

AtomTime95 version 1.0

by Bruce Adelman, copyright 1996

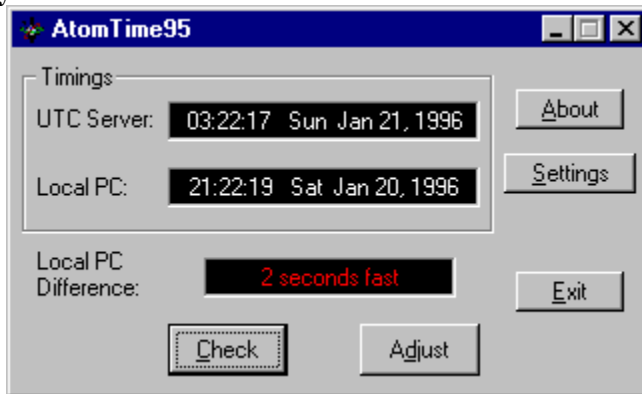
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Introduction

AtomTime95 is a 32-bit Win95 winsock (Internet) application which will connect to the atomic clock time server in Boulder, CO and fetch the current atomic time value. It then compares this to your PC's time setting and displays the difference. You then have the option of updating your PC clock to match the atomic clock value. There are also advanced settings that allow you to have the application run in a much more automated fashion.

Note: This application will not work unless you are running some kind of Internet access (examples would be PPP, SLIP or even direct connection via a network).

Display Window



- The UTC (Universal Time Coordinated) box shows the time value as reported by the atomic clock. UTC is the same as GMT (Greenwich Mean Time) and Z (Zulu) time.
- The Local PC box shows the time as reported by your PC.

Note: UTC time will be offset by your local time zone (ie. if your in CST time zone, the UTC clock will show a time six hours ahead).

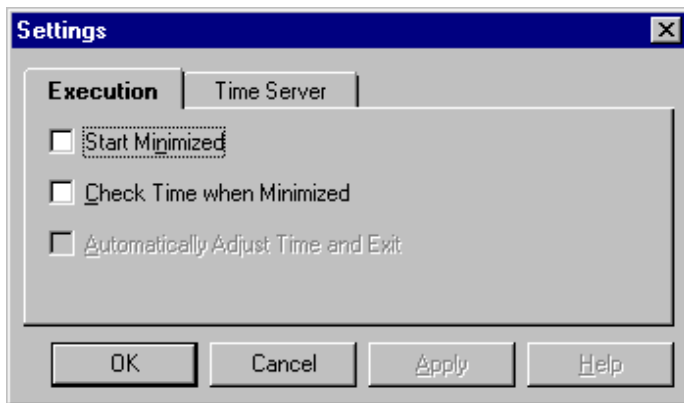
- The Local PC difference window displays how far off your PC is from the atomic clock timing.
- The Check button will cause the application to gather a new timing from the atomic clock server and compare it to your local PC time.
- The Adjust button will reset your PC's clock to match the atomic clock (taking into account your time zone, of course).

Note: If you have not yet checked the time difference (using the Check button), the Adjust button will have no effect.

- The Exit button terminates the application.
- The Settings button allows you to set the more advanced options.
- The About buttons displays a dialog box with author information.

Settings

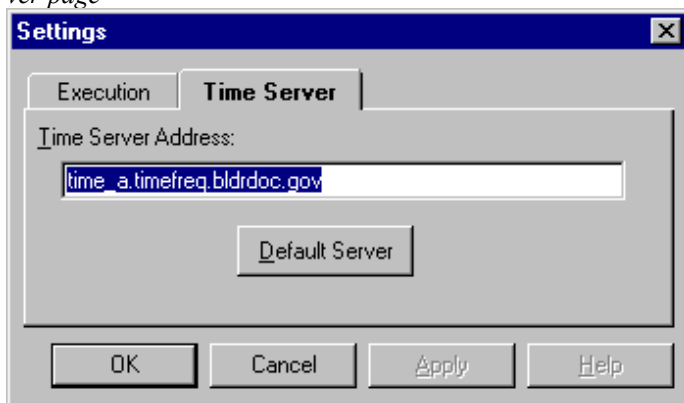
Execution page



This Settings page contains information on the settings that control how the application executes.

- Start Minimized: Enabling this check box will cause the application to automatically start up running as 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 time, it will automatically restore the application and display the difference.
- Automatically Adjust Time and Exit: When enabled and a 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. However, the new site must support the IP_DAYTIME socket.

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

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. Since I don't have Properties defined yet for this application, if you turn on automatic adjust and edit and later on what to turn if off there are two 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. If you are a developer using MFC libraries, I have source code available for a subclass of the MFC Class CSocket called CDayTimeSocket. This new class automates the task of gathering a time from a time server and then returning a CTime object as the result. If your interested in the source for the class, drop me some e-mail (or find my home page).

Contact Information

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