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1.0 Introduction

Rensselaer Polytechnic Institute began automating its libraries
some ten years ago. The choice of SPIRES was driven both by its
functionality and its cost. With no increased funding available
for automation, the library administration sought a tool that
afforded maximum control over the development of systems while,
at the same time, had a manageable price tag.

Currently, our system, which has the trademarked name "InfoTrax,"
has nine sub-systems. SPIRES has successfully handling every
challenge we have put to it in this complex system development
effort.

These accomplishments were shepherded through the design,
implementation, and evaluation processes by a design team of four
librarians and a programmer/analyst. One programmer/analyst has
been entirely responsible for the programming and maintenance of
our system. Three individuals have held that position over the
years with no loss to our progress in the transitions.

2.0 InfoTrax Subsystems

InfoTrax has the following subsystems: (1) Acquisitions, (2)
Catalog, (3) Circulation, (4) Commercial Index and Abstracts, (5)
Library News, (6) Message, (7) Reserves, (8) Serials Check-In,
and (9) Campus Information (this is described in section 3.0).

Although the general system is freely accessible and requires no
passwords, several of the files do require Rensselaer
affiliation. When users access a restricted file they are
prompted for an authorization code. The commercial index and
abstract files, IEEE and Current Contents, fall in this category.

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2.1 Acquisitions Subsystem

The Acquisitions subsystem includes fund accounting and an
interface to Rensselaer Polytechnic Institute's accounts payable
system. Orders are generated by the system and records for items
on order are listed in the catalog.

2.2 Catalog Subsystem

The Catalog Subsystem merges all MARC record types in one file. This file can be searched with full Boolean logic applied to numerous fields, including author, title, subject, publisher, date, subject, collection, call number, material type (e.g., journal, conference, and software), and status (in circulation or available).

2.3 Circulation Subsystem

In the Circulation Subsystem, item level records are linked to the catalog with real-time updating of circulation activity, including relocating items to the reserve collection and the transfer of whole call number ranges to a different library. In addition, the floor and sub-collection are noted for each item in the collection.

2.4 Commercial Abstract and Index Subsystem

The Commercial Abstract and Index subsystem contains citation files that are linked by call number to the Catalog subsystem. Patrons can use "Photocopy" and "Interlibrary Loan" commands to electronically route their requests for materials found in citation files to the appropriate library unit.

2.5 Library News Subsystem

The Library News subsystem contains the library's hours and service announcements.

2.6 Message Subsystem

The Message subsystem is used for acquisitions recommendations, reference questions, and other types of patron requests. Users from around the United States and several foreign countries have used MESSAGE to offer critiques of the system or ask for users assistance. Fortunately, no one has tried to use it for direct borrowing requests. We'd have to say no to them at this point.

2.7 Reserves Subsystem

The Reserves subsystem records class lists of both library and non-library materials that are searchable by course name or number, course nickname, and instructor. Non-library materials are organized by folders with the contents listed for easy identification by users.

2.8 Serials Check-In Subsystem

The Serials Check-in subsystem interfaces between the MicroLinx
system and the catalog, providing issue level availability
information in the catalog. Each night the day's check-in
activity is automatically transferred between the networked
microcomputer and the mainframe-based InfoTrax system.

3.0 Campus Information

Campuses are rife with information that is critical to students,
faculty, and staff. Good access to that information has been a
long standing problem for many of us. Campus-Wide Information
Systems (CWIS) are springing up in an effort to bring both
control and organization to a wide range of internal information.

Librarians have not typically taken a leadership role in these
efforts even though, among campus professionals, librarians are
singular in their training in the organization of information.

In this context, for the past eighteen months the library's
design team has turned its attention to the concept of a library
without walls by opening up the definition of "library
information." Specifically, the group has begun working with
several campus units to bring existing information of broad
campus interest into the InfoTrax system for dissemination.

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3.1 Telephone Directory File

Our first project was the campus student, faculty, and staff
telephone directory. Compiled from the Registrar's, Human
Resources', and Telecommunications' files, the Telephone
Directory File is searchable by name, department, building, and
rank or school year.

Individuals will be able to "update" their own records in this
file. In actuality, the requested changes will move
electronically, field by field, to the office responsible for
maintaining the authoritative file for that information segment.
The actual corrections will be fed back into a central file for
the campus to draw on as needed. No more changing your address
in six different places.

3.2 Undergraduate Research Program File

The next file we mounted takes its structure from the Telephone
Directory File. The Undergraduate Research Program File contains
the research interests of faculty who would like to have
undergraduates on their research teams. This file can be
searched by subject area, department, and faculty name.

3.3 Contracts and Grants File

The Contracts and Grants unit found it necessary to cease publication of its newsletter, which announced funding opportunities compiled from many sources. The library has designed an electronic version in its place. The Contracts and Grants File will be augmented with direct downloads from the commercial Legi-Slate database, subscribed to by yet another office on campus.

As with all of the cooperative files, the content of the file is "owned" by the contributing unit, which is also responsible for maintaining the file. The library provides some basic mechanisms for the units to facilitate the updating and editing of their files. Cooperation is becoming a watchword in the information environment of Rensselaer.

3.4 Office of News and Communications File

In the Fall of 1990, the Office of News and Communications file will make available the full text of all Rensselaer Polytechnic Institute's press releases. This file will be searchable by any word in the text as well as by a standardized list of units, departments, and schools within the university. It is anticipated that some local newsrooms will choose to obtain their press releases by accessing InfoTrax.

4.0 Conclusion

We also have plans to provide electronic access to the undergraduate and graduate catalogs, the student handbook, class hour course schedule, bookstore holdings, and other similar files.

However, for the moment, we will be concentrating on mounting the first campus-wide link ever installed by United Press International. Our agreement with UPI provides all of their national, international, business, finance, and sports news simultaneous with their broadcast to newsrooms and other commercial customers around the world. We are excited about developing a SPIRES program allowing users to design their own "newspapers." As with all of our files, UPI will be on the campus mainframe and available throughout the campus on the variety of networks supported at Rensselaer.

I mentioned that cooperation was a key word at Rensselaer. There is another term that is important to the design team--fun. The group truly enjoys the process of design and has yet to find a challenge it cannot handle. We intend to keep looking!

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