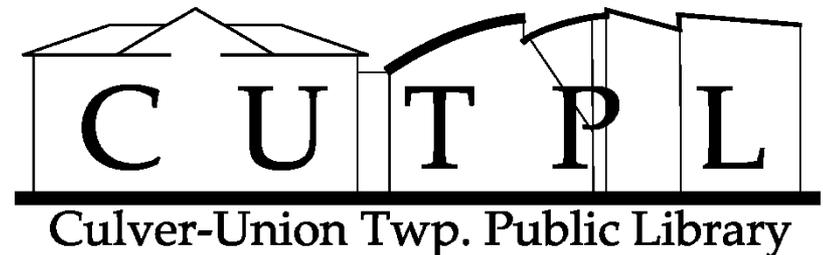


EVERGREEN INVENTORY

From Start to Finish



INTRODUCTION

- Presenters
 - CUTPL Information Technology Manager
 - Andrew Baker
 - CUTPL Circulation Manager
 - Teresa Hudson
- Thank you to our Library Director, Colleen McCarty for being our advisor on this project.

PRESENTATION TOPICS

- Our Idea & Goals
 - Planning
 - Testing
 - Inventory Process
-
- Post-Processing
 - Technical Details
 - Live Demonstration

How things were before the inventory...

OUR IDEA & GOALS

ABOUT CUTPL

- We are from Culver-Union Twp. Public Library
 - In northern Indiana
 - Nestled on Lake Maxinkuckee
 - A Carnegie library
 - Founded in 1915
 - Addition in 2002
 - Collection size
40,000-45,000 items
 - 2,181 active patrons



CUTPL

TIME TO DO AN INVENTORY!

- Needed an inventory in 2011 because:
 - Four years since previous inventory
 - Had migrated to **Evergreen** in 2009
 - From Follett ILS software
- Our director & library board wanted:
 - A count of all items in our collection
 - To see what was missing
- We were running **Evergreen** 1.6

WHAT TO DO?



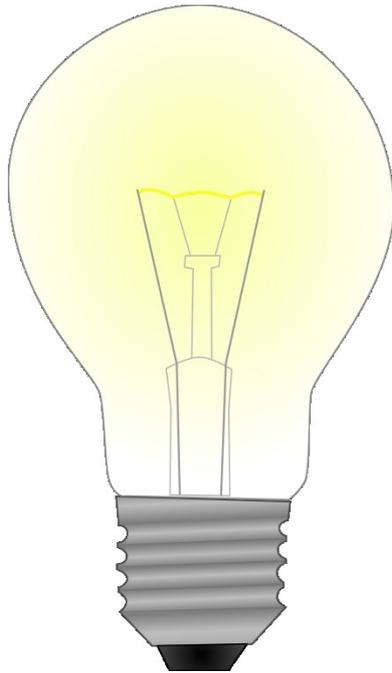
KEEP CONSISTENCY

- Consistency of item data was a concern
 - Old data
 - Migrated data
 - Do physical items match the system?
 - Accuracy of item records?

DEFINE OUR CURRENT SITUATION

- Questions we had:
 - **Do we want to close the library to perform an inventory?**
 - No
 - **What data changes most frequently?**
 - Item Status
 - **Where and when were changes to item data coming from?**
 - Circulation
 - Cataloging
 - Remote Patron Renewals and Holds through the OPAC
 - **How are we going to mark an item as inventoried?**
 - Especially when they are being checked in and out
 - Average daily circulation is: 180
 - **When were staff available to work on inventory?**
 - Schedule available staff
- So many changes! If only we could stop time!

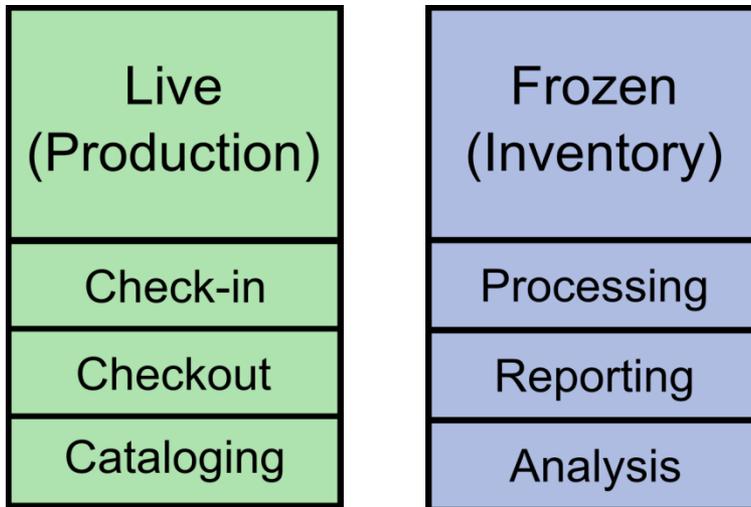
LET'S FREEZE THE DATABASE



BRILLIANT!

- We decided to create a “frozen” database.
- Exported item data from **Evergreen**.
- A separate database.
- Developed web-based inventory software.
 - In-house dev. team
 - Intranet app
 - Minimal training req.
 - Simple to use
 - We show you how!

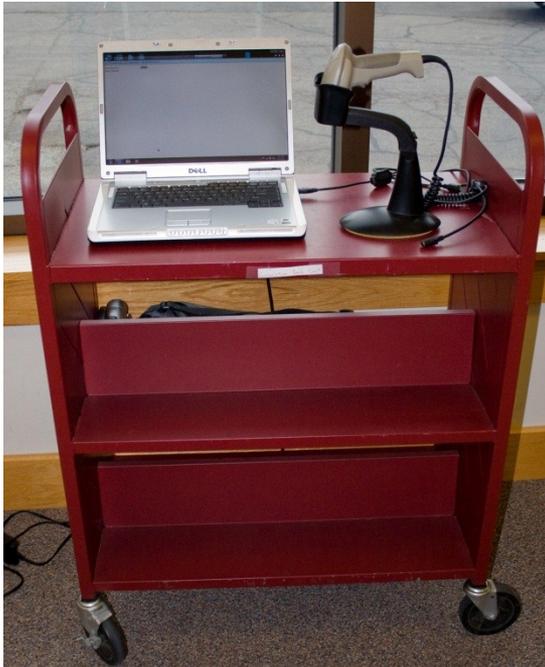
WHY A SEPARATE DATABASE?



DATABASES & ACTIONS

- We didn't want to disrupt:
 - Circulation
 - Cataloging
- We didn't want our inventory data to be affected by:
 - Check-ins
 - Checkouts
 - Cataloging
- We didn't want inventory changing our live database.
- We needed a field for inventory status:
 - TRUE/FALSE

SUMMARY OF GOALS



MOBILE WORKSTATION

- Frozen database & inventory software.
- We will show you how we
 - Performed a very fast inventory
 - Scanned 2000-3000 items per hour
 - Without moving items from shelves
- Mobile workstations (5 total):
 - Mobile Carts
 - Laptops
 - Barcode scanners
 - Wireless networking
 - LONG extension cords!
- Our inventory process:
 - Integrates deeply with **Evergreen**
 - Going back to adjust data

What are we going to do?

PLANNING

PLANNING

- Our project management process:
 - Define our objective (Goals)
 - Consider our available resources
 - Develop a plan
 - Test the plan
 - Perform inventory
 - Get our number of items
 - Clean-up

PLANNING

- Analyze our circulation process:
 - When does item data change:
 - When items checked in
 - When items checked out
 - Goes lost or missing
 - Cataloging changes
 - New, replaced or deleted item barcodes
- We didn't want to:
 - Disrupt day-to-day operations
 - Increase patron or staff stress levels

PLANNING

- We decided to:
 - Design an inventory program:
 - Separate from **Evergreen**
 - Uses its own database to track results
 - Design a user interface:
 - **Input** - Scanning items
 - **Output** - Administrative & reporting functions
 - Tweak and test:
 - Make usability adjustments

Hello...testing?

LIVE TESTING

LIVE TESTING

- Determine if the software works:
 - Does it mark items as inventoried?
 - Does it warn staff if there is a problem?
- Verify software output:
 - Does the reporting interface work correctly?
 - Does it generate usable output?
- Take input from staff:
 - Visual interface (color changes per result)
 - Sound effects (different for success & failure)

LIVE TESTING



TIME ESTIMATES

- Needed a time estimate:
 - For inventory completion
 - Staff scheduling
 - During open hours
- Measured the following:
 - Amount of time to scan a shelf of items
 - Number of items scanned in 30 minutes

LIVE TESTING

- Finally, the user interface was tested.
 - Tested & trained with library staff.
- Made sure they understood:
 - The inventory software.
 - Their part of the inventory process.

LIVE TESTING

- Revised software through testing and adjustment cycles:
 - **Sound Effects**
 - Different for success, failure, checked out
 - Lower volume to not annoy patrons
 - But still loud enough for staff to hear
 - **Usability Adjustments**
 - Displayed less information on screen
 - Made program work with barcode scanner

TESTING – TECHNICAL ISSUES

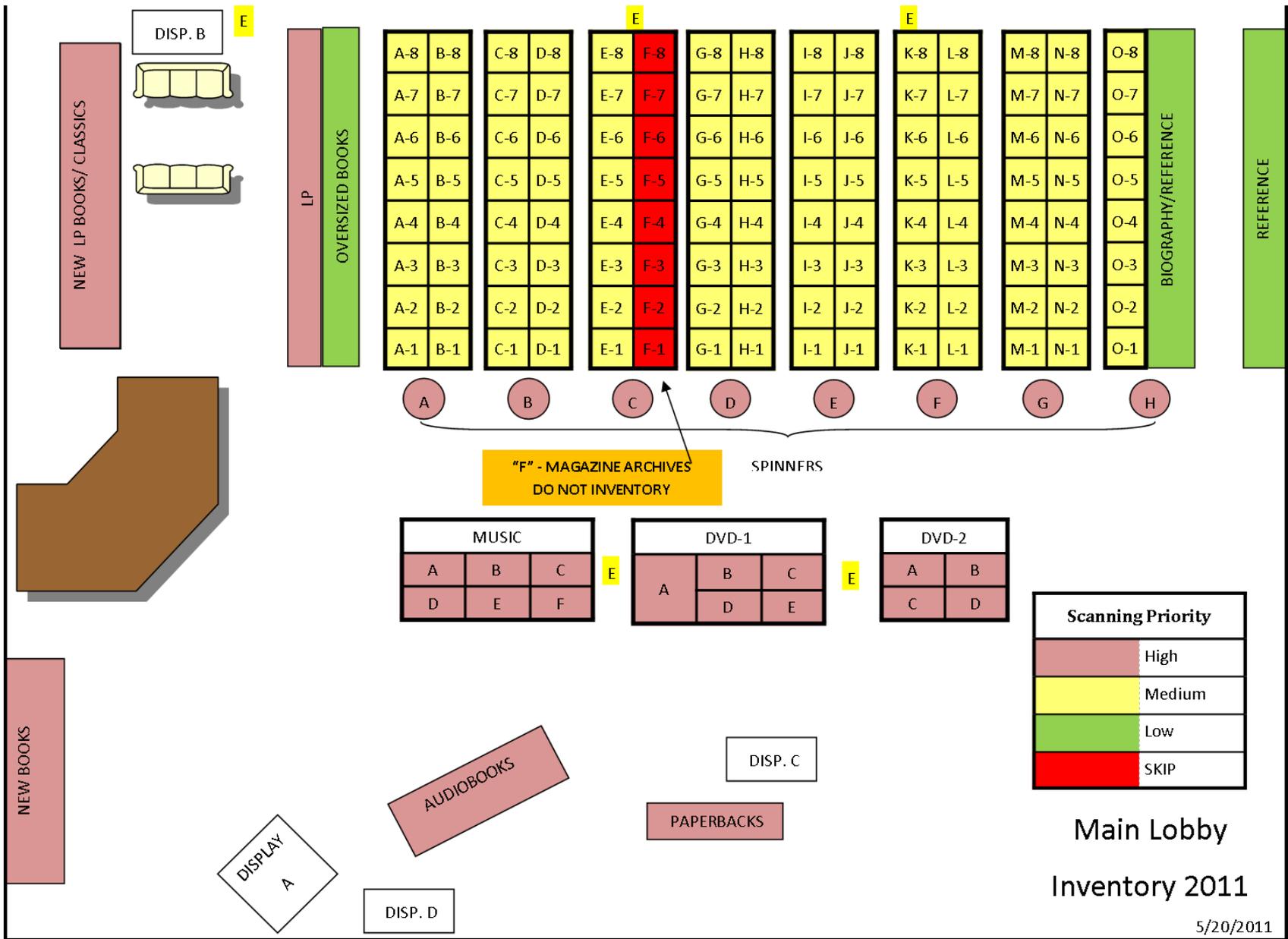
- Power Distribution
 - Marked outlet locations on maps
 - Used extension cords to reach
- Wireless Networking
 - Tested signal in far corners of building
 - Worked well even before our upgrades
 - Very helpful!
- Barcode Scanners
 - Needed more than we had
 - Acquired several used scanners

How to get it done...

INVENTORY PROCESS

THE NIGHT BEFORE INVENTORY

- Organized things before inventory:
 - Posted color-coded maps of:
 - Our collection
 - Shelving locations
 - Prioritized areas based on patron traffic flow
 - Posted lists to track inventory progress
 - Labeled aisles in stacks with letters
 - Labeled boxes for items with problems
 - Setup laptops on carts (workstations)
 - Setup workstation at circ desk to scan returns
- Posted “Inventory in Progress” signs
 - Keep our patrons informed
- After closing, copied to the “frozen” database.



Family
Dvd's

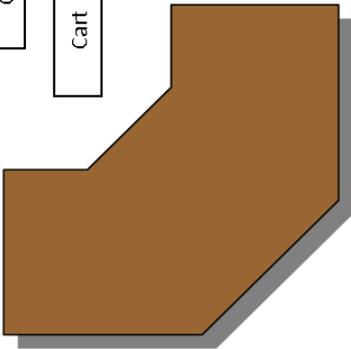
YA-1	YA-2	YA-3	YA-4	YA-5	YA-6	AUDIOB-1	YAS-1	YAS-2	Graphic Novels
------	------	------	------	------	------	----------	-------	-------	-------------------

New Books

Office

Cart

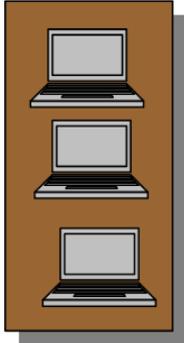
E Display



Concept Books

YA BIOS	YNF-1	YNF-2	YNF-3
JNF-1	JNF-2	JNF-3	JNF-4

E



JNF-5	JNF-6	JNF-7	JNF-8	INF-9
JF-1	JF-2	JF-3	JF-4	JF-5

JS-1	JS-2	JF-1	JF-2	JF-3
JS-3	JS-4	JS-5	JS-6	JS-7

Parenting

DVD-1	DVD-2	DVD-3	MUS	BB-1	BB-2
ER-1	ER-1	PBS-1	PBS-2	PBS-3	PBS-4

E

PB-1	PB-2	PB-3	PB-4	PB-5
ENF-1	ENF-2	ENF-3	ENF-4	ENF-5

E

HOL-1	HOL-2	HOL-2	REF-1	REF-2
-------	-------	-------	-------	-------

INVENTORY PROGRESS LOG - ADULT SERVICES

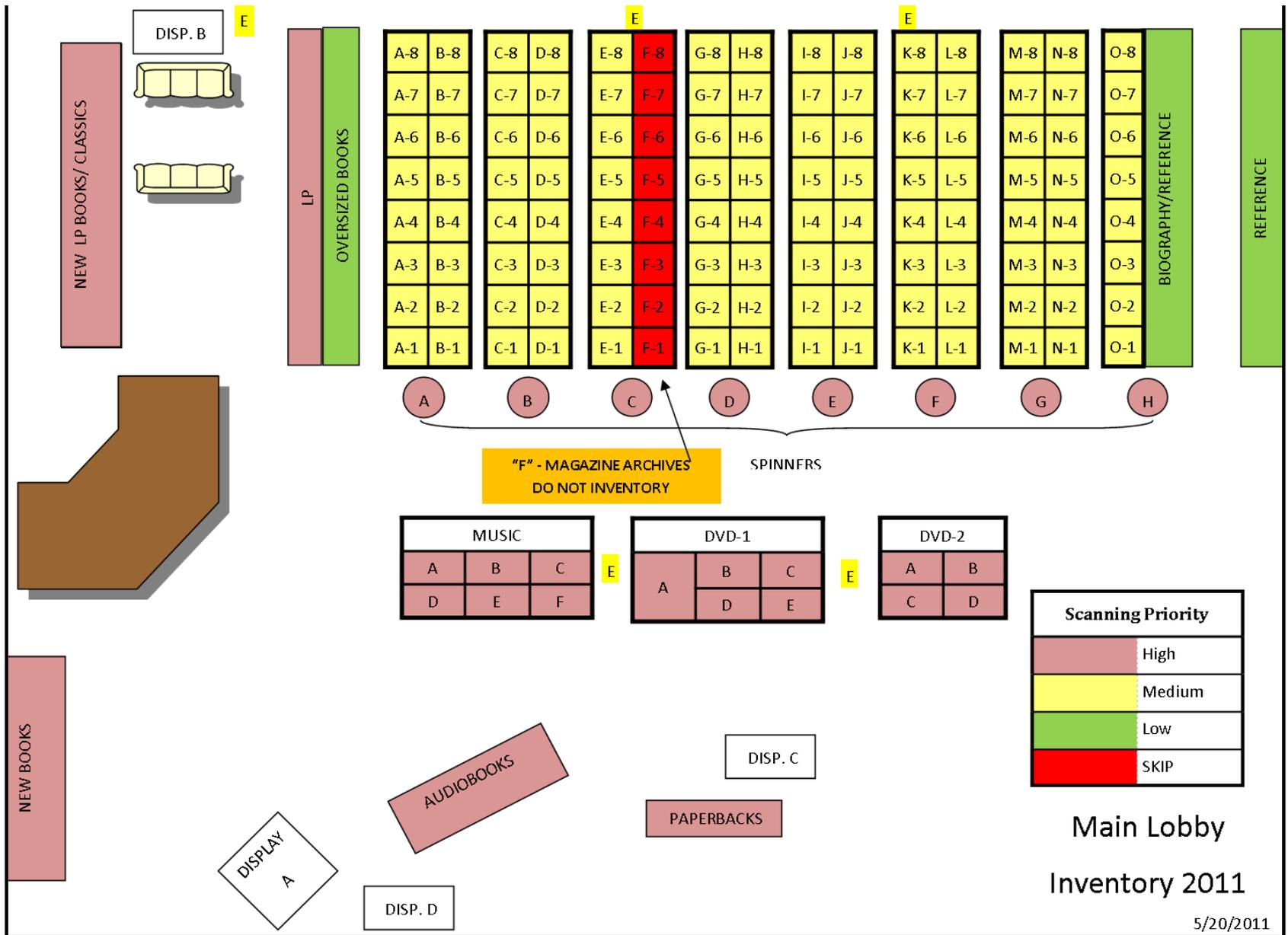
Priority	Code	Description	Stopped at Section	Date	Initials
1	AUDIOBOOKS	Audbiobooks			
3	BIO/REF	Biographies/R eference			
0	BOOK CLUB	Book club display			
0	DISPLAY A	Display "Pyramid"			
0	DISPLAY B	Display near CDs/DVDs			
0	DISPLAY C	Display near Large Print			
0	DISPLAY D	Display near stairs			
1	DVD-1	DVDs 1			
...

INVENTORY PROCESS



HIGH TRAFFIC AREAS

- Arrived at 8:00 AM and started **inventory**.
 - One hour of time to:
 - Work out problems
 - Start high-speed scan
- High-traffic areas:
 - To finish before opening
 - Around 8,000 items
 - Done in 1 1/2 hours
- Monitored progress of scanning.



INVENTORY PROCESS



INVENTORY IN PROGRESS

- While performing inventory:
 - Scan items
 - Listen for sound effects:
 - Success
 - Error
 - Checked Out
 - Items were pulled on the following conditions:
 - Checked out
 - Barcode not found
 - Barcode won't scan
 - Excessive damage
 - Other errors:
 - Multiple barcodes found (should never happen)
 - Item already scanned
- The next two slides show inventory in progress...

INVENTORY PROCESS

- After completing a section, a staff member would:
 - Return to the management station
 - Mark their progress:
 - Shelving map
 - Inventory location list.
 - Unload collected items into appropriately marked boxes.
 - Select the next section to inventory.
 - Go back into the stacks and keep scanning.

INVENTORY PROCESS

- After the inventory was over, we:
 - Checked number of items scanned with management interface
 - Moved boxes with items to be processed to technical services
 - Cleaned up computers and wiring
- Completed inventory scan
 - 2 ½ business days
 - Around 20 hours of staff time to scan
 - 8 staff scanning first day, 7 second day

Cleaning up after inventory...

POST-PROCESSING

POST PROCESSING



SCANNING RETURNS

- After inventory was completed:
 - Scanned returned items twice:
 - Once with Evergreen
 - Once with inventory
 - Loan durations were:
 - 21 days
 - +1 renewal = 42 days
 - +18 days for “extra time”
 - =60 days total
 - Generated a final report.
 - Created plans to deal with leftover items
 - Formed a task force for data analysis & clean-up

FINAL NUMBERS

(NOT INVENTORIED OF TOTAL)

Status (at time of inventory)	Not Inventoried	Total	Not Found %
Available	1570	40722	3.86%
Bindery	1	3	33.33%
Cataloging	5	5	100.00%
Checked Out	497	1759	28.25%
Damaged	8	13	61.54%
In Process	24	123	19.51%
In Transit	10	114	8.77%
Lost	171	175	97.71%
Mending	2	4	50.00%
Missing	85	112	75.89%
On Holds Shelf	9	43	20.93%
Total	2382	43073	5.53%

FINAL NUMBERS SUMMARY

- At the end of our inventory scanning:
 - Overall, 5% of items weren't inventoried.
 - 0.6% of our items were **Lost** or **Missing**:
 - Found 31 lost or missing items
 - Number will increase during & after cleanup
 - 1262 items inventoried were **Checked Out**
 - Most were already **Checked Out** when we created the "frozen" database
 - Items that were on shelves were checked in
 - Recalculated relevant fines and fees

POST PROCESSING

- Handled post-processing by item status.
- Split items into the following categories:
 - Available
 - Checked Out
 - In Transit or On Holds Shelf
 - Miscellaneous:
 - Bindery
 - Cataloging
 - Damaged
 - In Process
 - Lost – Patron lost the item
 - Mending
 - Missing – Can't find on shelves

POST-PROCESSING – TRANSITS

- A total of 19 items were left with a status of *In Transit/On Holds Shelf*.
- They were “stuck” in the holds system.
- Identified & tried to locate the items.
- Called appropriate libraries.
- Decided whether or not items were lost.
- Updated **Evergreen** item status.
- Recovered 16/19 items.

POST-PROCESSING – CHECKED OUT

- A total of 497 items were left with a status of *Checked Out*.
- Dealing with items on a per-account basis.
- Mark item status *Lost*.
- Charge patron accordingly:
 - Before 11/04/2009 (EI Migration Date):
 - Charged only for price of items.
 - After 11/04/2009:
 - Adopted Evergreen policies for fines.
- Made follow-up notes on items and accounts.

POST-PROCESSING - AVAILABLE

- 1570 items with status *Available* were not found by the inventory.
 - Should be on the shelves, but not found.
- Split list up by shelving location:
 - Using filters in Excel.
- Created two files per shelving location:
 - A “final result” spreadsheet.
 - A “shelf search” spreadsheet.

INVENTORY OUTPUT

Stat	Library	Barcode	Call Number	Type	Shelving Location	Copy Status	Title	Price	Creation Date	Last Edit Date
1	CUTPLC	34304000016317	AUDIO CD MCG DEA	audiobook	Adult - Audiobook	Available	dead or alive	20	2/2/2009	6/7/2010
1	CUTPLC	34304000021358	158.1 GLI	audiobook	Adult - Audiobook	Available	optimal thinking	26.75	10/6/2007	11/4/2009
1	CUTPLC	34304000456349	438 NF CD GER	audiobook	Adult - Audiobook	Available	teach yourself german	12.05	11/7/2006	11/4/2009
0	CUTPLC	34304000330916	616.994 MUK	audiobook	Adult - Audiobook	Available	the emperor of all maladies	49.99	3/5/2011	3/5/2011
1	CUTPLC	34304000327243	800 FEA	audiobook	Adult - Audiobook	Available	life lessons from the great books	69.95	1/27/2011	1/27/2011
1	CUTPLC	34304000300760	808.042 LAN	audiobook	Adult - Audiobook	Available	building great sentences	69.99	4/26/2011	4/26/2011
0	CUTPLC	34304000327219	883.01 HOM	audiobook	Adult - Audiobook	Available	the iliad of homer	19.95	1/27/2011	1/27/2011

- This is the output from our inventory program.
- Each record (row) contains:
 - A TRUE/FALSE field to indicate if an item has been inventoried.
 - Item Details necessary to follow up on each item.

POST-PROCESSING - AVAILABLE

- The shelf-search list was created by:
 - Copying barcodes out of our inventory output into a text file.
 - Using **Evergreen** item status screen
 - To get current item status
 - Process shown on next slide
 - Merging CSV file exported from **Evergreen** with the spreadsheet on an upcoming slide.

EXTRACTING DATA

Item Status

Scan Item

Barcode: Submit **Upload From File** 1 Actions for Catalogers Actions for Selected Items

Owning Library	Barcode	Call Number	Status	Circulation Modifier	Location	Title	Price	Date Created	Date Last Edited
CUTPLC	34304000226379	SC BIO SHA-W S...	Available	reference : reference	History	Gentlemen, start your...	<Unset>	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000458717	SC BIO PYL-E BO...	Available	reference : reference	History	The soldier's friend : a...	14.00	2006-11-20 12...	2009-11-04 11:34 ...
CUTPLC	343040006643482	SC BIO PYL-E WI...	Available	reference : reference	History	Ernie Pyle, boy from b...	2.74	2007-07-18 12...	2009-11-04 11:34 ...
CUTPLC	34304000341368	SC BIO OWE-D L...	Available	reference : reference	History	David Dale Owen : pio...	<Unset>	2004-04-08 12...	2009-11-04 11:34 ...
CUTPLC	34304000648002	SC BIO HAR-W P...	Available	reference : reference	History	William Henry Harris...	2.69	2007-07-19 12...	2009-11-04 11:34 ...
CUTPLC	34304000648150	SC BIO GRI-V CH...	Available	reference : reference	History	Virgil I. Grissom, boy ...	3.36	2007-07-19 12...	2009-11-04 11:34 ...
CUTPLC	34304000308409	SC 977.2 IND	Available	reference : reference	History	Gold star honor roll : ...	<Unset>	2003-06-30 12...	2009-11-04 11:34 ...
CUTPLC	34304000603494	SC 977.2 IND	Available	reference : reference	History	Indiana at War : Civili...	<Unset>	2007-01-15 12...	2009-11-04 11:34 ...
CUTPLC	34304000302139	IND 977.2 HIS	Available	reference : reference	Indiana--SC	Valley of the upper M...	<Unset>	2003-06-25 12...	2009-11-04 11:34 ...
CUTPLC	34304000272159	SC 977.295 KRI	Available	reference : reference	History	Tipppecanoe at 2000 ...	12.95	2002-12-17 12...	2009-11-04 11:34 ...
CUTPLC	34304000215067	977.292 PIT	Available	book : book : monog...	Adult - Nonfiction	Robert Owen's Ameri...	<Unset>	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000607164	977.292 S.C.	Available	book : book : monog...	Adult - Nonfiction	For Land Sakes : 73 Ye...	<Unset>	2007-02-16 12...	2009-11-04 11:34 ...
CUTPLC	34304000215042	SC 977.29 TER	Available	reference : reference	History	Indiana in the War of ...	<Unset>	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000215034	977.29 PHI	Available	book : book : monog...	Adult - Nonfiction	Indiana in transition : ...	<Unset>	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000607156	977.2912 MOR S.C.	Available	book : book : monog...	Adult - Nonfiction	Indiana "Hoosier Stat...	<Unset>	2007-02-16 12...	2009-11-04 11:34 ...
CUTPLC	34304000607149	977.29 MOR S.C.	Available	book : book : monog...	Adult - Nonfiction	Indiana "Hoosier Stat...	<Unset>	2007-02-16 12...	2009-11-04 11:34 ...
CUTPLC	34304000215026	977.29 LEM	Available	book : book : monog...	Adult - Nonfiction	Reminiscences of an ...	6.00	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000438644	977.29 BIT	Available	book : book : monog...	Adult - Nonfiction	Laporte, Indiana	11.97	2006-09-28 12...	2009-11-04 11:34 ...
CUTPLC	34304000215018	977.29 LEI	Available	book : book : monog...	Adult - Nonfiction	My Indiana	4.17	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000279972	977.289 SOU	Available	book : book : monog...	Adult - Nonfiction	SOUTH BEND REMEM...	<Unset>	2003-02-06 12...	2009-11-04 11:34 ...
CUTPLC	34304000214979	977.28 WET	Available	book : book : monog...	Adult - Nonfiction	Indiana sesquicenten...	<Unset>	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000214961	977.28 THO	Available	book : book : monog...	Adult - Nonfiction	Readings in Indiana hi...	<Unset>	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000214953	977.28 SHU	Available	book : book : monog...	Adult - Nonfiction	A history of Indiana lit...	<Unset>	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000367546	SC 977.279 PRA	Available	reference : reference	History	Shipshewana : an Indi...	25.16	2004-12-01 12...	2009-11-04 11:34 ...
CUTPLC	34304000214946	SC 977.275 YES	Available	reference : reference	History	Yesterday and today : ...	17.00	2002-09-26 12...	2009-11-04 11:34 ...
CUTPLC	34304000607172	977.27 WOL S.C.	Available	book : book : monog...	Adult - Nonfiction	The Play Party In Indi...	<Unset>	2007-02-16 12...	2009-11-04 11:34 ...
CUTPLC	34304000214938	SC 977.265 POR	Available	reference : reference	History	A portrait and biogra...	<Unset>	2002-09-26 12...	2009-11-04 11:34 ...

List Actions 2 Trim List (20 rows) Strict Barcode Auto-Print Hold and Transit Slips

- Copy Field from Selected Row to Clipboard
- Copy List CSV to Clipboard
- Print List CSV
- Print List Expanded Format
- Save List CSV to File** 3
- Save Column Configuration

Open **Evergreen** and go to the Item Status screen.

1. Click the **Upload from File** button and browse for the text file
 - a) Wait for the list to populate
2. Click **List Actions** at the bottom of the screen
3. Click **Save List to CSV File**
4. Save the file.

SHELF SEARCH LIST

Date	Found (Y/N)	Barcode	Call Number	Title	Status
12/8/2011	N	34304000266888	AUDIO WESTERN SCH	SHANE (SOUND RECORDING)	Available
12/8/2011	N	34304000266466	AUDIO MYSTERY MUL	EYE OF THE STORM (SOUND RECORDING)	Available
12/8/2011	N	34304000374294	AUDIO MYSTERY BRA CAT	The cat who went bananas. (Sound Recording)	Available
12/8/2011	N	34304000268215	AUDIO MYSTERY BRA	THE CAT WHO KNEW SHAKESPEARE (SOUND RECORDING)	Available
12/8/2011	N	34304000333159	AUDIO MYSTERY BAR DEA	Deadly climate (Sound Recording)	Available
12/8/2011	N	34304000393997	AUDIO MYS GRA R	R is for ricochet (Sound Recording)	Available

- This is our shelf-search list.
- Only contains information necessary to locate an item on the shelves:
 - Shows current item status.
 - Printed out to use for searching the shelves.
 - Date and YES/NO would be written in by hand.

POST-PROCESSING - AVAILABLE

- Printed shelf search spreadsheets.
- Searched shelves for items.
- After the shelf search:
 - Transfer information from paper back into shelf search spreadsheet.
 - Transfer information from the shelf search spreadsheet into the final processing spreadsheet.

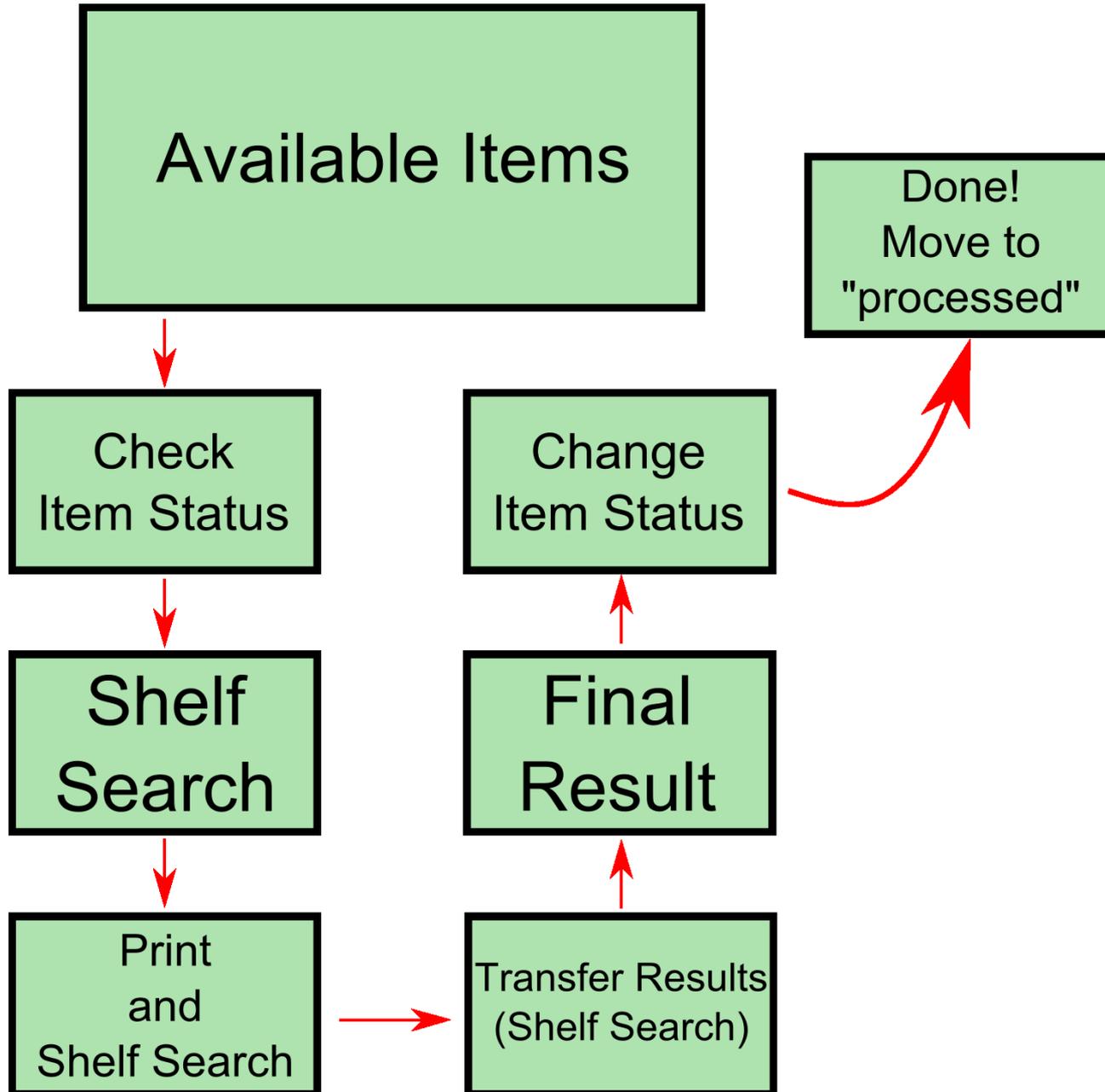
POST-PROCESSING - AVAILABLE

- After information entered into the final processing spreadsheets:
 - Change item status in **Evergreen**
 - Mark as complete in final spreadsheet
 - Move final spreadsheet to “processed” folder
- The final processing spreadsheet contains a drop-down list for actions taken:
 - Deleted
 - Found
 - Lost
 - Missing
 - Replaced

FINAL RESULT SPREADSHEET

Date	Initials	Action	Notes	Barcode	Call Number	Title	Price
12/8/2011	AB	Deleted		34304000262101	AUDIO 940.54 BRO	the greatest generation speaks. (sound recording	\$21.57
12/8/2011	AB	Deleted		34304000352969	AUDIO CASS ALB FIV	the five people you meet in heaven	\$28.80
12/8/2011	AB	Deleted		34304000632030	AUDIO CASS CF HEN	true courage	\$67.75
12/8/2011	AB	Missing		34304000636999	AUDIO CASS LEO UP//	up in honey's room	\$72.75
12/17/2011	AB	Missing		34304000370243	AUDIO CASS MYSTERY HIL	skeleton man (sound recording	\$39.80
12/17/2011	AB		Barcode not found	34304000601381	AUDIO CD 158.1 CAR	the leader in you: how to win friends, influence people, and succeed in a changing world	

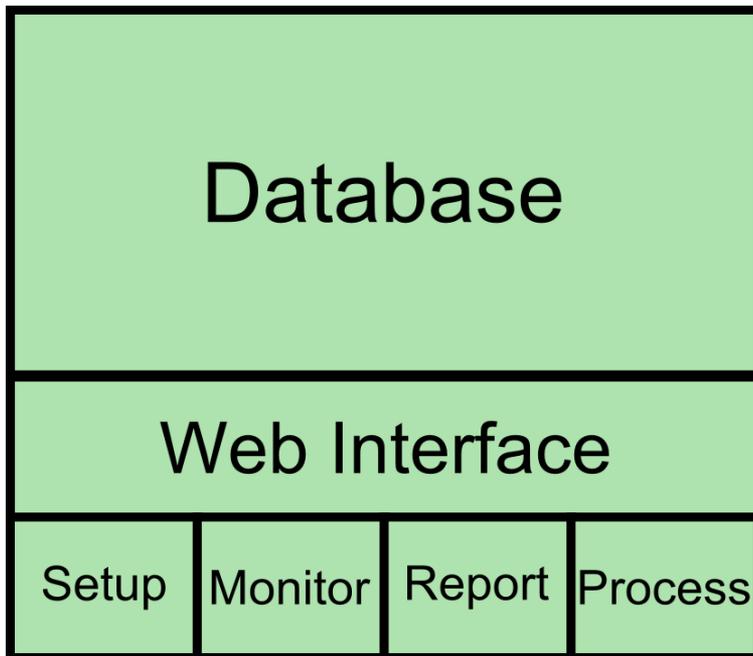
- After being processed, items were marked with:
 - Date processed
 - Staff initials
 - Action taken
 - Notes (if necessary)



How our inventory program works...

TECHNICAL DETAILS

PARTS OF THE SOFTWARE



PARTS OF SOFTWARE

- Database
 - Tracks inventory status
 - Hourly backups
- Web Interface
 - Setup
 - Data Upload
 - Clear Database
 - Monitoring
 - Summary
 - Circ Type
 - Shelving Location
 - Reporting
 - Check Status of Inventory
 - Generate CSV Output
 - Processing
 - For scanning of items

SOFTWARE & PROGRAMMING LANGUAGES

- Operating System
 - Debian Linux
- Web Server
 - Apache
- Database
 - MySQL
- Server-Side Scripts
 - PHP
- User Interface
 - AJAX (JavaScript + XHTML)
 - CSS
- Web Browser (staff computers)
 - Internet Explorer 9 or Firefox
- Project “Size”
 - 1161 Lines of Code (no optimization)
 - 118 KB (68 KB Sounds)
 - 50 KB PHP/JS/HTML

HARDWARE



DELL OPTIPLEX 755

- Our inventory database server was running on the following hardware:
 - Dell OptiPlex 755
 - Intel Core 2 Duo CPU
 - (E6700 - 2 x 2.66 GHz)
 - 2 GB RAM
 - 80 GB Hard Drive
- Resource usage:
 - 6-8 staff scanning continuously
 - 15-20% peak CPU usage

DATABASE

- Our database contained one table (inventory) with the following columns:
 - Inventory_status - 1/0 (1 if item was scanned)
 - owning_ou - Library name from Evergreen
 - call_number
 - barcode
 - circtype
 - shelvloc
 - copystatus
 - title
 - price
 - date_create
 - date_edit
- Each item was represented as a row in the database.
- The next slide shows some sample data.

INVENTORY OUTPUT

Stat	Library	Barcode	Call Number	Type	Shelving Location	Copy Status	Title	Price	Creation Date	Last Edit Date
1	CUTPLC	34304000016317	AUDIO CD MCG DEA	audiobook	Adult - Audiobook	Available	dead or alive	20	2/2/2009	6/7/2010
1	CUTPLC	34304000021358	158.1 GLI	audiobook	Adult - Audiobook	Available	optimal thinking	26.75	10/6/2007	11/4/2009
1	CUTPLC	34304000456349	438 NF CD GER	audiobook	Adult - Audiobook	Available	teach yourself german	12.05	11/7/2006	11/4/2009
0	CUTPLC	34304000330916	616.994 MUK	audiobook	Adult - Audiobook	Available	the emperor of all maladies	49.99	3/5/2011	3/5/2011
1	CUTPLC	34304000327243	800 FEA	audiobook	Adult - Audiobook	Available	life lessons from the great books	69.95	1/27/2011	1/27/2011
1	CUTPLC	34304000300760	808.042 LAN	audiobook	Adult - Audiobook	Available	building great sentences	69.99	4/26/2011	4/26/2011
0	CUTPLC	34304000327219	883.01 HOM	audiobook	Adult - Audiobook	Available	the iliad of homer	19.95	1/27/2011	1/27/2011

- This is the output from our inventory program.
- Each record (row) contains:
 - A TRUE/FALSE field to indicate if an item has been inventoried.
 - Item Details necessary to follow up on each item.

INVENTORY SOFTWARE - SETUP

- Setup scripts were created for:
 - **Initial Setup**
 - Create database and tables.
 - **Data Upload**
 - Populate database with report from **Evergreen**.
 - **Empty Database**
 - Delete the inventory database and start over.
- The next two slides show the **Evergreen** report used to extract data.

REPORT – DISPLAYED FIELDS

Source Specifier	Display Name	Field Name	Data Type	Field Transform	Field Transform Type
Item -> Copy/Shelving Location :: Owing Org Unit	Owning Org Unit (Shelving)	shortname	text	Raw Data	Bare
Item :: Call Number/Volume	Call Number Label	label	text	Raw Data	Bare
Item	Barcode	barcode	text	Raw Data	Bare
Item :: Circulation Modifier	Circulation Type	name	text	Raw Data	Bare
Item :: Shelving Location	Shelving Location	name	text	Raw Data	Bare
Item :: Copy Status	Copy Status	name	text	Raw Data	Bare
Item -> Call Number/Volume -> Bibliographic Record :: Simple Record Extracts	Title Proper (normalized)	title	text	Raw Data	Bare
Item	Price	price	money	Raw Data	Bare
Item	Creation Date/Time	create_date	timestamp	Date	date
Item :: Call Number/Volume	Last Edit Date/Time	edit_date	timestamp	Date	date

REPORT – BASE FILTERS

Source Specifier	Field Name	Field Name	Data Type	Field Transform	Field Transform Type	Operator	Value
Item	Is Deleted	deleted	bool	Raw Data	Bare	Equals	FALSE
Item :: Shelving Location	Owning Org Unit	owning_lib	org_unit	Raw Data	Bare	In list	

INVENTORY SOFTWARE - MONITORING

Circulation Type	Items Processed	Items Remaining	Total Items
audiobook	0	1171	1171
book	40	35816	35856
book new	0	342	342
cd-music	0	2103	2103
dvd	23	4035	4058
dvd new	0	244	244
dvd new r-rated	0	28	28
dvd r-rated	7	595	602
government document	0	1	1
kit	0	18	18
music (sheet)	0	2	2
realia	0	2	2
reference	0	1057	1057
serial	0	2721	2721
software	0	7	7
TOTALS:	70	48142	48212

MONITORING CIRC TYPE

- Real-time progress monitor:
 - Used at circulation desk during inventory
- Three monitoring methods:
 - **Summary**
 - Total items
 - Items processed
 - Items remaining
 - **Circulation Type**
 - Items processed/remaining by circulation type.
 - **Shelving Location**
 - Processed/remaining by shelving location

INVENTORY SOFTWARE - REPORTING

Search By:
 Select Shelving Location:
 Select Copy Status:
 Inventory Status:

Warning: "View" can be very resource intensive with large numbers of items, which may cause the web browser to slow down or freeze up. Recommend using Download CSV button instead.

Inventory Status	Owning OU	Barcode	Call Number	Circulation Type	Shelving Location	Copy Status	Title	Price	Creation Date	Last Edit Date
Complete	CUTPLC	34304000096368	MYS BRE SEE 2	book	Adult - Mystery	Available	see no evil	6.99	2008-04-08	2011-09-07
Incomplete	CUTPLC	34304000152658	MYS CHR DOU	book	Adult - Mystery	Available	double sin and other stories	10.00	2002-09-26	2012-03-01
Incomplete	CUTPLC	34304000152864	MYS CLA SNA 2	book	Adult - Mystery	Available	snagged	18.95	2002-09-26	2012-02-14
Incomplete	CUTPLC	34304000103024	MYS CLA WHE	book	Adult - Mystery	Available	where are you now	25.95	2008-04-05	2012-02-11
Incomplete	CUTPLC	34304000251153	MYS COR ISL 3	book	Adult - Mystery	Available	isle of dogs	26.95	2002-10-01	2012-03-19
Incomplete	CUTPLC	34304000607735	MYS GRI DUS 21	book	Adult - Mystery	Available	dust	25.95	2007-02-03	2012-01-18

- Reporting interface...
 - Tables in web browser
 - Can be slow
 - Export to CSV file
- Filters include:
 - Circulation Type
 - Shelving Location
- Filter selection:
 - From a drop-down list
 - Populates from item data
 - Inventory Status
 - All
 - Inventoried
 - Not Inventoried

REPORTING INTERFACE

INVENTORY SOFTWARE - PROCESSING

Scan Barcode:

Barcode not found.

Hide Options▼

- Show Item Details
- Play Sound on Success
- Play Sound on Failure

Processing Interface

- Processing interface:
 - Staff scan item barcodes
- Options include:
 - Show Item Details
 - Play Sound on Success
 - Play Sound on Failure
- Technical Challenges
 - Input with barcode scanners (enter key)
 - Getting sounds to work
 - Without Flash Player
 - Only on modern browsers (IE9/Firefox 4+)

INVENTORY SOFTWARE - PROCESSING

- Staff would scan & wait for response:
 - Visual (color-coded):
 - **Green** – OK to move on
 - **Yellow** – Item is checked out
 - **Red** – Item not found, try again. If still fails pull item
 - Sounds (to increase staff scanning speed):
 - Staff didn't have to watch screen constantly
 - Two beeps
 - One from barcode scanner
 - One from inventory system
 - Separate sound effects for:
 - OK 
 - Item Checked Out 
 - Item Not Found 

FOR MORE INFORMATION...

- This presentation is available for download at:
<http://bit.ly/J0iaMk>
- A whole packaged virtual machine is available for download at:
<http://bit.ly/Im9LPC>
- VMWare Player is available from:
<http://www.vmware.com/products/player/>

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