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#### CHAPTER 4. MICROGRAPHICS SYSTEM STUDIES

4-1 Purpose. This chapter prescribes the micrographics systems study required for determining the potential for micrographics applications. This requirement includes developing and conducting the study, analyzing the present system and options, and designing the proposed system. The user organization is responsible for conducting the study which will be done upon completion of HUD-21011, Micrographics System Proposal.

Studies will be prepared in accordance with Chapter 3 and Appendix 5, Form HUD-21011, Microform System Proposal. The completed study will be forwarded by the designated Micrographic Liaison Officer (MLO) to the Departmental Records Management Officer (DRMO) for technical review and evaluation. The Departmental Records Management Officer will return the form to the Micrographics Liaison Officer with comments, suggestions, and approval or disapproval of the system or its supporting equipment. The Departmental Records Management Officer may disapprove any proposed system which is not in compliance with standards prescribed in this handbook.

Requests for readers or reader-printers in Regional offices must be approved by the appropriate Regional Micrographics Liaison Officer (RMLO) except when such equipment is an integral part of an automated image retrieval system.

It is not necessary for Regions to perform a feasibility study if the proposed application is found in the Consolidated Standard Systems List (CSSL), found at Appendix 12. The Micrographics Liaison Officer (MLO) should have documented the general benefits and operational efficiencies to be gained by the proposed system. In such instances, it is also not necessary to request administrative approval from the Departmental Records Management Officer. Application titles on this list are ones which are common to all Regions, and have already been implemented successfully.

However, applications not found on the Consolidated Standard Systems List (CSSL) must still undergo a feasibility study.

If approved by the Departmental Records Management Officer, that application will be added to the CSSL, for the benefit of all other Regions.

4-2 Developing a Microfilm Systems Analysis. To design a successful

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micrographics system, use the following basic principles of systems analysis:

A. Define the problem, including:

1. Background information,
2. Determination of current inadequacies,
3. Distinction between symptoms and problems, and
4. Determination of what operations are affected by existing conditions and how they are affected.

B. Define objectives by:

1. Stating the purpose of the project and reasons for its undertaking;
2. Stating the intended accomplishment(s) of the study; and
3. Establishing the criteria to define accomplishment of the objectives. Criteria may be stated in terms of material costs reduction, space and filing equipment savings through compression of data, faster access to date, reduction in computer time, reduction in duplication costs, improved data distribution, creating a permanent storage medium, improved records retirement, reduction in shipping costs, and labor savings.

C. Define the limits of the study, and consider the interaction of the record area under study with overall information systems.

D. Formulate the study plan to include a detailed chronological schedule of events and staffing requirements.

4-3 Conducting a Microfilm Study. Describe the current system in documented detail, including the following:

A. Record description, fully identified, and including:

1. Type (e.g., books, catalogs, file cards, computer generated correspondence);
2. Subject matter (e.g., medical data, personnel records, evidentiary);

3. Physical characteristics (e.g., size, type size, paper color, computer tape characteristics);
  4. Volume (total documents, lines, etc., and rate of additions, changes, purges);
  5. Storage (including indexing, retrieval, and disposition);
  6. Distribution;
  7. Updating;
  8. Use (including number of users, frequency of use, and response requirements);
  9. Duplicates;
  10. Reproduction;
  11. Disposition, including citation to records disposition schedule, and discussion of its adequacy and use;
  12. Personnel, including grades and series;
  13. Organizational structure;
  14. Floor space; and
  15. Supplies.
- B. Existing information flow should be traced and graphically displayed by means of flowcharts, prepared in accordance with ANSI PH5.17, Flowchart Symbols and Their Usage in Micrographics.

#### 4-4 Analysis and Documentation.

- A. Analyze the information developed on the current systems to:
  1. Justify the need for the documents or information,
  2. Consider other options to store and retrieve the information, and
  3. Determine if the problems and objections remain as originally defined.
- B. Document the findings as outlined in this chapter to substantiate

recommendations and to allow review by proper officials.

- C. Whenever possible, the documentation should include quantitative data addressing the benefits and present value costs of the current system and viable alternative solutions.

4-5 Micrographics System Design. The data collected must be organized into user requirements for information and then related to the requirements of systems adequate to produce that information.

4-6 Implementation of Micrographics System.

- A. The systems study must include a detailed plan for implementing the proposed micrographics system and should include the following:

1. overall time scheduling;
2. selection of test equipment, test sites and evaluation groups;
3. test and evaluation plan;
4. equipment procurement schedules;
5. space and services scheduling;
6. microfilming schedules;
7. logistics plan for moving and controlling films and paper;
8. microforms distribution;
9. user training and acceptance;
10. equipment maintenance and repair plans;
11. file updating, control and destruction plans.

- B. If the systems study includes the destruction of the original paper documents upon acceptance of microforms, a Standard Form 115, Request for Records Disposition Authority, must be submitted to the Departmental Records Management Officer. Refer to HUD Handbook 2225.6 and Handbook 2228.2.

4-7 Computer Output Microfilm (COM) Requests. The creation of COM output products is handled within the Office of Information Policies and

Systems (IPS), Office of Administration. The COM function is split between the Systems Engineering Group (SEG) and the Computer Services Group (CSG). A feasibility study completed within HUD proved it would be cost beneficial for the Department to produce microfiche in lieu of paper reports when HUD established guidelines are followed. Guidelines for deciding reports which are good candidates for COM are included in Appendix 8. Offices desiring to receive specifically identified reports in COM produced microfiche format as opposed to paper copies shall adhere to the following standards.

- A. New Systems Output Reports. Users should consider COM reports at the start of planning for all new systems. All new reports should be designed using the HUD standard format (HUD ADP Standards Manual). This format will allow for future microfiche without redesigning existing reports. The process for new systems microfiche output follows.
1. The user along with SEG will identify potential COM output products.
  2. SEG will assist the user in preparing the Request for Computer Output Microfilm (COM) Checklist. The checklist identifies the report by the system file name and/or number and contains other relevant information relating to the product to be microfiche. A copy of the checklist along with the instructions is provided in Appendix 9. All items should be completed except item 2. SEG will provide CSG with a printer lay-out spec as an example of a report layout in lieu of a sample report.
  3. Upon completion of the checklist, the Systems Engineering Group (SEG), will forward a copy to OAMS/ASES for review and approval. One week should be allowed for OAMS approval and return of the document to SEG.
  4. SEG will assist the user in identifying information for microfiche headings, indexing, and any data extraction required in the production of microfiche. An example of header items is included in Appendix 10.
  5. A test along with the agreed-upon format will be forwarded to the Computer Services Group (CSG). CSG will then work with the contractor in setting up the test run.
  6. The contractor will produce a test run of the data for user verification. Approximately 5 working days should be allowed for

the set-up and production time. The entire production run will be produced after the user approves the sample run.

7. OAMS/ASES will advise the user on equipment type needs. The user should submit equipment requests to the Facilities Operations Division (FOD), in OAMS for approval prior to acquisition. Form HUD 10.4, Requisition for Supplies, Equipment, and Forms, should be used to make request for equipment. One month approval time should be allowed.
  8. Users should note that requesting preprinted forms incurs an inherent delay due to the specialized work required to create the form.
- B. Procedures for Existing Output Reports. The user should submit an Advanced Requirements Notice (ARN) to SEG for existing automated systems for which Computer Output Microfilm (COM) reports are required. A copy of an ARN is included in Appendix 11. The ARN requesting COM approval should include:
1. A completed Computer Output Microfilm (COM) checklist. Samples of existing system reports should accompany all requests.
  2. Information for microfiche headings, indexing, and any data extraction required, etc., in the production of microfiche.
  3. The retention and disposition requirements for subject report(s). Cite the applicable item from either HUD Handbook 2225.6, HUD Records Disposition Schedules, or Handbook 2228.2, General Records Schedules.
  4. Initial requests must include a list of microfiche readers and reader-printers presently in existence in the requesting user office, and a list of any additional equipment needed to function with microfiche (readers, reader-printers, duplicators, etc.). Subsequent requests from the same user office need only identify changes or additional equipment requirements.
  5. Users requesting a change in the copy requirements should submit a memorandum to the Computer Service Group (CSG), justifying the need for additional copies.
  6. Users should note that requesting preprinted forms incurs an

form.

- C. The Systems Engineering Group (SEG), will review the request to ensure it accommodates the guidelines of being an appropriate COM candidate and forward a copy to OAMS Management Information Branch, ASES for concurrent review and approval. Upon completion of the SEG review and receipt of OAMS approval, SEG will forward the request to CSG. CSG will work with the contractor and user, as needed, to initiate the COM production process. Once the approved request reaches CSG the user should expect to receive COM products within two weeks or less from the next update.
  
- 4-8 Budget. The funding for COM production is managed by CSG, and costs are apportioned to users through the budget process. Users are responsible for identifying and forecasting their needs annually and providing this information to CSG to assist in the ADP Budget development process. Users are also responsible for identifying requirements for microfiche readers, reader-printers, duplicators, and any special support equipment, and including these requirements in their budget requests and forecasts.
  
- 4-9 Storage. Camera masters of the COM-produced film will be protected and retained by the office of primary interest in the particular record, and handled in accordance with 36 CFR part 1230 and HUD Handbook 2228.2, General Records Schedules; all work copies produced will be distributed in accordance with procedures established by that office. No copies will be retained in IPS offices other than those currently required in paper form.