

A barcode on steroids, revisited: Practical **p**lanning and **p**reparation for RFID

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Session B4 ~ Yorkshire 1 ~ October 18, 2007

Netspeed 2007 ~ Calgary, AB

Overview

- RFID basics
- EPL & FMPL: facts & figures
- General project management
- What we've learned
- Q&A

RFID?

- *Not Really Frightening*
- *Not Remarkably Freaky*
- *Not Relatively Fearsome*



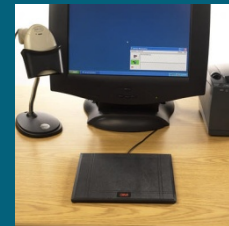
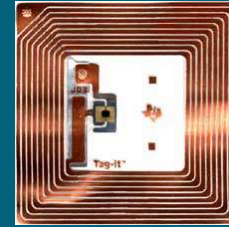
RFID primer

- Storage/retrieval for identifying information
- Microchip and antenna
- Data: Identifier, security
- Read by passing through field of radio waves
 - Wireless
 - Contact-free
 - Orientation-independent
 - Passive
 - Proximity



Basic RFID equipment

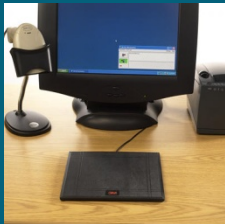
- Label
 - Antenna
 - Chip
 - Item data
 - Security bit
- Reader/sensor



Perspective



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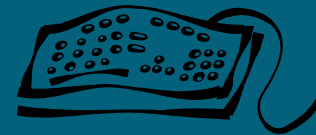
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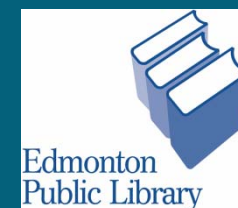
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Comparison & contrast

	EPL*	FMPL
Locations	16	1
Population served	730,372	85,396
In-person visits	5,413,008	210,385
Collection size	1,607,290	103,425
Annual circulation	9,508,185	221,516
Annual circ increase	5.7%	7% (after trending down)

* 2006



Comparison & contrast

	EPL	FMPL
Technology selected	<ul style="list-style-type: none">• Tags• Readers• Self-check• Handheld scanners• Automated check-in• Automated sorting* <p>* Some locations only</p>	<ul style="list-style-type: none">• Tags• Readers• Self-check• Handheld scanner• Will institute automatic sorting at new facility in 2008
Project timeline	Planning: Fall 2004- Implementation: January-June 2006 (documents, selection) September 2006-	Planning: Summer 2004- 2005 Implementation: August 2005



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Why RFID?

EPL	FMPL
Increased city population	Increased city population
Increased circulation	Increased visits
Increased visits	Increasing staff soft-tissue injuries
Increased public demand for value-added services	Staffing issues – need to cut down on time-intensive processes
Increasing staff soft-tissue injuries	Shift towards proactive customer service
Need to work smarter, not harder	Positioning the library as a forward-looking institution
Need to increase staff visibility	Timing was right, given upcoming move to a new facility
Need to automate what can be automated	

Project goals

- Increase self-service options
- Increase customer independence
- Increase customer privacy
- Increase F2F time with customers
- Increase value-added services
- Increase speed to locate items (inventory)
- Immediate check-in
- Reduce check-in errors
- Reduce line-ups & time spent in them
- Reduce invisible staff doing invisible work
- Reduce physical handling of items
- Reduce soft-tissue injuries

A multifaceted project

- Political (something to be Pointed to with Pride)
- Philosophical
- Ptechnological
- Practical
- Preparation
 - Policy
 - Procedure
 - Personal
 - Publicity





Visibility

- Up-front and personal
 - Self-service
- Off the radar
 - Tags
 - Most staff equipment
- Somewhere in between
 - Automated check-in
 - Sortation



One library's experience (YMMV)

• Preparation

- Background research
- Business case
- RFP
 - Development
 - Release
 - Site visits
 - Evaluation
- Selection

• Execution

- Policy work
- Procedures/manuals
- Tagging
- Equipment roll-out
- Staff training
- Customer training
- Promotion
- Troubleshooting

Preparation

- Foundation documents
- Policy review
- Sound bytes





Foundation documents

- Business case
- Request for Proposal (RFP)
- Budget





Business case

- Description of project
- Strategic alignment
- Environment analysis
- Alternatives
- Business & operational impacts
- Project risk assessment
- Cost/benefit analysis
- Conclusions/recommendations

RFP

- We require X, Y & Z... Show us what you can do
- Stand on the shoulders of giants
- Site visits?



RFP evaluation/shortlisting

- Vendors may look similar on paper
- Weighted evaluation criteria

Value	%	Criterion
10	7	Firm or individual's qualifications
10	7	Relevant experience and references
10	7	Comprehensiveness of response
25	17	Response to requirements
20	13	Total cost of ownership (TCO) over 5-year period
20	13	Project schedule
20	13	Impact on Library operations
15	10	Training
15	10	Support/warranty
5	3	Value-add & other relevant information
150	100	Total



Proof of concept testing

- How successfully (or not) technology & ILS interact
- How easy (or not) equipment is to use, for staff *and* customers
- Ease (or not) of:
 - Physical installation
 - Software interaction
- Allows vendor to demonstrate responsiveness
- Surprises = bad



Policy review

- How are services changing?
- What to add
- What to delete
- What to amend
- Remove the barriers
 - To PIN or not to PIN?
 - Require card?
 - Receipts?



Sound bytes

- Simple
- Uniform
- Memorable



What we've learned



Mind your P's and Q's

- Ask lots of questions
- And get lots of answers





Library, know thy technology

- And its limitations



Acknowledge limitations

- EPL Business Case states RFID won't:
 - Result in position losses
 - Increase/improve item security
 - Result in less-visible security tags
 - Replace barcodes
 - Result in discontinuing use of locking cases
 - Eliminate staffed check-out desks

POC testing is essential

- Would *you* buy a car without a test drive?
- Would *you* buy a house without an inspection?



POC

- *Really* put the equipment through its paces
- Single items
- Multiple items
- How are exceptions handled?
 - Items with special status (transits, missing, lost, CR)
 - Items with holds (individually/multiples)
 - Card expiry during loan period
- Size of RF field surrounding all equipment
- Item orientation
- Handheld
 - Data message required?
- How do hardware and software interact?



Plan early, plan often

- Site visits
- Master list of capital work required
- Issue work orders early
- Get work done early

Have sound receiving **p**rocedures

- or, The Case of the Missing DLA



Space: The final frontier

- Big
- Bulky
- Heavy
- Moving?
- Storage?



Consider **p**artnerships

- The Costco model



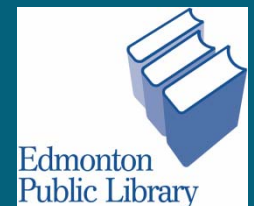
Consider alternatives for tagging

- or, The hidden costs of DIY
 - Time = money
 - Selection, training, retention, replacement
- Volunteers?



Library, know thy collection

- And its special requirements



Weed early, weed often

- Time = money
- Is it worth further investment?
- Investment:
 - Time
 - Thought
 - Physical manipulation
 - Supplies



Remove the barriers

- Procedure
- Policy
- Alerts/overrides

Not everyone is initially a fan

- Staff (all levels)
- Customers





Promotion to staff

- The Macintosh approach
- Message from the top





Promotion to customers

- Seeing it
- Seeing it being used
- Signage
- Bribery?

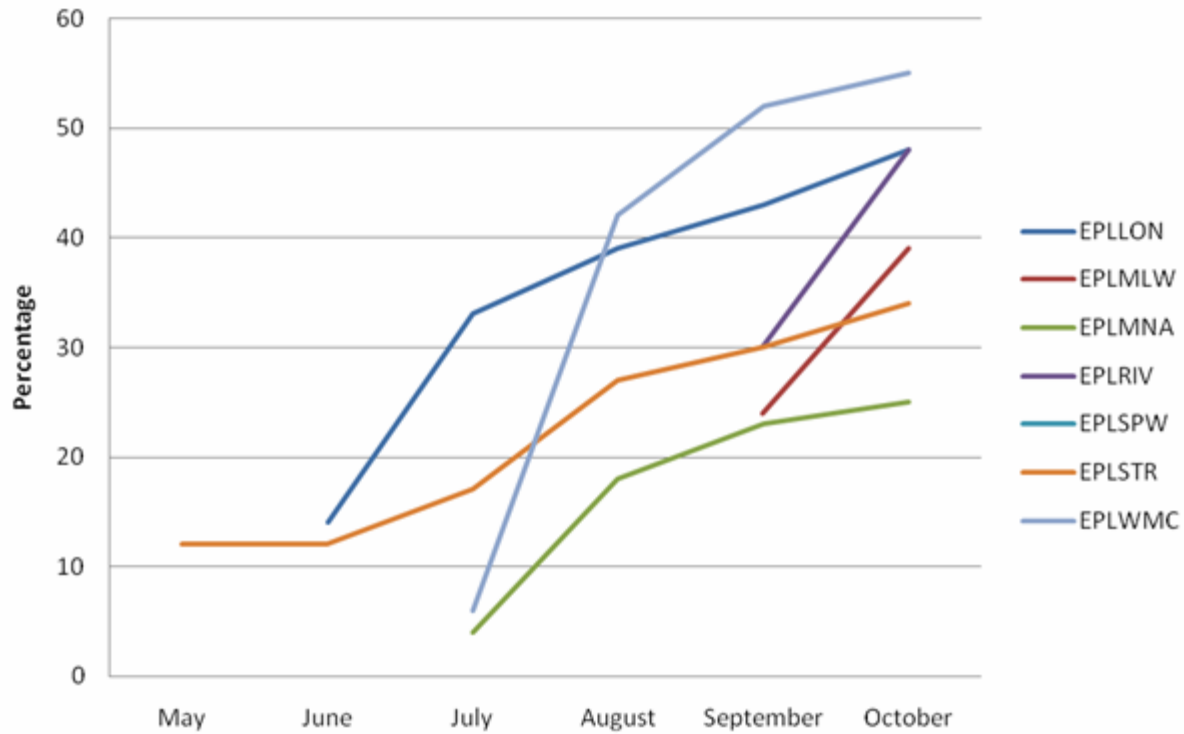


Location, location, location

- Physical placement is *critical*
- People won't use what they don't see



Self Checks as Percent of Checkouts



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Philosophy

“Don’t

make

me

think!”



Customers will keep you honest

- E-mail receipts
- “No receipt” option
- Screen saver text/graphic



Customers care

- And they make assumptions
- Communication is critical



Staff care

- Locking cases
- Communication is critical



Delays are inevitable



Don't be afraid to take risks

- Fear not the unk-unks
- There will always be unk-unks!
- Prepare for the worst; hope for the best

Time wants to be free

- Plan for it, or it will disappear



Questions?



Contact us

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