Web Forms & FormBuilder

RBDMS 3.0, FormBuilder & Online Forms in WellStar
3 Elements of Form Processing

Form

Rules

Workflow
Forms

Need ability to:

- Define the form
  - What fields are there
  - How will the form be pre-filled
  - How will the user interact
  - Define the structure of the data
- Render the forms to role-based users
- Collect & hold data submitted by users
Rules

Need ability to:

- Define validation rules
  - Data type enforcement
  - 10/14 digit API #s
  - Bottom of hole > top of hole
- Associate rules with forms, form fields and data collected
- Re-use rules across RBDMS
Workflow

Need ability to:

- Define tracking elements
- Define statuses used
- Maintain state of data in process
- Interact with notification and other services
Creating Web Forms

How

Code

Configure

Who

Developers

Power Users
FormBuilder Planned

Form

Rules

Workflow
FormBuilder Project Status

Phase 1: Prototype

*Project designed around NYS DEC Plugging Report*

Goal: Prove we can make it easier to create forms without the assistance of a software developer.

- HTML5 for form designing, Responsive HTML5 for form rendering
- Developer support may be needed for complex forms
- Flexible data model - serialized JSON and other metadata
- Long term planning - multiple department support (Air, Water), plan for round trip data with external systems
- Forms are URL Addressable - send/share link to load any form
FormBuilder Project Status

Phase 2: Development

Enhancements to the prototype based on its success, work through challenges

Goal: add identified critical features to further prove concept of HTML5 design and form rendering; Minimize the role of the developer for form creation

- Add data loading capability (API # Field)
- Creation of form “Sections”
- Add (native) role based security, that can later plug into other Single Sign On systems or a web enabled WinAdmin (via service call)
- Add basic validation - required / optional, data type validation (via HTML5)
- Add basic work ow - submitted, rejected, approved basic email noti cations
FormBuilder Project Status

Phase 3: Development

*Production ready system for NY Plugging Report & other RBDMS forms*

Goal: move from prototype to production ready app for NY Plugging report and ready for presentation to / planning for RBDMS community at-large

- Event Triggers and data loading via *any* control (Not just API)
- Casing & Cementing Control ➔ evolved to Parent-Child Control
- Updates back to any Database (RBDMS Classic, .NET or Other)
- Admin screens to configure system - connection strings, etc...
- Improvements to data mappings for data loading and saving
FormBuilder Current State

Form

Rules

Workflow
FormBuilder Current State
FormBuilder Current State

- C#, .NET 5, MVC, Entity, Razor, Knockout, Bootstrap, built with APIs in mind
- Interaction with RBDMS is via SQL - only real option since RBDMS is desktop based and doesn’t have an API (yet)
  - **Disadvantages**
    - Doesn’t tap into any business logic of RBDMS Application
    - Requires FormBuilder user to have working knowledge of RBDMS data structures and SQL syntax
  - **Advantages**
    - FormBuilder users will have knowledge of SQL and data structures so it’s a lower-cost, viable option for now
    - Simple is good
- Current Rules and Workflow are very elementary
FormBuilder Next Steps

Form

Rules

Workflow
WellStar - Planned

Form

Rules

Workflow