Sometimes Aperture Cards and Microfiche Films are stored in automated files. If it is necessary to examine one or more frames they can be quickly retrieved and inserted in a slot of a viewer and they are flashed on a screen. If a copy of the image or images is required, a touch of a button sets the necessary reproduction facilities in motion.

Continuous Film - We began this discussion by referring to the microfilm images in continous form on reels. The devices to which we have made reference thus far constitute forms of escape from the limitations imposed by this form of record. While it has been relatively simple to locate an image contained on a continuous film strip maintained in strict alphabetical or numerical order, searching for an individual document or a number of related documents from such a medium in a conventional reader is difficult and time-consuming. For this reason sorting and retrieving devices such as the strip, the microfiche and aperture cards were developed.

There are, however, several conventional methods of grouping images into blocks which speed up the search process with continuous film. One of these is to have all images pertaining to one subject in one or more separate casettes. Another is to insert various types of "target flashes" consisting of several frames in bright colours or horizontal bars calling attention to an index card which follows immediately after the target area and localizes groups of images which can be examined at slow speed. Blank film causing a bright flash can also be used as an indicator. Use of continuous film has been facilitated also by casette or magazine loading which has permitted more rapid insertion and removal of film for search and review.

Index Coding - Of considerable importance has been the introduction of a system of coding between images on continuous film which enables certain frames bearing this code to be retrieved in a few seconds. The operation consists of photographing on the film the index code of the document to be recorded. One roll of film will accommodate up to 2,000 documents complete with coding. Images may be retrieved from a single magazine containing 2,000 images in an average time of 5 seconds.

A retrieval station may be equipped with as many as 15 code key boards, each consisting of 3 digits, which gives the user as many as 1,000 descriptors. (Descriptors are usually words extracted from a document and used for indexing.) Each retrieval station could accomodate some 900,000 pages, any one of which could be displayed on the screen in 15 seconds and reproduced in photocopy form in 25 seconds. The machine will automatically search the magazine and display on the screen, one after the other, every image that meets the various criteria. If a copy is required, a touch of a button produces it while the machine continues the search. In the event that there is over-definition in your request (too many descriptors) and the search does not turn up any

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