

Our First Automated Inventory

A Learning Experience

June L. Power, MLIS
UNC-Pembroke



In the beginning...

...the inventory date was void.

Summary				Record I30463245		0 Item-Level Holds		0 Bookings		1 Bib-Level Hold	
				Edit							
I30463245				Last Updated: 11-01-2007		Created: 11-01-2007		Revisions: 1			
COPY #	1	LNKMIN		LOUTDATE	--	:		LOCATION	pgeni_UNCP General Collection		
ICODE1	0	INVDA	--	LOANRULE							
ICODE2	-	IN LOC	0								
I TYPE	113 General	# RENEWALS	0	STATUS	- AVAILABLE						
PRICE	\$26.99	# OVERDUE	0	INTL USE	0						
OUT DATE	--	ODUE DATE	--	COPY USE	0						
OUT LOC	0	IUSE3	0	IMESSAGE							
DUE DATE	--	RECAL DATE	--	OPACMSG							
PATRON#	0	TOT CHKOUT	0	YTDCIRC	0						
LPATRON	0	TOT RENEW	0	LYRCIRC	0						

CALL # 090 PN1992.77.C58#26 2007



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



Call Number Started	Call Number Stopped	Date	Time(start/stop)	Name	# of Books

General Collection

Began	AC1 E8 no. 994
Stopped	F232 D7 R69 2000
Number Books in General Collection	173,951
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

Progress
Reports



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>
 - 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



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

Summary		Record i29350839	0 Item-Level Holds	0 Bookings	0 Bib-Le
i29350839 Last Updated: 08-07-2007 Created: 04-26-2006 Re					
COPY #	1	LCHKIN			
ICODE1	0	INVDA			
ICODE2	-	IN LOC			
I TYPE	114 Juvenile	# RENEWALS			
PRICE	\$0.00	# OVERDUE			
OUT DATE	- -	ODUE DATE			
OUT LOC	570	IUSE3			
DUE DATE	- -	RECAL DATE			
PATRON#	0	TOT CHKOUT			
LPATRON	1031645	TOT RENEW			

CALL # 099 F M787ag 1992
BARCODE 328175
BARCODE 335110243300P

- 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.

Summary		Record i29350839	0 Item-Level Holds	0 Booki
i29350839 Last Updated: 08-07-2007 Created: 04-26				
COPY #	1			
ICODE1	0			
ICODE2	-			
I TYPE	114 Juvenile			
PRICE	\$0.00			
OUT DATE	- -			
OUT LOC	570			
DUE DATE	- -			
PATRON#	0			
LPATRON	1031645			
CALL # 099 F M787ag 1992				
BARCODE	335110243300P			
BARCODE	328175			



What Actually Happened...or When Plans Change

Project Barcode

- Macro: %PGDW%%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

```
Shelf List Inventory Report
Press "s" to stop processing
Processing .....
.....
.....
.....
```

```
The system has searched through the next 5000 items and
none are in the specified LOCATION pgeni.
Do you want INNOPAC to continue searching? (y/n)
```



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...

Summary				Record I29350839		0 Item-Level Holds		0 Bookings		0 Bib-Level Holds	
				<input type="button" value="Edit"/>							
I29350839				Last Updated: 08-07-2007		Created: 04-26-2006		Revisions: 12			
COPY #	1	I CHKIN	11-30-2006	LOU DATE	11-09-2006 07:51PM						
ICODE1	0	IN VDA	03-27-2007	LOCATION	pjwv UNCP Juvenile						
ICODE2	-	IN LOC	570	LOANRULE	0						
I TYPE	114 Juvenile	# RENEWALS	0	STATUS	- AVAILABLE						
PRICE	\$0.00	# OVERDUE	0	INTL USE	0						
OUT DATE	-	ODUE DATE	-	COPY USE	0						
OUT LOC	570	IUSE3	0	IMESSAGE							
DUE DATE	-	RECAL DATE	-	OPACMSG							
PATRON#	0	TOT CHKOUT	1	YTD CIRC	0						
LPATRON	1031645	TOT RENEW	0	LYR CIRC	1						

CALL # 099 F M797ag 1992
BARCODE 335110243300P
BARCODE 328175

...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>

