

## ENTERING DATES AND TIMES IN EXCEL

### Why MS Excel dates begin on 1 January 1900

The date system in modern computing, particularly in spreadsheet applications like Microsoft Excel and Google Sheets, begins with 1 January 1900 because it was a design choice intended to conserve memory and maintain compatibility with earlier software, rather than a reflection of historical significance.

#### Key Reasons for the 1900 Base Date:

- **Compatibility with Lotus 1-2-3:** Microsoft Excel adopted the 1900 date system to be compatible with Lotus 1-2-3, the dominant spreadsheet software at the time. Lotus 1-2-3 used this base date, and to win over users, Microsoft maintained that standard.
- **Memory Constraints:** In the early days of personal computing, saving memory was critical. Using a serial number system (where January 1, 1900 is "1", Jan 2 is "2", etc.) allowed for efficient storage of dates, which are crucial for financial and business analysis.
- **Intent of the Software:** Excel was designed for business, financial, and analytical tasks that primarily involved current or future dates. The ability to handle dates from the 19th century or earlier was not deemed a priority at the time.
- **"False" Leap Year Bug:** The 1900 date system in Excel treats 1900 as a leap year, even though it was not a leap year in the Gregorian calendar. This was an intentional error inherited from Lotus 1-2-3, which made it easier to handle date calculations and maintained compatibility.
- **The 1904 Alternative:** For Macintosh computers, an alternative "1904 date system" was used because it was thought to be better at handling negative time values, but the 1900 system became the standard for Windows.

In summary, 1 January 1900 is the "day 1" of the digital spreadsheet world as a deliberate choice for 1980s-era computer efficiency and software compatibility.

#### Reference:

- **APA 7th Edition:** Google AI. (2026). Gemini(Feb 17 version) [Large language model]. <https://gemini.google.com>.