Dates Potentially Causing Problems in **Computer Systems** from 2001 - 2100

A Factfile provided by the Institution of **Engineering and Technology**

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2001/09/09	(At 01:46:40 GMT) A UNIX date when the time_t value goes from 9 to 10 digits. Suspects are timestamps stored in fixed - column tables and internal variables.
2002/01/01	(or any other date past this day) Processing errors may occur in backward calculations and processing of dates in the 1980s and 1990s at this point in time.
2002/06/30	Last day European national currencies are acceptable.
2002/07/01	First day of Euro - only transactions in the European Union (EMU).
2004/02/29	Last day of February - a leap year.
2004/07/17-18	GPS Receiver Almanac Rollover due to the use of an 8-bit field for weeks since 22 August 1999 (256 weeks).
2004 & 2005	Children born in 2000 enter the school system.
2005	Reported that some very old versions of UNIX (e.g. 16-bit BSD) will die in 2005.
2009/01/01	Satellite processing of distress signals from 121.5/243 MHz emergency beacons ends. 406 MHz will be used instead.
2009/09/09	Possible valid nonsense or marker date (same for any date where Y, M, and D are the same).
2010/01/01	Potential issue relating to the overflow for ANSI C library.
2010/01/01	Sorting YYMMDD decade-reversed covers 1990-2009 only.
2017	Children born in 2000 will be processed by university admission systems. If they are still in operation, systems may think they are dealing with 1900 or 2100.

2019/01/01	Possible confusion may occur between YY and YYYY forms, over first two digits of the date.
2019/12/31	YY date limit for Microsoft Excel 95.
2020/01/01	Mac (System 6.0.4+) Date and Time control will no longer be able to set the current date.
2025/12/31	Dates will fail on versions of Intuit's QuickBooks for DOS.
2027/12/31	Dates will fail on versions of Intuit's Quicken, QuickPay 3 for Windows, and QuickBooks for Windows and Mac.
2028/01/01	Systems that used a 28 year setback to remedy Y2K will fail.
2030	As with 1970, this has been reported as a breakpoint in the windowing system used by Microsoft in a large number of their products. In these systems 29 will imply 2029 and 30 will imply 1930.
2034/09/30	Overflow for UNIX time function.
2035/12/31	Microsoft's Year 2000 statement of compliance timeframe ends at 24:00. Microsoft's Year 2000 statement of compliance timeframe ends at 24:00.
2036/02/06	(06:28:16 GMT) 2**32 secs from 1900/01/01 - 00:00:00 GMT. NTP timestamp overflows (2036/02/05 if 1900/02/29 is taken into account).
2037/01/01	Rollover date for NTP systems.
2037/12/31	Year 2000 support for some editions of WS_FTP ends.

2038/01/19	(03:14:07 GMT) 2**31 seconds from 00:00:00 GMT, Thursday 1st January 1970 (UNIX's birthday). The seconds counter used for date/time information in UNIX and C and C++ will reach 2,147,483,647 - the largest number which can be stored as a 32-bit signed integer. As a result an overflow problem will occur (i.e. the value of the next number is unpredictable). Time differences mean it appears that it will happen earlier in America (22:14:07 US EST, Monday 18th January 2038). There will also be a an additional problem due to a discrepancy of a few seconds between system clocks and astronomical time because the system will not have taken account of leap second adjustments made in the interim period. This may be significant only for a few very specialised systems, but could give rise to difficulties if changes are based on algorithms which do not take this into account. It is understood that the Java programming language (which in many respects closely resembles C++) will not have this problem.
2041/01/01	IBM mainframe internal clocks will not go past this year (unconfirmed).
2041/11/16	(24:00:00) Clock in Unisys BTOS/ CTOS Operating System will move on to 1952/03/01.
2042/09/18	(23:53:47 GMT approx) Overflow of TOD timer on IBM Systems 370 and 390.
2046/01/01	Amiga system date failure.
2048/01/19	2**31 seconds from 1980/01/01 - Stratus VOS OS failure.
2048/07/01	64**2 weeks from 1970 - some UNIX password ageing fails.
2049/12/31	Microsoft Project 95 (and earlier) limit.
2050/01/01	YY-windowing into 1950-2049 collapses.

2060/01/01	The trick of using a two-digit year representation with the first digit hex (98, 99, A0, A1 through to F9) fails today. If the digits are stored as nibbles, no more can be done; if as characters, 200 more years brings the end of Z9.
2068/01/01	YMMDD = 000101 again for SunSPARC: SunOS, Solaris, BSD/OS, Linux: in RTC.
2070/01/01	Centenary of 1970/01/01 (base date for UNIX time_t). There is the possibility of Y2K style faults.
2071/05/10	(11:56:53.684) AS/400 internal hardware clock rolls over to 1928/08/23.
2072	(Exact date t.b.d.) Overflow of Milstar Operating System.
2078/12/31	Excel 7.0 - The Last Day, #65380; and Excel 95.
2079/06/06	2**16 days from 1900/01/01.
2080/01/01	MSDOS file dates become ambiguous when displayed with two digit years. Windows File Manager, set to ISO-8601 dates, drops 100 years from displayed file dates beyond 2080.
2100/01/01	Y2.1K - most current PC BIOS run out of dates. MSDOS DIR renders file date years 2100-2107 as 99. Many short-term Y2K fixes will fail.
2100/02/28	Last Day of February - NOT a leap year. First failure of the "4- year" rule since 1900 [NB - every year divisible by four is a leap year unless it is divisible by 100, but not 400].
2101/03/01	It is claimed that a system which is compliant up to this date will be totally date compliant, at least until 9999/12/31.

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