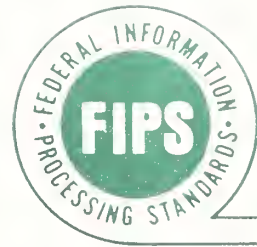




FEDERAL INFORMATION
PROCESSING STANDARDS PUBLICATION

1983 SEPTEMBER 29

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



GUIDELINE
FOR OPTICAL CHARACTER
RECOGNITION (OCR) PRINT
QUALITY

FIPS PUB 90

JK

CATEGORY: HARDWARE STANDARD

BCATEGORY: CHARACTER RECOGNITION

468

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1983

**U.S. DEPARTMENT OF COMMERCE, Malcolm Baldrige, 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 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.

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

Abstract

This guideline provides basic information on methods for evaluating the readability of printed characters and symbols that are to be optically recognized by electronic means. In addition, it gives tolerance ranges which permit the system designers to make the most beneficial cost tradeoffs between the various parts of a complete optical character recognition system.

The specifications are contained in "Guidelines for Optical Character Recognition (OCR) Print Quality" ANS X3.99-1983 published by the American National Standards Institute.

This guideline is related to FIPS PUBS 32-1, 40, 85, and 89.

Key words: Computer systems; data entry (automatic); Federal Information Processing Standards Publication (FIPS PUB); information processing systems; optical character recognition; print quality.

Natl. Bur. Stand. (U.S.), Fed. Info. Process. Stand. Publ. (FIPS PUB) 90, 4 pages (and ANS X3.99-1983, 20 pages).

(1983)
CODEN:FIPPAT

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



**Federal Information
Processing Standards Publication 90**

1983 September 29

Announcing the Guideline for

OPTICAL CHARACTER RECOGNITION (OCR) PRINT QUALITY



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 Code of Federal Regulations (CFR).

Name of Guideline. Guideline for Optical Character Recognition (OCR) Print Quality (FIPS PUB 90).

Category of Guideline. Hardware, Character Recognition.

Explanation. This guideline provides basic information on methods for evaluating printed characters that are to be read by Optical Character Recognition (OCR) equipment.

Approving Authority. U.S. Department of Commerce, National Bureau of Standards (Institute for Computer Sciences and Technology).

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

Cross Index. American National Standard for Information Systems, Optical Character Recognition, Guidelines for OCR Print Quality, ANS X3.99-1983.

Related Documents.

- a. Federal Information Processing Standards Publication (FIPS PUB) 32-1, Character Sets for Optical Character Recognition (OCR).
- b. Federal Information Processing Standards Publication (FIPS PUB) 40, Guideline for Optical Character Recognition Forms.
- c. Federal Information Processing Standards Publication (FIPS PUB) 85, Optical Character Recognition (OCR) Inks.
- d. Federal Information Processing Standards Publication (FIPS PUB) 89, Optical Character Recognition (OCR) Character Positioning.

Applicability. This guideline is intended to be a basic reference for operators of optical character recognition (OCR) systems or components throughout the Federal Government. Use of this guideline will help ensure uniform qualities in the printing of documents and forms that are to be automatically read by OCR equipment and assist systems designers and operators to maintain cost effective and reliable system operations.

Specification. The specifications are contained in "Guidelines for OCR Print Quality" ANS X3.99-1983 published by the American National Standards Institute.

Qualifications. None.

Implementation Schedule. Consideration of this guideline should occur at an early stage in a system's operational life cycle in order to achieve the maximum cost effective and reliable systems operation. At installations where quality control procedures are now in use, such procedures may be enhanced by considering the procedures outlined in this guideline. Such a comparison will help ensure the most reliable OCR operations with the equipment available.

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. (Sale of the included specifications document is by arrangement with the American National Standards Institute.) When ordering, refer to Federal Information Processing Standards Publication 90 (FIPS-PUB-90), and title. Payment may be made by check, money order, purchase order, credit card, or deposit account.