time roughly once a minute. When it has successfully retrieved a UTC time, it will automatically restore the application and display the difference.

Automatically Adjust Time and Exit: When enabled and a UTC time has been retrieved, this checkbox will cause the application to automatically set the PC clock and then it will close the application. Note: This setting is not used unless the 'Check Time when Minimized' option is set on.

Time Server page

This page defines the address for the atomic clock time server. You can change the time server address to a different site.

Default Server: This button will reset the time server back to the default server: time-A.timefreq.bldrdoc.gov

Proxy Server page

If needed, on this page you can define a proxy server. Some sites use a proxy server to control Internet traffic. If you have to define a proxy server to use Netscape or other web browsers, you'll need to do the same here.

Route via HTTP Proxy Server: This checkbook enables the proxy server support.

Address: This should be the hostname for the proxy server that you send HTTP protocol through.

Port: This should be the port number for that proxy server.

Check with your site administrator if this information if you need assistance with routing through a proxy server.

Tips

By adding a shortcut to this application in your Start folder and turn on all three checkboxes on the Settings/Execution page, the application will automatically attempt to connect to the time server and update your PC clock every time you start Win95. After updating the clock, the application will then exit. All of this will happen in the background.

If you'd like to have this application update your clock automatically, but not everytime you start Win95 and you have installed the Win95 Plus! package, use the System Agent application to schedule

when to run AtomTime95.

Misc Notes

The settings are stored in ATOMTIME.INI in your Win95 directory. Since I don't have Properties defined yet for this application, if you turn on automatic adjust and exit and later on desire to turn it off, there are two only ways to do this:

1) Ensure you are not connected to the Internet. When the application starts, it won't be able to connect. Simply restore the application and change the settings.

2) Edit the ATOMINI.INI file and change the setting AutoUpdate to have a value of 0.

Sorry for this slight inconvenience, adding Properties settings is near the top of the list for the next version of this application.

Programming Notes

This application was written in C++ using Symantec C++ 7.21 and the MFC 3.2 libraries. This combination explains the rather hefty size for this executable. I have some example MFC source code available on my software page. Send me some e-mail if you'd like details.

Contact Information

I am still using America Online as my primary e-mail address so feel free to write me there: BAdelzman@aol.com

I'm always glad to hear from people who are using my applications and I usually respond to most e-mail. Please include where you found this application -- I'm always curious!

Thanks,

Bruce Adelsman

Version Information

1.0 Initial release - 1996 Jan 20

1.1 Major improvements - 1996 Apr 04

Proxy server support

Daylight savings time support

Support for other time servers

Enhanced error reporting