Agenda

• Welcome & Agenda
• Overview
• Research
• High Fidelity UI Templates
• Questions?
**User Interface Standards Activities**

**Overview**
User Experience-led design; must-have activities: Wireframing, User Interface Standards Documentation and Hi-Fi UI Templates.

**Key Activities**
1. Conduct research for WellSTAR Templates and UIS Documentation
   - Day-in-the-life Contextual Interviews
   - User Journey Mapping Exercises
   - Persona Development
2. Develop Wireframes & Designing for key UI Templates/Patterns
3. Complete User Interface Standards and ADA Compliance Guidelines

**Deliverables**
- User Interface Standards Doc
- ADA/508 Checklist
- Wireframes – for purpose of UI patterns only
- High Fidelity UI Templates

**DOGGR’s WellSTAR Scope:**
1. WellSTAR Information Architecture
2. General Software Design activities
3. Front-end UI Template Development
Research Objectives

Overview

Conduct a contextual inquiry in order to understand on how users do it today, with a focus on what works well and what does not, and how they want to be able to operate differently.

1. Understand what users have for key stages/phases and more granular tasks over time.
2. Understand what questions users are trying answer.
3. Understand what touchpoints users rely on to find the information they need or need to share. *This can be applications, devices, paper documents, people etc.
4. Understand what pain-points exist today for engineers / field inspectors .
5. Understand what opportunities for improvement of the user journey / user experience there are for a future system design.
# Day-in-the-life: Who we talked to

<table>
<thead>
<tr>
<th>Subject Matter</th>
<th>SME/PO</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Department of Conservation – DOGGR/CA</strong></td>
<td>Chris Jones (BFD)</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Henry Iwuh (BFD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dean Kahler (BFD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gene Mullenmeister (BFDi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>John Huff (CYPRESS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hafiz Ali (CYPRESS)</td>
<td></td>
</tr>
<tr>
<td><strong>GWPC (RBDMS)</strong></td>
<td>Tom Kerr</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Paul Jehn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jim Milne</td>
<td></td>
</tr>
</tbody>
</table>

**Legend**

- ✓ Full participation
- ☐ Participated offline via individual review of materials
- ☞ No participation
Persona Example

Hafiz
Engineer

Age: Mid 20s - Mid/High 50
Education: MS or Bachelors in Petroleum Engineering
Tech Rating: 5/5, Fluent in most design software, mobility
Previous Experience: Engineer (Operator), Field Inspector

“I'm staffed in a district and we all do work a little different. Most of my work is done offline via paperwork and partially done online via WellStat utilizing work-arounds and macros. If a problem is big enough I work collaboratively with a team. I am managed by a senior engineer/geologist.”

Goals
- Handling new and existing permits
- Successfully managing crises
- Completing Permits w/ Field Engineers
- Fielding questions/requests from Operators/Land Owners

Tasks
- Permitting
- Injection Wells Review
- UIC Review
- AOR Review

Tools
- MS Office
- CalWIMS
- WellSTAT
- Internal Databases
Additional Persona Considerations

• RBDMS Core Users
  • Management
  • Administrative
  • Geologist & Engineers
  • Data Entry
  • Application Admin

• RBDMS Data Miner Users
  • Management
  • Other Agency Users
  • Public
  • Academia/Researchers
  • Data Vendors
  • State Agencies & Officials
  • Federal Government Agencies & Officials
  • Industry

• RBDMS Environmental Users
  • Same as Core and Data Miner

• RBDMS eForm Users
  • Application Admin
  • Managers
  • Reviewers
  • Industry
  • Data Miner Users

• RBDMS FormBuilder Users
  • Same as eForms Users
  • Application Admin

• RBDMS Inspection App Users
  • Managers
  • Inspectors

• RBDMS WellBore Users
  • Agency Geologist & Engineers
  • External Geologist & Engineers
Journey Map Example
Bootstrap + Kendo UI Frameworks

The State Template v4 is based on the Bootstrap Framework. Bootstrap is for any device, medium, and accessibility. Bootstrap is a family of responsive front-end frameworks that make it easy to design beautiful responsive websites, apps and emails that look amazing on any device. Bootstrap is semantic, readable, flexible, and completely customizable.

Key Features
- HTML5/JS
- 1 Styleguide
- 100% responsive
- 100% accessible/508/ADA Complaint
- No inline styles
UI Design Standards – Page Templates

• Reviewing the following pages & patterns for the UIS Guidelines that contain, detailed usage of colors, fonts, logo, common UI patterns (i.e. Tables, search, article pages etc.)

**UI Page Templates**

- **Home/Dashboard**
  - Navigation
  - Search UI
  - List of Tasks/Notifications

- **Search Results**
  - (Utilize RBDMS/CalWims)
  - Search [Basic]
  - Search [Advanced]
  - Refine Search
  - Export

- **Well Record Detail**
  - Well Summary, Details
  - Downloadable Content

- **Form Wizard**
  - Stepped Wizard
  - View/Review Model

**Standard UI Patterns**

- Text Labels
- Form Inputs (Text, Check Boxes, Radio Buttons)
- Buttons
- Drop-down Menus
- Badges & Iconography
- Model / Pop-over
- Alert Banner/Toast
Design Process

Wireframes -> High Fidelity Design (State Template v4)
Template 1 (Global Nav, Content Area)

Description goes here
Alert Banners are always full width - 1140px

Content - 1140px wide
Place 15px below tabs
If there tabs are not needed then move this area up
### Template 2 (1-Column, Tab Navigation, Table/Grid)

#### Capabilities

- **Table/Column Navigation**

#### Dashboard

- **Welcome Message**: Hello, John User, Operator Name

#### Navigation Buttons

- **Home**
- **Alerts**: 3 3

#### Page Title

**Page Title Here**

#### Tabs

- **Tab 1**
- **Tab 2**

#### Table

<table>
<thead>
<tr>
<th>Example</th>
<th>Task</th>
<th>Start Date</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Example 1</td>
<td>Task 1</td>
<td>10/30/2015</td>
<td>Fringilla Mollis Commodo Pellentesque</td>
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<tr>
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<td>Task 2</td>
<td>10/30/2015</td>
<td>Fringilla Mollis Commodo Pellentesque</td>
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<tr>
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</tbody>
</table>

#### Pagination

- **Items Per Page**: 20

#### Buttons

- **Primary Action**
- **Secondary Button**
Template 3 (1-Column, Search Form)
### Search Results

**Viewing 25 of 110 results for “Chevron”**

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
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<td>Actions</td>
</tr>
</tbody>
</table>
Template 6 (2-Column, Form Wizard)

Step 5: Applicant Information

Operator

- Operator Name
- Operator No.
- Well ID
- Address

Well Permit Attachment Information

- Cement Type
- Quantity
- Yield
- Slump Weight
Breakpoints / Responsive Grid

Step 5: Applicant Information

Operator
- Operator Name
- Operator No.

Well Permit Attachment Information
- Cement Type
- Quantity
- Yield
- Slurry Weight
Mobile Ready
UI Design Standards – Documentation

The WellSTAR User Interface Standards (UIS) document describes standards and guidelines for creating a usable interface for all users, including those with diverse skills, experience, knowledge and abilities.

• General Presentation

• Navigation

• Forms

• Accessibility and Standards Compliance
What is a user journey map

• A user journey map tells the story of the customer’s experience. It may focus on a particular part of the story or give an overview of the entire experience. What it always does is identify key interactions that the customer has with the organization. It talks about the user’s feelings, motivations and questions for each of these touchpoints.

• It often provides a sense of the user’s greater motivation. What do they wish to achieve, and what are their expectations of the organization?
Project Timeline

UI Design

Research / Journey Mapping
Wireframes
High Fidelity Templates
User Interface Standards

Infrastructure

Software Design

Timeline

AUGUST
SEPTEMBER
OCTOBER
Future