



# Unified Dashboard Discovery

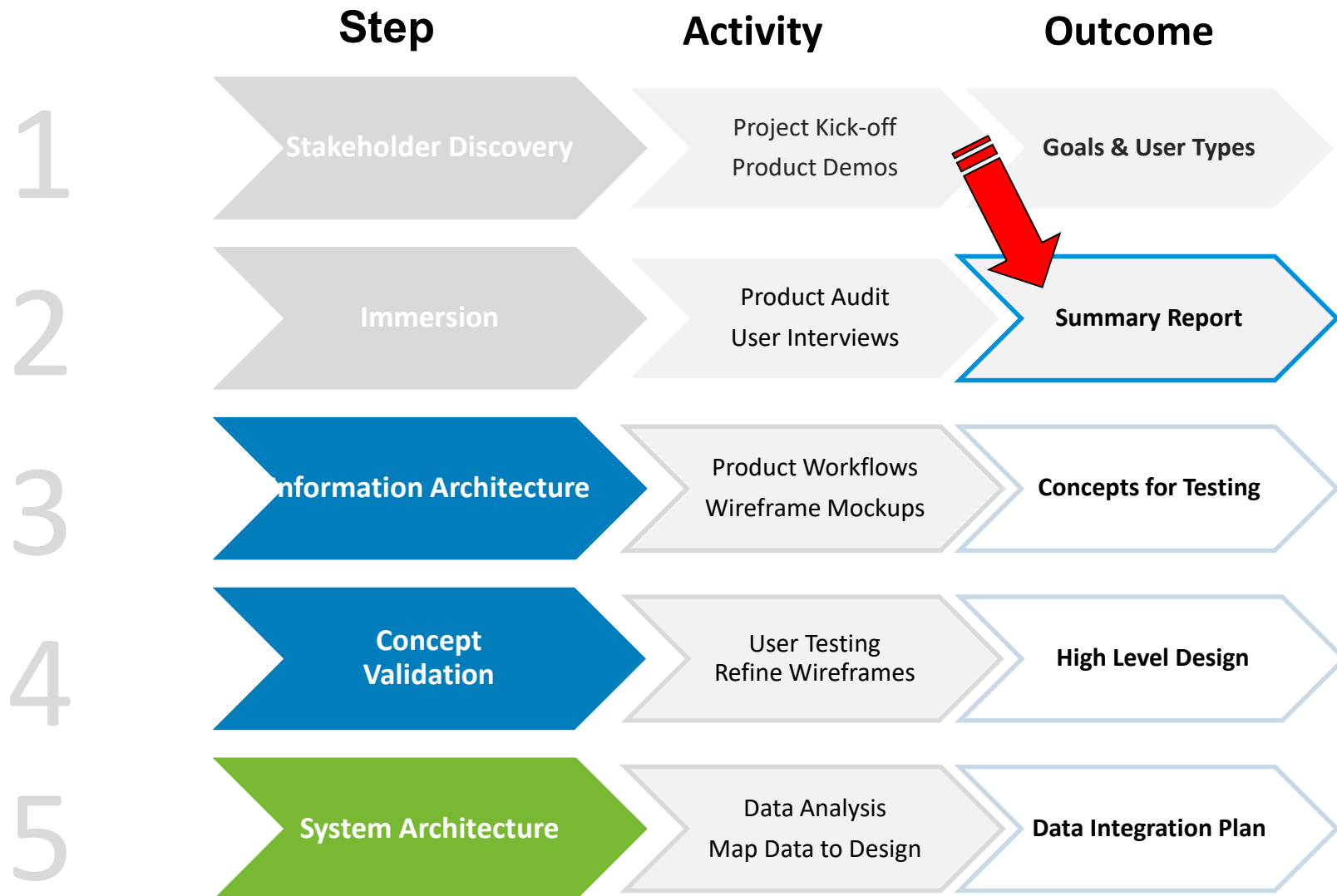
## Summary Report

June 17, 2015

## Agenda

- What We Heard
- What We Did (Immersion Process)
- User Interview Findings
- User Groups
- Recommendations
- Wrap-up

# Discovery & Design



**What we heard**

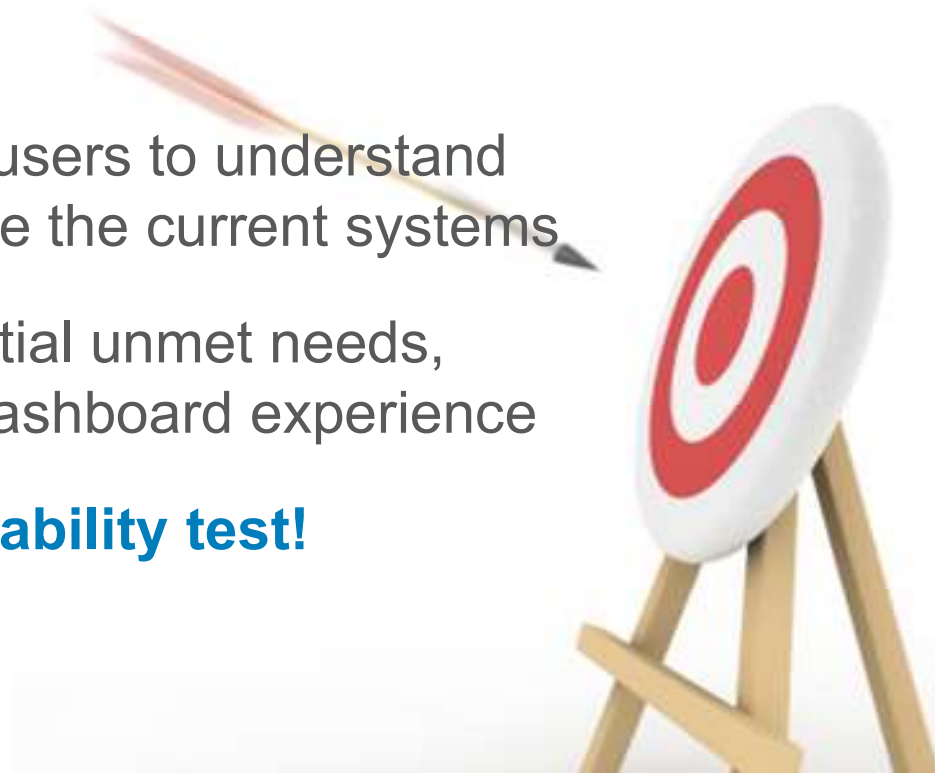
## Goals & Success

### Project Goal

- Design a unified dashboard to serve as a user-facing integration point for DQ-it, SMART, & RANDOMS products

### Study Objectives

- **Context of Use** - Speak with users to understand who they are and how they use the current systems
- **Unmet Needs** - Identify potential unmet needs, particularly around a unified dashboard experience
- **Study NOT intended as a usability test!**



## Pain Points

- Current system **data not integrated**. Concorde has to manually move information from one system to the other
- **Multiple sign-in accounts** cumbersome and causing confusion since users forget credentials
- Current products not good at **cross-promoting** other available products and services. Desire for the products to better support sales efforts
- Begin the process of improving the overall **user experience**

**What we did.**  
**(Immersion Process)**

## Immersion Activities

1. Audit Product Training and Sales Materials
2. Review User Types & Accounts
3. Application Heuristics Review
4. Competitive Evaluation
5. Traffic Analytics
6. **User Interviews**



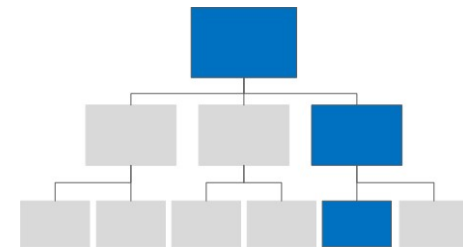


# HEURISTICS REVIEW

## Application Heuristics

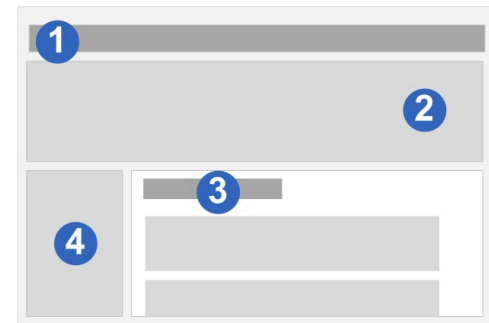
### 1. Navigation & Wayfinding

How well users can find information across sections of the site?



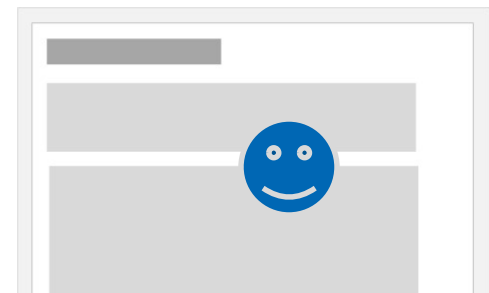
### 2. Screen Layouts

How easy or difficult is it to consume information on the screen?

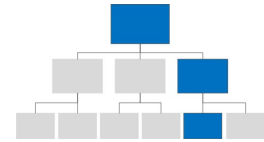


### 3. Screen Content

Is the content relevant and accessible?



## Navigation & Wayfinding



Supporting Users' Content Exploration

### A. Current Locator

“Where am I?”

### B. Clear Navigation Method

“Where can I go?”

### C. Trace Route

“How do I get back?”



# Navigation & Wayfinding

## Supporting Navigation

✓ **Primary Menu**

✓ **Secondary Menu**

✓ **Confirming Breadcrumbs**

✓ **3<sup>rd</sup> Level Menu**

**A. Current Location**

The screenshot displays the Wharton MBA Program website. At the top, a dark blue header contains the Wharton logo and 'MBA PROGRAM'. Below this is a primary navigation menu with links: MBA Home, The Wharton Difference, Academics, Student Experience, Your Career, Admissions, Financing Your MBA, and Apply. The 'Academics' link is highlighted. Below the primary menu is a secondary navigation menu with a dropdown arrow. The 'Interdisciplinary Programs' link is selected, revealing a list of programs: Program Details, Curriculum Structure, Curriculum, Interdisciplinary Programs, Lauder Program, MBA/JD Program, MBA in Health Care Management, Leadership and Teamwork, and Global Learning. The 'MBA/JD Program' link is highlighted. To the right of the secondary menu, the page title 'MBA/JD Program' is displayed. Below the title is a paragraph: 'Penn's elite law and business schools — Penn Law and Wharton — offer the country's first integrated three-year MBA/JD.' Below this is a photograph of a classroom. Below the photograph is a section titled 'how the three-year MBA/JD works:' followed by a paragraph: 'Students spend the first year in Law School and the following summer in Law and Wharton courses designed specifically for the three-year MBA/JD.' Below this is a list item: 'The second and third years include a combination of Law and Wharton courses, including a capstone course in the third year and work experience in a law firm or corporation during the'.

QUICK LINKS ▾ NEWS CONTACT US LOCATIONS ▾ WHARTON HOME PENN

Wharton UNIVERSITY of PENNSYLVANIA MBA PROGRAM

MBA Home The Wharton Difference Academics Student Experience Your Career Admissions Financing Your MBA Apply

ACADEMICS > Interdisciplinary Programs > MBA/JD Program

Program Details  
Curriculum Structure  
Curriculum  
Interdisciplinary Programs  
Lauder Program  
MBA/JD Program  
MBA in Health Care Management  
Leadership and Teamwork  
Global Learning

### MBA/JD Program

Penn's elite law and business schools — Penn Law and Wharton — offer the country's first integrated three-year MBA/JD.

how the three-year MBA/JD works:

Students spend the first year in Law School and the following summer in Law and Wharton courses designed specifically for the three-year MBA/JD.

- The second and third years include a combination of Law and Wharton courses, including a capstone course in the third year and work experience in a law firm or corporation during the

# Navigation & Wayfinding

## Supporting Navigation

✓ Primary Menu Selected

The screenshot displays the Salesforce CRM interface for the 'Opportunities' section. The top navigation bar includes 'Home', 'Leads', 'Accounts', 'Contacts', 'Opportunities' (highlighted), and 'Reports'. The left sidebar contains a search bar, 'Create New...', 'Shortcut' (with 'Unresolved Items'), and 'Recent Items' (listing 'OMG Corporate Website', 'PCSTrac: User Testing', 'PCS Technologies, Inc.', 'Jill McLaughlin', 'Andrew Andrew', and 'Kaylee Den'). The main content area shows the 'Opportunity Detail' for 'OMG Corporate Website', with tabs for 'Open Activities [0]', 'Activity History [0]', 'Contacts [0]', 'Partners [0]', 'Competitors [0]', 'Notes & Attachments [1]', and 'Stage History [1]'. The 'Opportunity Detail' section includes fields for 'Opportunity Owner', 'Opportunity Name', 'Account Name', 'Type', 'Close Date', 'Stage', 'Value Proposition', 'Probability (%)', and 'Amount'. Below this is the 'Additional Information' section with fields for 'Lead Source', 'Partner', 'Next Step', and 'Description'. The 'System Information' section shows 'Created By' and 'Last Modified By' as 'Dorothy Danforth'. The 'Open Activities' section includes buttons for 'New Task' and 'New Event'. The 'Partners' section includes a 'New' button. Annotations highlight the 'Opportunities' menu item, the 'OMG Corporate Website' title, and the 'Location' icon in the sidebar.

Location confirming color code

Location Title

# Navigation & Wayfinding

## Supporting Navigation

- Multiple areas of unconnected navigation menus
- Multiple visual treatments for navigation options
  - Buttons, tabs, links
- Minimal indicators for where the user is in the system
  - Personnel → Employees
  - Driver

The screenshot displays the DQ-it web application. At the top, a navigation bar includes links for HOME, Account, Order, Reports, and Log Out. Below this, a search bar allows users to search by Last Name or SSN, and another section for License Number Search. A filter dropdown menu is visible, showing options like All Sites, All Personnel, Employees, Applicants, Inactive, Terminated, and CSA Hit-List. A jump list for 'Benny Boarderline' is also present. The main content area shows the 'DRIVER FILE' for Benny Boarderline, including a photo, personal information, and a list of documents. A blue speech bubble points to the tabs (Summary, Action Items, CSA Scores) and says: 'These tabs appear related to the driver's file but are not.' At the bottom, there are sections for EXPIRED ITEMS and MISSING & PROBLEM DOCUMENTS.

Mon - Jun 8, 2015  
Welcome: SalesDemo2

HOME Account Order Reports Log Out

Search Last Name or SSN Search

Search

License Number Search

Search

Filter:

All Sites

- » All Personnel
- » Employees
- » Applicants
- » Inactive
- » Terminated
- » CSA Hit-List

Jump List:

- » Benny Boarderline

Privacy Policy Terms and Conditions

DQ-it IS NOW MOBILE MOR DQ-IT.COM

DRIVER FILE

Summary Action Items CSA Scores

BACK

BENNY BOARDERLINE

Employee  
\*\*\*-\*\*-0026  
CED - CDL  
5 Chestnut St  
Philadelphia, PA 80809  
Phone: (408) 555-5555

DRIVER INFORMATION

- Personal
- Employment
- License
- Update Status
- Print File

DOT Accident Log  
Drug Test Info

Get Temporary Login

>>Show Historical Docs

Order MVR

You can easily submit driver document updates by scanning the documents to Adobe PDF files and uploading them directly to the driver's profile. If you cannot submit PDF files, you can print automatic Fax Cover Sheets and send us the pages via your fax machine. If this is a new driver submission choose that option. Please select which option applies to the documents you have.

Upload It Click Here

Email It Click Here

Fax It Click Here

New Driver Click Here

CSA HISTORY

EXPIRED ITEMS

Drivers Annual Certificate of Violations

Overdue: 24 days / Expires: 15 May 2015

Medical Examiners Certificate

Overdue: 1088 days / Expires: 15 Jun 2012

MISSING & PROBLEM DOCUMENTS

Certificate of Road Test

Missing Item

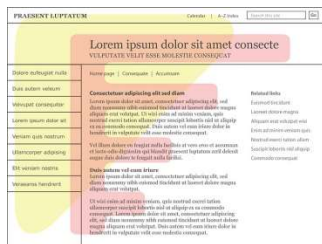
Initial MVR

Missing Item

# Heuristics Review

## Page Layouts

### Users “Scan” before they read

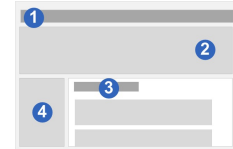


Users initially visually move through a screen in an “F” pattern “scanning” content for information

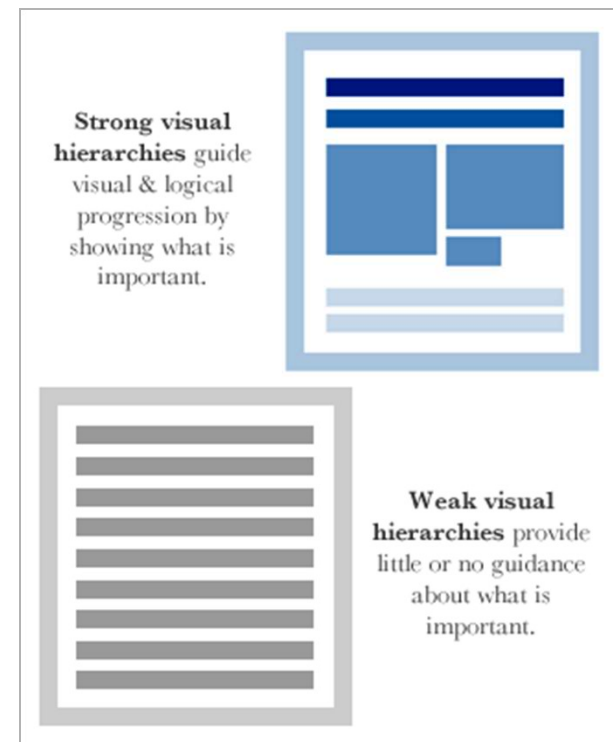


Creating Visual hierarchy and moving towards an F-pattern layout guides user to key content via natural behaviors

- **How?**
- Prioritize information based on key tasks
- Clear labels and content groupings
- Size, shape, color, etc



Visual hierarchy.  
What's important here?





## Prioritize by Top Tasks

- Better prioritizing page layouts to support top tasks will improve ease of use
- Large portion of top area used for secondary reference information
- Key task information (missing files) down at bottom of screen



This doesn't mean all important things at the top. It means designing a layout mindful of priorities and how users will initially visually "scan" it and supporting that process.





## Visual Prioritization

- Bold colors distract user from visually scanning for relevant record information
- Visually dense and cluttered with no “white space.” Eye has no where to “rest” to absorb content
- Potentially too much information at once. More than what’s necessary to find relevant record

**SUBMIT SELECTION CHANGES**

Test results: ANY  
Period: Collected from 5/15/2015 to 6/14/2015

check box and click the "Submit Selection Changes" button.

Actions:  
To Excel To PDF Defaults

Date Range  
Period: Past 30 Days

Test Results  
☐ Show Test Results

DOT Numbers  
☒ Show All (unchecked to list all numbers)

Testing Authority  
☒ Show All (unchecked to select below)

☐ Non Regulated ☐ PHMSA  
☐ FMCSA ☐ USCG  
☐ FAA ☐ DHS  
☐ FRA ☐ NRC  
☐ FTA ☐ Chemistry

Testing Medium  
☒ Show All (unchecked to select below)

☐ Urine ☐ Blood  
☐ Hair ☐ Sweat  
☐ Breath ☐ Saliva

Company  
☒ Concorde, Inc.

Reason for Test	Totals	Negatives	Negative Dilute	Positives	Refusals	Cancelled	Recollection Required
All	72	50	0	13	9	0	0
Not Set	1	1	0	0	0	0	0
Random	71	49	0	13	9	0	0

by SSN/Emp ID  ☒ Use Filters Search

Location: CBA, INC./CONCORDE DOT #: 11111

Collection Date	Reported Date	Chain of Custody	Donor Name	SSN/ID	Test Result	Specimen Type	Reason for Test	Testing Authority	Request Change	LOV COC
06/11/2015	06/12/2015	0151417490	SPECIMEN, BLIND	****0003	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417516	SPECIMEN, BLIND	****0004	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417474	SPECIMEN, BLIND	****0001	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417508	SPECIMEN, BLIND	****0005	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417482	SPECIMEN, BLIND	****0002	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/11/2015	0151417441	SPECIMEN, BLIND	****2214	Refusal to Test - Adulterated	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417433	SPECIMEN, BLIND	****2213	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/11/2015	0151417425	SPECIMEN, BLIND	00100212	Refusal to Test - Substituted	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417458	SPECIMEN, BLIND	****2215	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417466	SPECIMEN, BLIND	****2216	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417383	SAMPLE, BLIND	****9688	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/11/2015	0151417375	SPECIMEN, BLIND	****1615	Refusal to Test - Adulterated	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/11/2015	0151417409	SPECIMEN, BLIND	****7777	Refusal to Test - Substituted	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/09/2015	0151417391	SAMPLE, BLIND	****7885	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/09/2015	0151417417	SAMPLE, BLIND	****9777	Negative	Urine	Random	FMCSA	Submit	Forms
06/05/2015	06/11/2015	0151417334	SPECIMEN, BLIND	****8945	Refusal to Test - Substituted	Urine	Random	FMCSA	Submit	Forms
06/05/2015	06/11/2015	0151417359	SPECIMEN, BLIND	****9116	Positive	Urine	Random	FMCSA	Submit	Forms
06/05/2015	06/11/2015	0151417342	SPECIMEN, BLIND	****8416	Positive	Urine	Random	FMCSA	Submit	Forms
06/04/2015	06/08/2015	0151417326	SAMPLE, BLIND	****2224	Negative	Urine	Random	FMCSA	Submit	Forms
06/04/2015	06/08/2015	0151417318	SAMPLE, BLIND	****4212	Negative	Urine	Random	FMCSA	Submit	Forms
06/04/2015	06/08/2015	0151417300	SAMPLE, BLIND	****1454	Negative	Urine	Random	FMCSA	Submit	Forms

## Visual Prioritization

Collected	Lab Reported	Donor Name	Donor SSN	Test Result	Reason	COC Form	Specimen
6/4/2015	6/8/2015	Blind Specimen	211112222	Negative	Random	0151417292	Urine
6/4/2015	6/8/2015	Blind Specimen	221121454	Negative	Random	0151417300	Urine
6/8/2015	6/10/2015	Blind Specimen	001002215	Negative	Random	0151417458	Urine
6/8/2015	6/10/2015	Blind Specimen	001002213	Negative	Random	0151417433	Urine
6/10/2015	6/12/2015	Blind Specimen	216940002	Negative	Random	0151417482	Urine
6/10/2015	6/12/2015	Blind Specimen	216940001	Negative	Random	0151417474	Urine
6/10/2015	6/12/2015	Blind Specimen	216940005	Negative	Random	0151417508	Urine
6/10/2015	6/12/2015	Blind Specimen	216940004	Negative	Random	0151417516	Urine
6/11/2015	6/12/2015	Blind Sample	216940003	Negative	Random	0151417490	Urine
5/20/2015	5/22/2015	Blind Sample	104329112	Positive	Random	0151417193	Urine
5/20/2015	5/22/2015	Blind Specimen	216549812	Positive	Random	0151417201	Urine
6/2/2015	6/8/2015	Blind Specimen	204962516	Positive	Random	0151417235	Urine
6/2/2015	6/8/2015	Blind Specimen	102964327	Positive	Random	0151417276	Urine
6/5/2015	6/11/2015	Blind Specimen	209968416	Positive	Random	0151417342	Urine
6/5/2015	6/11/2015	Blind Sample	145459116	Positive	Random	0151417359	Urine
6/8/2015	6/11/2015	Blind Specimen	214201615	Refusal	Random	0151417375	Urine
6/8/2015	6/11/2015	Blind Specimen	001002214	Refusal	Random	0151417441	Urine
6/5/2015	6/11/2015	Blind Specimen	243218945	Refusal	Random	0151417334	Urine
6/8/2015	6/11/2015	Blind Specimen	212447777	Refusal	Random	0151417409	Urine
6/8/2015	6/11/2015	Blind Specimen	00100212	Refusal	Random	0151417425	Urine
5/20/2015	5/21/2015	Blind Specimen	154993469	Negative	Random	8955905	Urine

Collection Date	Reported Date	Chain of Custody	Donor Name	SSN/ID	Test Result	Specimen Type	Reason for Test	Testing Authority	Request Change	LOV COC
06/11/2015	06/12/2015	0151417490	SPECIMEN, BLIND	****0003	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417516	SPECIMEN, BLIND	****0004	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417474	SPECIMEN, BLIND	****0001	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417508	SPECIMEN, BLIND	****0005	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417482	SPECIMEN, BLIND	****0002	Negative	Urine	Random	FMCSA	Submit	Forms
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06/08/2015	06/10/2015	0151417433	SPECIMEN, BLIND	****2213	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/11/2015	0151417425	SPECIMEN, BLIND	00100212	Refusal to Test - Substituted	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417458	SPECIMEN, BLIND	****2215	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417466	SPECIMEN, BLIND	****2216	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417383	SAMPLE, BLIND	****9688	Negative	Urine	Random	FMCSA	Submit	Forms
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06/05/2015	06/11/2015	0151417359	SPECIMEN, BLIND	****9116	Positive	Urine	Random	FMCSA	Submit	Forms
06/05/2015	06/11/2015	0151417342	SPECIMEN, BLIND	****9416	Positive	Urine	Random	FMCSA	Submit	Forms
06/04/2015	06/08/2015	0151417326	SAMPLE, BLIND	****2224	Negative	Urine	Random	FMCSA	Submit	Forms
06/04/2015	06/08/2015	0151417318	SAMPLE, BLIND	****4212	Negative	Urine	Random	FMCSA	Submit	Forms
06/04/2015	06/08/2015	0151417300	SAMPLE, BLIND	****1454	Negative	Urine	Random	FMCSA	Submit	Forms

- Supports "F" pattern
- Uses color as accent to guide
- Progressive disclosure; only most relevant options shown

## Layout Consistency

- Standardized layouts & interactions (pattern templates) per “type” of screen let users build a mental model of how your system works...
  - Builds trust and confidence in system
  - Supports way-finding
  - Reduces training effort
- Example: Action buttons on right hand of screen vs action buttons on left hand of screen.
- Title right aligned vs center aligned, etc.

**Summary** **Action Items** **CSA Scores**

ACCOUNT STATUS, IMPORTANT DEADLINES, MISSING OR PROBLEM DOCUMENTS

PLEASE REVIEW THE ITEMS BELOW, IF ANY DISPLAYED.

Employee	Items Required	Due Date	Days Over	Actions
Notsomuch, Nick ***-**-0024	CED - CDL			
	CSA - Violation Review Date of Violation (04/04/2009) Driver lacking valid license for type vehicle being operated (please conduct a CSA Review)	20 Dec 2010	1637	<a href="#">Review...</a>
	CSA - Violation Review Date of Violation (10/27/2009) Inoperative required lamps • Tires (general) (please conduct a CSA Review)	20 Dec 2010	1637	<a href="#">Review...</a>
	Driver Annual Certificate of Violations	10 Feb 2011	1585	<a href="#">Upload...</a>
		2011	1585	<a href="#">Upload...</a>
		2011	1585	<a href="#">Upload...</a>
		2011	1491	<a href="#">Upload...</a>
		2011	1382	<a href="#">Order...</a>
		2012	1094	<a href="#">Upload...</a>
		2013	741	<a href="#">Review...</a>

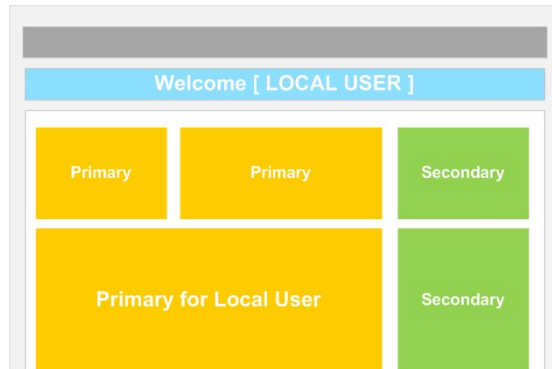
CLICK FOR PRINT OPTIONS **DRIVERS** [CLICK TO PASTE/IMPORT FROM EXCEL](#)

Check each driver to order Motor Vehicle Reports (pricing) [Show DMV Status](#)

#	<input type="checkbox"/>	Last Name	First Name	SSN	License Number	DOB	State
1	<input checked="" type="checkbox"/>	Ackerschott	Lawrence	531-68-7132	ACKERLR396OF	09/06/1961	WA
2	<input checked="" type="checkbox"/>	Allen	Jason	456-37-1734	ALLENJL266QG	11/07/1974	WA
3	<input checked="" type="checkbox"/>	Allen	Gabriel	600-28-4436	ALT**GW143JA	04/01/1986	WA
4	<input checked="" type="checkbox"/>	Amos	Cody	534-27-6915	AMOS*CN070CZ	02/09/1993	WA
5	<input checked="" type="checkbox"/>	Anderson	Walter	537-02-9591	ANDERWA309R4	12/24/1970	WA
6	<input checked="" type="checkbox"/>	Arthun	Michael	534-76-5772	ARTHUMT249C2	02/22/1976	WA
7	<input checked="" type="checkbox"/>	Askew	Steven	019-56-7497	ASKEWSD301RP	12/17/1970	WA
8	<input checked="" type="checkbox"/>	Atkisson	Richard	551-41-7616	ATKISRD386BT	01/30/1962	WA
9	<input checked="" type="checkbox"/>	Babcock	Randall	538-74-4911	BABCORA291KQ	05/18/1971	WA
10	<input checked="" type="checkbox"/>	Baltazar	Valentin	731-14-8795	BALTAV*255C4	02/24/1975	WA
11	<input checked="" type="checkbox"/>	Barnes	Benny	541-86-3500	BARNEBE372PS	10/10/1963	WA
12	<input checked="" type="checkbox"/>	Benson	Kyle	533-21-2852	BENSOKL124OB	09/02/1988	WA
13	<input checked="" type="checkbox"/>	Betancourt	Ricardo	583-04-0334	BETANR*322DD	03/04/1968	WA
14	<input checked="" type="checkbox"/>	Blair	Kyle	536-56-6792	BLAIRKD461MJ	07/11/1954	WA
15	<input checked="" type="checkbox"/>	Booth	Erik	535-23-0281	BOOTHED090LQ	06/18/1991	WA
16	<input checked="" type="checkbox"/>	Bossert	Andrew	535-21-2842	BOSSEAM154BH	01/08/1985	WA
17	<input checked="" type="checkbox"/>	Bradford	Stephen	536-80-7269	BRADFSA273L0	06/20/1973	WA
18	<input checked="" type="checkbox"/>	Branham	Timothy	539-70-6526	BRANHTR398B1	01/21/1961	WA
19	<input checked="" type="checkbox"/>	Bridges	Lexie	536-94-7709	BRIDGLA333LC	06/03/1967	WA
20	<input checked="" type="checkbox"/>	Brock	Julian	531-72-0367	BROCKJC370PT	10/30/1963	WA
21	<input checked="" type="checkbox"/>	Brown	Darell	534-80-2832	BROWNDK294N6	08/26/1971	WA
22	<input checked="" type="checkbox"/>	Bruhn	Robert	536-92-8265	BRUHNRA290DA	03/01/1971	WA
23	<input checked="" type="checkbox"/>	Buckler	Matthew	538-08-5514	BUCKLMA194L0	06/20/1981	WA

**e city interactive**

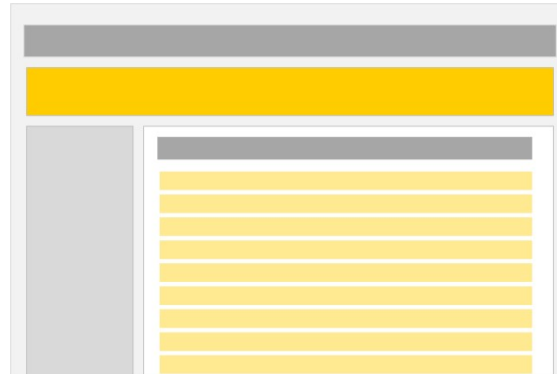
## Example of Templates



1

### Home Template

1. Broadest Focus
2. Prioritized by top tasks for the user group



2

### Listing Template

1. Common scenario; listing in a data grid
2. How do we handle listing of things?
3. Variations based on user goals/tasks



3

### Detail Template

1. Common scenario; detailed displays
2. How do we handle showing a profile screen that correlates with listing screens?





## Clarity of Information

- Good example of how layout and data presentation consistency can impact clarity of information

DOT ACCIDENTS INFO

USER: C BRADY CED - CDL

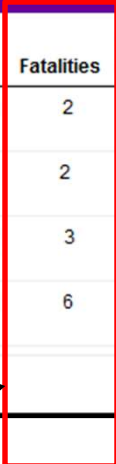
DRIVER'S INFORMATION:

Last Name	First Name	MI	Employee ID	License Number	Date of Birth	Hire Date
Notsomuch	Nick	N	000110024	Z0000154000859	08/01/1957	05/15/2009

MOTOR VEHICLE DOT ACCIDENT INFORMATION:

Accident Date	City	State	Driver Cited	HM Release	Injuries	Fatalities	Vehicles Disabled	
2012-12-14	Philadelphia	PA	No	No	2	1	2	Edit CED - CDL
2012-09-20	Bryn Mawr	PA	Yes	No	0	0	2	Edit CED - CDL
2012-09-19	Philadelphia	PA	Yes	Yes	2	0	3	Edit CED - CDL
2012-08-21	Norristown	PA	Yes	Yes	5	1	6	Edit CED - CDL

Enter New Info Close Window



- How many fatalities did this driver have?
- **Answer: 2**  
(...not 13!)

# TRAFFIC ANALYSIS

## Application Usage Comparison

Unique Visitors	DQ-it	SMART	RANDOMS
Annual	24,073	10,280	3,061
Month Avg.	1,756	857	255
Daily Avg.	64	28	8
		49% of DQ-it	15% of DQ-it
*Daily Avg. Logins	16	2.4	0

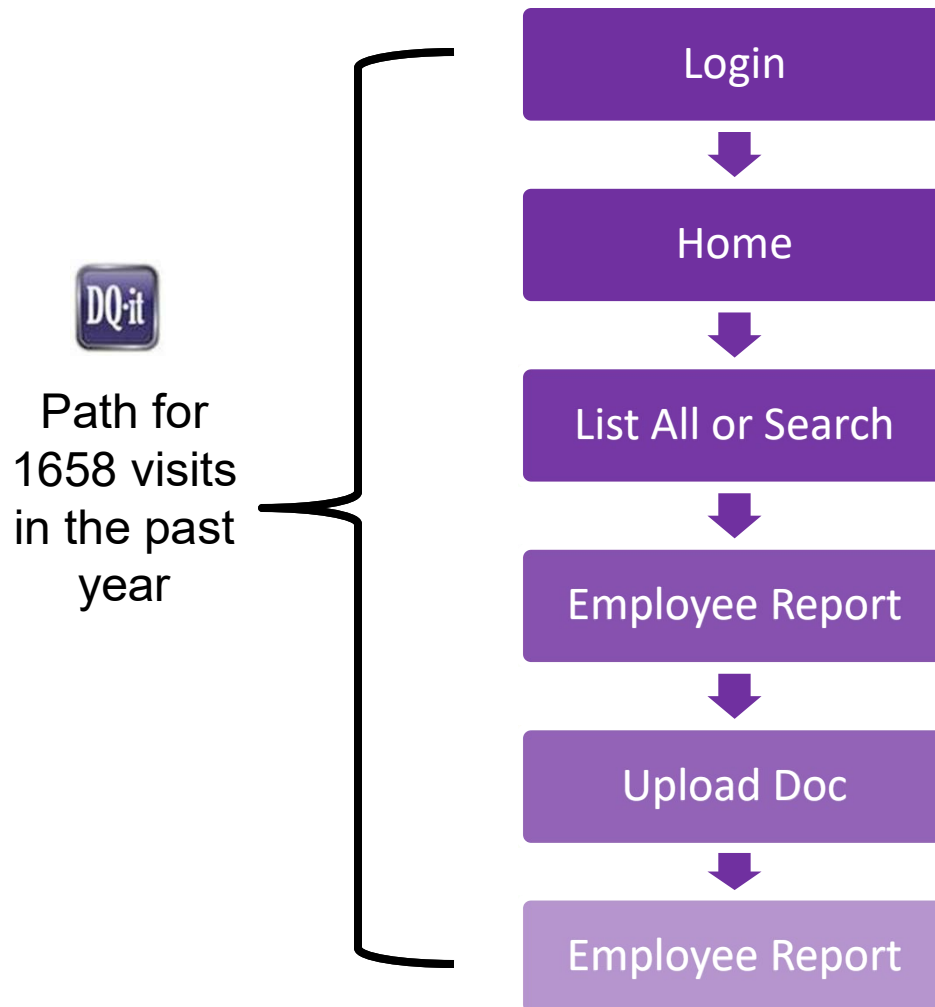
- Unique visitors represent both new and returning users who visit the site. Represents a single individual session.
- For example, on a given day, DQ-it will get 64 unique user sessions. When compared loosely to login data, this would indicate the same individual logging in multiple times.
- \* Log data numbers are much higher than indicated by account login data provided so either logins given did not include Concorde users, or the stats software is recording multiple logins by same person as a new visitor.



## DQ-it Page Visits

Page	Annual Visits	Avg. Monthly
Home	80k	6,700
Employee Reports	64k	5,400
Order Exams	6,802	567
Reports (Tab)	5,790	483
Batch Order MVRs	5,555	463
Add Employee	4,598	383
CSA Scores	1,210	101
CSA Hit List	976	81
CSA Reports	698	58
View Report (All)	364	30
Advanced Reports	272	22

## DQ-it Primary User Path



## Recommendations

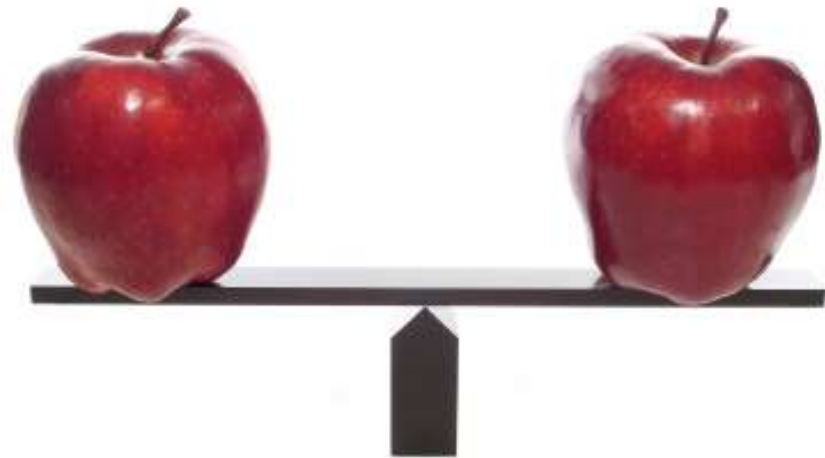
- Improve distinctiveness of content areas for better tracking of application usage. For example, split out individual reports
- Investigate discrepancy between logged visitor data and user sign-ins
- Consider a web analytics package that allows deeper insight into log data



# COMPARABLES REVIEW

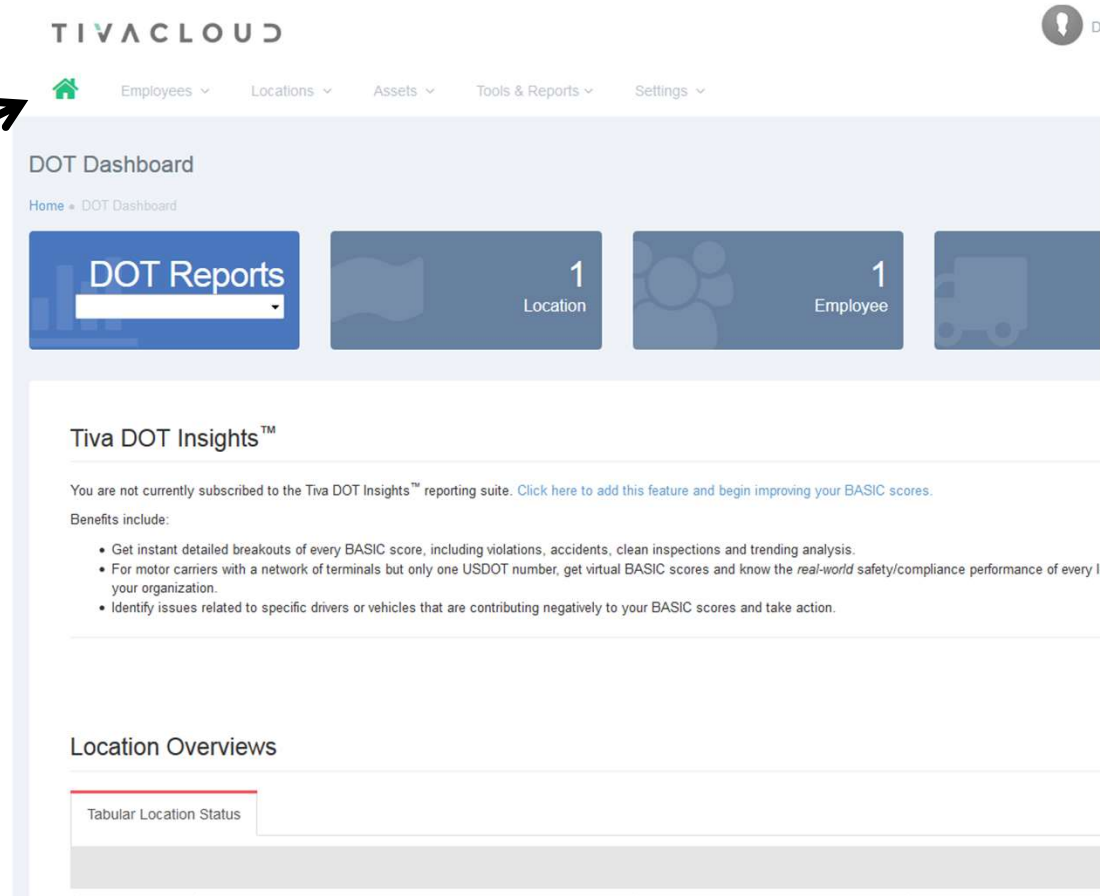
## Comparables Review

- **Goal: Get a sense of how other companies handle similar content**
- Applications Reviewed
  - Tiva Cloud
  - Beacon Insights
  - RAIR
- Review for...
  - Dashboard
  - General Layout
  - Information Display
  - Interaction Design
- **Limited access to competitor screens...**



## Tiva Cloud

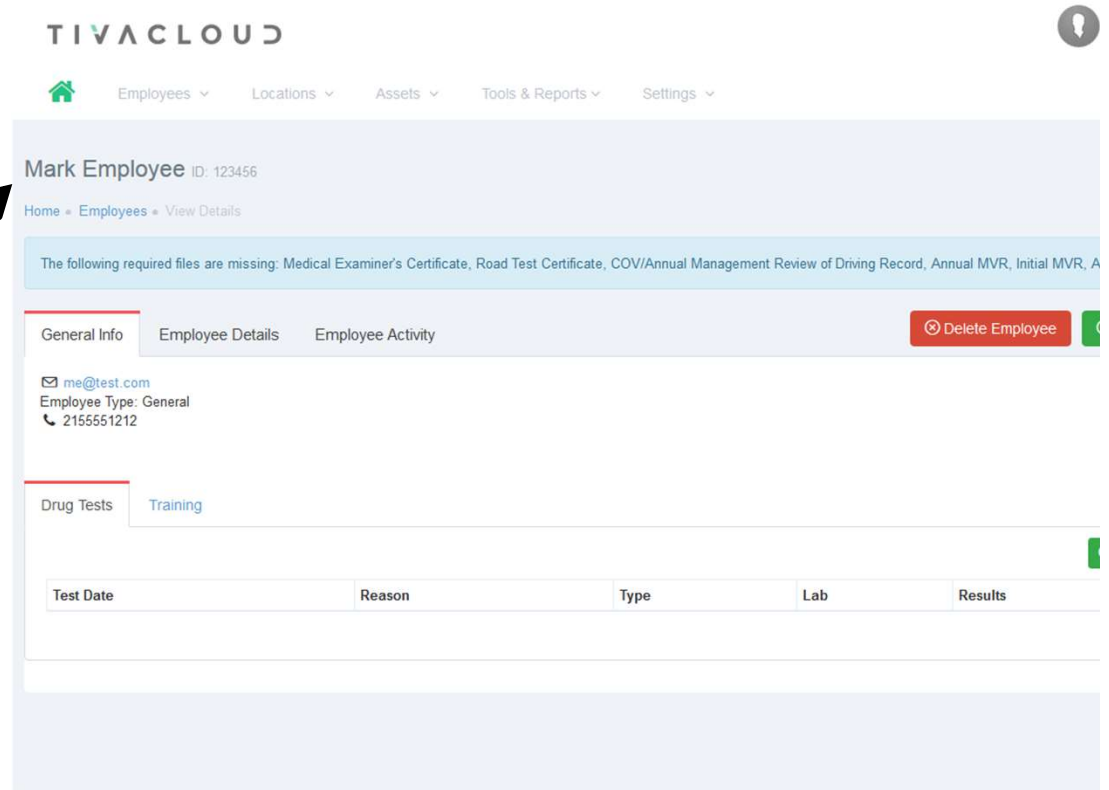
- Clean layouts
- **Good, clear navigation** (to a point)
- Visually pleasing
- Some visual prioritization, not great
- Not goal focused or prioritized task-based
- Poor 'Dashboard'
- Some nice interactions



Free trial at <https://my.tivacloud.com/>

## Tiva Cloud

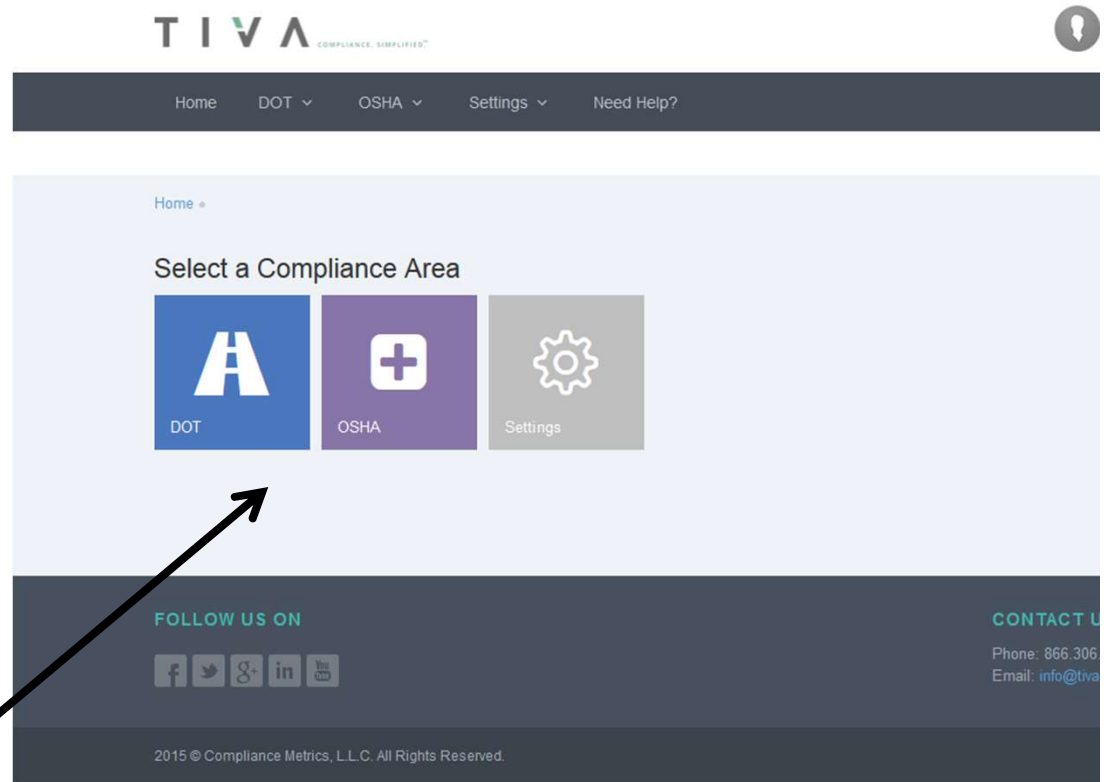
- Clean layouts
- Good, clear navigation (to a point)
- Visually pleasing
- **Some visual prioritization, not great**
- Not goal focused or prioritized task-based
- Poor ‘Dashboard’
- Some nice interactions



Headers and “alerts” potentially too subtle

## Tiva Cloud

- Clean layouts
- Good, clear navigation (to a point)
- Visually pleasing
- Some visual prioritization, not great
- Not goal focused or prioritized task-based
- **Poor 'Dashboard'**
- Some nice interactions

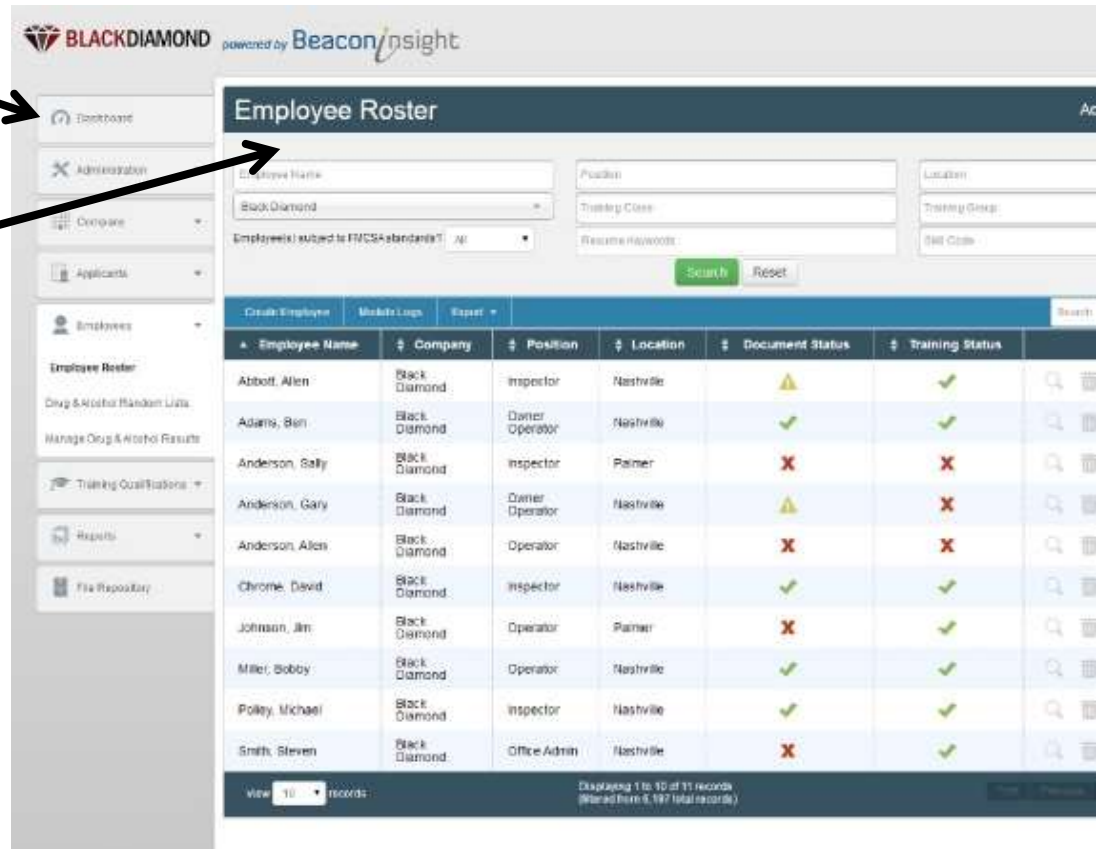


All navigation. No content to support  
**“information foraging.”** Poor use of space.



## Beacon Insights

- Strong navigation and way-finding indicators
- Strong headers and data labels
- Consistent page layouts and data-grids
- Could utilize more progressive disclosure
- Some visual contrast issues, not A11Y compliant



Note: limited screen views of system

## RAIR

- Good navigation (though poorly visualized)
- Ham-handed visual prioritization
- Difficult to process relevant information due to various colors competing for attention
- Does not appear to be professionally designed

The screenshot displays the RAIR system interface. On the left is an 'Organizational Tree' with a search bar (1) and a list of items including 'DEMO RAIR Trucking (N)', 'E-logging Branch', 'Florida Region', 'Fleet Manager 1', 'ACOSTA, BRENT' (highlighted in red), 'BETTS, ED', 'CARILLO, MARIO', 'DAVIS, JOHN', 'SANCHEZ, MILTON', 'Fleet Manager 2', 'GENERIC', and 'Wisconsin Region'. The main area features a 'Search for a Driver:' section with a search bar (2) containing 'ACOSTA, BRENT' and a 'Search' button. Below this is a table (3) with columns: Driver ID, Name, SSN, Status, Hire Date, Location, Exp. In 30 Days, Exp. In 60 Days, and E. The table shows one entry for Driver ID 27968, Name ACOSTA, BRENT, SSN 311701910, Status Active, Hire Date 11/7/2007, Location Fleet Manager 1, Exp. In 30 Days 1, and Exp. In 60 Days 0. Below the table is a 'Notes' section. To the right of the table is a 'Driver Qualification' section (4) with tabs for 'Driver Qualification', 'Drug & Alcohol', 'Accidents', 'Physical', 'Training', and 'Additional Files'. The 'Driver Qualification' tab is active, showing a table with columns: Document Type, Expiration Date, and Document Status. The table lists several documents: 'Commercial Driver Application (CDA)' (Present), 'Previous Employment Verification (PEV)' (Non-Compliant), 'Motor Vehicle Record (MVR)' (Exp. within 0-30 Days), 'Certificate of Road Test (CRT)' (Compliant), 'Certification of Violations/Annual Review (COV)' (Compliant), 'Commercial Driver License (CDL)' (Pending Audit), and 'Medical Examiner Certificate (MEC)' (Pending Audit). A 'Print All Acti' button is at the bottom right.

Driver ID	Name	SSN	Status	Hire Date	Location	Exp. In 30 Days	Exp. In 60 Days	E
27968	ACOSTA, BRENT	311701910	Active	11/7/2007	Fleet Manager 1	1	0	

Document Type	Expiration Date	Document Status
Commercial Driver Application (CDA)		Present
Previous Employment Verification (PEV)		Non-Compliant
Motor Vehicle Record (MVR)	06/03/2012	Exp. within 0-30 Days
Certificate of Road Test (CRT)		Compliant
Certification of Violations/Annual Review (COV)	09/15/2012	Compliant
Commercial Driver License (CDL)	09/06/2012	Pending Audit
Medical Examiner Certificate (MEC)	08/31/2012	Pending Audit

Note: limited screen views of system

# User Interviews

“

I'm actually really thrilled that you guys are doing this type of interview, it's really refreshing, you know? ...We never had that with the two other companies.

*- Few times a week DQ-it user*

”

## Study Methodology

- A qualitative **Contextual Inquiry** was conducted where representative users were interviewed to understand how they use Concorde products, observed doing their own work tasks by recreating specific past work they've completed in the applications
- **7 participants** were individually interviewed, one to one with the moderator for an hour each. Interviews were conducted via GoToMeeting.
- **Discussion Agenda:**
  1. Technology Use – Software used, comfort level, competitive products
  2. Job Role – Why they do, how it related to product use
  3. Concorde System Usage – Most recent task, common tasks
  4. Product Usage Observation – Observe completing recent tasks
- Full session **audio and screen actions** were recorded and are available.

*\* Qualitative results are not statistically significant or predictive of future behavior.*

## Participants

### Of the 7 total participants...

- 4 were women, 3 were men
- 3 indicated a local job focus, 3 indicated regional, and 1 corporate
  - 3 day to day, 3 mid-level oversight, 1 CSA report focused user
- 3 were from FL, the rest were from KY, MA, WA, AZ
- 4 were 55+, 2 were 35-45, and 1 was 25-34
- 1 20yrs in role, 1 14 yrs, 1 8 yrs, 4 under 5 years
- **All** used DQ-it; 2 use it daily, 5 use it few times a week
- 5 of the 7 have used a competitive product to Concorde
- **All** med-high level of familiarity with system and general comfort
- Observed 7 using DQ-it, 3 using SMART, none using RANDOMS

## Participants

### Participant Titles:

- Manager, Area Safety
- Safety Program manager
- Administrative Assistant (2)
- Site manager
- Director EHS
- Regional Safety Director



### Additional Notes...

- Participants were engaged with Concorde, bias sample
- 6 participants were sufficient for the study

# MAJOR THEMES



“

So, we've gone from managing  
[DQFs] locally to, literally, having  
one person maintain all these  
documents.

*- Daily DQ-it user*

”

“

I like the fact that it lets me know when something's due. If I had to manually keep track of all that, it would be a nightmare.

*- Few times a week DQ-it user*

”

“

Whenever we do have questions  
you guys over there help us out  
tremendously.

*- Few times a week DQ-it user*

”

## Concorde Service

- Participants were generally satisfied with functionality that Concorde provides
  - Most participants indicated the site was easy to use once they learned it. However, most also indicated areas they felt could be improved.
- Participants indicated appreciation with Concorde responsiveness, and raved about customer service
  - Customer service was listed as a differentiator for at least 3 participants when discussing former competitive providers
- SMART and to a lesser degree DQ-it's non-use is due to the reminder emails that generally seemed to be valued

*White Glove  
Service*



“ Concorde is just a tool I use to  
make sure that everyone is  
compliant...I'm normally going in  
for a reason.

- *Few times a week DQ-it user*

”

## Goal-focused Targeted Use

- Highly targeted use; access due to trigger or planned event. Low exploration.
- Goals (and therefore content needs) differ by different user level
  - Upload documents, manage personnel
  - Exception management, compliance oversight
  - Regional CSA reporting



“

I had difficulties learning how to navigate [DQ-it] for a while, until I said 'I'm sick of this thing I'm going to get it down'...It just doesn't have an intuitive user interface.

- Daily DQ-it user

”

“

Some of my frustration has been  
with trying to generate reports.

*- Few times a week DQ-it user*

”



## Common Tasks vs. Exploration

- The applications successfully supports daily users with common tasks once they initially learn how to complete the tasks
- Participants indicated a willingness to click around, two mentioned “it won’t break anything”
- However, exploration not well supported, so participants struggled with report generation and less common tasks...



“

We started with drug testing and  
two years later the corporate  
office saw it was doing well and  
brought us on to DQ-it

*- Few times a week DQ-it user*

”

“

Just to stop the confusion, if you don't have access to something I think it would be a lot better if you couldn't see it.

- *Few times a week DQ-it user*

”

## Competitive Product Use

4 of the 7 participants had used a competitive product to Concorde in the past...

- 3 participants described the change to Concorde
  - 2 mention RAIR, 1 1<sup>st</sup> Lab (using RAIR)
  - Both indicated these companies as not being responsive; response time from reps too slow, not given a single point of contact, lost files on transition



**Consideration...** Improving usability and value (perceived and real) of Concorde products will promote add-on product sign-up more than "grayed out" product options

# FINDINGS BY SCREEN

## Findings by Screen

- **Not User Testing** – A contextual inquiry is not a user testing study. The goal is to understand how people use a given application or system, not to evaluate the system's effectiveness or usability.
- As usability issues and comments were found they were captured. The follow list is not a comprehensive evaluation of the system's usability or a log of all issues encountered.

**Octopus Home Screen** • CSA Scores

**DQ-it Home Screen**

- Employees Listing
- Employee Detail
- Batch MVRs
- CSA Hit-list
- CSA Reports

• CSA Advanced

• Reports: Driver Info Detail

**SMART**

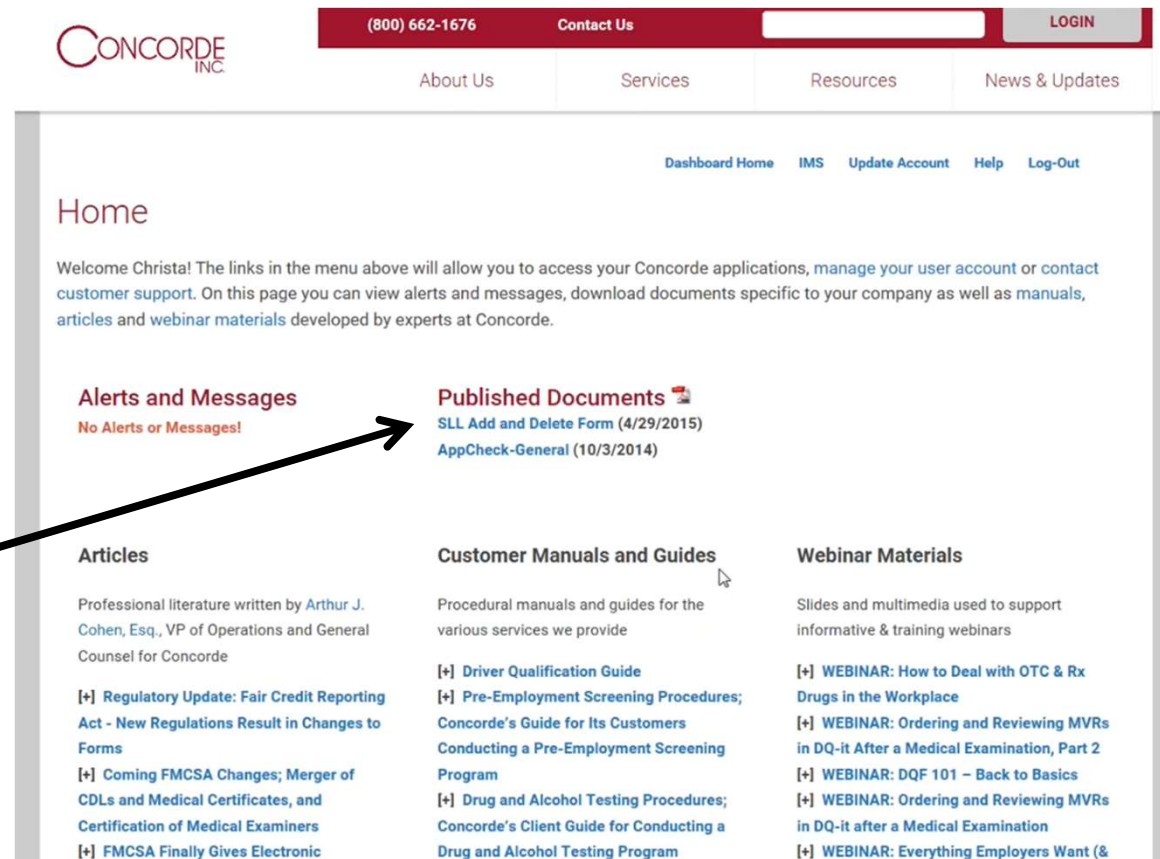
- Smart Home Screen



# Findings by Product

## Octopus Home Screen

- Participants were not sure what “Octopus” meant or what it was
- 3 participants indicated having used content on this screen
- One participant indicate having to log out to access content here (Pre-employment files)
- One participant liked when Random results had been posted here
- Clicked on “IMS” because they were trained to, but it's DQ-it
- **Consider** – Including reference content in the application after login



# Findings by Product

## DQ-it Home Screen

- All participants ignored the “Quick Summary” content
  - Get it in email
  - My boss uses it
  - Too detailed
- Most Participants head for left side of screen
- Only data point mentioned as relevant was “# Employees with Past Due Items”
- **Consider**, re-imagining this screen with more relevant content

Mon - Jun 8, 2015  
Welcome: SalesDemo2

HOME Account Order Reports LogOut

DQ-IT IS NOW MOBILE ON YOUR SMART PHONE... [CLICK TO WATCH THE OVERVIEW.](#)

Summary Action Items CSA Scores CSA Reports

All Companies	QUICK SUMMARY
All Personnel Records	7
Total Number of All Employees	6
Total Number of All Applicants	1
Total Number of All Non-Employed	0
Number of Employees with Past Due Items	2
Number of Employees with Due Today Items	0
Number of Employees with Due Items From: To:	0
Number of Records without Packages	0

Last Name or SSN Search  
Search

License Number Search  
Search

All Sites

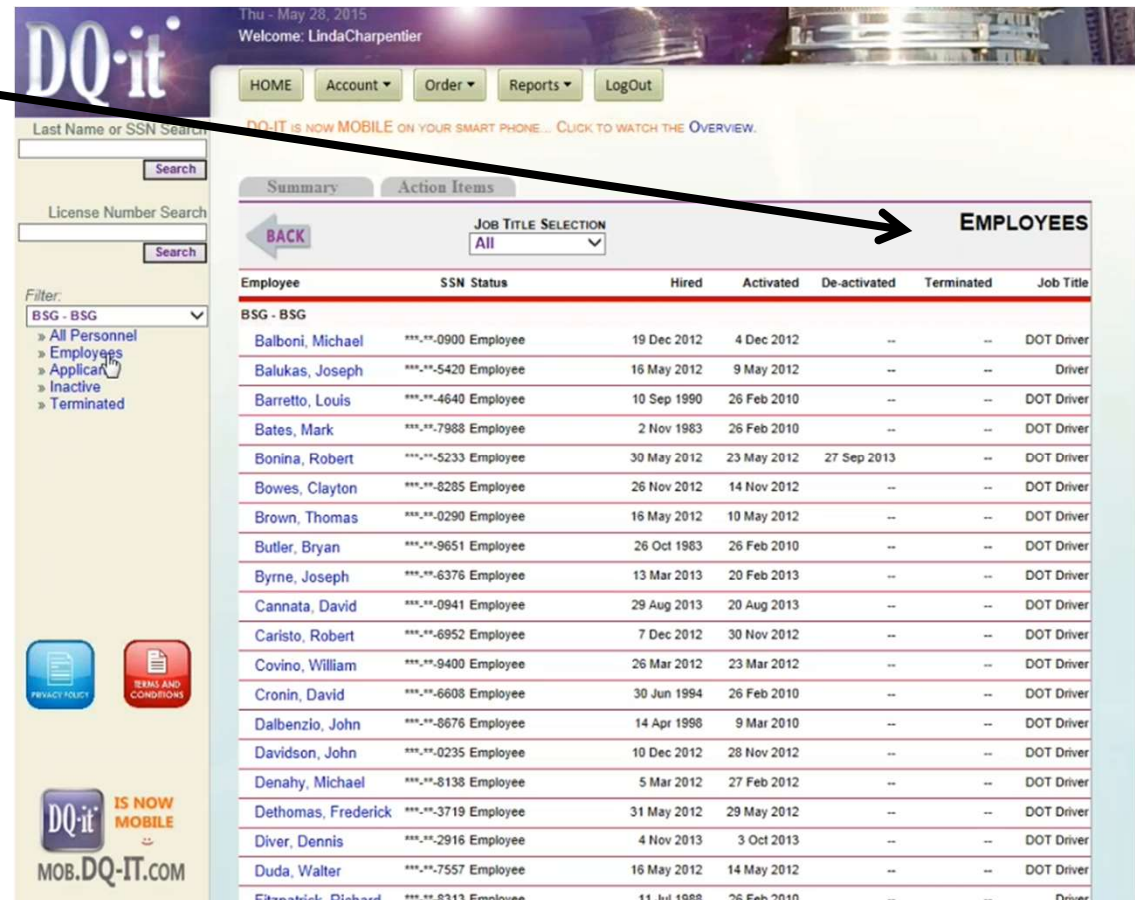
- » All Personnel
- » Employees
- » Applicants
- » Inactive
- » Terminated
- » CSA Hit-List



# Findings by Product

## DQ-it Employees Listing

- All participants ended up here at some point
  - One indicated rarely using this screen
- Screen successful, participants able to find appropriate personnell



Thu - May 28, 2015  
Welcome: LindaCharpentier

HOME Account Order Reports LogOut

DQ-IT IS NOW MOBILE ON YOUR SMART PHONE... CLICK TO WATCH THE OVERVIEW.

Summary Action Items

BACK JOB TITLE SELECTION All

**EMPLOYEES**

Employee	SSN	Status	Hired	Activated	De-activated	Terminated	Job Title
BSG - BSG							
Balboni, Michael	***-**-0900	Employee	19 Dec 2012	4 Dec 2012	--	--	DOT Driver
Balukas, Joseph	***-**-5420	Employee	16 May 2012	9 May 2012	--	--	Driver
Barretto, Louis	***-**-4640	Employee	10 Sep 1990	26 Feb 2010	--	--	DOT Driver
Bates, Mark	***-**-7988	Employee	2 Nov 1983	26 Feb 2010	--	--	DOT Driver
Bonina, Robert	***-**-5233	Employee	30 May 2012	23 May 2012	27 Sep 2013	--	DOT Driver
Bowes, Clayton	***-**-8285	Employee	26 Nov 2012	14 Nov 2012	--	--	DOT Driver
Brown, Thomas	***-**-0290	Employee	16 May 2012	10 May 2012	--	--	DOT Driver
Butler, Bryan	***-**-9651	Employee	26 Oct 1983	26 Feb 2010	--	--	DOT Driver
Byrne, Joseph	***-**-6376	Employee	13 Mar 2013	20 Feb 2013	--	--	DOT Driver
Cannata, David	***-**-0941	Employee	29 Aug 2013	20 Aug 2013	--	--	DOT Driver
Caristo, Robert	***-**-6952	Employee	7 Dec 2012	30 Nov 2012	--	--	DOT Driver
Covino, William	***-**-9400	Employee	26 Mar 2012	23 Mar 2012	--	--	DOT Driver
Cronin, David	***-**-6608	Employee	30 Jun 1994	26 Feb 2010	--	--	DOT Driver
Dalbenzio, John	***-**-8676	Employee	14 Apr 1998	9 Mar 2010	--	--	DOT Driver
Davidson, John	***-**-0235	Employee	10 Dec 2012	28 Nov 2012	--	--	DOT Driver
Denahy, Michael	***-**-8138	Employee	5 Mar 2012	27 Feb 2012	--	--	DOT Driver
Dethomas, Frederick	***-**-3719	Employee	31 May 2012	29 May 2012	--	--	DOT Driver
Diver, Dennis	***-**-2916	Employee	4 Nov 2013	3 Oct 2013	--	--	DOT Driver
Duda, Walter	***-**-7557	Employee	16 May 2012	14 May 2012	--	--	DOT Driver
Fitzpatrick, Richard	***-**-8313	Emolovee	11 Jul 1988	26 Feb 2010	--	--	Driver

# Findings by Product

## DQ-it Employees Detail


- 3 participants indicated recurring update area as particularly important
  - i.e. priority on documents that need renewals at various intervals
- Participant indicated this section took some time to figure out, not intuitive. Could be improved

**Consider** – Reprioritize content on this screen

The screenshot displays the DQ-it Employees Detail page. On the left, there are links for Privacy Policy, Terms and Conditions, and a mobile app download section for DQ-it IS NOW MOBILE. The main content area is divided into several sections: EXPIRED ITEMS, DRIVER HISTORY INVESTIGATION, DRIVER QUALIFICATION - EMPLOYEE, and DRUG AND ALCOHOL. The EXPIRED ITEMS section lists Drivers Annual Certificate of Violation, Medical Examiners Certificate, Motor Vehicle Record, and Supervisors Annual Review. The DRIVER QUALIFICATION - EMPLOYEE section lists Application for Employment, Certificate of Road Test, Drivers Annual Certificate of Violations, Drivers License, Initial MVR, Medical Examiners Certificate, Motor Vehicle Record, and Supervisors Annual Review. The DRUG AND ALCOHOL section is partially visible at the bottom. A black arrow points from the text 'Participant indicated this section took some time to figure out, not intuitive. Could be improved' to the 'Medical Examiners Certificate' item in the DRIVER QUALIFICATION - EMPLOYEE section.

# Findings by Product

## Batch Order MVRs

- One participant demonstrated this screen
- MVRs run annually (low frequency of use)
- Did not know what purple indicator was for. New employee? 
- Had to scroll to bottom of screen to find out icon meaning, however liked the information provided
- Consider** – tool tips to indicate icon meaning, removing from pop-up window, standardizing look with other screens

CLICK FOR PRINT OPTIONS

CLICK TO PASTE/IMPORT FROM EXCEL

Check each driver to order Motor Vehicle Reports (pricing)

Show DMV Status ☐

#		Last Name	First Name	SSN	License Number	DOB	State
1		Ackerschott	Lawrence	531-68-7132	ACKERLR396OF	09/06/1961	WA
2		Allen	Jason	456-37-1734	ALLENJL266QG	11/07/1974	WA
3		Alt	Gabriel	600-28-4436	ALT**GW143JA	04/01/1986	WA
4		Amos	Cody	534-27-6915	AMOS*CN070CZ	02/09/1993	WA
5		Anderson	Walter	537-02-9591	ANDERWA309R4	12/24/1970	WA
6		Arthun	Michael	534-76-5772	ARTHUMT249C2	02/22/1976	WA
7		Askew	Steven	019-56-7497	ASKEWSD301RP	12/17/1970	WA
8		Atkisson	Richard	551-41-7616	ATKISR386BT	01/30/1962	WA
9		Babcock	Randall	538-74-4911	BABCORA291KQ	05/18/1971	WA
10		Baltazar	Valentin	731-14-8795	BALTAV*255C4	02/24/1975	WA
11		Barnes	Benny	541-86-3500	BARNEBE372PS	10/10/1963	WA
12		Benson	Kyle	533-21-2852	BENSOKL124OB	09/02/1988	WA
13		Betancourt	Ricardo	583-04-0334	BETANR*322DD	03/04/1968	WA
14		Blair	Kyle	536-56-6792	BLAIRKD461MJ	07/11/1954	WA
15		Booth	Erik	535-23-0281	BOOTHED090LQ	06/18/1991	WA
16		Bossert	Andrew	535-21-2842	BOSSEAM154BH	01/08/1985	WA
17		Bradford	Stephen	536-80-7269	BRADFS273L0	06/20/1973	WA
18		Branham	Timothy	539-70-6526	BRANHTR398B1	01/21/1961	WA
19		Bridges	Lexie	536-94-7709	BRIDGLA333LC	06/03/1967	WA
20		Brock	Julian	531-72-0367	BROCKJC370PT	10/30/1963	WA
21		Brown	Darell	534-80-2832	BROWNDK294N6	08/26/1971	WA
22		Bruhn	Robert	536-92-8265	BRUHNRA290DA	03/01/1971	WA
23		Buckler	Matthew	538-08-5514	BUCKLMA194L0	06/20/1981	WA
24		Buckley	Dale	565-87-7598	BUCKLDO156LA	06/01/1985	WA
25		Burnson	Isaac	534-13-6998	BURNSID163ON	09/15/1984	WA
26		Bushong	Jarret	558-57-0033	B252372497603	08/01/1976	MD
27		Call	Matt	531-84-1518	CALL*MA372J6	04/26/1963	WA
28		Clerget	Don	535-66-9382	CLERGDG427N8	08/28/1958	WA
29		Coley	Curtis	516-72-8003	COLEYCL422LM	06/14/1958	WA
30		Cross	James	524-35-3442	CROSSJE348NH	08/08/1966	WA

# Findings by Product

## CSA Hit-list

- Multiple participants discussed this screen, indicated it as helpful
- Difficulty finding it (looking under reports)
- One participant uses this screen to manually log violations by area
- **Consider** – Improved navigation will make this screen more findable

HOME Account Order Reports LogOut

DQ-IT IS NOW MOBILE ON YOUR SMART PHONE... CLICK TO WATCH THE OVERVIEW.

Summary Action Items CSA Scores CSA Reports

BACK M Q LQ LY Y A All Items Convert to Excel

INCLUDE UN-MATCHED ITEMS? VIEW COMPLETED? SHOW RED FLAGS ONLY?

Driver	Event Date	Type	Pts*	View	Items*	State	Review
CED - CDL (DOT# 101002)							
Notsomuch, Nick	3 Feb 2014	Cra	2p	!	Crash: Injuries:2 Fatalities:1 Towed:1	CA	
	9 Jan 2014	Ins	7p	! !	Violations: No medical certificate on driver's possession • Operating a CMV without a CDL • No/defective lighting devices/ref/projected	NJ	
	27 Dec 2013	Ins	10p	!	Violations: Inoperative required lamps • Tires (general)	NJ	
Overall Total Points:			19p				
<b>*NOTES:</b> <ul style="list-style-type: none"><li>• When filtering by Basic Types, all 'Pts' points and 'Items' listed are tallied and filtered only for the selected filter. (eg: the Cargo Related filter only shows cargo violations and the points resulting from that violation). To see the TOTAL points for an 'Inspection', do not apply viewing filters.</li><li>• Point calculations are maintained in double precision floating point calculations. However, for display purposes, some minor rounding of numbers may result past the 1000ths decimal place.</li></ul>							



# Findings by Product

## CSA Report

- Participant indicated difficulty that this report is not exportable and cannot sort. Manually copies and pastes into a spreadsheet
- Consider** – Removing from pop-up window, allowing export, allowing sorting of content in screen

Violations By Location Report

	Inspection Date	Level	Location	Last Name	First Name	State	Basic	Code
1.	11/03/2014	3	ADS-21170 - St Paul	TAYLOR	LUCAS	MN	UnsafeDriving	392.2C
2.	09/02/2014	2	ADS-21170 - St Paul	MCCRATH	JOHN	MN	VehicleMaint	393.55(c)(2)
3.	09/02/2014	2	ADS-21170 - St Paul	MCCRATH	JOHN	MN	VehicleMaint	396.3A1T
4.	09/02/2014	2	ADS-21170 - St Paul	MCCRATH	JOHN	MN	VehicleMaint	392.9(a)(2)
5.	08/15/2014	1	ADS-21170 - St Paul	BRYAN	DOUGLAS	MN	VehicleMaint	396.5(b)
6.	08/15/2014	1	ADS-21170 - St Paul	BRYAN	DOUGLAS	MN	VehicleMaint	393.75(c)
7.	08/15/2014	1	ADS-21170 - St Paul	BRYAN	DOUGLAS	MN	VehicleMaint	393.100(a)
8.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	393.95(f)
9.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	393.45(b)(2)
10.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	396.5(b)
11.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	393.55(c)(2)
12.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	396.3A1T
13.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	396.7
14.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	393.43
15.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	392.9(a)(1)
16.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	393.75(f)
17.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	393.41
18.	07/24/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	MN	VehicleMaint	393.68EVS
19.	06/23/2014	2	ADS-21170 - St Paul	BUTLER	DOUGLAS	WI	VehicleMaint	393.9
20.	06/23/2014	2	ADS-21170 - St Paul	BUTLER	DOUGLAS	WI	VehicleMaint	393.25(f)
21.	05/01/2014	2	ADS-21170 - St Paul	JOHNSON	CHRISTOPHER	MN	VehicleMaint	393.11
22.	05/01/2014	2	ADS-21170 - St Paul	JOHNSON	CHRISTOPHER	MN	VehicleMaint	393.9
23.	03/19/2014	1	ADS-21170 - St Paul	CURTIS	BRYCE	MN	VehicleMaint	393.45(d)
24.	03/19/2014	1	ADS-21170 - St Paul	CURTIS	BRYCE	MN	VehicleMaint	393.95(f)
25.	03/13/2014	2	ADS-21170 - St Paul	LOPEZ	LUIS	MN	VehicleMaint	393.100(a)
26.	03/13/2014	2	ADS-21170 - St Paul	LOPEZ	LUIS	MN	UnsafeDriving	392.2C
27.	03/13/2014	2	ADS-21170 - St Paul	LOPEZ	LUIS	MN	VehicleMaint	396.5B-HWSLOW
28.	03/04/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	WI	VehicleMaint	393.9
29.	03/04/2014	2	ADS-21170 - St Paul	LARSON	RICHARD	WI	DriverFitness	393.91(a)
30.	02/14/2014	3	ADS-21170 - St Paul	ROMANO JR	GARY	MN	UnsafeDriving	392.2C
31.	02/03/2014	3	ADS-21170 - St Paul	LARSON	RICHARD	WI	UnsafeDriving	392.2-SLLS2
32.	10/22/2013	2	ADS-21170 - St Paul	FRITZE	JOHN	MN	UnsafeDriving	392.2-SLLS2
33.	09/26/2013	3	ADS-21170 - St Paul	GADBOIS	DANIEL	MN	UnsafeDriving	392.82A1
34.	07/17/2013	1	ADS-21170 - St Paul	BASIC	MICHAEL	MN	VehicleMaint	393.78
1.	07/30/2013	2	ADS-21200 - Bethany	WILMES	ROLAND	MO	VehicleMaint	393.30
1.	12/17/2014	3	ADS-21205 - St Cloud	PIKKARAINNE	DAVID	MN	UnsafeDriving	392.2C
2.	11/05/2014	3	ADS-21205 - St Cloud	LEE	JAMES	MN	UnsafeDriving	392.16
3.	09/10/2014	2	ADS-21205 - St Cloud	BEHRENDT	ANDREW	MN	VehicleMaint	396.5(b)
4.	09/10/2014	2	ADS-21205 - St Cloud	BEHRENDT	ANDREW	MN	VehicleMaint	393.55(c)(2)
1.	04/25/2014	3	ADS-21235 - Chilton	THEIS	MATTHEW	WI	UnsafeDriving	392.2-SLLS3
1.	04/15/2014	2	ADS-21245 - Columbia MO	CHESTER	KEVIN	MO	VehicleMaint	393.45(d)
1.	02/19/2014	2	ADS-21300 - Fort Atkinson	FRIEND	PHILLIP	WI	VehicleMaint	393.25(a)

# Findings by Product

## CSA Scores

- 2 participants indicate that numbers on this screen should be clickable
- 1 repeatedly tried to click number
- Helpful information but does not change that frequently
- Cannot view by area so winds up going to “CSA Hit List” and using pen and paper

“It’s just not doing what I want it to...”

# DQ-it

Fri - May 29, 2015  
Welcome: DavidPErez

HOME Account Order Reports Log

Last Name or SSN Search

Search

License Number Search

Search

Filter:

All Sites

- All Personnel
- Employees
- Applicants
- Inactive
- Terminated
- CSA Hit-List

DQ-IT IS NOW MOBILE ON YOUR SMART PHONE... CLICK TO WATCH THE OVERVIEW.

Summary Action Items CSA Scores CSA Reports

CSA COMPLIANCE SCORES AS OF 04/24/2015, PUBLISHED ON 04/07/2015.

Advanced Details...

DOT Name	DOT #	Unsafe Driving (65%)	HOS Compliance (65%)	Driver Fitness (80%)	Controlled Substances (80%)	Vehicle Maintenance (80%)
	(BASICS Thresholds)					
Republic Services of AZ Hauling	1120264	5.0%	0.0%	< 5 inspect. with viol.	0.0%	72.0%
AWS of Stillwater	1311044	4.0%	0.0%	< 5 inspect. with viol.	0.0%	< 5 inspect. with viol.
Republic-Alied AZ	1660011	0.0%	< 3 driver insp.	< 5 driver insp.	0.0%	< 5 vehicle insp.
Corvallis Disposal Co	167398	0.0%	0.0%	< 5 inspect. with viol.	0.0%	< 5 inspect. with viol.
AW Systems	237997	11.3%	0.0%	55.0%	0.0%	68.3%
Rep Services of FL	463592	42.0%	0.0%	78.0%	0.0%	27.0%
WDTR, Inc.	201284	0.0%	0.0%	0.0%	0.0%	< 5 vehicle insp.
AWS of N. America	232181	15.0%	< 3 inspect. with viol.	99.0%	0.0%	67.0%
United Disposal Service Inc	612324	0.0%	0.0%	0.0%	0.0%	< 5 inspect. with viol.
McInnis Waste Systems	684476	< 3 inspect. with viol.	0.0%	< 5 driver insp.	0.0%	< 5 vehicle insp.

INSPECTIONS/CRASHES WITH VIOLATIONS & POINTS

Show Sites

M Q L O L Y Y A (ALL DATES)

DOT Name	DOT #	Unsafe Driving			HOS Compliance			Driver Fitness			Controlled Substances			Vehicle Maintenance			HM Compliance			Crash Indica
		I	V	P	I	V	P	I	V	P	I	V	P	I	V	P				
Republic Services of AZ Hauling	1120264	3	3	26				1	1	12				12	33	198			1	
AWS of Stillwater	1311044	2	2	9				1	1	20				3	3	11				
Corvallis Disposal Co	167398													2	9	35			1	
AW Systems	237997	1	1	7				1	1	10				65	162	543			8	
WDTR, Inc.	201284													2	2	10				
AWS of N. America	232181	6	7	59				3	4	62				49	97	628			13	
United Disposal Service Inc	612324													2	2	20			1	
McInnis Waste Systems	684476			15				1	1	1				1	2	24			1	
AW Transportation	704220	10		72				4	4	22				53	115	568			13	
Keller Drop Box	765983													1	3	17			1	
Albany-Lebanon Sanitation	768137													1	1	2			1	
Rep WS of TX	772407	14	14	70	2	3	15	2	2	20				118	232	1200			30	
Republic Silver State Disposal	849101	3	3	20				2	2	23				89	145	808				
Rep Services of GA	896894																		1	
Rabanco Ltd	941775	3	3	31				1	1	2				1	1	18			1	
BFI Waste Services	962085	5	5	43	2	2	12	8	8	48	1	10		300	622	2788			19	
BFI Waste Services	962089	22	22	191				5	6	38				40	79	442			24	

PRIVACY POLICY

TERMS AND CONDITIONS

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MOB.DQ-IT.COM

Get Adobe Reader

# Findings by Product

## CSA Advanced

- Participant has trouble with pop-up window going behind the browser (2x) and struggles to find window
- Two participants showed this screen, 1 user indicated high relevance to “CSA Rank” another low relevance since it’s not something that’s tracked by the company

The screenshot displays the CSA Advanced web application interface. The URL in the browser is <https://www.dq-it.com/CSAMap/CSAMap.aspx?u=1258&erid=0>.

**Instructions:**

1. Select the BASIC(s) to view
2. Select the DOT Number(s)
3. Select a Report Period of data (default is 24 months)
4. Sort the data alphabetically or numerically
5. Slice the data by Detail or Date Group

**Ranking:**

- ☒ Lowest Ranked Sites
- ☐ Lowest Ranked Drivers
- ☐ Latest Violations
- ☐ Latest Crashes
- ☐ Top 25 Drivers
- ☐ Top 25 Sites

**CSA Rank:**

- 1 REP-4847 Corpus Ch... [122]
- 2 REP-4855 Houston S... [122]
- 3 REP-4843C Dell Valle [118]
- 4 REP-3828 Apex Tran... [80]
- 5 REP-4863 Rio Grand... [80]
- 6 REP-3421 NW Busine... [69]
- 7 REP-3820 Cheyenne [68]
- 8 REP-4862 Texas [64]
- 9 REP-4859 San Antonio [50]
- 10 REP-4753 Phoenix [46]
- 11 REP-4069 Conisana [39]
- 12 REP-3845 Saguaro E... [37]
- 13 REP-4538 Fort Worth [35]
- 14 REP-4070E Kilgore [34]
- 15 REP-4070A Athens [31]
- 16 REP-4864 Salt Lake... [31]
- 17 REP-3402-100 [28]
- 18 REP-4832 Lake Charles [28]
- 19 REP-3402-200 [27]
- 20 REP-4523 Hutchins [27]
- 21 REP-4852 North Hou... [26]
- 22 REP-4753B East-Mesa [23]
- 23 REP-4853 West Houston [22]
- 24 REP-4535 Denver [21]
- 25 REP-4886 Bozeman [20]

**Include DOTs:**

- ☒ 1120264
- ☒ 1311044
- ☒ 167398
- ☒ 237997
- ☒ 501284
- ☒ 523181

**Summary:**

BasicGroup (All Dates)

BasicGroup	#1120264	#1311044	#167398	#237997	#501284	#523181	#612324	#684476	#704220	#736733	#765983	#761
1. Controlled Substan...												
2. Driver Fitness	1	1		1		4		1	4			
3. HOS Compliance												
4. Unsafe Driving	3	2		1		7		2	10			
5. Vehicle Maint	33	3	9	162	2	97	2	2	115		3	1

NOTE: This screen shows the advanced break-down of Violations - not crashes. Therefore, the point totals do not include points from crash events.

Also, for Internet Explorer (IE6, IE7, IE8) Versions: Please note that this screen make heavy use of javascript calculations whereby on very large sets of data you may receive a warning t... We suggest that if you hit this threshold to either hit 'No' in response to the IE prompt or use a different browser such as Google Chrome or FireFox.

# Findings by Product

## Driver Info Detail Report

- Participant indicated she can't use the employee filter because 2 are categorized as a "CDL Driver" the rest are under "Driver" so "Driver" is unusable as a reliable filter

Driver Info Detail Report - Internet Explorer  
https://www.dq-it.com/reports/DriverReport.aspx?ch=false&chl=true&enid=1175&u=2583&num=25

Employee: Admin Clerical ALL     
Job Title: CDL Driver License Class: ALL Location: Advanced Disposal Services Endorsement: ALL

**Drivers Information Report for Advanced Disposal Services.** Created on Thursday - May 28, 2015 @ 10:14 AM.

Last Name	First Name	SSN	DOB	Date Hired	Date Term.	Emp. Status	Job Title	License #	State	Class	Exp Date	Location	Endorsement
Henry	Kendall	***.**-0144	1971-10-22	2015-04-08		Employee	CDL Driver	004126093	SC	CDL-A	2016-10-22	ADS EAST REGION	Combination c and N endorse
Hicks	Gary	***.**-7921	1959-01-03	2015-04-08		Employee	CDL Driver	103723092	SC	CDL-A	2019-01-03	ADS EAST REGION	



“

I try to keep tight control on  
SMART...I have had trouble with  
the filters, so I don't have  
confidence in them.

- SMART user

”

# Findings by Product

## SMART

- Participant indicated problem finding submit button after editing filters
- Participant mentioned not being able to paste SSN#
- One participant uses separate spreadsheet since *"SMART is a little slow to do analysis and doesn't correct common mistakes"*
- Exception management

"The main thing I look for is if a specific individual has taken a test"

**SUBMIT SELECTION CHANGES**

Test results: Any  
Period: Collected from 5/15/2015 to 6/14/2015  
Selection Changes\* button.

Actions:  
To Excel To PDF Defaults

Date Range  
Period: Past 30 Days

Test Results  
☐ Show Test Results

DOT Numbers  
☒ Show All (uncheck to list all numbers)

Testing Authority  
☒ Show All (uncheck to select below)

☐ Non Regulated ☐ PHMSA  
☐ FMCSA ☐ USCG  
☐ FAA ☐ DHHS  
☐ FRA ☐ NRC  
☐ FTA ☐ Chemistry

Testing Medium  
☒ Show All (uncheck to select below)

☐ Urine ☐ Blood  
☐ Hair ☐ Sweat  
☐ Breath ☐ Saliva

Company  
☒ Concorde, Inc.

Reason for Test	Totals	Negatives	Negative Dilute	Positives	Refusals	Cancelled	Recollection Required
All	72	50	0	13	9	0	0
Not Set	1	1	0	0	0	0	0
Random	71	49	0	13	9	0	0

by SSN/Emp ID  ☒ Use Filters Search

Location: CBA, INC./CONCORDE DOT #: 11111

Collection Date	Reported Date	Chain of Custody	Donor Name	SSN/ID	Test Result	Specimen Type	Reason for Test	Testing Authority	Request Change	LOV COC
06/11/2015	06/12/2015	0151417490	SPECIMEN, BLIND	*****0003	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417516	SPECIMEN, BLIND	*****0004	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417474	SPECIMEN, BLIND	*****0001	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417508	SPECIMEN, BLIND	*****0005	Negative	Urine	Random	FMCSA	Submit	Forms
06/10/2015	06/12/2015	0151417482	SPECIMEN, BLIND	*****0002	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/11/2015	0151417441	SPECIMEN, BLIND	*****2214	Refusal to Test - Adulterated	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417433	SPECIMEN, BLIND	*****2213	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/11/2015	0151417425	SPECIMEN, BLIND	00100212	Refusal to Test - Substituted	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417458	SPECIMEN, BLIND	*****2215	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417466	SPECIMEN, BLIND	*****2216	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/10/2015	0151417383	SAMPLE, BLIND	*****9688	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/11/2015	0151417375	SPECIMEN, BLIND	*****1615	Refusal to Test - Adulterated	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/11/2015	0151417409	SPECIMEN, BLIND	*****7777	Refusal to Test - Substituted	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/09/2015	0151417391	SAMPLE, BLIND	*****7885	Negative	Urine	Random	FMCSA	Submit	Forms
06/08/2015	06/09/2015	0151417417	SAMPLE, BLIND	*****9777	Negative	Urine	Random	FMCSA	Submit	Forms
06/05/2015	06/11/2015	0151417334	SPECIMEN, BLIND	*****8945	Refusal to Test - Substituted	Urine	Random	FMCSA	Submit	Forms
06/05/2015	06/11/2015	0151417359	SPECIMEN, BLIND	*****9116	Positive	Urine	Random	FMCSA	Submit	Forms
06/05/2015	06/11/2015	0151417342	SPECIMEN, BLIND	*****8416	Positive	Urine	Random	FMCSA	Submit	Forms
06/04/2015	06/08/2015	0151417326	SAMPLE, BLIND	*****2224	Negative	Urine	Random	FMCSA	Submit	Forms

# User Groups

## User Groups?

- Not the same as system user types e.g. “administrator” or “guest” users
- Do not indicate level of access to features or other security or authentication levels
- Groups are based on user behaviors; common tasks and feature needs

## Contributor User Group

- **Contributor**→ Uploads documents, manages personnel files, orders MVRs, on boards new employees
- E.g. Administrative Assistant
- Most active users are the local, day to day users (*confirmed*)
- Might provide reports to supervisors who don't login
- Proficient at previously learned common tasks, but has minimal need for exploration or troubleshooting trends
- Might benefit from “CRM” functionality such as driver communication notes; *i.e. Gave Joe form on x date...*
- Support with direct access to personnel records, recently viewed (“Jump List”) items, and current “to do” type actions to take



## Manager User Group

- **Manager** → Mid-range data need; Escalation and exception management so that they can follow-up with Contributors
- E.g. Area Safety Manager, Site Manager
- Second most active user-group
- Occasionally monitors CSA Reports for his/her area of responsibility
- Escalation-based review of driver files (expired, accident) to ensure responses to CSA violations
- Might benefit from in app notification of changes in CSA score
- Support with actionable information for escalated issues. E.g. direct view of “CSA Hit-List” type data points



# Recommendations

## Executive User Group

- **Executive** → Focused on CSA compliance data, trends, and troubleshooting. Interested in groupings by region, area, maybe site
- E.g. Regional Director
- Lowest frequency user with more sophisticated data needs and higher product purchase decision making authority
- Monitor Area Managers, identify poor performing areas. Investigate CSA data to identify trends and understand potential solutions
- Supported by quick access to KPIs with the ability to drill-down



*“What are our top CSA violations? This area seems to keep having issues with vehicle lights being out. That’s easy to solve...”*

# Recommendations

## Content Priority by User Group

Priority	Contributor	Manager	Executive
High	<ul style="list-style-type: none"><li>Find an Employee</li><li>Upload Files</li><li>View Documents</li><li>Order Single MVRs</li></ul>	<ul style="list-style-type: none"><li>Missing File Reports</li><li>Action Items</li><li>Find an Employee</li><li>View Documents</li><li>CSA Hit List</li></ul>	<ul style="list-style-type: none"><li>CSA Hit List</li><li>CSA Scores</li><li>CSA Rank</li><li>CSA Advanced</li></ul>
Med	<ul style="list-style-type: none"><li>Batch MVRs</li><li>Missing File Reports</li><li>Action Items</li></ul>	<ul style="list-style-type: none"><li>Upload Files</li><li>CSA Scores</li><li>CSA Reports</li><li>Order Single MVRs</li></ul>	<ul style="list-style-type: none"><li>Find an Employee</li><li>Missing File Reports</li><li>Action Items</li></ul>
Low	<ul style="list-style-type: none"><li>CSA Hit List</li><li>CSA Scores</li><li>CSA Reports</li></ul>	<ul style="list-style-type: none"><li>Batch MVRs</li><li>Order</li><li>CSA Advanced</li></ul>	<ul style="list-style-type: none"><li>Batch MVRs</li><li>Upload Files</li><li>Order Single MVRs</li></ul>

\* Example content, not complete or 100% accurate

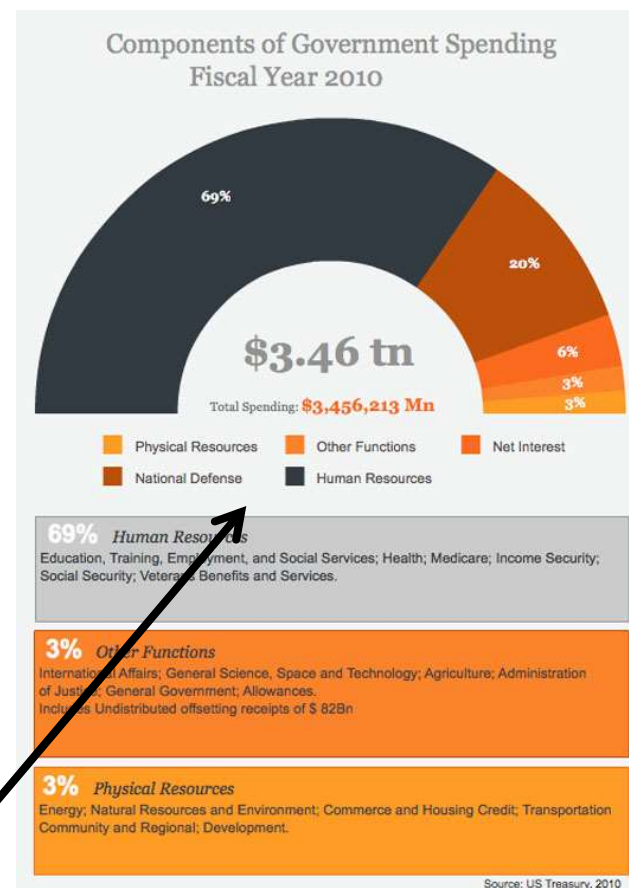


# Recommendations

# Recommendations

## Overall User Experience

- **Workflows not Screens** - Focus on **high priority task-based workflows** first before defining individual screens. E.g. *"A local user, Mary, needs to order an MVR for an individual driver. What steps does she need to take?"*
- **Global Improvements** – Improving **usability**, **layout consistency**, and **interaction design** throughout the applications will raise the real and perceived value of Concorde software products
- **Enhanced Reports** -- Enhancing with **data visualization for key performance metrics** per user group will help users more quickly understand what's going on, and be an immediately recognized differentiator in sales



High perceived value!

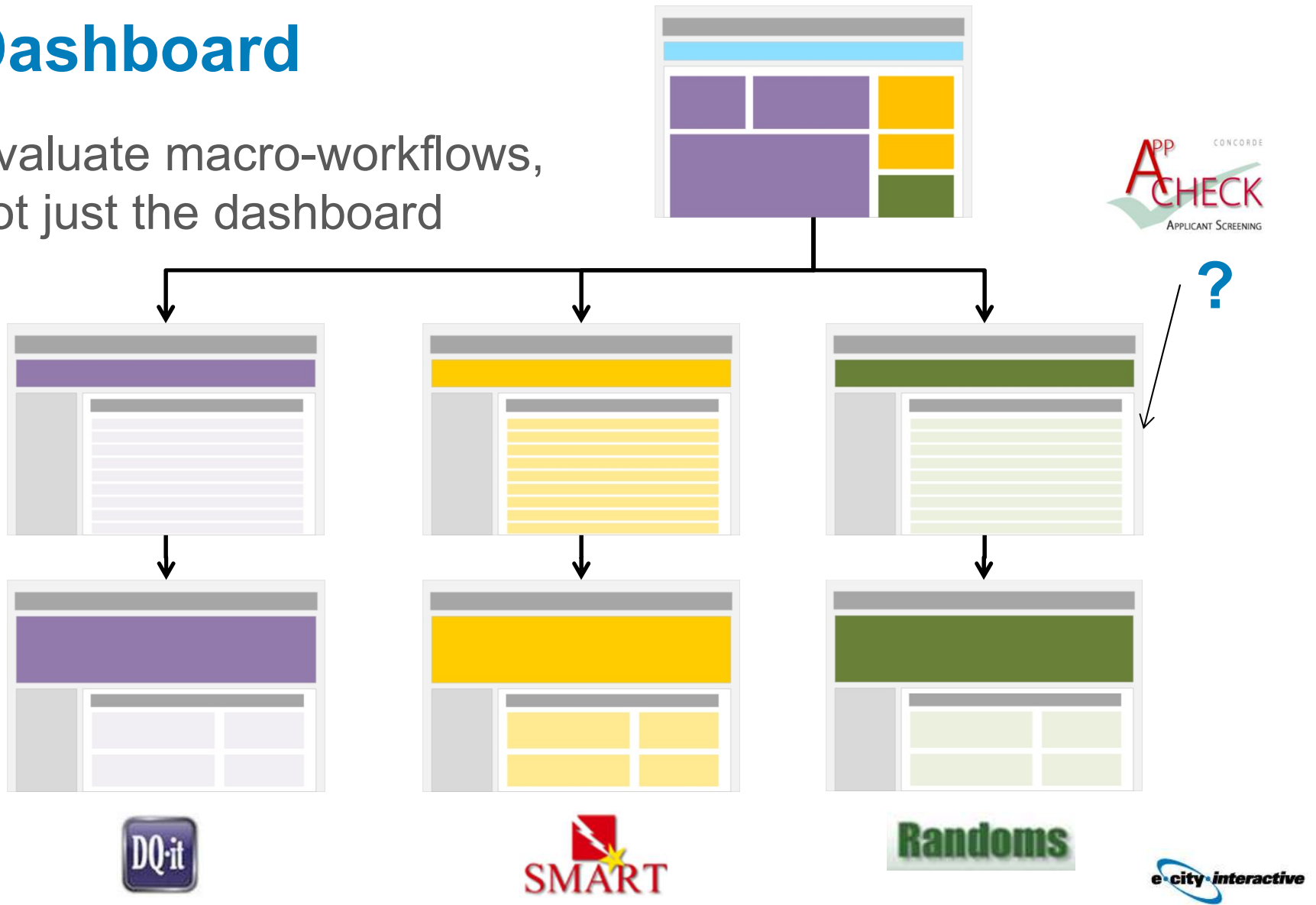
## Concorde Product Suite

- **Driver Qualification & Compliance** – One product suite, multiple integrated add-on products. DQ-it, SMART, RANDOMS and potentially AppCheck are all thematically connected under driver qualification and compliance. The system should feel like one integrated experience.
- **Doing That One Thing Very, Very Well** – *...and making sure they realize it.* Cross-sell will be improved far more by more effectively showing customers the value of their current product and with seamless integration than by a dashboard showing the existence of other products.
- **Dashboard with grayed-out buttons or links to other products will have little to no impact on cross-sell.**
  - Most local and area users have minimal influence on vendor selection
  - Highest current value of Concorde is customer service responsiveness and core functionality
  - Grayed out, unusable options reduce system clarity, reducing product value

# Recommendations

## Dashboard

Evaluate macro-workflows,  
not just the dashboard



## Content Groupings

- Single cohesive site map for an integrated experience; show or hide based on product purchase
- Use task-based names, not product names (branding once in product section)



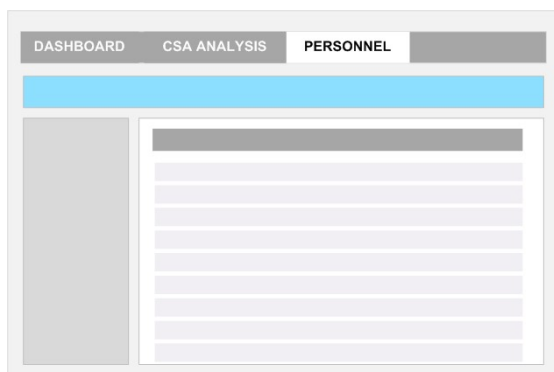
Example content grouping. Not a navigational scheme or actual menu.

# Recommendations

## Dashboard

- Supporting primary tasks for each user group indicates the need for groups to have different “start page” views
- Start with role level by default, but allow the default setting to be updated by user i.e. *“Make this my start page”*

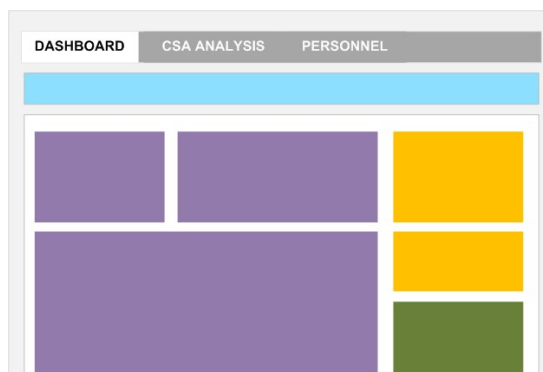
### Contributor View



#### Start on “Personnel” screen

- Items coming due
- Recently viewed items
- Ease of employee lookup

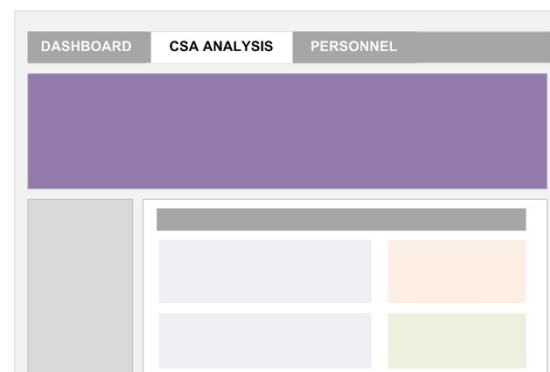
### Manager View



#### Start on “Dashboard” screen

- Items past due
- Drug testing statistics
- CSA Score Highlight

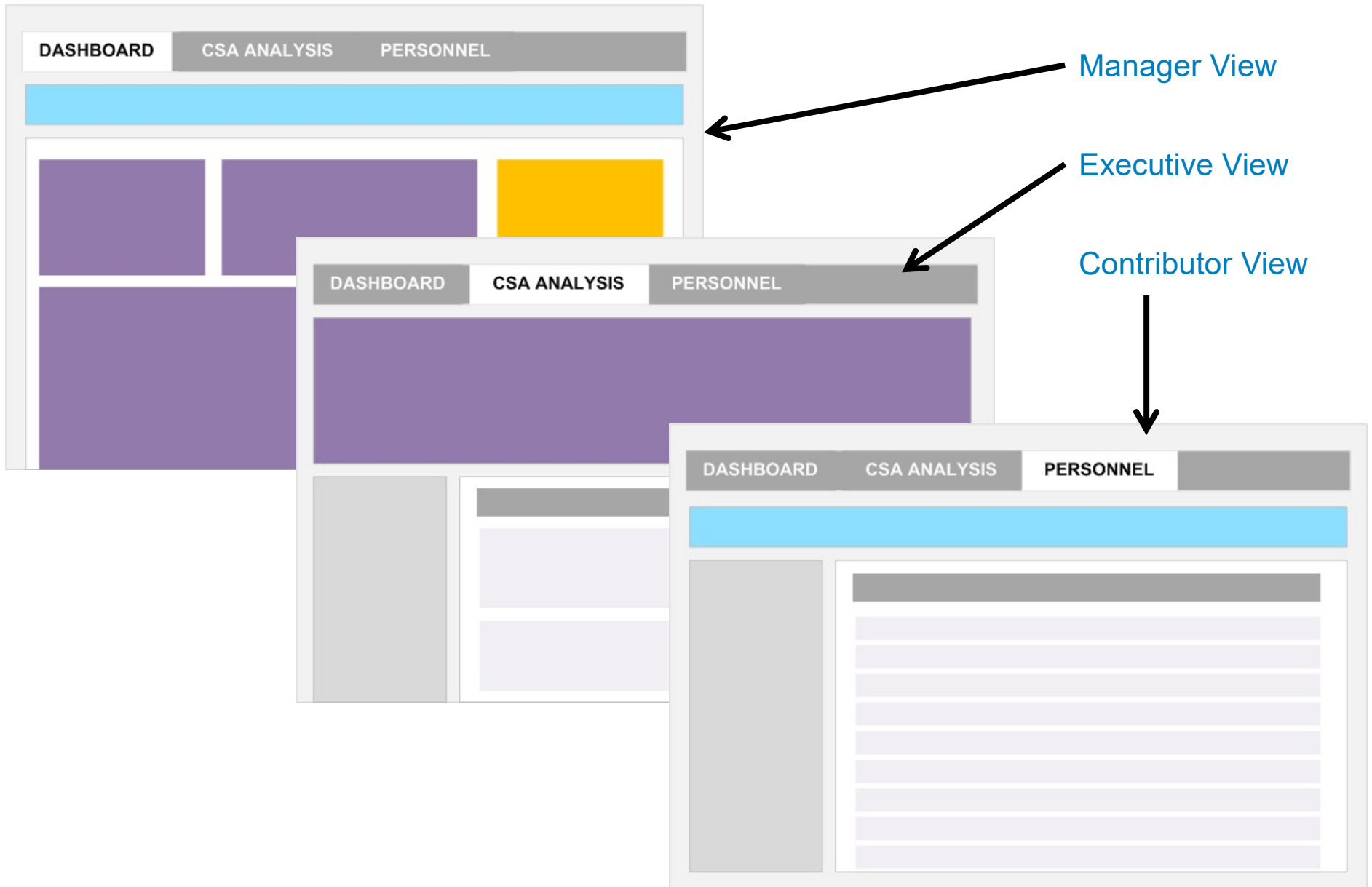
### Executive View



#### Start on “CSA Analysis” screen

- CSA Score Data Visualization
- CSA Rank
- Trends by Region

# Recommendations



**Wrap Up**



## Activities & Events

Deliverable	Date
User Interviews Discussion Guide	5/22
User Interview Sessions	5/28 & 5/29
User Testing Study Screener Survey	6/8
User Testing Recruitment Begins	6/16
Summary Report	6/17 (Onsite)
Round 1 Wireframes	6/24 (Got2Mtg)
Round 2 Wireframe Revisions	7/1
User Testing Discussion Guide	7/1
User Testing Sessions	7/7 – 7/9
Testing Summary w Round 3 Wireframes	7/16 (Onsite)
Dashboard Designs	7/24
System Architecture Diagram	7/27 (Onsite)

### Next Up...

- Concept Design: Wireframes
- User Testing
- System Architecture

**Thank You.**