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## FIPS PUB 4-1

Supersedes FIPS PUB 4

1968 November 1

Federal Information  
Processing Standards Publication 4-1

1988 JANUARY 27

**Announcing the Standard for**

# REPRESENTATION FOR CALENDAR DATE AND ORDINAL DATE FOR INFORMATION INTERCHANGE

[\(The Foreword, Abstract, and Key Words](#)

can be found at the end of this document.)

**Federal Information Processing Standards Publications (FIPS PUBS) are issued by the National Institute of Standards and Technology after approval by the Secretary of Commerce pursuant to Section 111(d) of the Federal Property and Administrative Services Act of 1949, as amended by the Computer Security Act of 1987, Public Law 100-235.**

**1. Name of Standard.** Representation for Calendar Date and Ordinal Date for Information Interchange (FIPS PUB 4-1).

**2. Category of Standard.** Federal General Data Standard, Representations and Codes.

**3. Explanation.** This standard provides a means of representing calendar date and ordinal date to facilitate interchange of data among information systems. This revision supersedes FIPS PUB 4 in its entirety.

**4. Approving Authority.** The Secretary of Commerce.

**S. Maintenance Agency.** U.S. Department of Commerce, National Institute of Standards and Technology, Computer Systems Laboratory.

## 6. Cross Index.

a. FIPS PUB 58-1, Representations of Local Time of Day for Information Interchange.

b. FIPS PUB 59, Representations of Universal Time, Local Time Differentials, and United States Time Zone References for Information Interchange (being revised).

c. American National Standard ANSI X3.30-1985, Representation for Calendar Date and Ordinal Date for Information Interchange.

d. American National Standard ANSI X3.43-1986, Representations of Local Time of Day for Information Interchange.

e. American National Standard ANSI X3.51-1975, Representations of Universal Time, Local Time Differentials, and United States Time Zone References for Information Interchange (being revised).

f. International Standard ISO 2014-1976, Writing of Calendar Dates in Au-Numeric Form.

g. International Standard ISO 2711-1973, Information Processing Interchange-Representation of Ordinal Dates.

h. International Standard ISO 3307-1975, Information Interchange-Representations of Time of the Day.

i. International Standard ISO 4031-1978, Information Interchange-Representation of Local Time Differentials.

**7. Objectives.** The objectives of this standard are to improve the utilization of data resources of the Federal Government and avoid unnecessary duplications and incompatibilities in the collection, processing and dissemination of data.

**8. Applicability.** This Federal Data Element and Representation Standard is made available for data interchange among executive departments and independent agencies, and for Federal data interchange with the non-Federal sector including industry, State, local and other governments, and the public at large.

**9. Implementation Schedule.** This standard becomes effective July 30, 1988. Use by Federal agencies is encouraged when such use contributes to operational benefits, efficiency, or economy.

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## Specific Change

**In reference to paragraph 10, Specifications:**

**For purposes of electronic data interchange in any recorded form among U.S. Government agencies, NIST highly recommends that four-digit year elements be used. The year should encompass a two-digit century that precedes, and is contiguous with, a two-digit year-of-century (e.g., 1999, 2000, etc.). In addition, optional two-digit year time elements specified in ANSI X3.30-1985(R1991) should not be used for the purposes of any data interchange among U.S. Government agencies. SEE BELOW:**

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**10. Specifications.** This standard adopts American National Standard ANSI X3.30-1985, Representation for Calendar Date and ordinal Date for Information Interchange. The latter was approved on July 30, 1985 as a revision of ANSI X3.30-1971, and is published by the American National Standards Institute, 1430 Broadway, New York, NY 10018.

### Technical Publications

Journal of Research-The Journal of Research of the National Bureau of Standards reports NBS research and

development in those disciplines of the physical and engineering sciences in which the Bureau is active. These include physics, chemistry, engineering, mathematics, and computer sciences. Papers cover a broad range of subjects, with major emphasis on measurement methodology and the basic technology underlying standardization. Also included from time to time are survey articles on topics closely related to the Bureau's technical and scientific programs. issued six times a year.

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NOTE: The Journal of Physical and Chemical Reference Data (JPCRD) is published quarterly for NBS by the American Chemical Society (ACS) and the American Institute of Physics (AIP). Subscriptions, reprints, and supplements are available from ACS, 1155 Sixteenth St., NW, Washington, DC 20056.

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Federal Information Processing Standards Publications (FIPS PUB) Publications in this series collectively constitute the Federal Information Processing Standards Register. The Register serves as the official source of information in the Federal Government regarding standards issued by NBS pursuant to the Federal Property and Administrative Services Act of 1949 as amended, Public law 89- 306 (79 Stat. 1127), and as implemented by Executive Order 11717(38 FR 12315, dated May 11, 1973) and Part 6 of Title 15 CFR (Code of Federal Regulations).

NBS Interagency Reports (NBSIR) special series of interim or final reports on work performed by NBS for outside sponsors (both government and non-government). In general, initial distribution is handled by the sponsor; public distribution is by the National Technical Information Service, Springfield, VA 22161, in paper copy or microfiche form.

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**The Foreword, Abstract, and Key Words follow:**

FIPS PUB 4-1  
FEDERAL INFORMATION  
PROCESSING STANDARDS PUBLICATION

1988 JANUARY 27  
U.S. DEPARTMENT OF COMMERCE/National Institute of Standards and Technology

## **REPRESENTATION FOR CALENDAR DATE AN ORDINAL DATE FOR INFORMATION INTERCHANGE**

### **FEDERAL GENERAL DATA STANDARD REPRESENTATION AND CODES**

U.S. DEPARTMENT OF COMMERCE, C. William Verity, *Secretary*  
National Institute of Standards and Technology, Ernest Ambler, *Director*

#### **Foreword**

The Federal Information Processing Standards Publication Series of the National Institute of Standards and Technology (NIST) is the official publication relating to standards and guidelines adopted and promulgated under the provisions of Section 111(d) of the Federal Property and Administrative Services Act of 1949 as amended by the Computer Security Act of 1987, Public Law 100-235. These mandates have given the Secretary of Commerce and NIST important responsibilities for improving the utilization and management of computers and related telecommunications systems in the Federal Government. The NIST, through its Computer Systems Laboratory, provides leadership, technical guidance, and coordination of Government efforts in the development of standards and guidelines in these areas.

Comments concerning Federal Information Processing Standards Publications are welcomed and should be addressed to the Director, Computer Systems Laboratory, National Institute of Standards and Technology, Gaithersburg, MD 20899.

James H. Burrows, *Director*  
Computer Systems Laboratory

#### **Abstract**

This standard provides a means of representing calendar date and ordinal date to facilitate interchange of data among information systems. This standard adopts American National Standard ANSI X3.30- 1985, Representation for Calendar Date and Ordinal Date for Information Interchange. This revision supersedes FIPS PUB 4 in its entirety.

**Key words:** ADP standards; calendar date; computers; data elements and codes; data processing; Federal Information Processing Standard; information systems; ordinal date; standards.

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