Our First Automated Inventory

A Learning Experience

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In the beginning...

...the inventory date was void.
Overview

• Why Inventory?
• History
• Strategic Plan
• What Actually Happened
• Wrap-up
History of Inventory at UNCP

- Last complete library inventory conducted in 1994 when UNCP became an III library.
- All previous inventories were completed manually.
- A Percon B321 scanner had been purchased, but automated inventory had not been implemented due to technological difficulties in using the B321.
Why is Inventory Necessary?

Patrons and staff misshelve items
Why is Inventory Necessary?

Patrons hide items
Why is Inventory Necessary?

• Items are reshelved without being checked in
• Items are missing
• Items have an incorrect status (either on shelf or in the system)
• Items have errors in their item record
• Patron claims item returned
Strategic Plan

- Equipment
- Procedures
- Timing
- Tracking
- Follow-up
Strategic Plan - Equipment

• Percon B321
  - Only one scanner
  - Only one file at a time
  - Must directly upload files from scanner
  - Required training on use of scanner

• Laptop with notepad and barcode scanner
  - Multiple scanning stations possible
  - Multiple files can be generated at one time and saved for batch uploading
  - Files can be uploaded from any desired storage media, direct ftp transfer, or e-mail
  - Training unnecessary
Strategic Plan - Procedures

• Perform test scans of small file sizes – 10-20 items

• Begin scanning collection for inventory processing

• Reconcile inventory reports and correct shelving and item record errors

(Of course this plan changed as we learned things along the way...but more on that later.)
Strategic Plan - Timing

• Begin scanning the general circulating collection at the beginning of the spring semester
• Complete in one semester
• Scan folio, juvenile, and reference collections over the summer break

(This part of the plan also changed as the rest of the plan was altered.)
Strategic Plan - Tracking

Scanning Log

Automated Inventory Log

<table>
<thead>
<tr>
<th>Call Number Started</th>
<th>Call Number Stopped</th>
<th>Date</th>
<th>Time (start/stop)</th>
<th>Name</th>
<th># of Books</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

General Collection

Began: AC1 E5 no. 394
Stopped: F252 D7 R69 2000

Number Books in General Collection: 173,961
Number Books Shelf-Read Manually: 39,758
Number Books Left: 134,193
Estimated Avg. No. Books Read/Hour: 385
Actual Avg. No. Books Read/Hour: 452
Number Hours Estimated for Shelf-Reading: 452
Number of Hours Completed: 88
Number of Estimated Hours Remaining: 364
Adjusted Number of Hours Remaining: 297
Strategic Plan – Follow-up

- Statistical reporting
  - By collection
  - Number of hours
  - Number of items
  - By staff person

- Integration into workflow
  - Annual inventory schedule
  - Student worker training guide
    [http://www.uncp.edu/home/powerj/studentscanning.pdf](http://www.uncp.edu/home/powerj/studentscanning.pdf)
  - Job description revisions
  - Staff training
Strategic Plan – Follow-up

• Documenting inventory processing procedures
  – Processing Inventory Reports
    http://www.uncp.edu/home/powerj/processinginventory.pdf
  – Reading and Correcting Inventory Reports
    http://www.uncp.edu/home/powerj/readcorrectinventory.pdf
What Actually Happened...or When Plans Change

• Test files
• Automated inventory scanning – Round 1
• Manual shelf-read
• Automated inventory scanning – Round 2
• Project Barcode
• Automated inventory scanning – Round 3
What Actually Happened...or When Plans Change – Test Files

- Test files with the laptop set-up were scanned in groups of 10-20 and saved to removable media (flash or floppy drives)

- Test files copied to local server space (F: drive)

- Test files successfully processed in text-based Innopac as per procedures in III manual (see relevant manual pages at end of presentation)
What Actually Happened...or When Plans Change

Automated inventory scanning – Round 1

• Began cautiously, scanning only a few files of about 300 items each

• Had staff complete scanning – not student workers in case any problems

• First stumbling block – files did not process – shelves too disorderly
What Actually Happened...or When Plans Change

Manual shelf-read

- Conducted during Spring 2006 semester
- Printing shelf lists – general, reference, folio, and juvenile collections
- Establishing three tier process – to be done, completed, and post-processing
- Post-processing to update item statuses
- Enforcing time limits
- Tracking
What Actually Happened...or When Plans Change

Automated inventory scanning – Round 2

- Began cautiously, scanning only a few files of about 300 items each
- Had staff complete scanning – not student workers
- Made sure sections scanned were in order first
- Second stumbling block – files did not process – two barcodes

FAILED!
PLEASE TRY AGAIN
What Actually Happened...or When Plans Change

Project Barcode

- Conducted July - November 2006
- Many item records had two barcode fields - accession number and barcode
- Cataloging procedures had accession number first and barcode on books second
- Barcode order had to be switched to enable successful file processing
- Cataloging and circulation staff worked to correct over 100,000 item records manually over the course of several months - cataloging provided lists of records needing to be modified
- To save time created macro under special project specific login/password
What Actually Happened...or When Plans Change

Project Barcode

Steps to edit:

- Type "b" to set the index, type the accession number, click search or press enter.
- Click once in the second barcode field b.
- Select Edit
- Select Move barcode up
- Save/close
- Type "b" to set the index and type the next accession number.
What Actually Happened...or When Plans Change

Project Barcode

- **Macro:** %P%D%W%+%Alt+%e%H%Alt+%q%b

- **Translates into:**
  - Selecting edit from the toolbar (%Alt+e)
  - Selecting the move up command in the edit menu (%H)
  - Quitting (%Alt+q)
  - Selecting b to search for the next barcode (%b)

- F12 was our macro key
What Actually Happened...or When Plans Change

Project Barcode

- **Steps became:**
  - Type "b" to set the index, type the accession number, click search or press enter.
  - Click once in the second barcode field b.
  - Enter F12
  - Enter “y”
  - Enter the next accession number.
What Actually Happened... or When Plans Change
Automated inventory scanning – Round 3

- Retested processing with files of about 300 items each
- Files processed successfully!!
- Full scale inventory was begun
- Librarians, staff, and student workers participated in scanning
Possible Errors

- Spaces in file name
- File empty
- Bad data – transfer failed
- No item record to match barcode
- Check digit missing
- Check digit not capitalized
- First or last call number is not in order
- More than 10,000 items between first and last items
Statistics

- Began successful scanning in December 2006 and finished in May 2007

- Collection Totals
  - General Circulating
    - 377.75 scanning hours
    - 138,096 items scanned
  - Folio
    - 11 scanning hours
    - 5,741 items scanned
  - Juvenile
    - 21 scanning hours
    - 5,673 items scanned
  - Reference
    - 31 scanning hours
    - 12,856 items scanned

- Approximately 3700 items subsequently determined to be missing
Follow-up

- Took Summer 2007 off as a reward – circulation staff treated to lunch

- Fall 2007 – student workers began re-scanning the General Circulating collection to be continued indefinitely as part of regular duties – 1 hour per student per week

- Circulation Assistant processing and reconciling inventory reports weekly as part of regular duties

- Semester breaks will be used to scan reference, folio, and juvenile collections

- Tracking logs still kept to determine progress and participation
Thus the inventory date was created...

...and it was good.
Relevant Manual Pages

- Inventory Dates, p. 102577
- Inventory Control, p. 102566
- Comparing Scanned Inventory Data to Shelf Lists, p. 102571
- Producing the Inventory Report, p. 102575
- Processing PC and Portable Reader Transactions, p. 102551
- Printing the Shelf List, p. 102567
- Inventory Statuses, p. 102576
Works Cited

• Unshelved Comics from Overdue Media
  www.overduemedia.com/

• Failure Poster from Despair, Inc.
  http://despair.com/

Presentation Available Online
http://www.uncp.edu/home/powerj/inventorypresentation.pdf