NAME OF SYSTEM:

National Employee Account Card Holders

ORIGINATOR:

Division of Accounting Operations

Bureau of Retirement & Survivors Insurance

Social Security Administration,

Baltimore, Maryland 21235

OBJECTIVE. To improve this large document storage and retrieval operation through use of updated methods and equipment in order to greatly reduce total space requirements and provide for improved retrieval techniques.

BACKGROUND. The Social Security Administration administers the Federal retirement, survivors, disability, and health insurance programs as authorized by the Social Security Act. The Division of Accounting Operations supports the overall program by maintaining a "National Employee Index of Account Card Holders." This index contains the names, dates of birth, and social security account numbers of more than 200 million past and present social security registrants. The index is used in the processing of social security applications and requests for social security numbers.

Until 1958, social security card name identifications were contained on individually printed strips mounted on vertical panels holding about 145 names each. The file was arranged by soundex code, which uses a combination of four alpha-numeric characters to represent the individual's last name; that is, the first letter of the last name is followed by three numerical code digits representing the three or less consonant sounds contained in the remaining letters of the name. Identification elements following the soundex code are the full last and first name, middle initial, birth date, and social security number. The magnitude of the file and search operation was astronomical. The millions of name entries required 1.3 million panels, and each year about 50,000 additional panels were needed for new entries.

THE NEW METHOD. The new system is based on use of mechanized roll microfilm. An initial index conversion technique resolved the usual difficulty of efficiently handling the frequent changes made to roll microfilm. The solution consisted of dividing the 100-foot rolls, each having a capacity of 2,000 microfilm image panels, into two segments. The first segment represents about 1,300 film images of the actual flexoline panels used prior to 1958. The second segment, about ⅓ of each roll, consists of cumulative monthly additions and changes. The latter segment of microfilm is discarded each month and an updated, cumulative change segment is spliced onto each reel.

The monthly updating of the current portion of each of the index's 2,005 rolls is made possible through the maintenance of a machine-language data base. Each month the change data is fed into the computer and merged with the latest magnetic tape master file. The conversion into human-readable characters on microfilm is made possible by COM (computer output microfilm) equipment. This equipment also automatically adds an index bar code or code line between images on the film. The rolls of current index information are then cut into segments and used tc replace the outdated portion of each film roll.

The common problem of quick and proper identification of images within each roll of film is solved through use of the bar code or code line image finding technique. In this technique, each frame of microfilm also contains a bar code or code line representing the soundex code of that particular film frame, in addition to the basic index information. The actual position of these bars or lines reflects the soundex code for any given image. Both the pre-1958 segment of the index and the updated segments have bar codes or code lines properly positioned on each film roll.

For better operating efficiency, 165 search stations have been established with each sta-

tion assigned an average of 12 rolls housed in cartridges. Each search station also has a mechanized roll microfilm reader using microfilm cartridges. It is electrically driven with varying forward and reverse speeds. The work stations have a processing capability of over 40,000 searches a day.

In an actual search, which usually takes about 30 seconds, the index clerk first selects and inserts the proper cartridge into the reader. The bar code or code line scales on the reader are then adjusted to match the soundex code of the search image. Actuation of the start switch moves film frames past the reader's bar code or code line scale. As the film bar codes shift closer to the microfilm reader's code position the clerk slows film movement so individual frames may be scanned.

REMARKS. In addition to the extensive space savings and ease of updating, this mechanized roll microfilm system also has the advantages of localization of search to 10 images or less; relatively low input costs for the initial conversion to microfilm; fast finding, loading, and unloading of film cartridges; and the option of using any standard roll microfilm reading equipment, since any reader can be adapted to use the bar code or code line image finding technique.

NATIONAL EMPLOYEE ACCOUNT CARD HOLDERS