

the **honeywell** computer journal

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ORIENTING THE COMPUTER TO PEOPLE

CHALLENGES AND CONCERNS

COUNTERINTUITIVE BEHAVIOR OF SOCIAL SYSTEMS

THE PROCESSOR FIGURE

WHAT'S THE DATE?

WHAT'S THE DATE ?

By now our readers will have noticed that this Journal always presents the calendar date in the year-month-day order. This is to conform to:

- ISO Recommendation 2014 - Writing of Calendar Dates in All-Numeric Form
- American National Standard X3.30-1971 (Representation for Calendar Date and Ordinal Date for Information Interchange)
- FIPS PUB 4, Calendar Date (US Government)

Although the American Standard derives from Committee X3, on Computers and Information Processing, the need for a standard method of writing the date is universal. ISO had a special committee, DATCO, for this purpose. Here is how ISO put it in the announcement:

"How to avoid confusion when writing the date

The worldwide membership of ISO (the International Organization for Standardization) has agreed to standardize the manner of writing dates. Thus, the most junior typist has the opportunity of making a contribution to the removal of one unnecessary obstacle to international communication.

How?

By using the universally-agreed system of descending order when writing the date on any letter or document. This rule applies only when an all-numeric form is used, which might lead to confusion.

Provided that the month is clearly spelled out (even in an abbreviated form), one can write the date however one wishes - 1 April 1971, April 1 1971, or 1971 April 1. There is no ambiguity, so no standard is required.

However, when an American writes the date 4-1-1971 to indicate April the first, an Englishman or a Norwegian, for example, would read the date as the fourth of January.

After studying all the implications of the question, an ISO committee of experts recommended the *descending* order, and ISO Recommendation 2014 has now

ISO Fiscal Calendar

WK	1972							1973							1974							WK	
	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S		
1	03	04	05	06	07	08	09	01	02	03	04	05	06	07	31	01	02	03	04	05	06	1	
2	10	11	12	13	14	15	16	08	09	10	11	12	13	14	07	08	09	10	11	12	13	JAN	2
3	17	18	19	20	21	22	23	15	16	17	18	19	20	21	14	15	16	17	18	19	20	JAN	3
4	24	25	26	27	28	29	30	22	23	24	25	26	27	28	21	22	23	24	25	26	27	JAN	4
5	31	01	02	03	04	05	06	29	30	31	01	02	03	04	28	29	30	31	01	02	03	JAN	5
6	07	08	09	10	11	12	13	05	06	07	08	09	10	11	04	05	06	07	08	09	10	FEB	6
7	14	15	16	17	18	19	20	12	13	14	15	16	17	18	11	12	13	14	15	16	17	FEB	7
8	21	22	23	24	25	26	27	19	20	21	22	23	24	25	18	19	20	21	22	23	24	FEB	8
9	28	29	01	02	03	04	05	26	27	28	01	02	03	04	25	26	27	28	01	02	03	FEB	9
10	06	07	08	09	10	11	12	05	06	07	08	09	10	11	04	05	06	07	08	09	10	FEB	10
11	13	14	15	16	17	18	19	12	13	14	15	16	17	18	11	12	13	14	15	16	17	MAR	11
12	20	21	22	23	24	25	26	19	20	21	22	23	24	25	18	19	20	21	22	23	24	MAR	12
13	27	28	29	30	31	01	02	26	27	28	29	30	31	01	25	26	27	28	29	30	31	MAR	13
14	03	04	05	06	07	08	09	02	03	04	05	06	07	08	01	02	03	04	05	06	07	MAR	14
15	10	11	12	13	14	15	16	09	10	11	12	13	14	15	08	09	10	11	12	13	14	APR	15
16	17	18	19	20	21	22	23	16	17	18	19	20	21	22	15	16	17	18	19	20	21	APR	16
17	24	25	26	27	28	29	30	23	24	25	26	27	28	29	22	23	24	25	26	27	28	APR	17
18	01	02	03	04	05	06	07	30	01	02	03	04	05	06	29	30	01	02	03	04	05	APR	18
19	08	09	10	11	12	13	14	07	08	09	10	11	12	13	06	07	08	09	10	11	12	MAY	19
20	15	16	17	18	19	20	21	14	15	16	17	18	19	20	13	14	15	16	17	18	19	MAY	20
21	22	23	24	25	26	27	28	21	22	23	24	25	26	27	20	21	22	23	24	25	26	MAY	21
22	29	30	31	01	02	03	04	28	29	30	31	01	02	03	27	28	29	30	31	01	02	MAY	22
23	05	06	07	08	09	10	11	04	05	06	07	08	09	10	03	04	05	06	07	08	09	JUN	23
24	12	13	14	15	16	17	18	11	12	13	14	15	16	17	10	11	12	13	14	15	16	JUN	24
25	19	20	21	22	23	24	25	18	19	20	21	22	23	24	17	18	19	20	21	22	23	JUN	25
26	26	27	28	29	30	01	02	25	26	27	28	29	30	01	24	25	26	27	28	29	30	JUN	26
27	03	04	05	06	07	08	09	02	03	04	05	06	07	08	01	02	03	04	05	06	07	JUN	27
28	10	11	12	13	14	15	16	09	10	11	12	13	14	15	08	09	10	11	12	13	14	JUL	28
29	17	18	19	20	21	22	23	16	17	18	19	20	21	22	15	16	17	18	19	20	21	JUL	29
30	24	25	26	27	28	29	30	23	24	25	26	27	28	29	22	23	24	25	26	27	28	JUL	30
31	31	01	02	03	04	05	06	30	31	01	02	03	04	05	29	30	31	01	02	03	04	JUL	31
32	07	08	09	10	11	12	13	06	07	08	09	10	11	12	05	06	07	08	09	10	11	AUG	32
33	14	15	16	17	18	19	20	13	14	15	16	17	18	19	12	13	14	15	16	17	18	AUG	33
34	21	22	23	24	25	26	27	20	21	22	23	24	25	26	19	20	21	22	23	24	25	AUG	34
35	28	29	30	31	01	02	03	27	28	29	30	31	01	02	26	27	28	29	30	31	01	AUG	35
36	04	05	06	07	08	09	10	03	04	05	06	07	08	09	02	03	04	05	06	07	08	SEP	36
37	11	12	13	14	15	16	17	10	11	12	13	14	15	16	09	10	11	12	13	14	15	SEP	37
38	18	19	20	21	22	23	24	17	18	19	20	21	22	23	16	17	18	19	20	21	22	SEP	38
39	25	26	27	28	29	30	01	24	25	26	27	28	29	30	23	24	25	26	27	28	29	SEP	39
40	02	03	04	05	06	07	08	01	02	03	04	05	06	07	30	01	02	03	04	05	06	SEP	40
41	09	10	11	12	13	14	15	08	09	10	11	12	13	14	07	08	09	10	11	12	13	OCT	41
42	16	17	18	19	20	21	22	15	16	17	18	19	20	21	14	15	16	17	18	19	20	OCT	42
43	23	24	25	26	27	28	29	22	23	24	25	26	27	28	21	22	23	24	25	26	27	OCT	43
44	30	31	01	02	03	04	05	29	30	31	01	02	03	04	28	29	30	31	01	02	03	OCT	44
45	06	07	08	09	10	11	12	05	06	07	08	09	10	11	04	05	06	07	08	09	10	NOV	45
46	13	14	15	16	17	18	19	12	13	14	15	16	17	18	11	12	13	14	15	16	17	NOV	46
47	20	21	22	23	24	25	26	19	20	21	22	23	24	25	18	19	20	21	22	23	24	NOV	47
48	27	28	29	30	01	02	03	26	27	28	29	30	01	02	25	26	27	28	29	30	01	NOV	48
49	04	05	06	07	08	09	10	03	04	05	06	07	08	09	02	03	04	05	06	07	08	DEC	49
50	11	12	13	14	15	16	17	10	11	12	13	14	15	16	09	10	11	12	13	14	15	DEC	50
51	18	19	20	21	22	23	24	17	18	19	20	21	22	23	16	17	18	19	20	21	22	DEC	51
52	25	26	27	28	29	30	31	24	25	26	27	28	29	30	23	24	25	26	27	28	29	DEC	52
53																							53

WK	1975							1976							1977							WK		
	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S			
1		30	31	01	02	03	04	05	29	30	31	01	02	03	04	03	04	05	06	07	08	09		1
2		06	07	08	09	10	11	12	05	06	07	08	09	10	11	10	11	12	13	14	15	16	JAN	2
3	JAN	13	14	15	16	17	18	19	12	13	14	15	16	17	18	17	18	19	20	21	22	23		3
4		20	21	22	23	24	25	26	19	20	21	22	23	24	25	24	25	26	27	28	29	30		4
5		27	28	29	30	31	01	02	26	27	28	29	30	31	01	31	01	02	03	04	05	06		5
6		03	04	05	06	07	08	09	02	03	04	05	06	07	08	07	08	09	10	11	12	13	FEB	6
7	FEB	10	11	12	13	14	15	16	09	10	11	12	13	14	15	14	15	16	17	18	19	20		7
8		17	18	19	20	21	22	23	16	17	18	19	20	21	22	21	22	23	24	25	26	27		8
9		24	25	26	27	28	01	02	23	24	25	26	27	28	29	28	01	02	03	04	05	06		9
10		03	04	05	06	07	08	09	01	02	03	04	05	06	07	07	08	09	10	11	12	13	MAR	10
11		10	11	12	13	14	15	16	08	09	10	11	12	13	14	14	15	16	17	18	19	20		11
12	MAR	17	18	19	20	21	22	23	15	16	17	18	19	20	21	21	22	23	24	25	26	27		12
13		24	25	26	27	28	29	30	22	23	24	25	26	27	28	28	29	30	31	01	02	03		13
14		31	01	02	03	04	05	06	29	30	31	01	02	03	04	04	05	06	07	08	09	10	APR	14
15		07	08	09	10	11	12	13	05	06	07	08	09	10	11	11	12	13	14	15	16	17		15
16	APR	14	15	16	17	18	19	20	12	13	14	15	16	17	18	18	19	20	21	22	23	24		16
17		21	22	23	24	25	26	27	19	20	21	22	23	24	25	25	26	27	28	29	30	01		17
18		28	29	30	01	02	03	04	26	27	28	29	30	01	02	02	03	04	05	06	07	08		18
19		05	06	07	08	09	10	11	03	04	05	06	07	08	09	09	10	11	12	13	14	15	MAY	19
20	MAY	12	13	14	15	16	17	18	10	11	12	13	14	15	16	16	17	18	19	20	21	22		20
21		19	20	21	22	23	24	25	17	18	19	20	21	22	23	23	24	25	26	27	28	29		21
22		26	27	28	29	30	31	01	24	25	26	27	28	29	30	30	31	01	02	03	04	05		22
23		02	03	04	05	06	07	08	31	01	02	03	04	05	06	06	07	08	09	10	11	12	JUN	23
24		09	10	11	12	13	14	15	07	08	09	10	11	12	13	13	14	15	16	17	18	19		24
25	JUN	16	17	18	19	20	21	22	14	15	16	17	18	19	20	20	21	22	23	24	25	26		25
26		23	24	25	26	27	28	29	21	22	23	24	25	26	27	27	28	29	30	01	02	03		26
27		30	01	02	03	04	05	06	28	29	30	01	02	03	04	04	05	06	07	08	09	10	JUL	27
28		07	08	09	10	11	12	13	05	06	07	08	09	10	11	11	12	13	14	15	16	17		28
29	JUL	14	15	16	17	18	19	20	12	13	14	15	16	17	18	18	19	20	21	22	23	24		29
30		21	22	23	24	25	26	27	19	20	21	22	23	24	25	25	26	27	28	29	30	31		30
31		28	29	30	31	01	02	03	26	27	28	29	30	31	01	01	02	03	04	05	06	07		31
32		04	05	06	07	08	09	10	02	03	04	05	06	07	08	08	09	10	11	12	13	14	AUG	32
33	AUG	11	12	13	14	15	16	17	09	10	11	12	13	14	15	15	16	17	18	19	20	21		33
34		18	19	20	21	22	23	24	16	17	18	19	20	21	22	22	23	24	25	26	27	28		34
35		25	26	27	28	29	30	31	23	24	25	26	27	28	29	29	30	31	01	02	03	04		35
36		01	02	03	04	05	06	07	30	31	01	02	03	04	05	05	06	07	08	09	10	11	SEP	36
37		08	09	10	11	12	13	14	06	07	08	09	10	11	12	12	13	14	15	16	17	18		37
38	SEP	15	16	17	18	19	20	21	13	14	15	16	17	18	19	19	20	21	22	23	24	25		38
39		22	23	24	25	26	27	28	20	21	22	23	24	25	26	26	27	28	29	30	01	02		39
40		29	30	01	02	03	04	05	27	28	29	30	01	02	03	03	04	05	06	07	08	09		40
41		06	07	08	09	10	11	12	04	05	06	07	08	09	10	10	11	12	13	14	15	16	OCT	41
42	OCT	13	14	15	16	17	18	19	11	12	13	14	15	16	17	17	18	19	20	21	22	23		42
43		20	21	22	23	24	25	26	18	19	20	21	22	23	24	24	25	26	27	28	29	30		43
44		27	28	29	30	31	01	02	25	26	27	28	29	30	31	31	01	02	03	04	05	06		44
45		03	04	05	06	07	08	09	01	02	03	04	05	06	07	07	08	09	10	11	12	13	NOV	45
46	NOV	10	11	12	13	14	15	16	08	09	10	11	12	13	14	14	15	16	17	18	19	20		46
47		17	18	19	20	21	22	23	15	16	17	18	19	20	21	21	22	23	24	25	26	27		47
48		24	25	26	27	28	29	30	22	23	24	25	26	27	28	28	29	30	01	02	03	04		48
49		01	02	03	04	05	06	07	29	30	01	02	03	04	05	05	06	07	08	09	10	11	DEC	49
50	DEC	08	09	10	11	12	13	14	06	07	08	09	10	11	12	12	13	14	15	16	17	18		50
51		15	16	17	18	19	20	21	13	14	15	16	17	18	19	19	20	21	22	23	24	25		51
52		22	23	24	25	26	27	28	20	21	22	23	24	25	26	26	27	28	29	30	31	01		52
53									27	28	29	30	31	01	02									53

been approved by 25 countries (Austria, Belgium, Canada, Ceylon, France, Germany, Greece, Hungary, India, Italy, Japan, North Korea, South Korea, Netherlands, Poland, Portugal, South Africa, Spain, Sweden, Switzerland, Thailand, U.A.R., United Kingdom, U.S.A., and Yugoslavia). Four countries only (Czechoslovakia, Ireland, Norway, and Iraq) disapproved the proposal - they preferred the ascending order. Four more countries (Australia, Denmark, New Zealand, and Turkey) abstained.

The ISO committee concluded that the advantages of the *descending* order clearly outweighed any disadvantages. In particular, are cited:

- the ease with which the whole date may be treated as a single numeral for the purpose of filing and classification (e.g., for insurance or social security systems);
- arithmetical calculation, particularly in some computer applications;
- the possibility of continuing the order by adding digits for hour-minute-second (see Note 3).

To be precise, ISO recommends that if numbers only are used, the first day of April 1971 should be written: 1971-04-01.

For technical reasons, the hyphen (or the space) is recommended as a separator rather than the point or the stroke.

Of course, a standard is of little use unless it is widely known and understood. That is why ISO now seeks the cooperation of men and women all over the world who prefer order to chaos - and who would not wish to miss an important date because of a misunderstanding.

....and when numbering the weeks

A second document, ISO/R 2015 - Numbering of Weeks, lays down the agreed standard for the numbering of weeks. The calendar week is an important unit for planning and accounting purposes. Delivery dates in purchasing contracts and similar documents are frequently designated by referring to a certain week number. Since methods of numbering the weeks of the year vary from country to country, a uniform system for the numbering of weeks has an increasing importance for international trade and industrial planning.

Briefly, ISO recommends that Monday (rather than Sunday) be regarded as the first day of the week for business and commercial purposes. ISO/R 2015 recommends, too, that the week should always be of seven days and that a week divided by the turn of the year should be attached to the year containing the higher number of days of that week. Thus, for practical purposes, the first week of the year could begin, at one extreme, on December 29, and at the other extreme, on January 4."



For consistency reasons, this Journal has adopted the year-month-day ordering even when the month is spelled out or abbreviated, as well as the 24-hour clock for diurnal time.

Note 1:

X3.30, being primarily computer oriented, has these additional options and constraints:

- The 4 digits of "year" may be reduced to 2 digits for "year of the century", or to 1 digit for "year of the decade". It should be obvious, however, that extreme caution should be exercised in using these options for mechanical processing.
- The 4 digits of "day-month" may be replaced by 3 digits (from 001 through 365 or 366) for "day of the year", thus giving the ordinal date rather than calendar date. Again, caution, although this option is easier for mechanical differencing of two dates.
- No separators are to be used in internal data representation.

Note 2:

FIPS PUB 4, Calendar Date, is available (price - 20 cents US) from either:

- NBS Clearinghouse for Scientific and Technical Information, US Department of Commerce, Springfield, VA 22151, or
- Supt. of Documents
US Government Printing Office
Washington, DC 20402
(refer to SD Catalog No. C 13.52:4)

Note 3:

See Document X3L8/177, 1971 Dec 01, Draft American National Standard for Representations of Local Time of the Day for Information Interchange. It provides standard formats for both the 12-hour and 24-hour timekeeping systems, but only for civil clock time at point of origin. Therefore proper precautions should be taken for interchange, depending upon where the time was recorded, and if it must relate to any other times recorded in different world time zones.