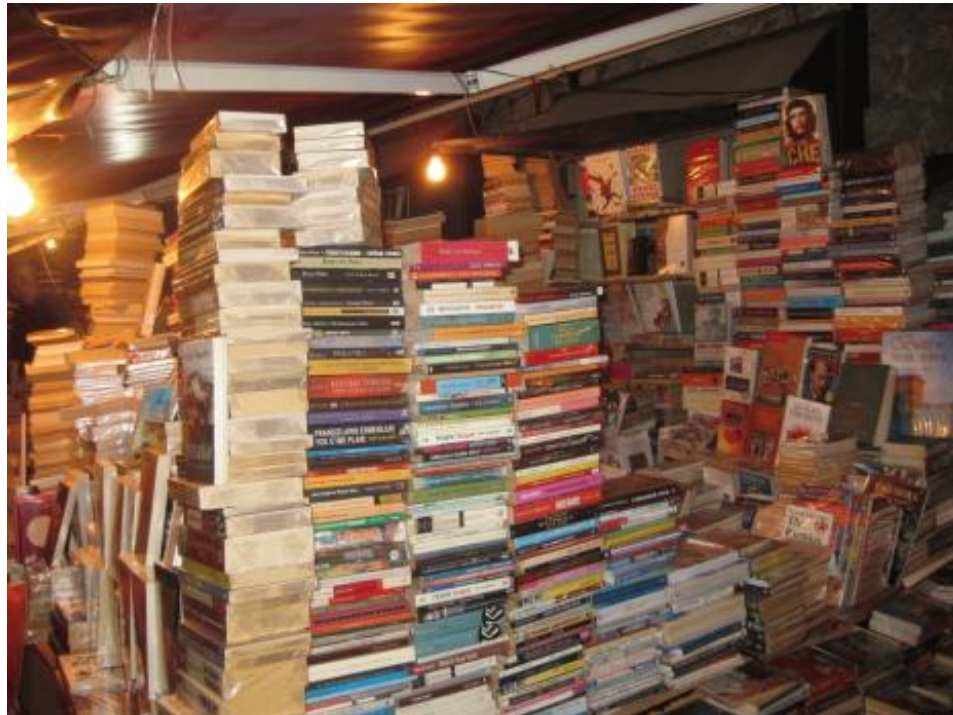


Welcome to this PLA-sponsored program!



Materials Handling Automation to Reduce Operating Costs

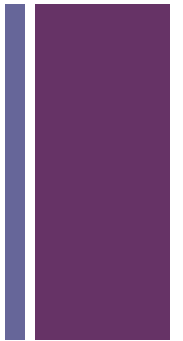


June 24, 2012
ALA Annual Conference
Anaheim, CA



+ Presenters

- Lori Bowen Ayre, lori.ayre@galecia.com
- Alan Kirk Gray, akgray@darienlibrary.org
- Gretchen Freeman, gretchen@slcolibrary.org
- John Callahan, callahanj@pbclibrary.org





Materials Handling Trends

- Prices for all AMH products going down.
- Quality of AMH products going up.
- Vendor marketplace is settling.
- Kiosks filling a niche (but still evolving).
- Automated check-ins with at least 3-bin sorters becoming standard.

The New Self Check-out: Automated Check-in





Variations in Automated Check-ins

- Location (inside, outside, foyer)
- Access (restrictions, or not)
- Induction (one-at-a-time, or not)
- Patron interface (touch screen, or not)
- Number of sort discharges
- RFID (or not)



Automated Check-in with 3-Bin Sorters

- Cost: \$40,000 - \$70,000
- Benefits:
 1. Items checked in before patron enters library
 2. Don't just optimize check-in, eliminate it from staff workflow entirely
 3. Separate ready-to-shelve returns
 4. Separate media (protect them from damage)
 5. Separate items needing staff (e.g. holds, exceptions)
 6. Small footprint (10'x10' room min with big bins)
 7. 1.5 FTE in savings

Lyngsoe SortMate

- Capacity: 200 items per “Ergo Trolley”
- Flexible – totes or trolleys
- Expandable – add more sorts





3M Intelligent Return Plus

- NOT expandable
- Optional Add-ons
 - Touch Screen
 - Outside induction

UL-Certified

*picture shown represents the 3M Intelligent Return Plus



Bibliotheca SmartSort 200

- Entry level
 - No touch screen
 - No receipt
 - No reject option
- Inside and outside models





Envisionware WhisperSort

- Claim to fame: Quiet (< 55 db)
- Integrated holds-handling
- Expandable



Larger Sorters

- Cost: \$50,000 and up
- Benefits:
 - Same as 3-bin but require more space
 - Expandable
 - More sorting done so even less handling by staff



3M Intelligent Sorter System FX



Envisionware at Las Vegas – Clark County



EnvisionWare Modular Sorter - Central Sorter at Las Vegas-Clark County Library District

Lyngsoe



Tech-Logic



AMH Doesn't Require RFID

- Don't combine the two in one procurement
- If you are sure you need both, do RFID first
- But make sure you DO need both....





RFID: We finally have meaningful standards!



U.S. Data Model: ISO 28560-2

Your Job: Demand Compliant RFID Systems

■ Why it matters

- INTEROPERABILITY!
- Do more with RFID tags

■ How

- If you have ISO 18000-3, Mode 1 tags, you can use your existing tags. Talk to your vendor
- Insist on ISO 28560-2 in your next procurement

New RFID Materials Handling Products from Bibliotheca

■ SmartStock 500

- RFID “tunnel” that reads 50 tags at once
- Use: Receiving

■ SmartStock 600

- Detects items on shelf in real-time
- Use: Search for items and find out where they actually are





Bibliotheca Smart Serve 400: The new look of self-check?





Or this? Tech Logic MyMobileLibrary



- Mobile self-check-out application
- Uses Boopsie
- Check-out with smartphone
- Requires security kiosk to turn off security

Learn More About Ramifications of U.S. Data Model

See the July, 2012 issue of Library Technology Reports
“RFID: One Step Closer to Interoperability”



More on Library AMH & RFID

- <http://galecia.com/content/automated-materials-handling>
 - including this presentation...
- <http://pinterest.com/loriayre/library-materials-handling/>
- <http://pinterest.com/loriayre/library-rfid/>



Alan Kirk Gray





Vestibule and Returns



Wii
want you to play!
everyday!
teen room after school

Main Street



Children's Library

Darien Library
Summer Reading Program

Read
Summer
programs
children

Robert B. Parker
GRIMM Black Op
THE ASSOCIATE

Self

Welcome Desk





Reader Advisor

donated
\$24 million
to build the New
Darien Library.

The enthusiastic
response to this
valuable, new
community resource
sent 10,000 visitors
through our doors on
our first weekend.



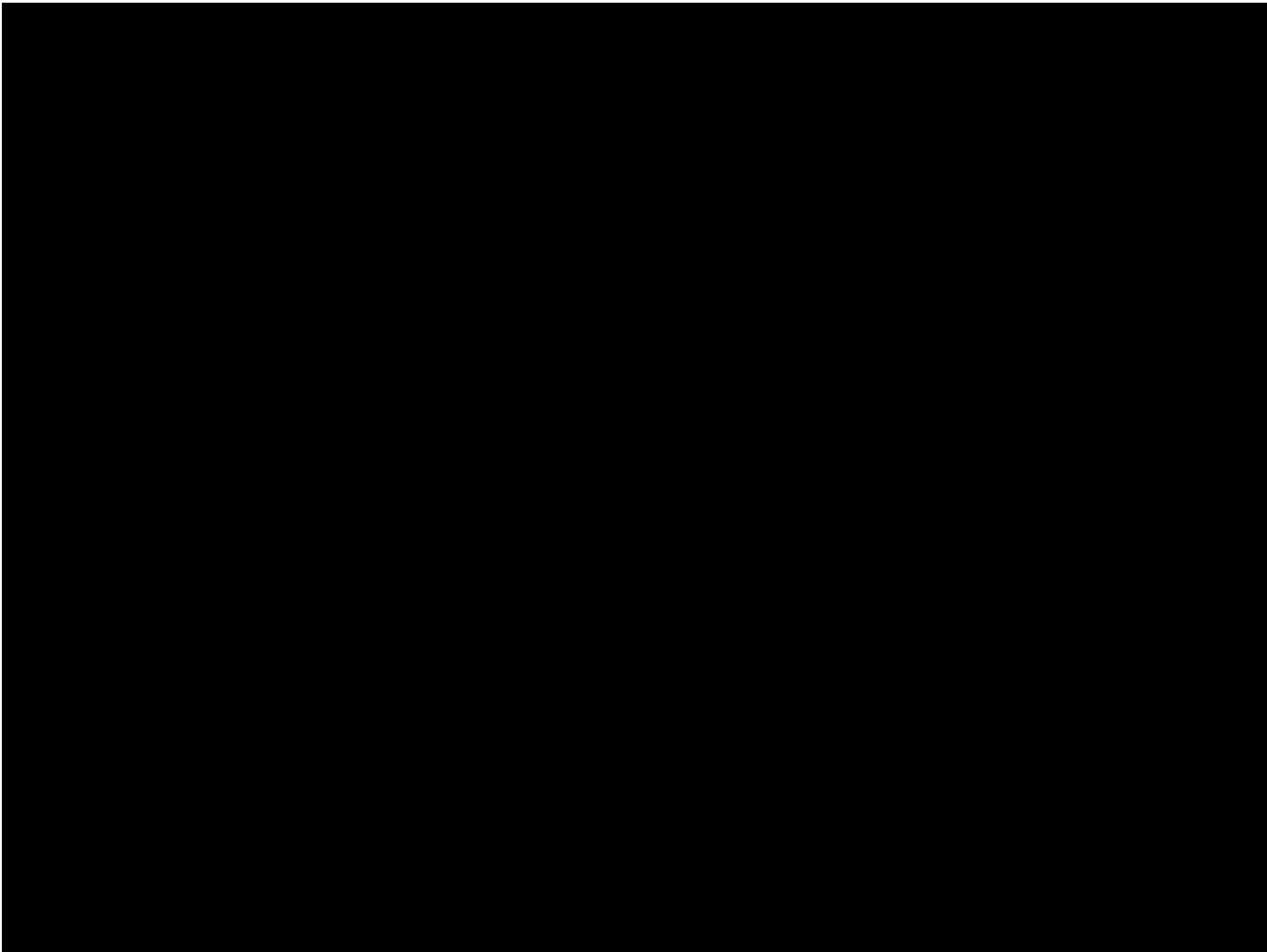
SAMSUNG

Reader Advisor at the Welcome



Materials Handling Input Conveyor







Materials Handling



Gretchen Freeman

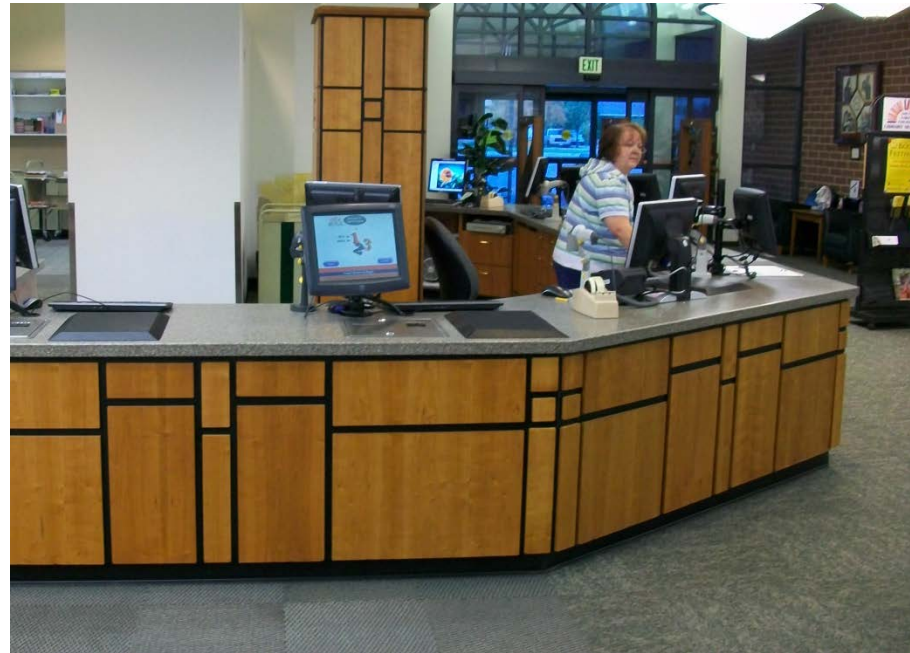
Salt Lake County Library

■ Goals for RFID

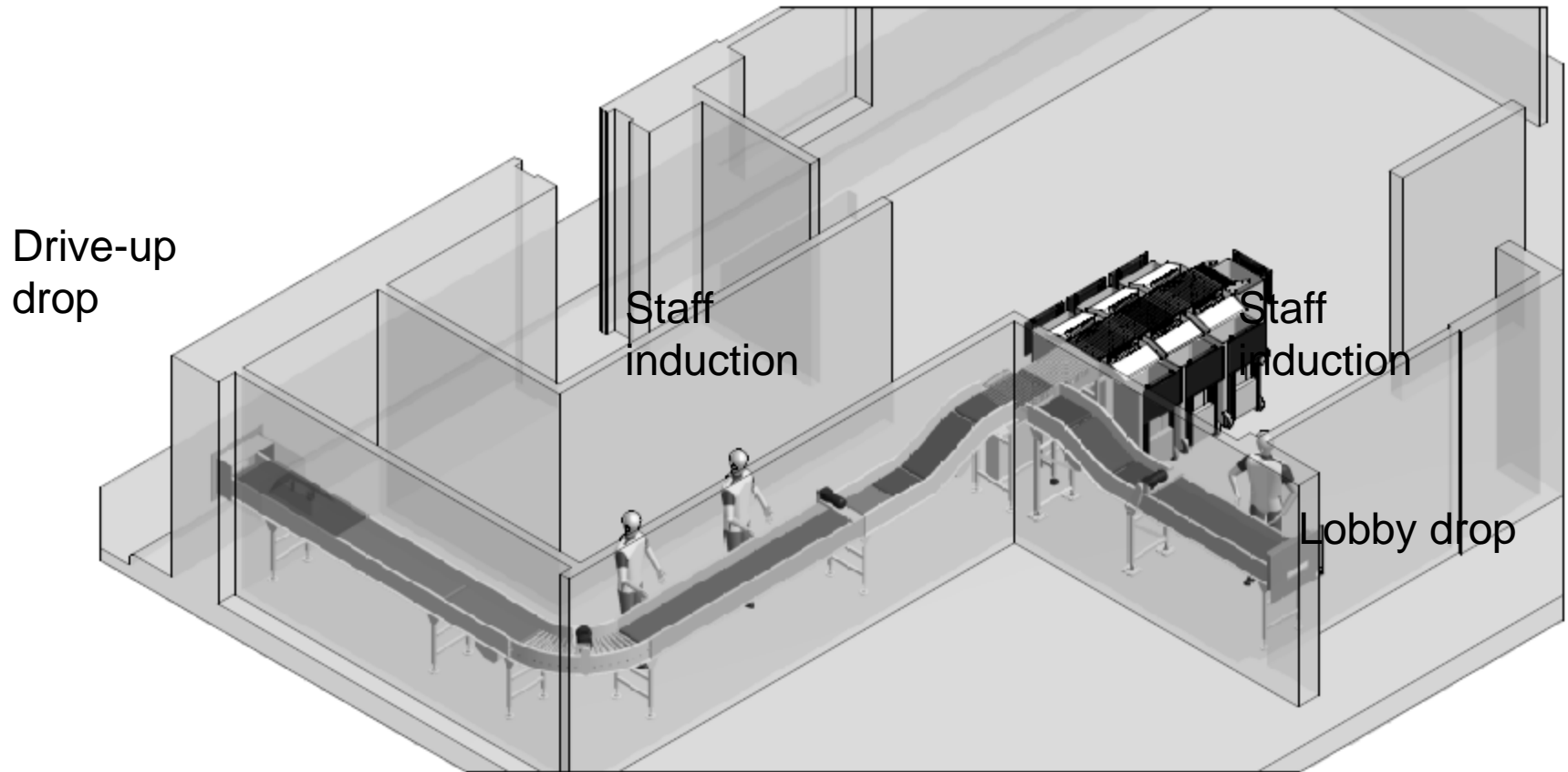
- Customer-friendly self checkout to reduce lines
- Streamline workflow, reduce backroom dead time
- Establish RFID as system security standard
- Install sorters to improve service & turnaround
- Use RFID for shelf management

Sorter Pay-Back Strategy

- Drive-up drop and internal lobby drop where possible for 24/7 check in
- Easy for customers to throw and go
- Staff induction for all backroom check in
- Check in all materials on the sorter
- Five or more bins per sorter
- Holds as first priority for check in and shelving



**Branch circulating 900,000 items per year
7-bin sorting system with internal & external drops
and staff induction areas**





Workload per circulation clerk

CSS Workload Report February 2012

LIBRARY LOCATIONS	WORK IN	WORK OUT	HOLDS	TOTAL WORKLOAD	FTE	TOTAL WORKLOAD/ CSS FTE
SMITH	37,693	17,120	7,825	62,638	3.88	16,144
WEST VALLEY	45,833	22,200	3,622	71,655	4.50	15,923
TAYLORSVILLE	61,899	29,626	8,205	99,729	6.38	15,632
BINGHAM CREEK	98,924	44,076	16,711	159,711	10.25	15,582
HUNTER	87,075	40,137	14,922	142,134	9.25	15,366
HOLLADAY	77,782	37,018	8,585	123,384	8.13	15,176
WHITMORE	96,358	45,703	11,314	153,375	10.13	15,141
COLUMBUS	34,860	15,021	6,414	56,295	3.75	15,012
TYLER	32,407	14,800	5,214	52,421	3.50	14,977
KEARNS	46,154	22,482	6,048	74,683	5.00	14,937
MAGNA	49,015	23,488	8,023	80,526	5.50	14,641
WEST JORDAN	59,180	27,921	7,897	94,998	6.63	14,328
RIVERTON	73,908	33,544	10,669	118,121	8.25	14,318
SOUTH JORDAN	80,950	37,320	14,484	132,754	7.00	18,965
DRAPER	77,866	35,802	11,699	125,367	7.00	17,910
SANDY	120,376	56,057	17,615	194,048	11.00	17,641
HERRIMAN	69,334	32,895	8,044	110,273	6.50	16,965

Formula used for calculating CSS workload statistics:

Work In + Work Out + Holds = Total Workload

Work In: check-in + delivery

Work Out: .50(check-outs) + 2(applications) + 3(payments)

Holds: [3(request pull list) ÷ 2] + [5(expired holds) ÷ 2]

CSS FTE includes 1/2 of Library Assistant allocation for DRA, HER, HOL, HUN, KEA, SMI, SJO, TAY, TYL, WJO, WHI
Libraries with sorters are grouped separately at the bottom of the chart.



John Callahan

Palm Beach County Background

- Revenue down 26%, Circ up 50%
- Adding 175,000 sq. ft. of new space including 3 new branches, 2 larger replacement branches, 2 expanded branches, 9 renovated branches.
- Looking at 60-75 new hires
- \$2 - \$3 million available in capital funds

Approach

- Identify solutions
- Issue RFP for self-check
- Choose security/RFID vendor
 - Able to piggyback on existing contract
- Choose AMH vendor
 - Sought vendor with proven track record who could handle our needs
 - Again, able to piggyback on existing contract

Outcome

- No layoffs
- Eliminated need for 60+ jobs
- Self check-out up to 68%
- Self check-in up to 90%
- Interlibrary delivery turnaround time reduced from 2-3 days to same or next

Key Take-Aways

Planning

- Do it and do it thoroughly
- AMH can provide significant savings.
- RFID and self-check improve customer experience but don't necessarily save money.
- Push as much work through sorter as possible.
- Get staff buy-in.
- Don't leave key decisions to your vendor.

Avoid the RFP/RFQ Process

- Work with vendors.
- Study options.
- Make choices.
- Then, get quotes from vendors you are interested in.

Figure Out Your Payback

■ How?

- Take capital cost plus maintenance.
- Determine how much you need in staff savings to achieve payback in X years. You pick X.

■ Look for 3-5 years ROI.

■ Realistic?

Going Forward

- Actively monitor workload after adding sorter and make staffing changes as needed (money doesn't save itself).
- All new construction projects should include an AMH system.
- Report on both direct (\$) and indirect returns on investment.
- Look for new materials handling opportunities with RFID.

Survey Says?

Review this program at
www.surveymonkey.com/s/ala2012pla

