Inventories in the Library

WILIUG Spring Conference, 6/19

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So you want to do an inventory...

- **Inventory 101.** The Basics of inventories in libraries.
- **RFID Technology.** RFID’s role in inventories.
- **Non-RFID and useful alternatives.** Available alternative technology.
- **Data management.** So exciting!
- **Post Inventory assessment.** What now?
- **Q and A.** - Are inventories a solution for your library?
Inventory 101 - What is the objective?

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<th>Problem</th>
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<td>Theft in a high use section</td>
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<td>Location code spanning more than one area</td>
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<td>Long term database accuracy</td>
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<tr>
<td>Identifying a specific problem and extent of the problem.</td>
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<td>Program Attendance</td>
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Solution - Inventories!
Inventory 101 - Getting the details down.

- **Scope?** 100 items? 100,000 items?
- **Workflow?** Creating workflow for the project and integration.
- **Method?** To be discussed… Identifying the best tool(s) for the job.
- **Stopgaps?** Consider all the moving parts. Items off the shelf, items changing location…
- **Milestones?** Specific milestones that are worth noting during a long term process. Stop and think moments.
- **What now?** What do you do when everything is complete. What new questions have been brought about from the process?
Inventory 101 - Number one rule is....

Avoid automatic processes at all costs.
RFID Technology - Handheld scanner, UHF
RFID Technology - Wait a minute...

- Scanning system looks pretty good and definitely collects data very quickly.

- My count of the shelves versus the count on the machine? 76 to 62 items at one point, less accurate as the numbers compound.

- More time spent on each area would improve count but special care is required to avoid errors with all inventory systems -- the demonstration violates the number one rule.

- This model requires UHF (Ultra High Frequency) tags. Most libraries used HF (High Frequency) tags, which means this type of product likely wouldn’t work without retagging the collection. UHF is also better for finding than inventory.

- Cost? $1,000 to $3,000 per unit.
RFID Inventory - Wands
RFID Inventory - What about these?

-MPL has a version of this. Handheld but corded wand that require a power source rather than battery power.

-Requires a smartphone style addition to interface with.

-Wand catches a “zone” and is just an RFID reader. My shelf count: 50. Shelf count on smartphone: 37.

-In practice, the wand won’t necessarily catch everything depending on tag orientation or how close the tags are to one another.

-Using this system at MPL, we have found it is easier to grab handfuls, verify, and repeat. Closer to $800-1000 price tag.
RFID Inventory - Worth it?

- Most of these are pretty expensive and don’t get at the heart of inventorying a collection - a 100% rate of success.

- Cost to benefit ratio is probably pretty limited for most libraries.

- If the machine reads 200+ items quickly but misses one, it is frustrating to find the one missing item without Sierra work.

- Large scale inventories are scanning tens of thousands of items so the error rate is magnified -- a 5/100 books isn’t that much for backtracking but 500 out of 10000

- They can be very effective, especially if you adapt to the technology and use it against the demonstrated model.
RFID Inventory - Making it work for you.

- UHF tags tend to be wildly better at finding lost items than inventories, like finding a specific voice in a crowd versus identifying every voice in a crowd.

- RFID tags naturally cause problems. Stacks of tags and metal shelves interfere with readers and the inventory system itself is a reader by design.

- Reduce the complications by using visual or auditory tricks to assist. Keep a mental tally and it can still be much quicker than other methods.
- Inventories can definitely be completed with little to no additional technology.

- Scanning/Entering barcodes into a file on desk by moving loads of materials back and forth is slower but is a good alternative and sometimes preferable to assigning a staff member.

- Skips some of the data processing element (no .txt files, no file imports) as are associated with many inventory products.
Non RFID and Alternatives - Barcode scanners.

- Good news! Some barcode scanners are pretty inexpensive.

- The model on the left - OPN series, is particularly easy to use and inexpensive. ($100)

- These and most barcode readers need a degree of programming to work correctly or they may read partial barcodes.

- Very effective and easy for smaller, non RFID collections.
Data Management - Where is your data now?

- Determine the format that your data needs to be in to interact with Sierra.

- Primarily, .txt files are the way to go. Scanners/RFID readers tend to automatically save to this file type.

- The technology you use requires a file path and will append/save fresh files. Get familiar with it by doing a practice run on a small collection.

- Check with your System Admin or Innovative for assistance.
Data management - Interacting with the ILS, Sierra version.

-Pulling barcode data from these devices can be complicated. From here, the inventory staff would transfer the barcode data to Sierra by converting them to Item record numbers.

-This can be done via **Offline Circ mode** (replace the circ.dat file) but may require some help from the System Administrator, **Count Use Portable Reader** mode should also supply the same options.

-Data can then be added to **Create Lists** via the **Import** function:
For Polaris, barcode files can be uploaded as seen below, taken from the Help file:

- **Scanning barcodes** - Scan the item barcode in the Item barcode box, or type the barcode and press ENTER.

- **Reading RFID tags** - Select Tools, RFID Check In (or press F9), and place up to 10 items on the antenna tray. In Polaris term for the process you may know as “discharge” or “return.” Inventory mode, security bits are not affected. You must select Tools, RFID Check In or press F9 for each batch of items you place on the RFID antenna tray.

- **Loading a file of barcodes** - Select Tools, Load barcode file, or press CTRL+ALT+I. An explorer window opens, where you can browse to and select the file of barcodes.
- Seek **Scanner** function of the client that prompts for directory/file name.

- Upload file through these means - file format may vary as with other ILS.

- Sirsi Dynix has a field for items indicated “Last Inventoried” date which can be marked during each inventory status update.

- Running each list again one another yields information regarding original list or duplication.
Data Management - Making the most of the data

- Options exist to manipulate the data in the ILS database.

- Automatic processes can be done to add specific changes to the inventoried items. For example at Milwaukee Public Library, we add an **Internal Note** field to each item “Inventory, 5/5/2018”.

- Other options would include **Status**, **Location Code**, or whatever else might be helpful to change.

- Rapid updates/automatic processes cannot be undone easily. It’s recommended some time and consideration go into these actions prior to committing.
Post Inventory Assessment: Mission Accomplished?

- More accurate collection, verified time of materials on shelves, and general records upkeep.

- What about items not found in the inventory? Theft? Handling problems? Defunct records?

- Laterally, we can then identify the problem. If there is a theft, can we find a timeframe? If there is missing materials in a collection, is it possible their exclusion is meaningful?

- This limits the scope of problems and allows for the next step.
Post Inventory Assessment - MPL
Example of next steps

- Found items on warehouse floors (TIER) from an upstairs, separate reference collection. (HLH)

- Identifying what was in the room (HLH) and tagging it with a note marks items and allows a second list of things with no note.

- Items on the warehousing floors (TIER) that were unique could then be checked with a significantly smaller list (400 items versus 14,000).

- Identification of those items lead to other fixes and routing issues rectified.
## Inventory solutions!

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<th>Theft occurring in the Young Adult graphic novel section.</th>
<th>Inventory the items remaining and leave a note. Anything not touched by this note is either checked out or missing. Run a list in Sierra to confirm materials checked out and missing this note will leave only missing materials. Do another search or two for those over the course of a couple of weeks.</th>
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<td>Long term database accuracy on the Tiers. (Millions of items)</td>
<td>A thorough, long term approach with a stopgap can improve an area’s accuracy item by item when the task is overwhelmingly large. One to one item verification done up front followed by inventory note.</td>
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<td>Record section had incorrect information.</td>
<td>Verified item information, one to one as with Tier Inventory. Set aside records that did not match for new processing.</td>
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<tr>
<td>Program Attendance</td>
<td>Creating scannable barcodes using MS Word allows easy use of scanning technology. MPL uses a created template of zip codes and cities to do some program attendance.</td>
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Holdshelf Snapshot

A unique process for “inventorying” the holdshelf. This creates a snapshot of all the items on the holdshelf in real time.

Example: A theft occurs of 25 items from the holdshelf! What items are missing and how would you know? How to verify what isn’t there? Verify what is supposed to be there!

Instructions included if time limited; otherwise demonstration...
Credits

Special thanks to:

Steve Heser, System Administrator of MCFLS, allowing presentation to the county and advice.

Rachel Arndt, Public Services Area Manager of MPL, for general advice.

Mellanie Mercier of Bridges Library system for help with Polaris.

Jim Novy of the Lakeshores system for help with Sirsi Dynix.

https://youtu.be/n_ntzPydU7I, rfidsales

https://youtu.be/Q--OeBIPi-U, Lily Shi
Thank you for coming!