

## Now Is the Time

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Your computer may be completely Y2K compliant, but if you don't take the steps outlined here, it may still fail on January 1<sup>st</sup>. Don Lund, K0DL, sent me a query in July concerning an email message he received from his son's father-in-law (lets call him FL). FL did some experimenting and discovered that both his computers would have failed on the "big day", and he provided a quick and easy fix for the problem. I have taken his fix a bit further, to kill another another bird with the same stone. Specifically, it will set your computer to use the new Universal Date Convention, accepted worldwide. Actually, most of the rest of the world has been using it for at least a decade. It is only new here in the USA. Had this convention been used by early programmers, there never would have been a Y2K problem.

Let me back up. Your computer can be in one of three possible status conditions with respect to Y2K compliance (I am simplifying things a bit here, for the sake of clarity).

1. **Fully Y2K compliant.** At a second after midnight on 1999-12-31 (notice the new date convention), your computer will happily roll over to 2000-01-01 and will continue ticking away and correctly keeping both the date and time (at least it will be close, though we both know computer clocks are not very accurate). If you were to boot it up at 3:00 a.m. (just before going to bed after your New Year's Eve celebration?), it would report 2000-01-01 03:00. Fine business. It will also handle future leap years correctly.
2. **Manually compliant** (a great many machines will exhibit this condition). At a second after midnight on 1999-12-31, it will reset itself to some unpredictable date, very possibly 1980-01-01, but maybe some other weird date. If you enter Windows in this state, you are sure to get error messages. Maybe your screen will say something like "You dumb human, I can't work under these conditions!" (Not really, but you will get error messages). However, you can fix it. On January 1<sup>st</sup>, boot with a floppy (an old MS-DOS 6.22 boot disk will work fine) and type DATE. Enter the correct date. Then type TIME. Enter the correct time. That is it...reboot without the floppy and your machine will happily keep the correct time (approximately) thereafter. If you turn the machine off after that and reboot on January 5<sup>th</sup>, it will correctly report the date as 2000-01-05.
3. **Non-compliant.** It will roll over to some weird date a second after midnight. If you reset the clock using the method outlined above, it will keep time so long as it is on. If you turn it off, the next time you reboot it will again exhibit the weird date. Can't be fixed, unless you replace the BIOS chips, a step that may cost a considerable percentage of the price of a new machine. Either set the year to 1990 and keep track mentally, or dump the machine and get a new one.

Those are the general possibilities, and they exist because of the compliance, manual compliance or non-compliance of the BIOS (Basic Input Output System) chip that was programmed for your specific brand and model of computer. This chip (or two) interprets how time is recorded by the little "wrist watch" (Real Time Clock) that is ticking inside every personal computer. The battery found inside every PC powers the RTC, among other things. If the battery dies, the machine will

lose the date, time and other even more important information, such as what kind and size hard drive is in the computer's belly.

OK, let us assume you have a fully compliant or manually compliant computer. The issues described so far deal largely with hardware (BIOS chips, battery, RTC) and firmware (the program that is more or less permanently burned into the BIOS chips). But there is another issue - software. It seems that Windows comes set with a date convention that uses only two digits for the year. Therefore, one minute after midnight the date will change from 99 to 00. Aaargh! Gremlins everywhere! But the simple fix is to not accept what Microsoft shipped as the default date convention, but rather to change it to a four-digit date. And, while you are at it, change to the worldwide date convention of yyyy-mm-dd. Come on, guys and gals. We gotta do it. See #62 in this series, January 1999, DATES CAN DRIVE YOU NUTS for some background on why we gotta do it. Here is how, described for Win95 but it should be nearly identical for Win98. *DO IT NOW. DO NOT WAIT TIL THE END OF THE YEAR!*

From Windows, double click My Computer, then Control Panel, and then Regional Settings. Next click the Date tab. Look at the "Short Date Sample". Does it show a two-digit year? As pointed out by FL, of course it does, because that is what Microsoft decided should be the default setting and the software was shipped to you with the two-digit setting. The two-digit date you are looking at is the date Windows feeds to applications; it will roll over to 00.

Click on the button across from Short Date Style and select the style that shows yyyy-mm-dd. Be sure that four Ys are showing. Click Apply and OK at the screen bottom. You are done, and Windows should roll over properly on January 1<sup>st</sup>. And now your machine is current with the world on date conventions. Thanks to Don Lund and FL for bringing this additional Y2K problem to light and sharing it with us. Happy computing!