HEBREW DATING

Prof. Nachum Dershowitz¹, Prof. Edward M. Reingold²

¹School of Computer Science, Tel Aviv University, Israel
tel: +972 3 640 5356, email: nachum@cs.tau.ac.il;

²Department of Computer Science, Illinois Institute of Technology, Stuart Building,
10 West 31st Street, Suite 236, Chicago, Illinois 60616-2987, USA
tel: +1 312 567-3309, email: reingold@iit.edu

Abstract:

There are hundreds of different calendrical systems in use around the world today (including the Gregorian, Hebrew, Islamic, Julian, Coptic, and Bahai), plus many more that are of historical importance (examples include the Egyptian, French Revolutionary, Old Hindu, and Mayan). The goal of our research is to make accurate calendrical algorithms readily available, because calendrical problems are notorious for plaguing software—even the universally used Gregorian calendar is incorrectly implemented in most spreadsheets.

Information that is sufficiently detailed to allow computer implementation is difficult to find for many calendars (such as the Chinese, Hindu and Persian), because the published material is often inaccessible, ecclesiastically oriented, incomplete, inaccurate, based on extensive tables, overburdened with extraneous material, focused on shortcuts for hand calculation to avoid complicated arithmetic or to check results, or unavailable in any Western language. And, most existing computer programs are proprietary, incomplete, or inaccurate.

We will introduce the Hebrew calendar to non-mathematicians, its history and formulation, and include academic work mixed with anecdotes and myths, connections with the Gregorian, Julian, and other calendars, and so on. In the process, we will illustrate some of the problems facing genealogists when converting Hebrew dates.