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2013

## BDM & Xtender: Putting the pieces together... technical to end user training

**Presented by:**

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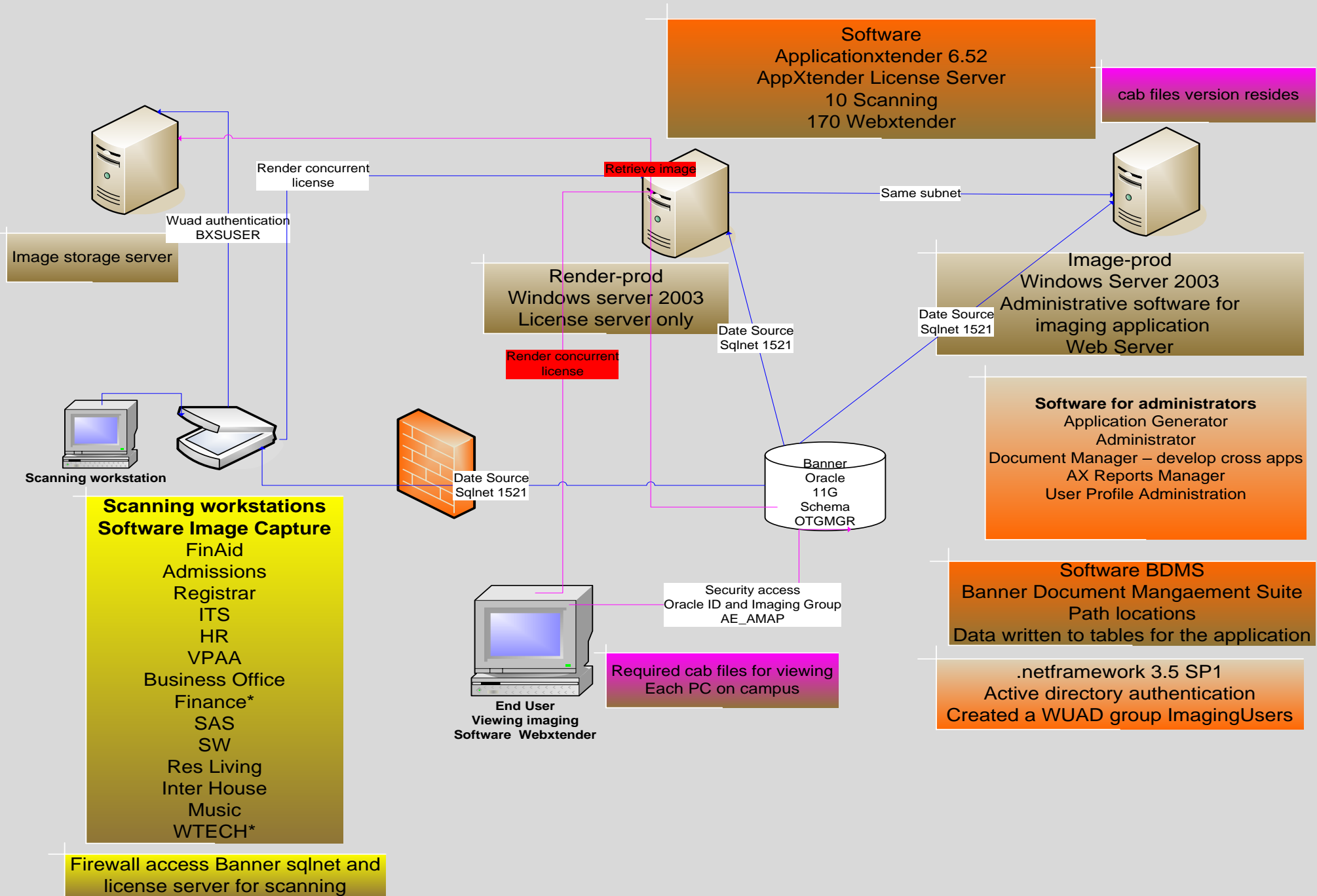
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Application System Administrator  
Washburn University

## BDM & Xtender: Putting the pieces together... technical to end user training

### Agenda Topics:

WU Overview:	Imaging products installed
Technical overview:	BDM, AX Desktop, WebXtender, AX Reports Management
Technical components:	OTGMGR, Data Source, Cab Files, App Gen and more
Functional overview:	Planning, training, testing, access to document types & improve business processes
Piece together:	Components and what to consider for upgrades and maintenance
Future plans:	Next steps with imaging products on our campus



**Software**  
 Applicationxtender 6.52  
 AppXtender License Server  
 10 Scanning  
 170 Webxtender

cab files version resides

Render concurrent license

Retrieve image

Same subnet

Wuad authentication  
BXSUSER

Image storage server

**Render-prod**  
 Windows server 2003  
 License server only

Date Source  
Sqlnet 1521

Render concurrent license

Date Source  
Sqlnet 1521

**Image-prod**  
 Windows Server 2003  
 Administrative software for  
 imaging application  
 Web Server

Scanning workstation

Date Source  
Sqlnet 1521

**Banner**  
 Oracle  
 11G  
 Schema  
 OTGMGR

**Software for administrators**  
 Application Generator  
 Administrator  
 Document Manager – develop cross apps  
 AX Reports Manager  
 User Profile Administration

**Scanning workstations**  
**Software Image Capture**  
 FinAid  
 Admissions  
 Registrar  
 ITS  
 HR  
 VPAA  
 Business Office  
 Finance\*  
 SAS  
 SW  
 Res Living  
 Inter House  
 Music  
 WTECH\*

**Software BDMS**  
 Banner Document Mangement Suite  
 Path locations  
 Data written to tables for the application

**End User**  
 Viewing imaging  
 Software Webxtender

Security access  
 Oracle ID and Imaging Group  
 AE\_AMAP

Required cab files for viewing  
 Each PC on campus

.netframework 3.5 SP1  
 Active directory authentication  
 Created a WUAD group ImagingUsers

Firewall access Banner sqlnet and  
 license server for scanning

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## Environments: Technical overview

### Test and Production Servers:

Windows servers 2003:

AIX Oracle 11GR2:

Storage Server:

Network:

Products:

Applications (17):

## BDM & ApplicationXtender in production since 2005

ApplicationXtender & AX Reports Manager 6.52.045  
Test and Production Banner databases with BDM 8.5  
Windows shares (2008 R2) Test and production images

Firewall rules (ports 1521 & 9251)

Image Capture, WebXtender, Application Generator, AX Administrator, License Server, Banner Document Management Integration with Single Sign-on

B-F-DOCS (Finance Purchasing)

B-G-ID (Business Office)

B-H-EMPL (Faculty & Human Resources)

B-R-ID & B-R-TREQ (Financial Aid)

B-S-ADMN, B-S-ID, B-S-CRSE, B-S-DGR (Admissions & Registrar)

8 Custom Applications (WU\_International, Music, Payroll, School of Applied Studies, Social work Residential Living, etc)

Scanning workstations: 15 on campus

PCs on campus: WebAccessClient Components installed

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## Technical Components:

Database components:

Schema OTGMGR contains tables for the AX configuration, application information, location of the physical images, security

Key database tables:

AE\_APPS, CM\_CONFIG, AE\_CFG, AE\_PATHS, AE\_DT{appid}, AE\_AI {appid}, AE\_AUDIT, AE\_RFSCT, AE\_AMAP, AE\_AL\_ALS, AE\_Login

Schema BANIGR contains the BDM integration pieces (context rules, document types, linking rules, etc.)

Server components:

Application Desktop, Render server, WebAccessNet, AX Reports Management

Key administrator tools:

Application Generator (create security groups and level of security for users, set document level security, add document types)

Scanning Workstations:

Oracle client 11GR2, network (firewall) connection (ports 1521) license server port(9251, 27000), scanner canon with ISIS drivers

PCs workstation:

WXClientComponents (the cab files). End user image retrieval

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## **Technical Role as application system administrator: Supporting BDM & ApplicationXtender products**

Database Schemas:            Become familiar with OTGMGR & BANIMGR tables, columns in each table and how the data is written to these tables. Also learn where the bin (actual image files) are written.

see Screenshot from TOAD

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Toad for Oracle - [OTGMGR@PROD - Schema Browser (OTGMGR.AE\_DT506)]

File Edit Search Editor Session Database Debug View Utilities Rerun Window Help

<No Workspace selected> Jump to... (Ctrl+J)

OTGMGR@PROD JSCHECK@PROD

Editor Schema Browser Editor Schema Browser

OTGMGR

Tables

- AE\_DL510
- AE\_DL511
- AE\_DL512
- AE\_DL513
- AE\_DL514
- AE\_DL516
- AE\_DL517
- AE\_DL518
- AE\_DL519
- AE\_DL520
- AE\_DL521
- AE\_DL522
- AE\_DL523
- AE\_DLS0
- AE\_DT495
- AE\_DT496
- AE\_DT497
- AE\_DT498
- AE\_DT499
- AE\_DT500
- AE\_DT501
- AE\_DT502
- AE\_DT503
- AE\_DT504
- AE\_DT505
- AE\_DT506
- AE\_DT507
- AE\_DT508
- AE\_DT509
- AE\_DT510
- AE\_DT511
- AE\_DT512
- AE\_DT513
- AE\_DT514
- AE\_DT516

AE\_DT506: Created: 4/27/2012 5:04:48 PM Last DDL: 10/23/2013 6:33:46 PM  
Primary Key: <none>

COLUMNS	INDEXES	CONSTRAINTS	TRIGGERS	DATA	SCRIPT	GRANTS	SYNONYMS	PARTITIONS	SUBPARTITIONS	STATS/SIZE
FIELD1	FIELD2	FIELD3	FIELD4	FIELD5	FIELD6	FIELD7	FIELD8	FIELD9	FIELD10	
P0029247		PURCHASING							2013-03-19 14	

Row 1 of 1 total rows

Cnt: 530; Sel: 1 OTGMGR@PROD  
AutoCommit is OFF CAPS NUM INS

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Data Synchronization: Real-time synchronization between Banner tables feeds the OTGMGR tables. **NOTE: You do not want users typing data into applicationxtender. Defects currently in BDM 8.4 and 8.5 for auto indexing in B-H-EMPL and B-S-DGR**

Data Synchronize: Different for the applications: spriden ID, invoice ID, SSN, last name, first name, birth date, PIDM, position title, position number, vendor ID, vendor name, etc. Important to test and periodically check to ensure Banner and OTGMGR data stays in synch. Banner triggers are used for the data synchronization

Screenshot from TOAD



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File Edit View Window Help

164 / 257 91.1%

Tools Sign Comment

▼ Export PDF Sign In

Adobe ExportPDF  
Convert PDF files to Word or Excel online.

Select PDF File:  
Banner Document Management... 1 file / 840 KB

Convert To:  
Microsoft Word (\*.docx)

Recognize Text in English(U.S.)  
Change

Convert

► Create PDF

► Send Files

### Data Synchronization System Diagram

#### Human Resource Applicant (B-H-APPL) Application

Illustration of the synchronization between Banner Tables and ApplicationXtender Tables

**Banner Tables**

- Saturn.SPRIDEN Tables
- Saturn.SPBPEERS Tables

**ApplicationXtender Tables**

- Shared Key Reference System (AE\_RFIn); invoked by the <TAB> key
- Auto Index System (AE\_AIn); invoked by the F7 key
- Data Tables (AE\_DTIn)

**Other Tables:**

- NBBPOSN Table
- PABAPPL Table

A-46 Banner Document Management 8.5 Administration Guide BDMS Application Data Structures January 2013

### B-H-EMPL - HR Employee (Application Number = 512)

Field Name	Datatype and Format	Properties	Field Type	Banner Validation Source	Synchronization Type
ID	Text (9) uppercase	Key reference (shared) Primary key Required	1, 3	SPRIDEN_ID (where SPRIDEN_CHANGE_IND is null); may contain pseudo-IDs for non-Banner data.	1

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## **Technical Role as application system administrator:**

End User Security: Tie to oracle accounts or not

Document level security: What users can view from one area to another. Don't want to share HR documents across campus!

User profile & groups: Create by department and what type of functionality (printing, deleting, adding, annotations, rubberstamps, etc.)

Context Rules: Banner form to launch and what end user displays for WebXtender. BDM integration (EXABCXT)

Context Query Rules: Create cross application queries in document manager. Add the cross application name to the appropriate Banner form using context rule form EXABCXT.

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## Planning for upgrades. What has worked for Washburn University

Hardware & software dependencies: Review & check BDM & AX requirements before upgrading one or the other

Hardware & software requirements: Don't ignore! Look for support changes, support for operating systems, browsers, databases

Backups: Virtual server (snapshot/clone even on a test system), backup directories or take screenshots prior to install & configurations

Testing: Testing plan with IT then with end users

Coordinate rollout: Have a plan! What needs to happen? (Banner database, application servers, PCs the CAB files impact end users, scanning workstations and communication with the campus upgrading is coming)

Last upgrade to Production: October 23, 2013. Upgraded to AX 6.52.045 and BDM 8.5 and rollout of scanning software and CAB files to campus community using SCCM. Very successful as no downtime with end users

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## Planning, working and training the end users:

**New implementation:** Meet with end users and identify the goal to be accomplished. Most of the time it is to CLOSE THE FILE CABINET! No more paper to file!

**Customer needs:** Use a delivered imaging application, build a custom application or would Auto Indexing with AX reports management apply. What are the document types? Delivered document types? WU has changed all of them to fit the customer needs. Help user think out of the box to improve business processes or improve efficiency of staff time. What is the current piece of paper used for and is that piece of paper routed anywhere on campus. Purpose of filing the document and why?

**Use Banner:** Identify the Banner forms used daily. Build context rules or cross application queries. Would linking rules apply to this department? How are linking rules used?

**Roles in the dept:** Scanning, indexing, viewing, etc. What security will need to be setup. Share with other departments on campus? Auto indexing apply?

**End User testing:** Have the department be involve with testing. Did imaging help eliminate any steps to the business process?

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## Training the end users:

**Materials:** Develop training materials for scanning, indexing or viewing images.

**Scanning:** Scanning training: Setup scanner workstation connection to test environment. Currently using image capture but moving to Quick Scan Pro summer of 2014. Train user on functionality and how to use the software. User afraid of change and new technology. My job is to demonstrate the ease of the application and to help them feel comfortable they cannot break anything!

**Indexing:** How indexing works and why auto indexing is so important!

**Linking rules:** How do they work. AppXtender does all the work. B-R-TREQ, updates Banner vs end user going to Applicationxtender and Banner to update the same piece of information

**Screenshot:** Index key is ID or last name to search

Auto indexing in the screenshot are degree and degree number

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Index Name	Field Value
ID	
PIDM	
DOCUMENT TYPE	
LAST NAME	
FIRST NAME	
SSN	
BIRTH DATE	
TERM CODE	
DEGREE	
DEGREE NUMBER	
ROUTING STATUS	
ACTIVITY DATE	2013-10-31 16:13:36
VPDL_CODE	
DISPOSITION DATE	

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**Banner Document Management  
Administration Guide**

Release 8.5  
January 2013

Application: B-S-DGRE Page 1 of 1 Version 1 of 1 Zoom At 100 300 dpi

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## **Future Imaging Plans at Washburn University:**

Auto Indexing – AX reports Management: PDFs from FormFusion generated from a Banner process will be auto indexed to the imaging application. No user involvement.

Live by December 9<sup>th</sup> for the Financial Aid Office. 20,000 plus emails and letters will be auto indexed vs printing thousands of letters and manually scanning and indexing. Eliminate lots of staff time!

Add more departments to the imaging application.

Faculty/Advisors to view transcripts for advising. Looking into self-service Banner WebAccessNet functionality.

Banner Document Retention: Current storage is over 600 gig

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# Questions?



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