new york state archives

COMPUTER OUTPUT MICROFILM (COM)

By Sharon Gavitt
Government Records Services

Publication Number 52
Reprinted 3/14/02

What is COM? COM (Computer Output Microfilm) is a process for copying data from electronic media on computers onto microfilm. COM can be produced as microfiche or as 16mm-roll microfilm.

How is this done? A high-speed recorder transfers machine-readable digital data onto human-readable microfilm using laser technology and a processor, which develops the microfilm after it is exposed to the light source. The recorder can operate off-line as a stand-alone device, or on-line connected to a local or wide-area network. A COM recorder usually has a duplicator connected to it that can create as many copies as needed. A sorter separates the duplicate fiche cards into bins.

Why use COM?
Reduction of paper. A microfiche card holds 230 documents (images) per card and a one-cubic foot box holds approximately 6,000 fiche cards, or a minimum of 1,380,000 pages.

Cost reduction. COM is cheaper than most electronic media and less expensive than paper to store or distribute information. The cost of an 8 1/2" x 11" page printout is approximately 3–5¢ per sheet, versus approximately 0.0003¢ per page for COM microfiche. Imaging costs from 15¢–50¢ a page, depending on condition and format of the records. Less office, records center and storage space is needed than was previously used for paper documents, and fewer filing cabinets will be needed in the future.

Improved Image quality. The newest COM features, such as enhanced titling, enlarged file breaks, and bar-coding, provide easier filing and better access. Reader/printer copies of COM images tend to be more legible than traditionally produced microfilm. COM is also both nationally and internationally standardized in its format. This means that data is arranged and images are reduced in a consistent manner, and reputable standards for pagination, titling, and indexing are followed.

Access and Indexing. Indexing and formatting allow access to information from updatable indexes. COM-produced indexes also provide the ability to perform key word or key value

searches on mainframes or personal computers. An internal index page on each fiche takes a user to a specific data page. According to the *IMC Journal*, "Locating a specific data page on a fiche containing 269 pages generally takes less than 10 seconds." Specialized filing and sorting are eliminated because fiche are produced in collated and unitized sets.

Archiving. COM provides an inexpensive way to preserve records from a variety of electronic sources. Such records might need to be stored for long periods of time and referenced only occasionally. Retaining records in electronic systems beyond their immediate access needs may increase the likelihood of their loss since electronic systems become outdated in a short period of time. Diverse and often incompatible electronic systems can also increase the likelihood of unauthorized records destruction. COM fiche can be returned to active electronic media—coded or uncoded—by scanning the fiche into digital format.

Space-saving is often cited as an advantage of imaging systems. However, the cost of an imaging system can rarely be justified by space-saving alone, because cheaper solutions (e.g., a records storage facility, a micrographics program) can better address this problem. Imaging can be an effective technology to provide frequent and quick access to active records, to allow multiple and remote access, to improve work processes, or to integrate information originally in paper form with other information resources (databases, word processing documents, spreadsheets, etc.). The State Archives strongly urges that government agencies perform a needs assessment before making a decision to implement any imaging solution. The results of this analysis should be used to select technologies that fit the defined business needs. Governments should also consult the State Archives publication *Guidelines for Ensuring the Long Term Accessibility and Usability of Records Stored as Digital Images.*

When is it practical for an organization to use COM?
In most cases, COM applications are useful only for large governmental units when.
- computer printouts, such as payroll records, are produced frequently and regularly.
- computer reports, such as tax assessment rolls, are more than 50 pages when printed out.
- large distribution or duplication is required.
- computer printouts must be mailed (or transferred) to other areas.

When is it *not* practical for an organization to use COM?
Some electronic records can and should be retained in electronic form because they have short retention periods; or need to be processed, manipulated, or frequently accessed; and/or are in complex electronic formats. Some organizations or governments are also both capable and willing to expend the resources to maintain longer-term records in an accessible electronic format by migrating them.

There may be hard copy use situations where COM would be impractical, such as:
- Printouts that must be hand-corrected with additions or changes
- Research that requires the reader to look at several pages simultaneously
- Small and infrequent volume of printouts

Will I need additional reader/printer equipment?

COM has a high magnitude. Whether or not you will need additional reader/printer equipment depends on the film format, magnitude of the film, and the equipment you have on hand.

Should I outsource or consider an in-house COM operation?
The trend toward *outsourcing* through COM service bureaus will probably continue as an advantage due to:

- The growth of information output
- The ability to fiche non-coded information
- Bit-mapping COM facilities
- No equipment, labor, or other overhead expenses for the government—the equipment is expensive

Similar to standard microfilming operations, *in-house* COM service

- decreases the risk of lost tapes, and slow turn-around times.
- provides governments with quick access to high-quality microfiche images.

The downside of in-house COM service is the additional cost of equipment and staff time, making it an inefficient cost option for most small governments.

Can I apply for and get a Local Government Records Management Improvement Fund grant to produce COM? Yes, if you represent a local government. (The LGRMIF is a competitive grant program that awards funds on the merit of applications.)

Are there standards for using COM?
Yes: ANSI/AIIM MS-1-1988 Recommended Practice for Alpha-numeric Computer-Output Microforms—Operational Practices for Inspection and Quality Control. State Archives microfilm standards apply as appropriate.

For More Information:
The State Archives has additional publications on micrographics and imaging topics.

For advice or consultation on possible grant funding, contact your State Archives Regional Advisory Officer.

<u>To order a publication, contact:</u>
New York State Archives
Training and Grants Support Services
Room 9A68 CEC
Albany, NY 12230
(518) 474-6926

<u>To download a publication, go to the State Archives website:</u>
http://www.archives.nysed.gov

Other sources of information:
Office of Secretary of State Rebecca McDowell Cook
600 West Main and 208 State Capitol
P.O. Box 778
Jefferson City, MO 65102
(573) 751-4936

"Micrographics, Machine-Readable Records, and Computer Output Microfilm"
http://mosl.sos.state.mo.us/rec-man/lrman3.html

Indiana Commission on Public Records
Dick Graves, Micrographics Manager
Bryan Taylor, COM Programmer
N055 IGCN
100 North Senate Avenue
Indianapolis, IN 46204
http://www.ai.org/icpr/webfile/publicat/combroc1.html

Association for Information and Image Management(AIIM)
AIIM International—Education, News, Trends
http://www.aiim.org/infoservices/index.html