

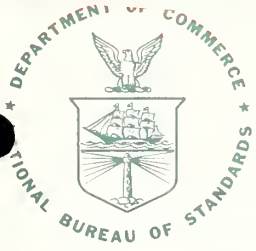
Reference

NBS
Publi-
cations

FIPS PUB 86

FEDERAL INFORMATION
PROCESSING STANDARDS PUBLICATION

1981 JANUARY 29



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



ADDITIONAL CONTROLS FOR USE
WITH AMERICAN NATIONAL
STANDARD CODE FOR
INFORMATION INTERCHANGE

CATEGORY: HARDWARE STANDARD

IBCATEGORY: INTERCHANGE CODES AND MEDIA

JK

468

A8A3

No. 86

1981

Foreword

The Federal Information Processing Standards Publication Series of the National Bureau of Standards is the official publication relating to standards 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 guidelines and standards 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, Washington, DC 20234.

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

Abstract

This standard specifies a set of encoded control functions to facilitate data interchange between data processing equipment, data communication equipment, and two dimensional character-imaging input-output devices, such as interactive ADP terminals of the display or printer type, line printers, microfilm printers, typesetting compositors, word processors, and related devices. These control functions augment the basic set of control functions prescribed by ASCII (FIPS PUB 1-1). These may be used in 7 or 8 bit environments in accordance with the standard for Code Extension Techniques (FIPS PUB 35). This standard adopts in whole American National Standard X3.64-1979, Additional Controls for Use with American National Standard Code for Information Interchange.

KEY WORDS: ADP terminals; ASCII; control functions; character-imaging devices; data interchange; display terminals; Federal Information Processing Standard; information interchange; printer terminals; standard; text communication; text interchange; typesetting composition.

Nat.Bur.Stand. (U.S.), Fed.Info.Process.Stand.Publ.(FIPS PUB) 86, 4 pages.
(1981)
CODEN:FIPPAT

For sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

National Bureau of Standards
Library, E-01 Admin. Bldg.

OCT 25 1982



Federal Information Processing Standard Publication 86

1981 JANUARY 29

ANNOUNCING THE STANDARD FOR



ADDITIONAL CONTROLS FOR USE WITH AMERICAN NATIONAL STANDARD CODE FOR INFORMATION INTERCHANGE

Federal Information Processing Standards Publications are issued by the National Bureau of Standards pursuant to Section 111(f)(2) of 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 of the Code of Federal Regulations (CFR).

1. Name of Standard. Additional Controls for Use with American National Standard Code for Information Interchange (ASCII) (FIPS PUB 86).
2. Category of Standard. Hardware Standard, Interchange Codes and Media.
3. Explanation. This standard specifies a set of encoded control functions to facilitate data interchange between data processing equipment, data communication equipment, and two-dimensional character-imaging input-output devices, such as interactive ADP terminals of the display or printer type, line printers, microfilm printers, typesetting compositors, word processors, and related devices. These control functions augment the basic set of control functions prescribed by ASCII (FIPS PUB 1 which has been redesignated as FIPS PUB 1-1). They may be used in 7 or 8 bit environments in accordance with the standard for Code Extension Techniques in 7 or 8 Bits (FIPS PUB 35) or American National Standard X3.41-1974, Code Extension Techniques for Use with the 7-Bit Coded Character Set of ASCII.
4. Approving Authority. Secretary of Commerce.
5. Maintenance Agency. U.S. Department of Commerce, National Bureau of Standards (Institute for Computer Sciences and Technology).
6. Cross Index. American National Standard X3.64-1979, Additional Controls for Use with American National Standard Code for Information Interchange.
7. Related Documents.
 - a. American National Standard Code for Information Interchange (ASCII), X3.4-1977 (FIPS PUB 1-1).
 - b. International Standard ISO 646-1973, 7-Bit Coded Character Set for Information Processing Interchange.
 - c. American National Standard X3.41-1974, Code Extension Techniques for Use with the 7-Bit Coded Character Set of American National Standard Code for Information Interchange (FIPS PUB 35).
 - d. International Standard ISO 2022-1973, Code Extension Techniques for Use with the ISO 7-Bit Coded Character Set.
 - e. Draft International Standard ISO 6429, Additional Controls for Character-Imaging Devices.

8. **Applicability.** This standard is applicable to the acquisition and use of all ADP equipment and services that involve character imaging and which employ the character set and encoding conventions prescribed by FIPS PUB 1-1 and FIPS PUB 35.

9. **Specifications.** This standard adopts in whole American National Standard X3.64-1979, Additional Controls for Use with American National Standard Code for Information Interchange.

10. **Qualifications.** None.

11. **Implementation Schedule.** This standard becomes effective on 1982 January 29. All applicable equipment ordered after this date must be in conformance with this standard unless a waiver has been obtained in accordance with the procedure described below. Exceptions to this standard are made in the following cases:

a. For equipment installed or on order prior to the effective date of this standard.

b. Where procurement actions are into the solicitation phase (i.e., Request for Proposals or Invitation for Bids has been issued) prior to the effective date of this FIPS PUB 86.

12. **Waivers.** Heads of agencies may request that the requirements of this standard be waived in instances where it can be clearly demonstrated that there are appreciable performance or cost advantages to be gained and that the overall interests of the Federal Government are best served by granting the requested waiver. Such waiver requests will be reviewed by and are subject to the approval of the Secretary of Commerce. The waiver request must address the criteria stated above as the justification for the waiver.

Forty-five days should be allowed for review and response by the Secretary of Commerce. Waiver requests shall be submitted to the Secretary of Commerce, Washington, DC 20230, and labeled as a Request for a Waiver to a Federal Information Processing Standard. No agency shall take any action to deviate from the standard prior to the receipt of a waiver approval from the Secretary of Commerce. No agency shall begin any process of implementation or acquisition of non-conforming equipment unless it has already obtained such approval of its waiver request.

13. **Special Information.** The types of controls specified by this standard include editing functions, formatting, and the specification and control of special regions of data, such as guarded and/or protected areas, as well as certain status setting and interrogation functions, mode selection and typesetting composition functions.

A control sequence structure is defined (similar to that of FIPS PUB 35 escape sequences) which permits numeric and selective parameters to be included as part of many of the controls. This structure, as well as the structure of the standard as a whole, is open ended so that more controls can be included in future revisions.

14. **Where to Obtain Copies.** Copies of this publication are available for sale from the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. (Sale of the included specifications document is by arrangement with the American National Standards Institute.) When ordering, refer to Federal Information Processing Standards Publication 86 (FIPS-PUB-86), and title. Payment may be made by check, money order, or deposit account.

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
INSTITUTE FOR COMPUTER SCIENCES AND TECHNOLOGY
OFFICE OF ADP STANDARDS MANAGEMENT
WASHINGTON, D. C. 20234

FIPS PUBLICATION CHANGE NOTICE

CHANGE NO.

1

DATE OF CHANGE

1982 February 5

FIPS PUB. NO.

86

TITLE OF PUBLICATION

FIPS PUB 86, ADDITIONAL CONTROLS FOR USE WITH AMERICAN NATIONAL STANDARD CODE FOR INFORMATION INTERCHANGE.

This office has a record of your interest in receiving changes to the above FIPS PUB. The change(s) indicated below have been provided by the Maintenance Agency for this publication and will be included in the next published revision to this FIPS PUB. Questions or requests for additional information should be addressed to the Maintenance Agency:

Department of Commerce
National Bureau of Standards
Institute for Computer Sciences and Technology
Washington, D.C. 20234

CHANGE ITEM(S)

Attached is a reprint from the February 5, 1982 FEDERAL REGISTER which announces the amendment of Section 11, Implementation Schedule, first sentence.

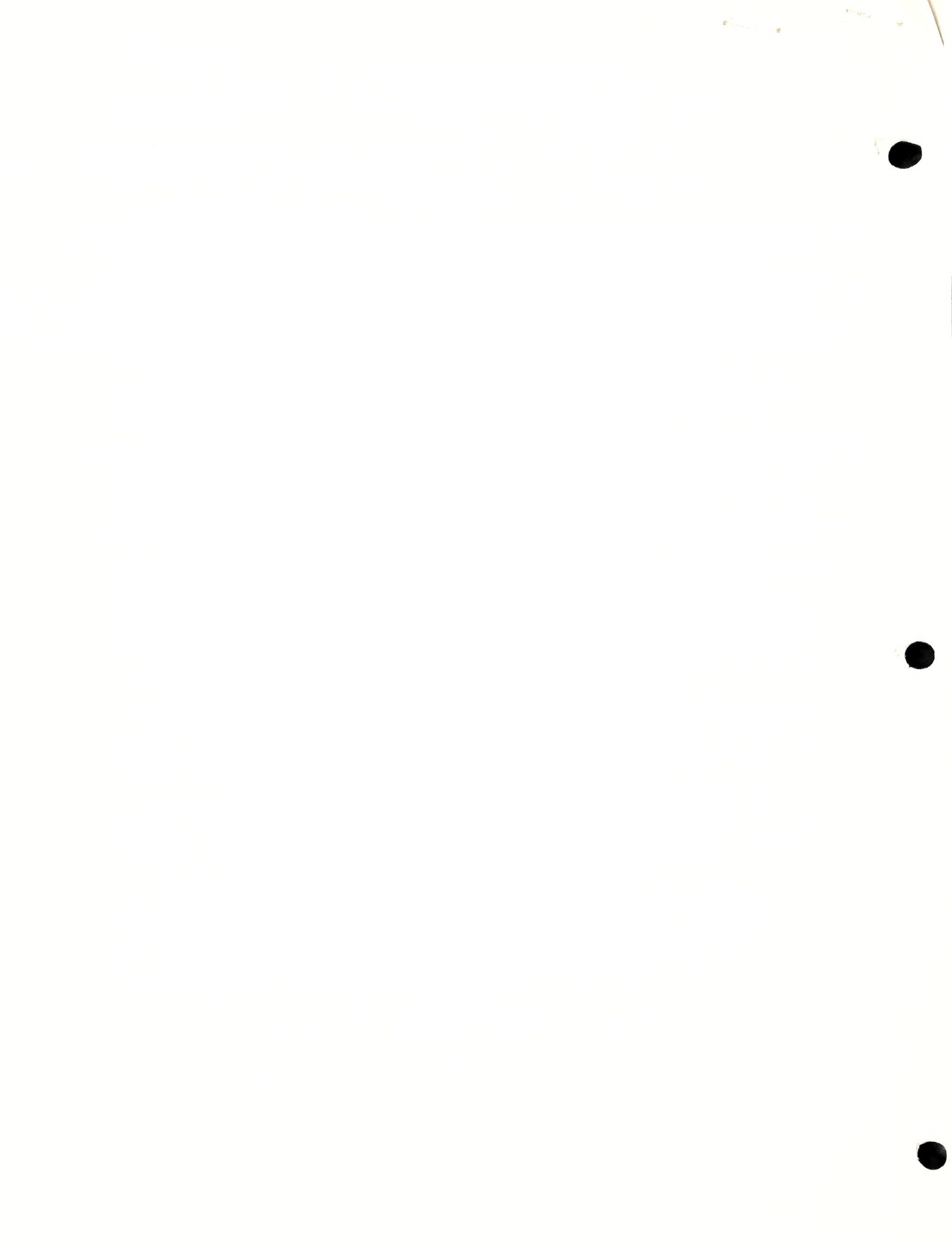
"The provisions of this standard are effective September 30, 1982."

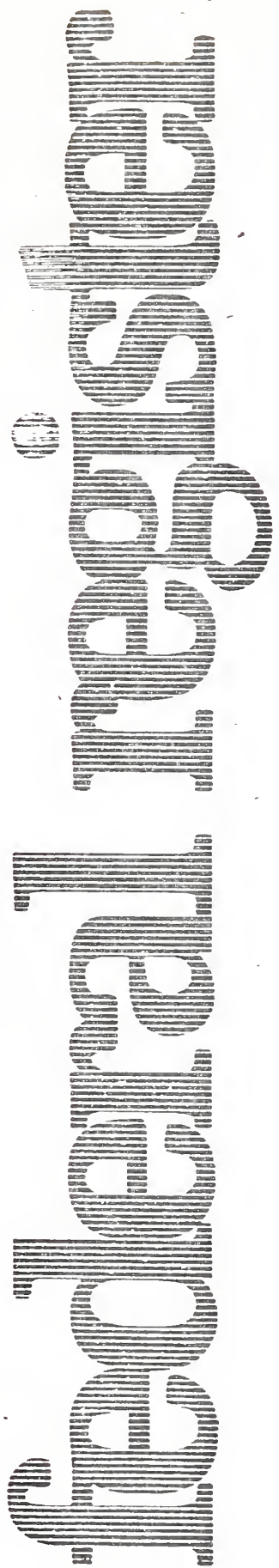
Copies of FIPS 86 are available from:

National Technical Information Service (NTIS)
Attn: Sales Office, Sills Building
5285 Port Royal Road
Springfield, Virginia 22161

Phone - 703/487-4650

Office Hours - 7:45am to 5:00pm





Highlights

National Bureau of Standards
NOTICES

5450 Information processing standards, Federal:
American National Standard Code for
Information Interchange (ASCII), additional
controls

National Bureau of Standards**Amendment and Anticipated Revision to Federal Information Processing Standard 86; Additional Controls for Use With ASCII**

On January 29, 1981, a notice was published in the Federal Register (46 FR 9687-9688), announcing the approval of Federal Information Processing Standards Publication (FIPS PUB) 86, Additional Controls for Use with ASCII. Section 11 on Implementation Schedule includes the statement "This standard becomes effective one year after the publication date of this announcement of its approval by the Secretary of Commerce in the Federal Register." Therefore, the effective date was projected to be January 29, 1982.

As a result of substantive comments concerning this standard which were received after its adoption, a revision of the applicability section is being considered. In order to provide ample time for all interested parties to comment on the proposed revision to the applicability section, the Secretary of Commerce, on January 28, 1982, approved an amendment to FIPS PUB 86 so that the first sentence of Section 11 now reads: "The provisions of this standard are effective September 30, 1982."

It is anticipated that the proposed revision to the applicability section of FIPS PUB 86 will be published in the Federal Register within the next few months, so that all interested parties will have ample time to submit written comments, in order that a revised version of FIPS PUB 86 may be approved by the Secretary of Commerce prior to September 30, 1982.

Persons desiring further information about this proposed revision to FIPS PUB 86 may contact Mr. John L. Little, System Components Division, Center for Computer Systems Engineering, Institute for Computer Sciences and Technology, National Bureau of Standards, Washington, D.C. 20234, telephone: 301/921-3723.

Dated: February 2, 1982.

Ernest Ambler,

Director.

[FR Doc. 82-3070 Filed 2-4-82; 8:45 am]

BILLING CODE 3510-CN-M