

NAME OF SYSTEM:

JCS Records Retrieval

ORIGINATOR:

**Documents Division, Joint Secretariat
Office, The Joint Chiefs of Staff (JCS)
Washington, D.C. 20301**

OBJECTIVE. To develop and operate a nonconventional document identification and retrieval system that will provide key Joint Secretariat officials and "action officers" with desired information in a more responsive and efficient manner.

BACKGROUND. The Joint Secretariat of the JCS primarily supports the Chairman in his duties as chief military advisor to the President, the National Security Council, and the Secretary of Defense. In performing these duties the Staff prepares strategic plans and provides for the strategic direction of the Armed Forces. The documentary support of these often critical responsibilities is the Records and Information Retrieval Branch, Documents Division, which is the focal point for document management. The former conventional methods of performing document classification, storage, and retrieval activities could not cope with the increased workload resulting from unsettled world conditions.

Due to the relatively slow reaction time to document requests, officers and other researchers were spending considerable man-hours in attempting to correlate and retrieve information. As a result of this steady deterioration in document response, responsible authorities recommended that a feasibility study be conducted with a view toward improving the document management activity. Numerous mechanical and automated indexing and retrieval methods and systems were evaluated in terms of the office's requirements. The study resulted in the selection of an optical coincidence coordinate indexing system as being the most practical method for improving the system.

THE NEW METHOD. The Termatrex optical coincidence system was chosen as the best for their particular needs. The key feature of this system is a 9 x 9 inch opaque plastic index card. This card contains 100 vertical code positions and 100 horizontal positions for punching holes, a total of 10,000 positions. All hole or code positions radiate up and across from the lower left-hand corner. To identify these positions, a four digit numbering method is used. The first two digits represent the vertical positions and the last two digits, the horizontal positions. For example, position number 2256 would represent a hole location 22 positions up from the card's left-hand corner and 56 positions to the right. All like hole positions represent the same number on each card.

Each optical coincidence card represents a particular term that has been authorized for inclusion in the "Joint Glossary for JCS Records." This glossary consists of keywords and terms derived from technical, scientific and military terminology, and the natural language. The glossary's primary purpose is to aid and control selection of keywords and terms and to keep the number of term cards to a practical minimum. New terms are added as they become necessary in the identification process. Currently there are about 2,500 terms listed in the glossary. Aside from the coincidence cards, the Termatrex system also consists of a hole drilling machine and a simple, backlighted card viewing device (light box).

The input processing sequence begins with the receipt of new documents in the Records and Information Retrieval Branch. Indexing specialists assign document accession numbers both to the document and to a worksheet form. Additional descriptive bibliographic data is also placed on the worksheet together with the key terms describing the content of the document. The document is then released for staff action, and the worksheet passes to the file technician, who pulls the appropriate optical coincidence term cards from the reference file. All term cards representing the processed document are then superimposed in the Termatrex drilling machine. The operator sets the drilling position

for the accession number assigned and drills a hole simultaneously through each term card. The cards are then returned to their proper places in the reference file.

In a search situation, the user must first identify the basic terms that apply to the search request, perhaps with the aid of a file specialist and the glossary. The term cards are then withdrawn from the reference file and superimposed on top of the card viewer. Dots of light show through the coincident holes and thus indicate the documents that were indexed under the search terms. The identity of the accession numbers is then revealed by means of the viewer scale. In cases where the researcher feels that too many references are indicated, he may refine the search question by employing additional terms, which merely requires the selection of the optical coincidence cards and adding them to the stack on the viewer. Once he is satisfied with the search results he has the choice of obtaining either an abstract of the documents

or the original papers. The total search routine, including document retrieval, can be accomplished in just a few minutes.

REMARKS. This system was able to meet initial study objectives at a very reasonable cost. Its relative ease of conversion to mechanized applications was also a factor in the original recommendation.

Aside from its low cost and simplicity of operation, a great advantage of this system is its excellent manipulative qualities. By adept term card selecting and shifting of cards, a user may often obtain faster search satisfaction than had the search been performed by more sophisticated methods.

While the system is excellent for identifying pertinent documents, one must always refer to a second source, either an abstract or the document itself, to determine the contents of the document.

JCS RECORDS RETRIEVAL

