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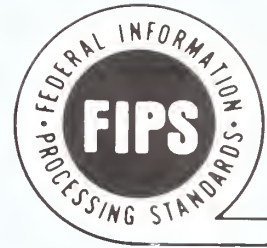
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FEDERAL INFORMATION PROCESSING STANDARDS PUBLICATION

1987 SEPTEMBER 14

U.S. DEPARTMENT OF COMMERCE/National Bureau of Standards



INTERPRETATION PROCEDURES FOR FEDERAL INFORMATION PROCESSING STANDARDS FOR SOFTWARE

CATEGORY: SOFTWARE STANDARD

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FIPS PUB 29-2

U.S. DEPARTMENT OF COMMERCE, C. William Verity, *Secretary*
NATIONAL BUREAU OF STANDARDS, Ernest Ambler, *Director*

Foreword

The Federal Information Processing Standards Publication Series of the National Bureau of Standards is the official publication relating to standards, guidelines, and documents adopted and promulgated under the provisions of Public Law 89-306 (Brooks Act) and under Part 6 of Title 15, Code of Federal Regulations. These legislative and executive mandates have given the Secretary of Commerce important responsibilities for improving the utilization and management of computers and automatic data processing in the Federal Government. To carry out the Secretary's responsibilities, the NBS, through its Institute for Computer Sciences and Technology, provides leadership, technical guidance, and coordination of Government efforts in the development of standards, guidelines and documents in these areas.

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

James H. Burrows, *Director*
Institute for Computer Sciences and Technology

Abstract

The purpose of this Federal Information Processing Standards Publication (FIPS PUB) is to establish the procedures for requesting a technical interpretation of any of the Federal Information Processing Standards (FIPS) for software and for providing a solution to the request. This FIPS PUB supersedes FIPS PUB 29-1 in its entirety.

Key words: BASIC; COBOL; Computer Graphics Metafile (CGM); Data Descriptive File (DDF); Database Language NDL; Database Language SQL; Federal Information Processing Standard (FIPS); FORTRAN; Graphics Kernel System (GKS); MUMPS; PASCAL; software interpretation procedures.

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**Federal Information
Processing Standards Publication 29-2**

1987 September 14



**INTERPRETATION PROCEDURES
FOR
FEDERAL INFORMATION PROCESSING STANDARDS
FOR SOFTWARE**

Federal Information Processing Standards Publications (FIPS PUBS) are issued by the National Bureau of Standards pursuant to the Federal Property and Administrative Services Act of 1949, as amended, Public Law 89-306 (79 Stat. 1127), Executive Order 11717 (38 FR 12315, dated May 11, 1973), and Part 6 of Title 15 Code of Federal Regulations (CFR).

1. Purpose. The purpose of this Federal Information Processing Standards Publication (FIPS PUB) is to establish the procedures for requesting a technical interpretation of any of the Federal Information Processing Standards (FIPS) for software and for providing a solution to the request. This FIPS PUB supersedes FIPS PUB 29-1 in its entirety.

2. Background. The FIPS for software include, but are not limited to, FIPS programming languages, FIPS database languages, FIPS graphics languages, and FIPS operating systems languages. As the standards are used as the basis for the implementation of software, validation of software, or writing of application programs, questions may arise as to the meaning of certain specifications. It is desirable to provide solutions to these questions that can be used uniformly throughout the Federal Government. In order to achieve this objective, the National Bureau of Standards will provide responses to questions of interpretation for the respective FIPS. To assist NBS in providing these responses, a variety of mechanisms may be used, including:

- a. Obtaining a recommended interpretation from a committee of the recognized standards body responsible for the development of the standard that has been adopted as a FIPS.
- b. Organization of a Federal Interpretation Committee (FIC) which will be responsible for providing a recommended interpretation for a particular FIPS.
- c. Consultation with persons recognized as expert in the particular subject matter of the interpretation request.

3. Approving Authority of Interpretations. Director, National Bureau of Standards.

4. Maintenance Agency. U.S. Department of Commerce, National Bureau of Standards (Institute for Computer Sciences and Technology).

5. Cross Index.¹ The following is a current list of the FIPS for which the National Bureau of Standards will issue interpretations. As new software standards are approved, they may be added to this list. Consult the appropriate FIPS PUB for the standard to which the interpretation request applies for any special instructions regarding interpretations.

- a. FIPS PUB 21, COBOL
- b. FIPS PUB 68, Minimal BASIC
- c. FIPS PUB 69, FORTRAN
- d. FIPS PUB 109, PASCAL
- e. FIPS PUB 120, Graphical Kernel System
- f. FIPS PUB 123, Data Descriptive File for Information Interchange
- g. FIPS PUB 125, MUMPS
- h. FIPS PUB 126, Database Language NDL
- i. FIPS PUB 127, Database Language SQL
- j. FIPS PUB 128, Computer Graphics Metafile

¹ Refers to most recent revision of FIPS PUBS.

6. Implementing Schedule. These procedures become effective on September 14, 1987.

7. Applicability.

a. The provisions of this document apply to Federal departments and agencies and to vendors of software that wish to have questions concerning specifications of FIPS for software resolved by the National Bureau of Standards.

b. An interpretation that is developed and approved as a result of employing these procedures applies to software, as specified in each interpretation, that is brought into the Federal inventory after the effective date of the interpretation.

8. Procedures. (In the following procedure, each reference to "Federal Interpretation Committee" (FIC) should be construed to mean the specific interpretation committee responsible for the software to which the request applies.)

a. *Requesting an Interpretation.*

- (1) Requests may be submitted by a vendor of software intended to conform to a FIPS for software or by any department or agency of the Federal Government.
- (2) Requests for an interpretation should be submitted in writing to the National Bureau of Standards. See paragraph 9 for the address.
- (3) A request for interpretation should contain the following information:
 - (a) Name of organization submitting the request.
 - (b) Name of individual within the submitting organization who may be contacted concerning the request.
 - (c) Date by which the interpretation is desired.
 - (d) Appropriate references to FIPS specifications that have a bearing on the problem cited in the request.
 - (e) A concise explanation of the problem requiring an interpretation.
 - (f) Any supporting documentation that will assist in understanding or describing the problem.
 - (g) Any recommendations the requesting organization would like to make concerning a possible interpretation, along with appropriate justification or comments.

b. *Processing a Request for Interpretation.*

- (1) Upon receipt, the National Bureau of Standards will determine which of the following mechanisms will be used in developing a response to the request for interpretation:
 - (a) Obtaining a recommended interpretation from a committee of the recognized standards body responsible for the development of the standard that has been adopted as a FIPS.
 - (b) Organization of a Federal Interpretation Committee (FIC) which will be responsible for providing a recommended interpretation for a particular FIPS.
 - (c) Consultation with persons recognized as expert in the particular subject matter of the interpretation request.
 - (d) Any combination of the mechanisms in (a) through (c) above. At least the mechanism in paragraph (a) above will be used in the case of a request for interpretation of a FIPS that adopts a standard developed by a recognized standards body.
- (2) If the FIC is utilized:
 - (a) The request is distributed to the FIC.
 - (b) Position papers on proposed solutions to a cited problem may be submitted by any FIC member for consideration by the FIC membership.
 - (c) The requester of an interpretation may be invited to attend the meeting at which the request will be considered and to participate in the discussion of the problem identified by the request.
- (3) If either the appropriate standards body or recognized experts is utilized, the request is sent to that body indicating the date by which an interpretation is desired.
- (4) Upon completion of the proposed interpretation, the National Bureau of Standards will:
 - (a) Arrange for publication of the proposed interpretation in the *Federal Register* and forward it to Federal agencies for the purpose of soliciting comments from Federal agencies, vendors, and private industry.

- (b) Notify requester of the proposed interpretation.
- (5) Comments received as a result of publication and review of the proposed interpretation will then be reviewed by the National Bureau of Standards and, if appropriate, the body specified in paragraph 8.b.(1), and a final interpretation developed.
- c. *Dissemination of an Approved Interpretation.*
 - (1) The National Bureau of Standards will be responsible for the dissemination of interpretation of FIPS for software.
 - (2) The approved interpretation will consist of the following information:
 - (a) Definition of the problem being resolved.
 - (b) Discussion of the issues relevant to the problem.
 - (c) Discussion of the solution to the problem (interpretation).
 - (d) Any necessary clarification to the particular FIPS to effect the resolution.
 - (e) Effective date of the interpretation.
 - (3) The approved interpretation will be disseminated and will include, at a minimum, the following: Publication in the *Federal Register*; letter to the Federal agencies; and letter to the requester.
 - (4) The National Bureau of Standards will maintain a central register of approved interpretations for reference.

9. Point of Contact. The following address will be used for correspondence pertaining to interpretations of FIPS for software:

Institute for Computer Sciences and Technology
National Bureau of Standards
Attn: Software Interpretations
Gaithersburg, MD 20899

10. Where to Obtain Copies. Copies of this publication are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. When ordering, refer to Federal Information Processing Standards Publication 29-2 (FIPSPUB29-2), and title. When microfiche is desired, this should be specified. Payment may be made by check, money order, or deposit account.



NBS *Technical Publications*

Periodical

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Voluntary Product Standards—Developed under procedures published by the Department of Commerce in Part 10, Title 15, of the Code of Federal Regulations. The standards establish nationally recognized requirements for products, and provide all concerned interests with a basis for common understanding of the characteristics of the products. NBS administers this program as a supplement to the activities of the private sector standardizing organizations.

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