

NOTIS  
(NORTHWESTERN'S ONLINE INTEGRATED SYSTEM)

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NOTIS  
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NOTIS is one of the oldest online library systems. Development work on NOTIS began in the late 1960s, and by 1970, NOTIS had an operational online circulation control system. Soon thereafter, in 1971, technical processing functions were added to the system. NOTIS 4, the current generation of the system, was released during 1985 and is the version being marketed to libraries today.

NOTIS was developed in an IBM environment and runs on a wide range of IBM mainframe equipment from the IBM 370 series through the IBM 3081 family of machines. The NOTIS software can be installed with several IBM operating systems including OS, DOS/VSE, and MVS. Most of the programs are written in assembly language, thus contributing to great economies of storage and processing time, but resulting in a system that is more difficult to maintain than some systems based on high-level languages.

NOTIS is one of the most complete of the total integrated library systems. It offers support for circulation, acquisitions, serials receipt control, online public access, cataloging, and authority control. For several years it was the only operational system that could support all these components. Although parts of the NOTIS system have been around for over a decade, the NOTIS file structure and program design are being continually updated to reflect changes in storage technology and the economics of computing, and to provide new functions requested by libraries.

For example, NOTIS 4 contains an entirely new version of the circulation system, provides many improved features, and is somewhat easier to maintain than earlier versions. The NOTIS development office is working on enhancements to acquisitions and is nearing completion of major enhancements that will provide full keyword search access, with Boolean operators, to the online public catalog. Other enhancements anticipated include an RLIN-to-NOTIS link, an entirely new file design for the bibliographic and authority index, and major improvements to the serials receipt control module.

NOTIS is perhaps the best example of the non-turnkey system. This is not to denigrate NOTIS in any way, but merely to point out to any library planning to install NOTIS that it will need a good deal of local support, especially during the first year of the installation. To their credit, the NOTIS marketing staff are very honest about this requirement, and if customers believe what the NOTIS staff tells them, there will be no unpleasant surprises. Moreover, the NOTIS staff are ready and willing to give on-site assistance during installation of the software, and to provide consultation later on as needed.

NOTIS is one of the few online catalog systems other than those available from the large bibliographic utilities such as OCLC, RLIN, and WLN that can accept as input and display the full ALA character set. NOTIS provides this capability via the Telex 476L terminal developed by Telex especially for the library market. This special Telex terminal may be ordered with the ALA character set and the shift, escape, or other keys needed to produce all the ALA characters. IBM's new 3163 and 3164 terminals also support the ALA character set, and Telex makes a printer that may be connected to these terminals and can print the full ALA character set. For libraries that have large amounts of foreign language materials and that want to do their own cataloging using NOTIS, this capability is extremely important.

Providing the full ALA character set for patrons seems less critical, and many libraries that have installed NOTIS use other terminals such as the IBM 3178, 3278, and 3179 in public areas. Some of these terminals have color monitors, and this feature may actually be more attractive to the public than the ability to view all characters online. Naturally, the need to support the full ALA character set will vary from library to library, and each institution must make its own decisions regarding the choice of terminals both for technical processing and for public use.

NOTIS uses a unique approach in its file design. Instead of keeping the entire bibliographic record all together as one long MARC record, it splits it up into three sections. Each of these sections is MARC-like; that is, it has fields and a tagging structure that are similar to MARC. The three sections are bibliographic, holdings, and item- or copy-specific records. The bibliographic record contains MARC tags supporting all of the MARC bibliographic formats. Thus, acquisitions or circulation information may be linked to item records while bibliographic information may remain constant for long periods of time. Similarly, only holdings information may have to be updated for materials such as periodicals, serials, and monographic series that are published over a period of time. Because it allocates space only for needed portions of the total record structure, this approach allows a much more efficient file structure.

NOTIS circulation allows libraries a great deal of flexibility in setting up the system and in tailoring it to meet library, system-wide, or network needs. First of all, there are several levels of organization which may be defined within NOTIS: from broadest to narrowest, there may be identifiers for institution group, library, library sublocation, and collection within sublocation. The system can also define processing centers and service cen-

ters. It can configure individual terminals or groups of terminals so they can perform only certain functions, such as access the online catalog or check out materials, for example. Similarly, individual users may be limited to performing certain tasks: for example, student desk attendants might be allowed to check out and check in materials, but not override fines.

Because it allows such precise definition of library location, item type, patron group, and so forth, highly specific library circulation policies may be implemented with NOTIS. NOTIS is largely table-driven; many of the parameters that a library might want to change or specify for a given situation are stored in tables in the system, not actually coded into the programs. But because NOTIS is written primarily in assembly language, a programmer or systems analyst will be needed to set up these tables and to maintain them for the library.

NOTIS has been installed in over sixty libraries in the United States and abroad and many new systems are just now being brought up. The NOTIS office at Northwestern University is divided into three sections: a long-range development office; a systems office that assists with installations, prepares documentation, and fixes any systems problems that may surface; and a small marketing group that responds to RFPs and assists customers with planning.

NOTIS costs \$95,000 for the software. The annual maintenance fee is currently \$10,000. NOTIS staff are available for certain contract programming work such as converting a library's data to NOTIS format, and consulting on systems installations. The NOTIS staff are also prepared to give detailed training to an institution's technical and public services staff. NOTIS will work with a library to schedule training sessions and to phase in workshops with the library's schedule for bringing up the various parts of the system. NOTIS staff are also available to assist with hardware configurations, selecting an operating system, planning system capacity, and so forth. The standard NOTIS contract is one of the few that actually incorporates performance guarantees; NOTIS is very proud that it is able to offer this level of confidence in its system.

For further information, contact Ms. Jane Burke, Director, NOTIS, at the address shown above.