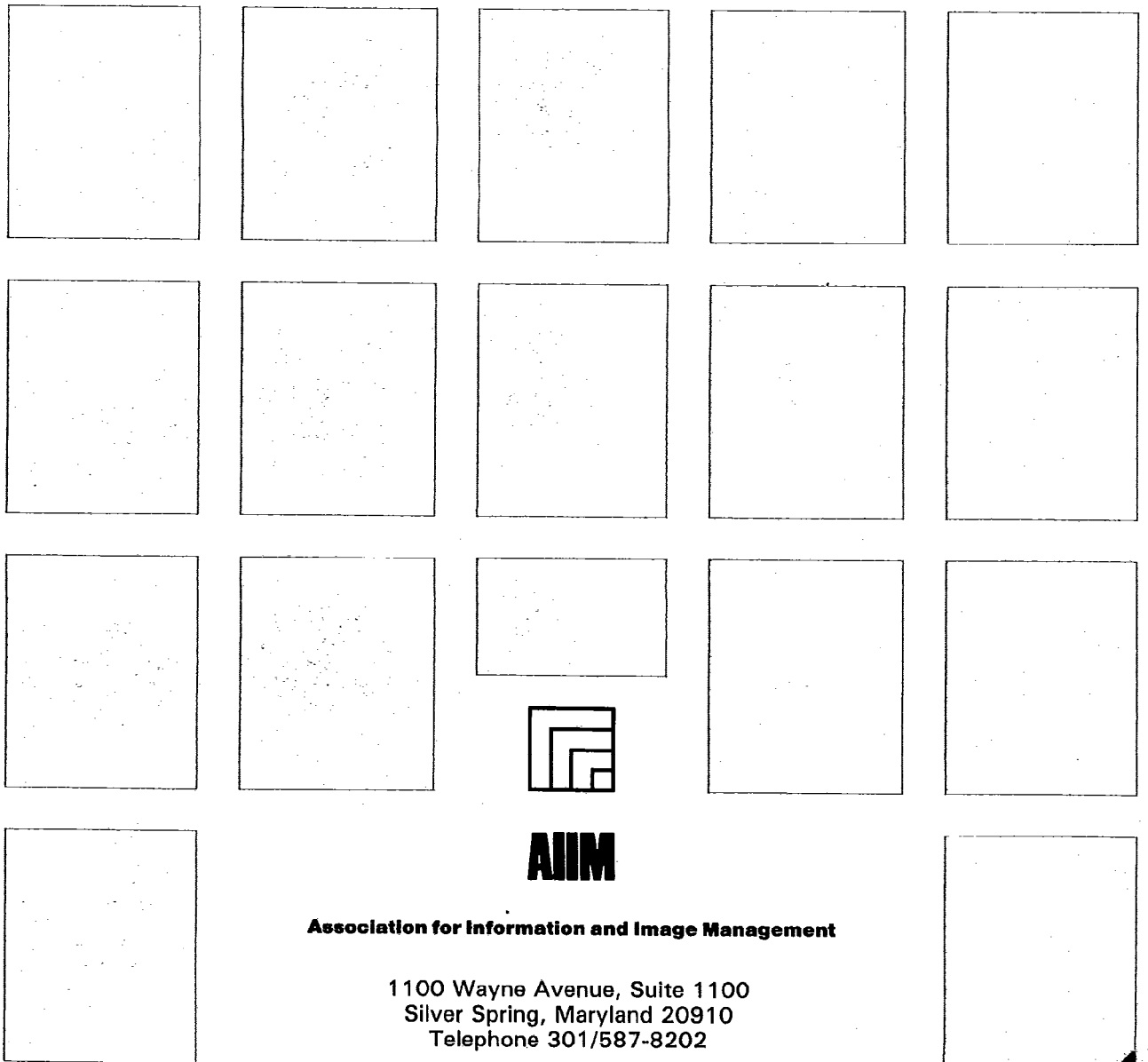


Microfilm Jacket Formatting and Loading Techniques

Technical Report



AIIM TR11-1987

Technical Report for Information and Image Management —

Microfilm Jacket Formatting and Loading Techniques

Association for Information and Image Management

This technical report has been prepared to provide guidelines and information for the formatting and loading of microfilm jackets. This report is not a standard; it is a series of recommendations for jacketing microfilm which, if followed by producers and end users of microfilm jackets, should result in greater consistency and effectiveness in the micrographics industry.

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FOREWORD

(This foreword is not part of Technical Report for Information and Image Management — *Microfilm Jacket Formatting and Loading Techniques*, AIIM TR11-1987.)

Microfilm jackets are one of the many microforms available to help serve the demanding needs of today's information management. Microfilm jackets are one type of an updatable microform. They offer the means of adding, deleting, and/or replacing information within a unit by the addition or replacement of microfilm images. In order to avoid confusion by the user and/or producer of microfilm jackets, this technical report is available to assist with

basic information about some techniques that will assure that microfilm jackets and their by-products comply with those concerns of workmanship particular to this industry.

It should be noted, however, that this technical report does not purport to provide the only possible approach to the formatting and loading of microfilm jackets and that it, therefore, by no means implies an industry standard. This technical report does not address the topics of dimension, operational constraints and other basic characteristics of the microfilm jacket. Also not addressed is the compatibility of microfilm jackets in a user environment with file cabinets, readers, reader-printers or duplicators.

Suggestions for improvement based on the use of this technical report are welcome. They should be sent to the Chairman, AIIM Standards Board, Association for Information and Image Management, 1100 Wayne Avenue, Silver Spring, Maryland 20910.

The AIIM Standards Board had the following members at the time it approved and processed this technical report:

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Technical Report for Information and Image Management — *Microfilm Jacket Formatting and Loading Techniques,* AIIM TR11-1987

1.0 SCOPE

This technical report has been prepared to provide guidelines and information for the formatting and loading of microfilm jackets. This report is not a standard; it is a series of recommendations for jacketing microfilm which, if followed by producers and end users of microfilm jackets, should result in greater consistency and effectiveness in the micrographics industry.

While the conditions and characteristics of the jacketing process allow for a wide degree of latitude in image placement within a jacket, they also present problems in the creation of a rigid standard for loading microfilm jackets. However, there are certain procedures which can be followed in the production of a jacket that should enhance quality. This report has been prepared to assist end users and producers of jackets in those aspects of jacket formatting and loading that remain relatively constant.

This report should help to ensure that:

- (1) The finished jacket can be duplicated. When a duplicate is made from a microfilm jacket, the resolution loss shall be no more than one pattern of the test object as described in *ANSI/ISO 3334-1979*;
- (2) Placement of microfilm images on jacketed microforms shall resemble, as closely as possible, the standard placement of images on microfiche (see *ANSI/AIIM MS5-1985*) so that grid patterns on microfilm viewers, where applicable, will correspond, and
- (3) Duplicate (diaz, vesicular, etc.) copies will be of acceptable quality and legibility to allow viewing and/or hardcopy reproduction on any standard unitized microfilm retrieval device.

2.0 REFERENCES

The following items refer to helpful aids which are strongly suggested as support requirements for producer and end user.

American National Standard for *Specifications for 16 and 35 mm Microfilms in Roll Form*, *ANSI/AIIM MS14-1978*. Silver Spring, MD: Association for Information and Image Management, 1978.

American National Standard for *Micrographics — Microfiche*, *ANSI/AIIM MS5-1985*. Silver Spring, MD: Association for Information and Image Management, 1985.

American National Standard for *Information on Microfiche Headings*, *ANSI Z39.32-1981*. New York, NY: American National Standards Institute, 1981.

International Standard for *Microcopying — ISO Test Chart No. 2 — Description and Use in Photographic Documentary Reproduction*, *ANSI/ISO 3334-1979*. New York, NY: American National Standards Institute, 1979.

American National Standard for *Photography (Processing) — Processed Films, Plates, and Papers — Filing Enclosures and Containers for Storage*, *ANSI PH1.53-1986*. New York, NY: American National Standards Institute, 1986.

Association for Information and Image Management *Microfilm Jackets*, *AIIM MS11-proposed*. Silver Spring, MD: Association for Information and Image Management, 198x.

American National Standard for *Microfilm Readers*, *ANSI/AIIM MS20-1979*. Silver Spring, MD: Association for Information and Image Management, 1979.

Association for Information and Image Management *Practice for Uniform Product Disclosure for Unitized Microform Readers (Microfiche, Jackets and Image Cards)*, *AIIM MS22-1981*. Silver Spring, MD: Association for Information and Image Management, 1981.

American National Standard *Practice for Operational Procedures/Inspection and Quality Control of First Generation, Silver-Gelatin Microfilm of Documents*, *ANSI/AIIM MS23-1983*. Silver Spring, MD: Association for Information and Image Management, 1983.

Association for Information and Image Management *Glossary of Micrographics*, *AIIM TR2-1980*. Silver Spring, MD: Association for Information and Image Management, 1980.

Association for Information and Image Management, *Micrographic Film Technology*, 3rd. Ed. Silver Spring, MD: Association for Information and Image Management, 1985.

Courtot, Marilyn. *An Introduction to Microform Indexing and Retrieval Systems: A Consumer Handbook*. Silver Spring, MD: Association for Information and Image Management, 1980.

Hardy, Joe. *An Introduction to Micrographics*. Silver Spring, MD: Association for Information and Image Management, 1980.

3.0 DEFINITIONS

This section contains only those definitions essential for clarification of this report. For additional information see *AIIM TR2-1980, Glossary of Micrographics*.

Abut. To touch along a border; to terminate at a point of contact.

Code-notch. A cut-out in either the top or bottom

edge of the microform (microfiche, jacket) which is used for indexing, coding or retrieval.

Color-stripe. A color (or colors) placed at the top edge of the heading area of a jacket or microfiche used for identification, filing and retrieval.

Formatting. A general plan of organization and arrangement for placement of microfilm images within a jacket.

Grid Pattern. An array of horizontal and vertical lines (usually imaginary) that divide an area of a microform into spaces called frames. The grid defines the arrangement of the rows and columns (see Appendix A).

Insertion Opening. An opening in the support sheet of the microfilm channel through which the microfilm is inserted into the jacket.

Jacket. A flat, transparent, plastic carrier with single or multiple microfilm channels made to hold single or multiple microfilm images.

Justify. To set or place a microfilm image relative to one or more of the edges of the jacket.

Microfilm Channel. The space in the jacket into which the microfilm is inserted.

Registration Holes. Holes located in the heading of the jacket for alignment with some loading equipment. Also called jacket locating holes.

Reverse-reading. An image that must be viewed in a mirror (or through the film) in order that the characters, words, and sentences assume the same sequence and arrangement present in the original document.

Right-reading. An image that, when viewed directly, shows the characters, words, and sentences in the same sequence and arrangement present in the original document.

Sensitized Side. A single or multi-layered coating consisting of light-sensitive materials in a medium carried as a thin layer on top of a film base. It is intended to be the contact printing surface. Its synonym is the emulsion side.

Support Sheet. The material that forms the limiting dimensions and provides the main support for the microfilm jacket. It is synonymous with back sheet.

Thin Sheet. A sheet of material that is affixed by suitable means to the support sheet to form the film channel into which the microfilm is inserted. It is intended to be the contact printing surface. The sensitized side of the microfilm is placed against this

sheet. It is synonymous with emulsion sheet, cover sheet, and face sheet.

Throw-away. A duplicate of the jacket that is disposed when additions are made to the master jacket.

4.0 MICROFILM JACKET SYSTEMS

Microfilm jackets are a versatile medium that lend themselves to a multitude of uses. They can be used with 16 mm and 35 mm microfilm in a variety of systems, suited to virtually any application. Microfilm jackets are a means of converting units of information from microfilm into unitized units, groups of units or chapters of information. They also allow for removal, replacement or additions to each unit at any time. Microfilm jackets come in a wide variety of styles and sizes, and can be used wherever there are paper file folders or existing roll microfilm. Compared to conventional file folders, jackets are much less likely to wear out, dog ear, smudge or tear.

4.1 APPLICATIONS

Many elements make up a microfilm jacket system, and each must be considered when designing the system. Considerations involve the type of material to be filmed, the organization of the file, the retrieval requirements, and the type of equipment to be used. Each of these areas need to be reviewed to ensure that the system selected will meet the user's needs. The single most common application for jackets is to provide a unit record where information on a single subject is required. However, the wide variety of jacket systems currently available (both "standard" systems and "custom" systems) allows for a multi-subject unit record content within a single jacket (see Appendix B).

Microfilm is usually placed in jackets when one or more of the following conditions exist:

(1) A **unit record** file (a collection of single files accumulated in some logical file sequence, such as an alphabetic or numeric order) is required.

(2) A single-unit record file must be **updated** by the addition of new or additional information which provides the same function as the insertion (replacement or removal) of additional pages into a paper file folder.

(3) A **group record** file (subject file) must be updated by the addition of new files in sequence, such as alphabetic or numeric order which provides the same function as a new paper file folder created and inserted in its proper location.

(4) Access to the file is to be **controlled** with access granted to users on the basis of individual file items (for example, on a "need to know" basis). This condition would apply to confidential records, such as personnel or medical records, or classified government records.

(5) A file is to be organized in two or more file orders. This would be done by generating one or more contact prints (microfiche duplicates) from the jackets. This system will permit filing of the jackets in alphabetical order by name and a duplicate set in numeric order by social security number, etc.

(6) The integrity of a file is to be controlled by retaining the jackets in a central secure location, with inquiries for individual file items to be met by the production of a distribution copy (microfiche duplicate) made from the jacket. (This system requires an in-house capability to make disposable microfiche duplicates on demand.)

(7) A pre-existing flat film (microfiche) system is in place, and the same format is required for compatibility. This means that a closed end data base, which can otherwise be microfilmed as a roll microfilm system, can be converted to jackets for the purpose of compatibility.

(8) The combining of two sizes of microfilm, 16 mm and 35 mm, in a single record is desired (using "combination" jackets, with both 16 mm and 35 mm channels, or by the interfiling of 16 mm jackets with 35 mm jackets with common titles).

(9) A single unit record file is to be subdivided into categories (e.g., by year, document type, etc.). This approach permits control over specific document types, and retrieval of single unit records based on categories.

(10) A classification system is to be superimposed, with additional levels of indexing, filing, or categorization. This is accomplished by channel assignment, color-coding, notching, etc.

These operational needs and the characteristics of the jacketing process allow for a wide degree of latitude in systems specifications. This latitude, coupled with the end use variety, presents problems in the establishment of a standard for loading microfilm jackets.

5.0 MICROFILM USED IN JACKETING

5.1 MICROFILM STRUCTURE

Camera microfilm shares a basic composition and structure. The base or support of camera microfilm is a flexible plastic material. Its specific chemical composition can vary from acetate to polyester. Its thickness may vary with each type of film, but generally falls between 2.50 mm to 5.00 mm. This base or support structure is coated with an image forming layer that is known as emulsion or the sensitized side, and is bonded to the support by a substratum layer. Emulsion composition varies but its purpose is to react when exposed to an energy source (commonly light). This reaction can be chemically processed to produce a visible, usable image. For further information concerning specifications and types of microfilm, see *ANSI/AIIM MS14-1978* and *Micrographic Film Technology*.

5.2 MICROFILM WIDTHS USED IN JACKETING

The majority of microfilm presently loaded into jackets is 16 mm and 35 mm. However, there is an infinite variety of jacket formats currently available industry-wide, ready to accept 16 mm, 35 mm, 12 mm, a combination of microfilm, or any other film width which may happen to suit the purposes of the producer and end user. Indeed, producers and end users may even specify custom designed jackets to meet their particular needs. The choice of microfilm width, number of channels and title area design should be made in accordance with cost effectiveness and system design considerations. See Appendices A and B.

5.3 RIGHT-READING VS REVERSE-READING

The majority of microfilm cameras will produce camera microfilm which is right-reading through the base side of the microfilm. This statement is true of all cameras that do not use mirrors in their optical systems. Some cameras, particularly rotary cameras, use mirrors in their optical systems. Cameras that use an even number of mirrors will generate microfilm that is right-reading through the base side of the microfilm which is the same as a camera with no mirrors; an odd number of mirrors will generate microfilm which is reverse-reading through the base side of the microfilm.

5.4 MICROFILM GENERATION USED IN JACKETING

Formal definitions found in practically all micrographic specifications describe the camera microfilm as being "first generation," or "camera master" microfilm and the copy made from the camera microfilm as being "second generation" or "even generation" microfilm.

These referenced definitions do not deal with the issue of right-reading versus reverse-reading. It is important to comprehend the following with reference to microfilm generation used in jacket loading. First generation or camera microfilm from a planetary or rotary camera with no mirror or an even mirror optical system is right-reading through the base side of the microfilm, which is the generally preferred method for jacket loading. Second generation duplicate film or camera film from an odd mirror optical system is reverse-reading through the base side of the microfilm. Jackets require that the sensitized side of the microfilm be placed against the thin sheet of the jacket. This way, the microfilm will be right-reading through the support sheet side; the titling or indexing information is facing the user and is also right-reading. Since camera microfilm is usually right-reading through the base side of the microfilm, whenever possible, it should be used with loading the jacket. If a security copy of a reel is deemed necessary, it should be made before the camera microfilm is loaded into the jackets. To ensure prob-