Seamless Order to Delivery

Integrating Processes for a Frustration-free User Experience

Pete Schreiner
Sydney Thompson
North Carolina State University Libraries
2016 Access Services Conference

NCSU LIBRARIES

North Carolina State University

Educating more North Carolinians than any other university

34,015 Students

- 22,574 Undergraduates
- 9,358 Graduates

2,336 Faculty

6,733 Staff

- 200 Libraries Staff & Faculty

Think and Do

NC State was founded with a purpose: to create economic, societal and intellectual prosperity for the people of North Carolina and the country. We began as a land-grant institution teaching the agricultural and mechanical arts. Today, we're a pre-eminent research enterprise that excels in science, technology, engineering, math, design, the humanities and social sciences, textiles and veterinary medicine.

NC State students, faculty and staff take problems in hand and work with industry, government and nonprofit partners to solve them. Our 34,000-plus high-performing students apply what they learn in the real world by conducting research, working in internships and co-ops, and performing acts of world-changing service. That experiential education ensures they leave here ready to lead the workforce, confident in the knowledge that NC State consistently rates as one of the best values in higher education.

NCSU LIBRARIES

Strengths in agriculture, architecture, biological sciences, design, engineering, entomology, forest resources, mathematics, physical sciences, statistics, textiles, and veterinary medicine

More than 5.1 million volumes, and approximately 91,000 print and electronic serial subscriptions (90,000 of them electronic)

568 bibliographic databases and a growing array of electronic full-text and image collections

Access to over 897,000 electronic books

NCSU LIBRARIES

D.H. Hill Library

Hunt Library

NCSU LIBRARIES

D.H. Hill

James B. Hunt

Harrye B. Lyons Design Library

Natural Resources Library

William Rand Kenan Jr. Library of Veterinary Medicine

African American Cultural Center Library and Media Room (campus library)

Media and Education Technology Resource Center (campus library)

Satellite Storage Facility (special collections)

TRLN

Triangle Research Libraries Network

NC State, Duke, NC Central, and UNC–Chapel Hill

Oldest academic library consortium in the United States

Combined collection of over 20 million volumes

Cross-searching capabilities

Expedited Delivery Service

Access Services

1.5 Librarians, 19 full time staff, 23.5 FTE students (17.5 Ask Us / 6 Order to Delivery)

24 X 5 coverage of Ask Us service points in two main libraries

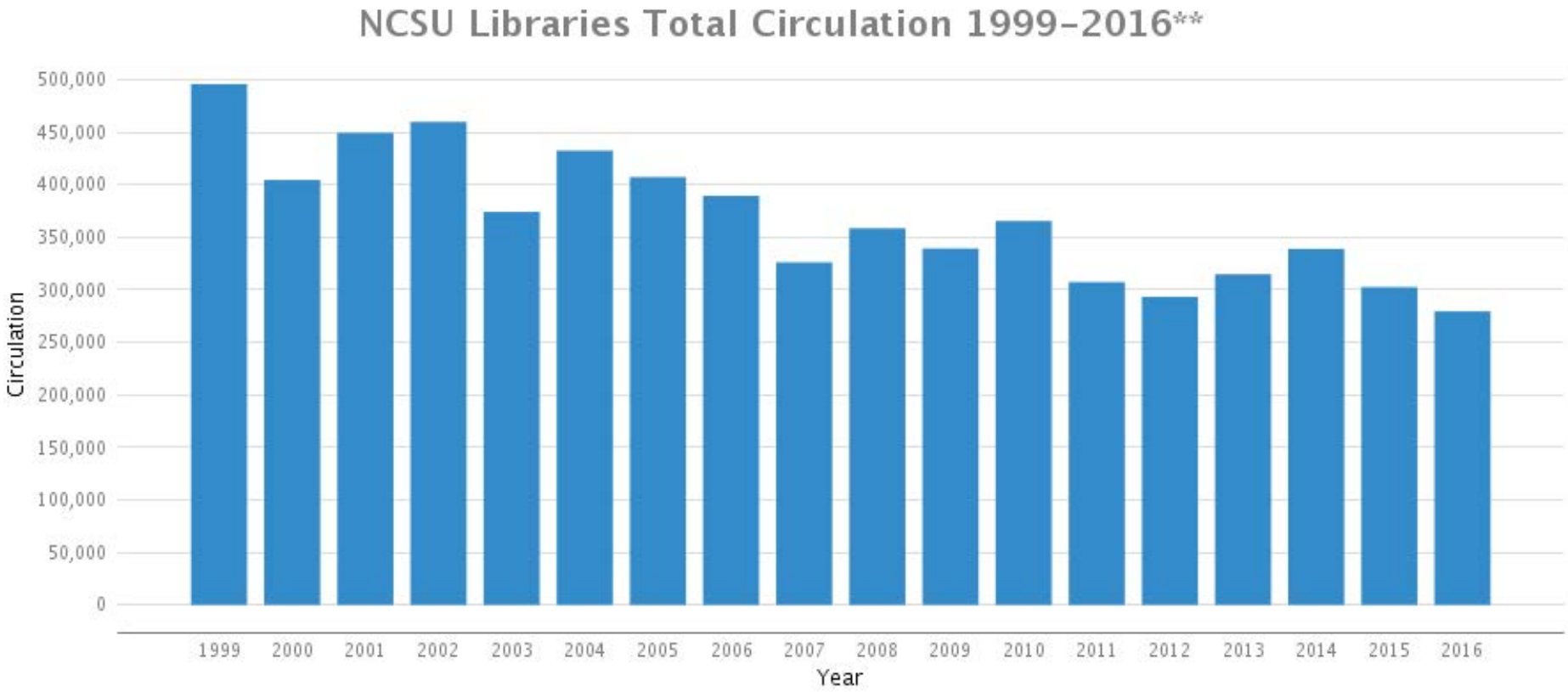
Technology lending processing

Course Reserves

Bookstacks

bookBot

Tripsaver (interlibrary loan)


NCSU Libraries Total Circulation 1999-2016**
Circulation
500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
1999
2000
2001
2002
2003
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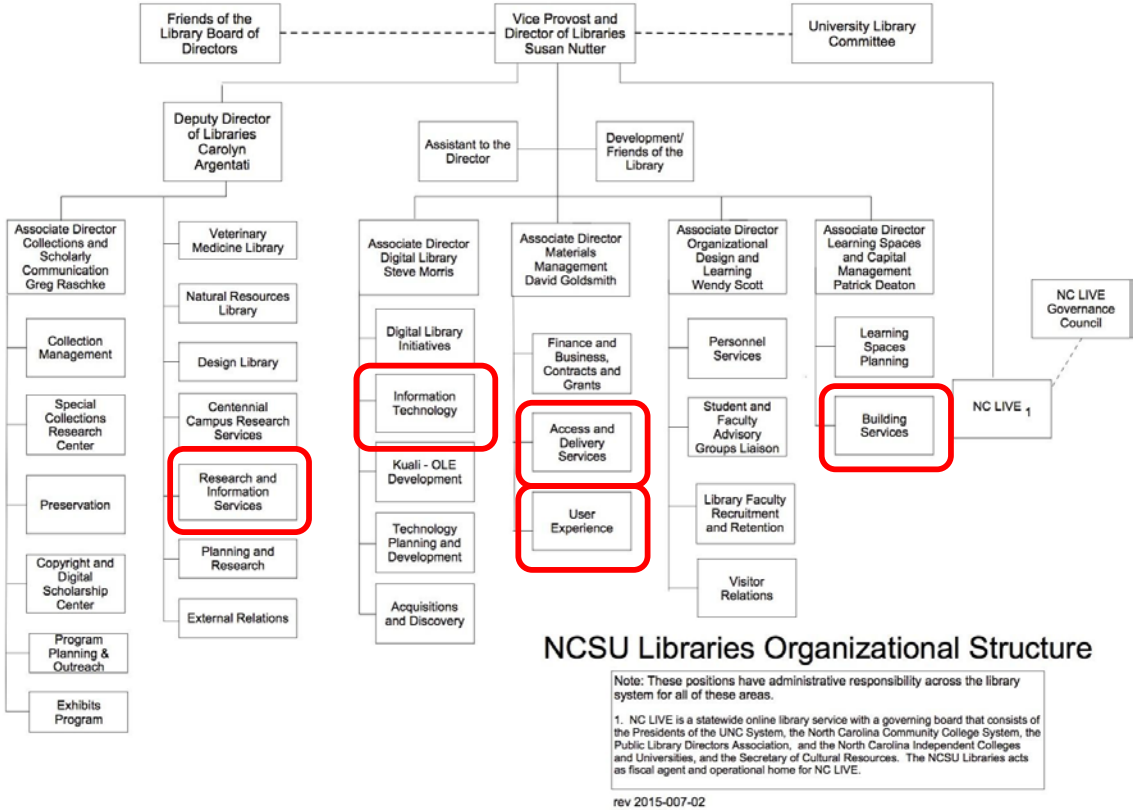
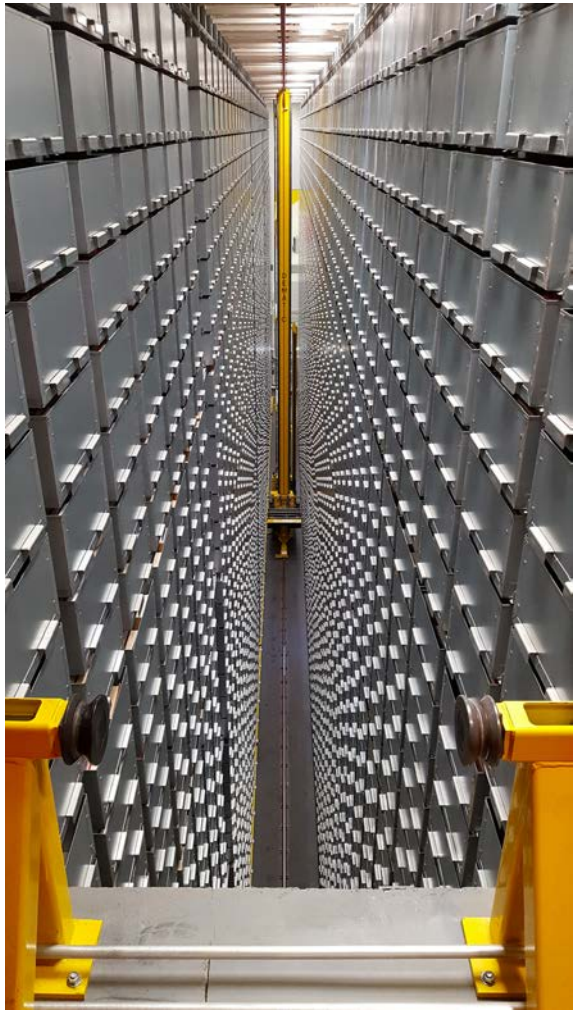
2012
2013
2014
2015
2016
Year

Opening Hunt Library: Matrix Management



Hunt Library Ask Us

Hunt Library Order to Delivery (O2D)

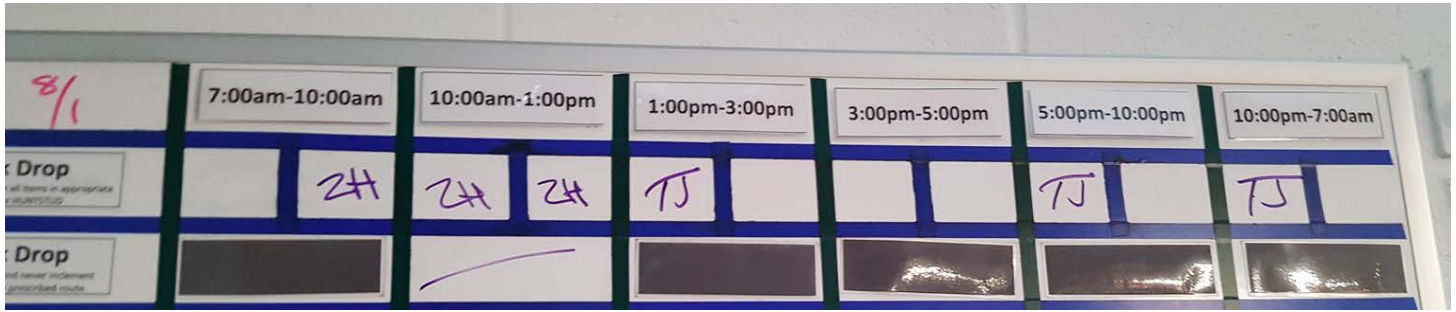


Hunt Library O2D

Hunt Workroom Visual Management

Developing the Board

	A	B	C	D	E	F	G	H	I	J	K	L
1	*Today's Date*	7:00am-10:00am		10:00am-12:00pm		12:00pm-2:00pm		2:00pm-4:00pm		4:00pm-10:00pm		10:00pm-7:00am
2	**Ask Us Book Drop**											
3	(twice per time block)											
4	**Outdoor Book Drop**											
5												
6	**Floor Sweeps**											
7												
8	**Pack Mail**											
9	(closer to end of time block)											
10	**Pick-Up Mail**											
11												
12	**Hold List Pulls**											
13	(ask Staff to print)											
14	**ILL Processing**											
15	(Staff: leave blank if no requests)											
16	**1. ILL Scanning**											
17	(leave blank if no requests)											
18	**2. Audits**											
19	(4 per shift)											
20	**3. Shelving**											
21	(bookBot and open stacks)											
22	**4. Open Stacks Maintenance**											
23	(Shelf Reading, Straightening, Shifting)											
24												
25	**Announcements**			**Special Projects**				**Improvement Ideas**				**Who's Not Here?**
26												
27												
28												
29												
30												

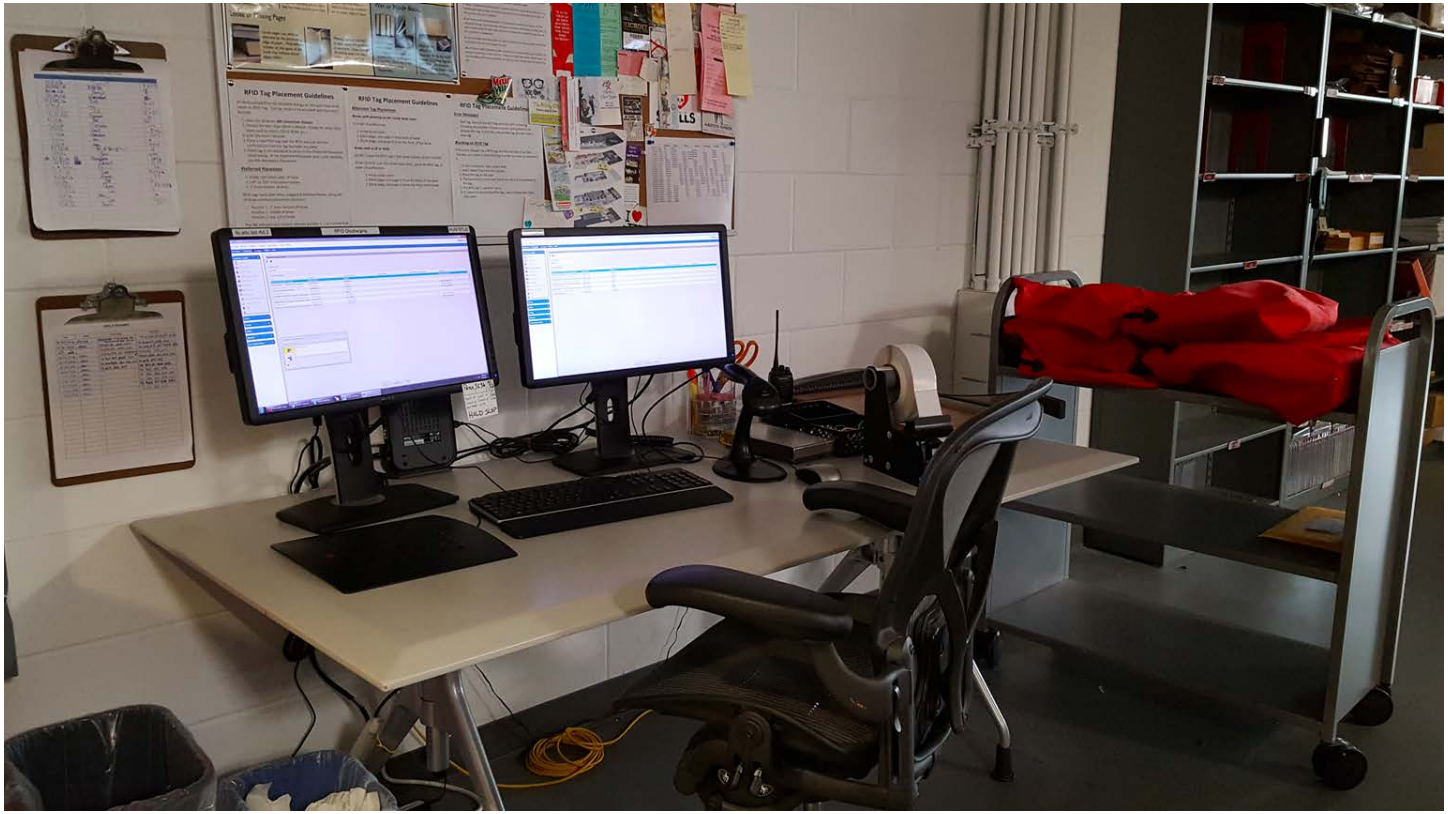


Components of the Board

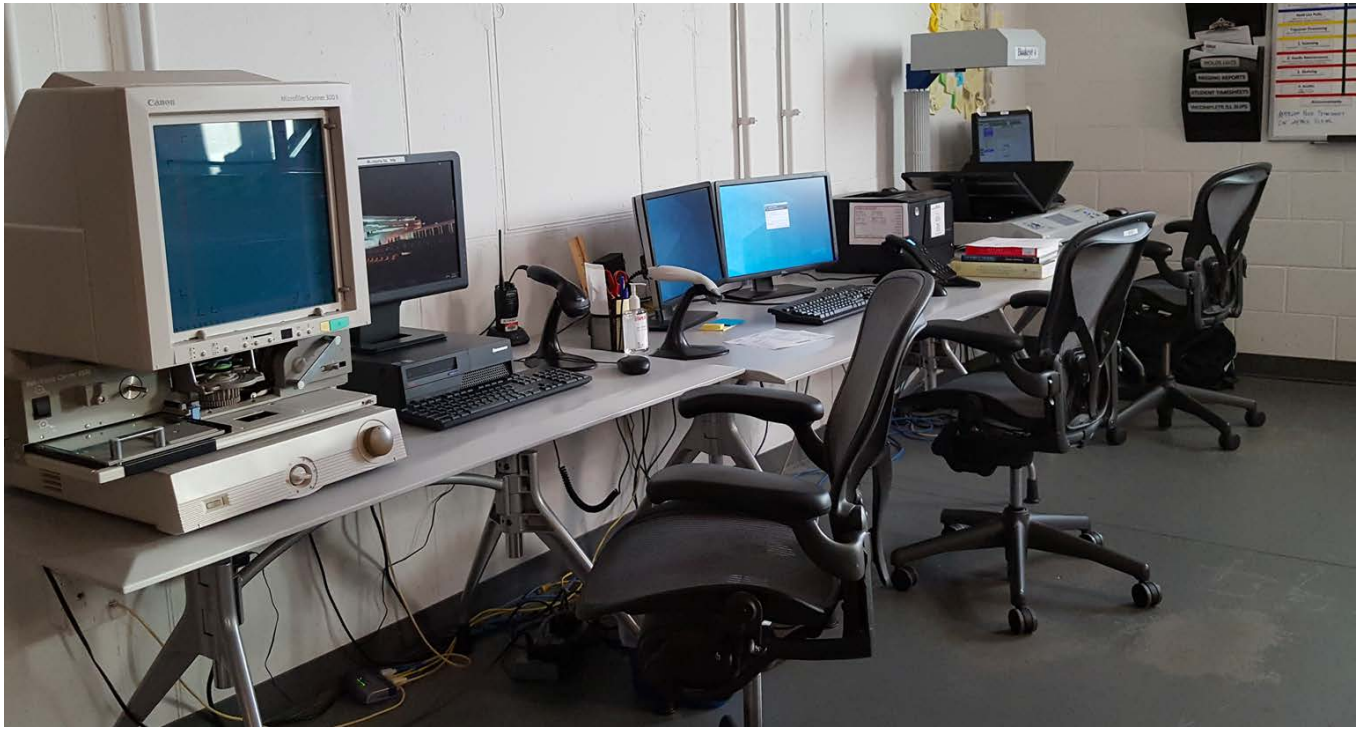
Hunt Workroom Processing Areas

Pick, Store and Audit Stations

Bookdrop and Transit Check-in and RFID stations



Processing, Scanning, Microfilm



Other Improvements

My Account

NCSU LIBRARIES

- Checked Out
- Holds/Requests
- Fines
- Account Info

TRIPSAVER

- Digital Deliveries
- Checked Out
- Request an Item
- Request History
- Tripsaver Settings

LOGOUT

RAPID ILL

ILLiad Web Circulation

Main

Home
Change Password
Logoff slt

Quick Tasks

Enter transaction number

Mark Received
Check Out
Mark Returned
Renew

Requests | Users | In Transit Items Received | In Transit Items Returned

Search

Drag a column header here to group by that column

Transaction	Title	Author

No data to display

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D. H. Hill Library Ask Us

Limited space based on merged service

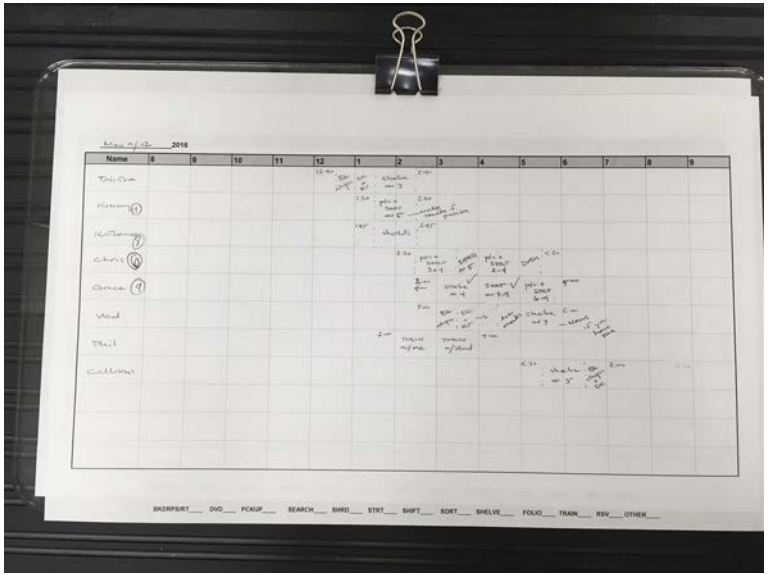
Ask Us
1214D
A-HF
HF-PZ
N-P
Hot 'N Ready

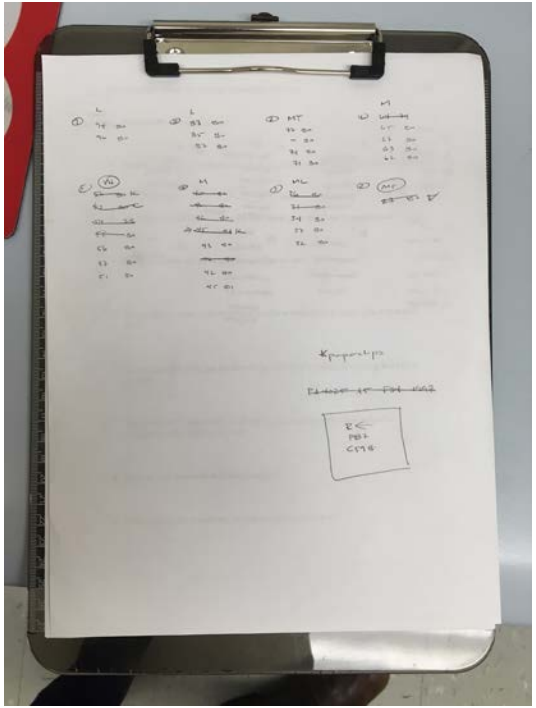
D.H. Hill Bookstacks Processing

Streamlined Bookstacks Processing

D.H. Hill Bookstacks Workroom

Stacks Management and O2D





Visual Management Principles

Use the right tool to convey data: discrete vs. continuous data

Use color sparingly

Minimum ink to data ratio

Layout reflects data structure and flow

Bateman, Philp, & Warrender 2016

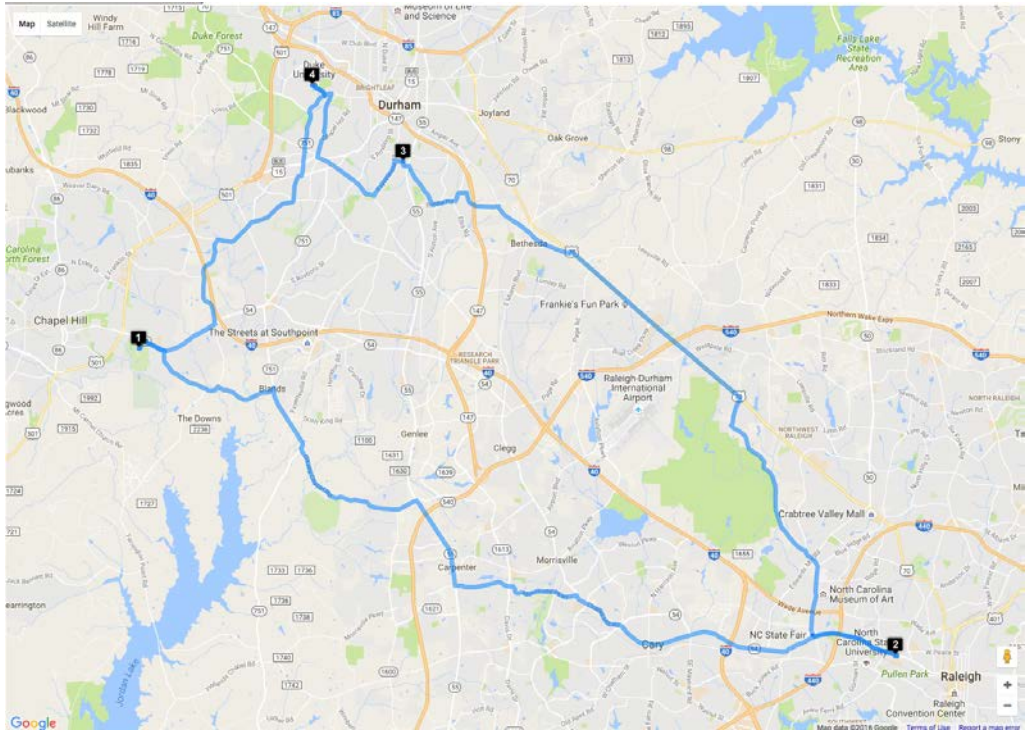
Developing the Board

Material Movement Coordination: Consortium

4 campuses

1 daily run

63 miles

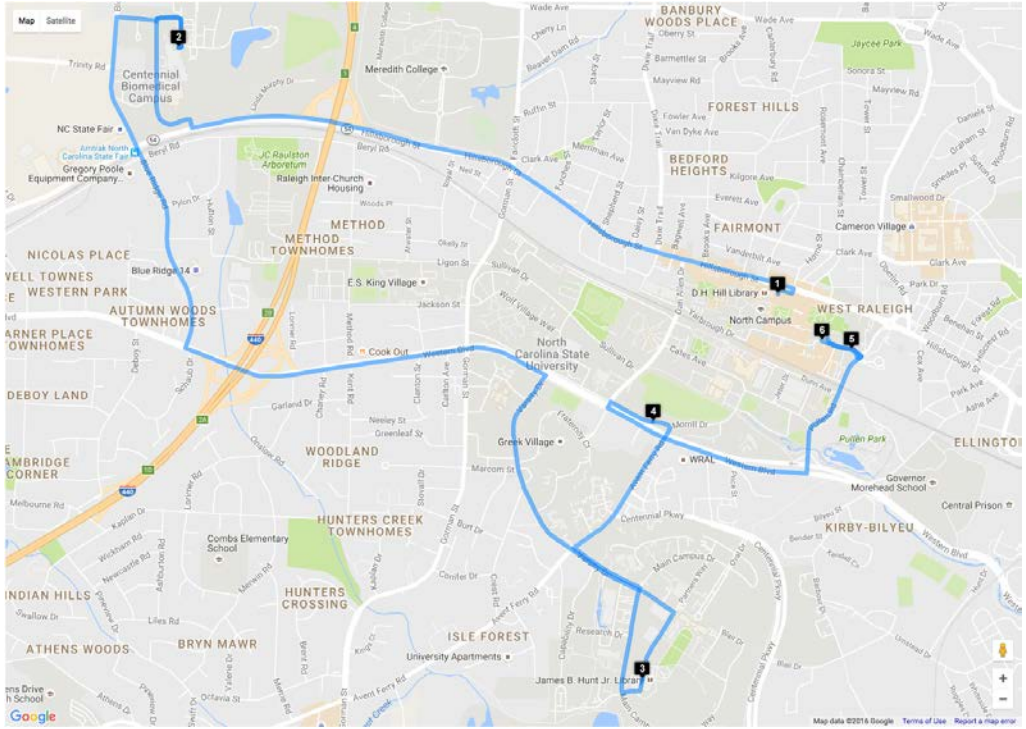


Material Movement Coordination: Campus

6 campus libraries

2-3 daily runs

9 miles



8 9 10 11 NOON 1 2 5 9 10

8 USPS PICKUP (STUDENTS IN)

11 UPS IN + OUT

2 USPS DELIVERY (ILL)

5 MAIL RM CLOSED

(TRIPSAVER STUDENTS OUT)

(STUDENTS OUT)

1 - 1:30 TRLN TRUCK

PRINT LENDING SLIPS (LESLIE)

PULL LOANS + ARTICLES

PROCESS LOANS

RECEIVES PROCESSING LENDING RETURNS

+ DOC DELIVERY/SCANNING PRIORITY - ALL DAY AS NEEDED

PULL SLIPS → 11 FOR UPS

9: PULL HOLDS LIST → 10:30 NCSU VAN → PREVIOUS DAY

~11:30 VAN BACK

? HOLDS PULL LIST [NEW]

2:30 NCSU VAN

4 ~ 5:30 RTN NCSU VAN HUNT+HILL

TRIP TO MAIL ROOM

NEW TRANSIT PROCESSED ITEMS FOR HILL + HOLDS FOR HILL

TRIPSAVER RETURNS [AFTERNOON]

SCANNING - ALL DAY? OVERNIGHT?

*RESERVE SCANNING → CHRISTINA 2:30

BOOKSTACKS

8 BOOKDROP + DISCHARGING

8 - 11 SWEEPS + SORTING FLOORS + MISC RETURNS

1 BOOKDROP + DISCHARGE

~4 BOOKDROP DISCHARGE → ? 5:30 [NEW] ← ~7 BOOKDROP DISCHARGE

11 SHELVING → (2 - 15 HRS)

? SWEEP 2ND SECTION [NEW]

9 - 11 — ALL DAY NEWSPAPERS *

SHELF READING/STRAIGHTENING EVERY SHIFT ALL DAY

DVDS: AS NECESS

MISSING MONTHLY 1-3 DAYS BEGINNING OF MONTH

https://docs.google.com/spreadsheets/d/11xRNuFzTEX1CJSUU3uOwvgTkfOvGl7wBZYCCTojObHI/edit#gid=0

O2D Student Task Chart

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

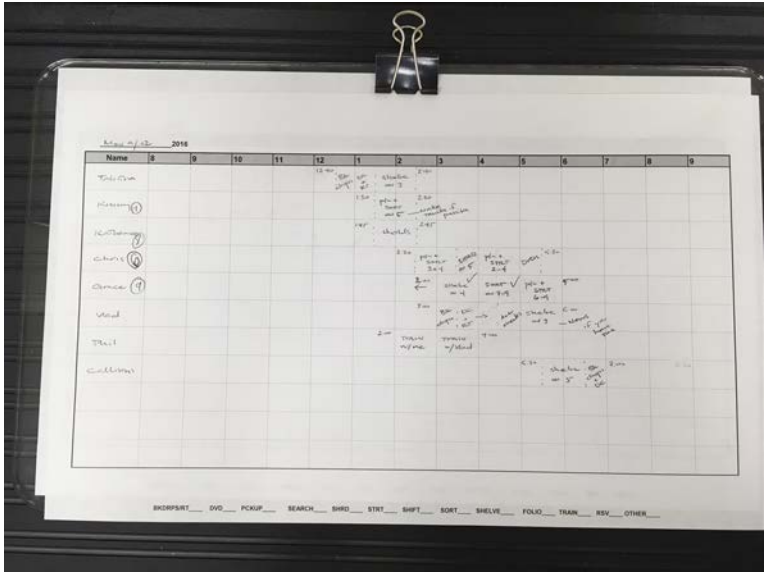
prschroi@ncsu.edu Comments Share

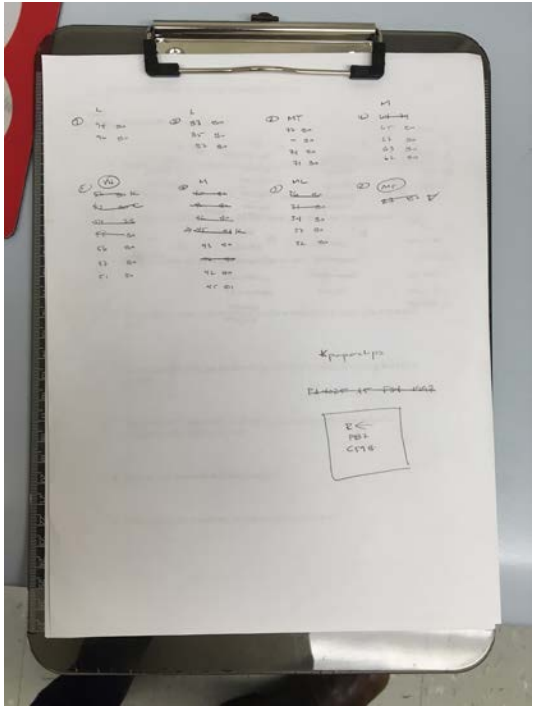
OVERNIGHT...

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1		8:00 AM	9:00 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	NOON	1:00 PM	2:00 PM	2:30 PM	3:00 PM	4:00 PM	5:00 PM	5:30 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	OVERNIGHT...	OVERNIGHT
2	Mail Services																				
3		USPS Pickup				UPS Pick up & delivery				USPS ILL Delivery											
4									TRLN Truck pickup & delivery												
5					NCSU Van		NCSU Van back				NCSU Van		NCSU Van Hunt/Hill								
6																					
7	ILL																				
8			Print lending slips (Leslie)	[Before TRLN Truck] Pull loans & articles, Process loans, Doc Del (as needed)																	
9			Pull List				Pull List														
10									Process Returns (ILL & Tripsaver)												
11							Process Holds for DH Hill														
12																					Scanning
13	Bookstacks																				
14		Bookdrop & Discharge							Bookdrop & Discharg				Bookdrop & Discharge		Proposed B		Bookdrop & Disc				
15			Newspapers & DVDs (As needed)																		
16		Sweeps & Sorting																			
17						Shelving															
18		Shelving & Straightening																			
19		Missing (Monthly)																			

Sheet1

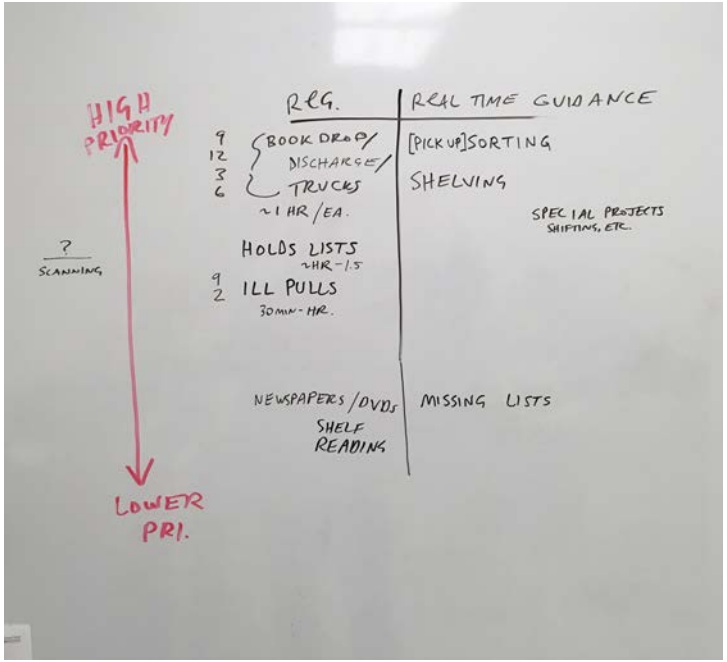
Explore

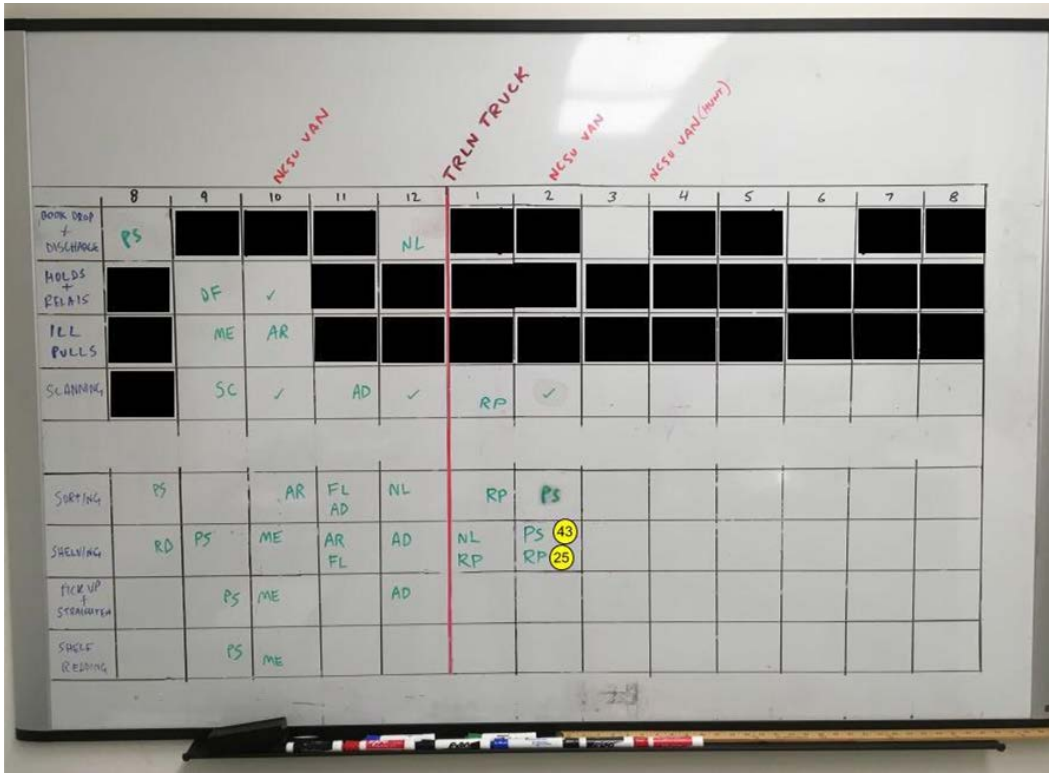

2016
Name
BKDRPS/RT___ DVD___ PCKUP___ SEARCH___ SHRD___ STRT___ SHIFT___ SORT___ SHELVE___ FOLIO___ TRAIN___ RSV___ OTHER___

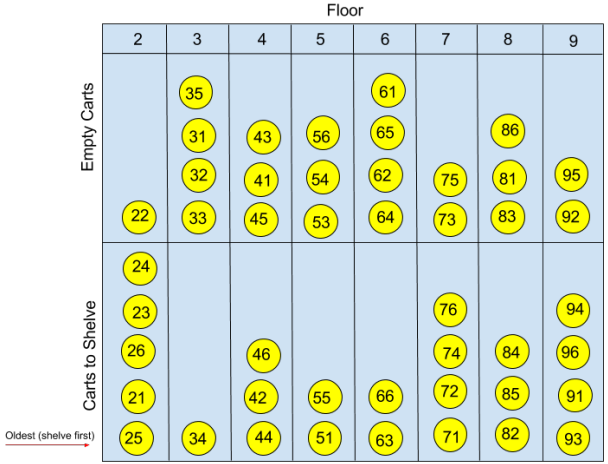


AT-A-GLANCE
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
August
2016
Abbreviations
SHRD = shelf read
STRT = straighten
p/u = pick up
DC = discharge
RT = run trucks
DVD = shelve DVDs
Extra-Time Tasks
Distribute Small Gray Carts in Stacks
STRT on floors 2-9
Shelve, STRT or SHRD DVDs
Shelve or STRT Newspapers
Unpack Incoming Mail
Pick Up Learning Commons
Shelve Special Collections books

Translating to Workboard

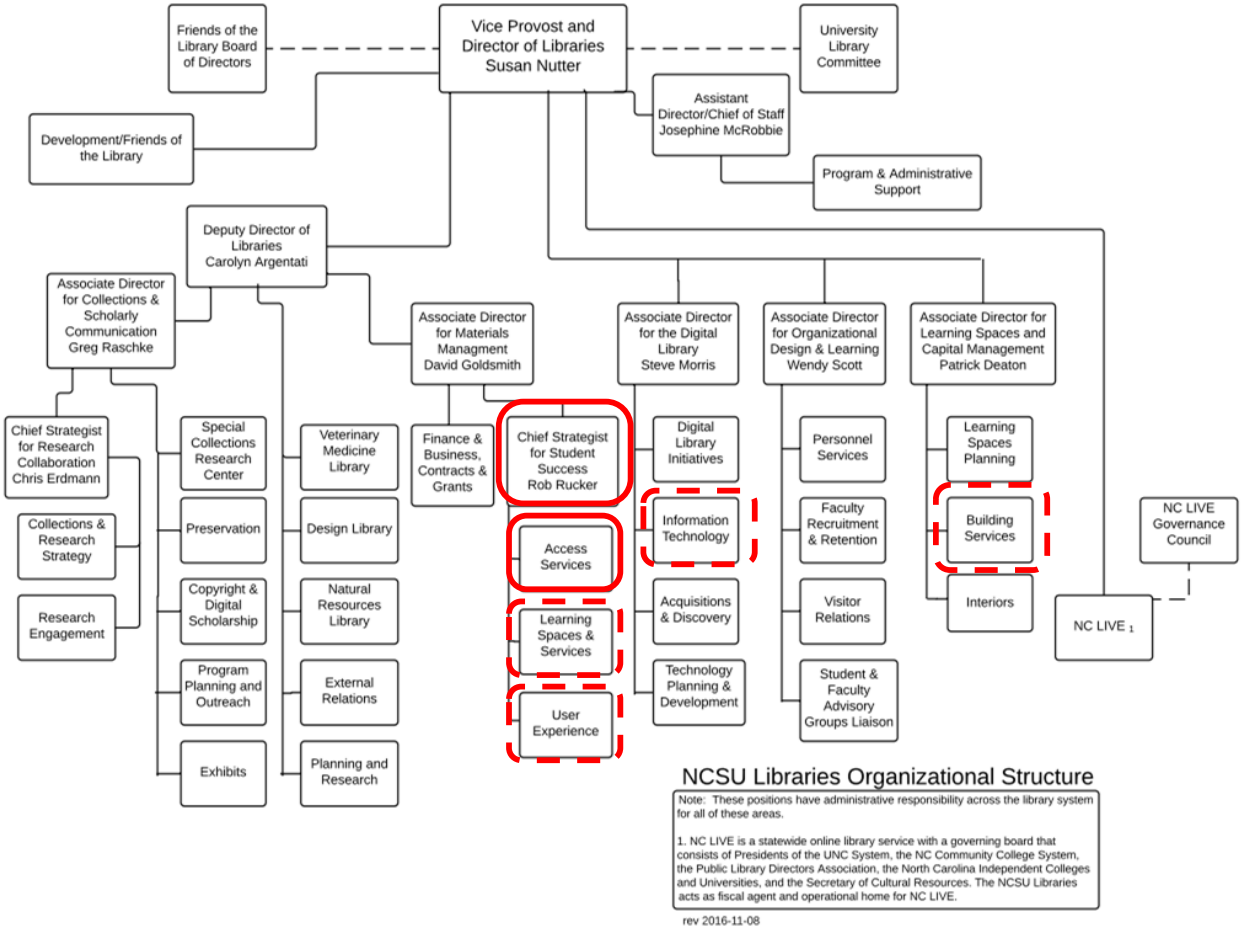



NCSU VAN
TRLN TRUCK
NCSU VAN
NCSU VAN (HUNT)
8 9 10 11 12 1 2 3 4 5 6 7 8
BOOK DROP + DISCHARGE
HOLDS + RELEASE
ILL PULLS
SCANNING
SORTING
SHELVING
PICK UP + STRAIGHTEN
SHELF READING
PS
NL
DF
ME
AR
SC
AD
RP
FL
RD
43
25


Floor
2 3 4 5 6 7 8 9
Empty Carts
Carts to Shelve
Oldest (shelve first)
35 61
31 43 56 65 86
32 41 54 62 75 81 95
22 33 45 53 64 73 83 92
24
23 76 94
26 46 74 84 96
21 42 55 66 72 85 91
25 34 44 51 63 71 82 93

D.H. Hill Course Reserves and Scanning

Shift in Matrix Management: 2016 Realignment



Resources

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https://www.kaizen.com/home.html

Thank you!

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