iConnect 144137 / 159836
Deploy Projects to UAT

Project Overview

This enhancement is designed to support the maximum reuse of rules across FireLight. Firms need a way to support multiple people working in FireLight rules without one person overwriting the work of another. Additionally, firms are looking to add the capability to deploy rules in projects or groups of work based on a specific time (May changes, state changes, or new client deployments) which will support advanced testing and release planning. Clients have noted that often they have to wait for a deployment before they can begin working on another project and if the timing changes and the work will not move to Production, the work has to be undone before another project can begin.

Currently, rule definitions appear to be stored at the form level, but in reality they actually operate on the underlying data items, not the form fields themselves. Since this distinction is not obvious in the form designer, the same rule is often created for each field on multiple forms (for the same data item), leading to unnecessary work to maintain rules when there are form or rules changes.

Several clients have created a "Master App" to help manage rules. This is a master form where common rules are defined, rather than defining the rules on each form. This master form is then added to multiple packages and/or products as a hidden form and is used for rule execution (not for data input). The master form also allows for a Begin/Expire date that is used to determine which set of rules are in effect at a given time. This strategy does not solve for the required project or set of changes that need to be deployed separately.

The FireLight team determined that the best way to solve for these requirements is to support grouping rules into Rule Sets. Rule sets can be locked to prevent the overwriting issue, will support effective and expiration dates to manage release planning, and can be assigned to packages and deployed. This enhancement will allow clients to begin work, save it, and deploy it independently of other rule sets. This will allow clients to be more efficient with adding new clients and new products. Additionally, this enhancement will allow clients to logically group rules into categories (Distributor specific rule sets, owner rule set, product specific rule set, etc.) and deploy them across FireLight. This will allow for maximum reuse of the rule work clients have already done such that rules in one rule set can be applied repeatedly where applicable. With the expansion of FireLight modules and additional presentation layer options, reuse of rules is vital.

Pain Points and High Level Solution Overview

Pain Point 1: Form-Level Rules

Currently, rule definitions appear to be stored at the form level, but in reality they actually operate on the underlying data items, not the form fields themselves. In order to make this distinction obvious and encourage better rule maintenance and reuse, the Admin will create a new section in the FireLight Admin / Profile Administration called Rule Sets.

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Pain Point 2: Multiple User Editing

Another point of pain for form designers in FireLight is that when multiple users are working on the same forms, they can easily overwrite other users' work in progress. For this requirement, Rule Sets will support rules being defined and stored in separate "rule sets" that can be included in packages as the rule set applies. Clients will be able to group rules into logical categories that will allow for the best reuse across FireLight. It will also address the project work request where using rule sets one BA will be able to work on a new distributor set of rules, another BA to work on product changes, and another BA to work on replacement rules, etc. Rule Sets can be accessed from the existing Form Designer/Rules Window and from a new FireLight Admin / Profile Administration / Rule Sets menu option.

High Level solution overview: There is a requirement to create a higher-level container for rules that will support grouping of rules that can be assigned to packages as needed, locked, with date control to manage releases. FireLight is calling the higher-level rule container a Rule Set. At the same time, it is important to clients that the Form Design view to search rules associated with fields remain. Clients need to be able to create rules based on a form and the form data items and use the "List only rules for selected control" for search. For this reason the Form Designer / Rules Window will remain; however, the "List only rules for selected control" will remain checked.

FireLight will create a Rule Set section under the Profile Administration for creation of Rule Sets and the underlying rules. FireLight will also continue to support the Designer view to manage rules associated with a selected control. See below for the specific requirements of each section.

This process will be formally detaching the rules from the form and rules will be defined as rule sets and assigned to a form or package definition. The intent of creating this global rule set view is to support reuse of Rule Sets, multiple users editing FL rules at a time, and better release planning. Client will assign the rule set to the packages that are applicable and using expiration and effective dates will assist with release planning.

Requirements: FireLight Admin / Profile Administration / Rule Sets

Rule Set and Rule creation, copy, and editing functionality will predominantly be completed and managed from the new FireLight Admin / Profile Administration / Rule Sets menu. This new Profile Admin menu will follow the same look and feel for the rest of FireLight.

This new view will have 3 tabs: Rule Set Detail, Rule Set History, and Search Rules in Package

1. Rule Set Detail – this section will contain the high level detail on the rule set. (This is the container level to define the Rule Sets.) At this level, clients will be able to lock Rule Sets to prevent another BA from editing or changing the rule set or rules within the rule set.

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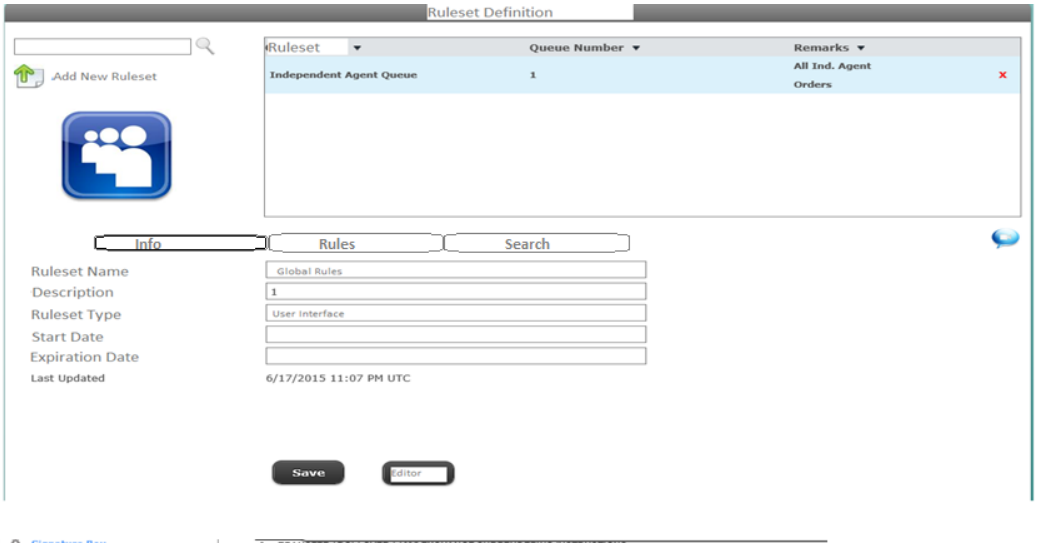

- Basic search on this screen will search for the name of the Rule set.
- Clients can use the Info details to manage the rule sets.
    - Rule set Name – Reuse the Add New functionality that exists in the Admin to support adding a new Rule set name. Clients can name the rule sets in a manner that will help them manage the rules. For example: Owner Rules, Distributor ABC Custom Rules, Product 123 specific rules.
    - Rule set Type - categorize the rule sets with a Rule set type. This will be a dropdown defined by Insurance Technologies, which will help with the new UI and other transactions.
    - Stare Date - Start and expiration date can help control when the rule set will be applied.
    - Expiration Date - Expiration date can help control when the rule set will expire.
    - Timezone – clients can use the Timezone on the Info tab to define the TZ per Rule set.
    - Last Updated

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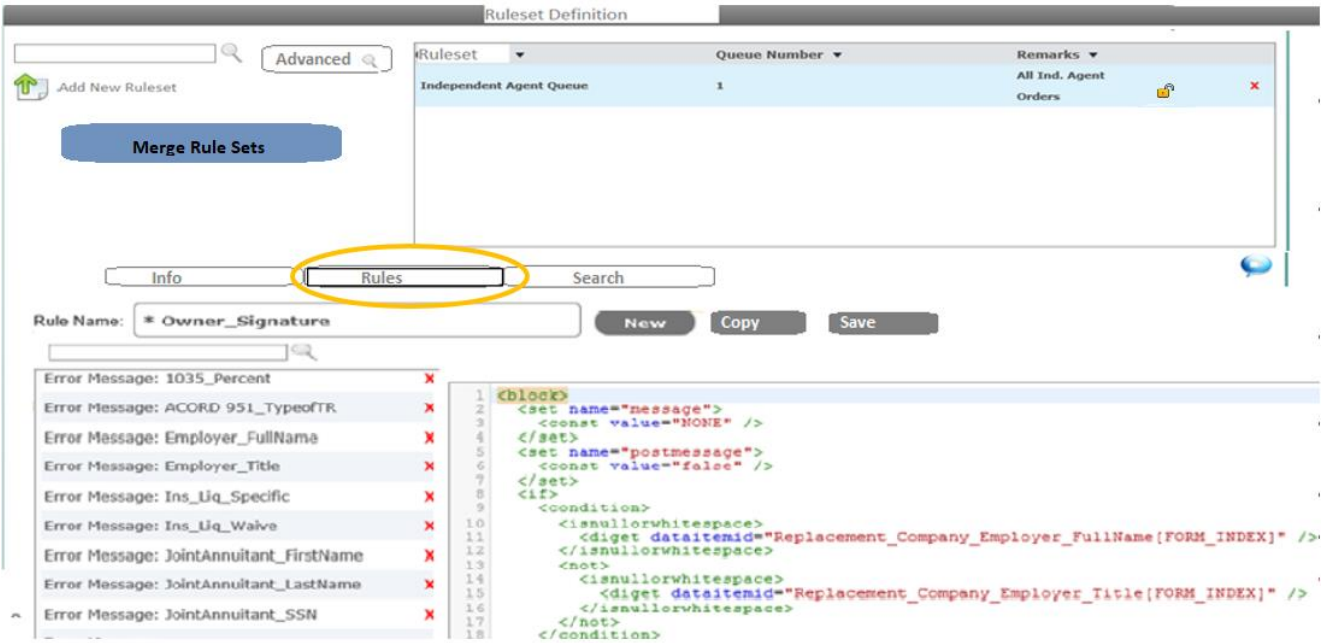
2. Rules will be implemented as a dialog shown by clicking Rules Dialog from Rule Set Detail
    - The new Rules view will show the list of Rule Sets at the top, with Copy Rule Set, Lock/Unlock, and Delete functionality, and a Rule Set Detail section below for editing and adding rules within the selected rule set, and buttons for New, Copy, Save, and export rules.



- Search on the top left of the screen – This will search/filter rule sets that contain the name.
- Search on the top of this rule section – This will search/filter rules that contain the rule name
- Clicking on a rule set, will open the list of rules within that defined rule set.
- Clicking on the rule in the rule set will display the XML for the rule.
- Create New, Copy, Save
    - New: New will open the rule editor window of the selected rule set.
    - New Rule Template: because the Rule Set editor is not associated with a form, the rule Template DataItem search will have no intelli-sense. The template will still exist but no dropdown will be there. The template fields will become text fields to enter the dataitems
- Delete rule sets or rules from this view. Support a “Delete all” button to delete all rules within a rule set
- Node help will remain – This is the intelli-sense node help associated

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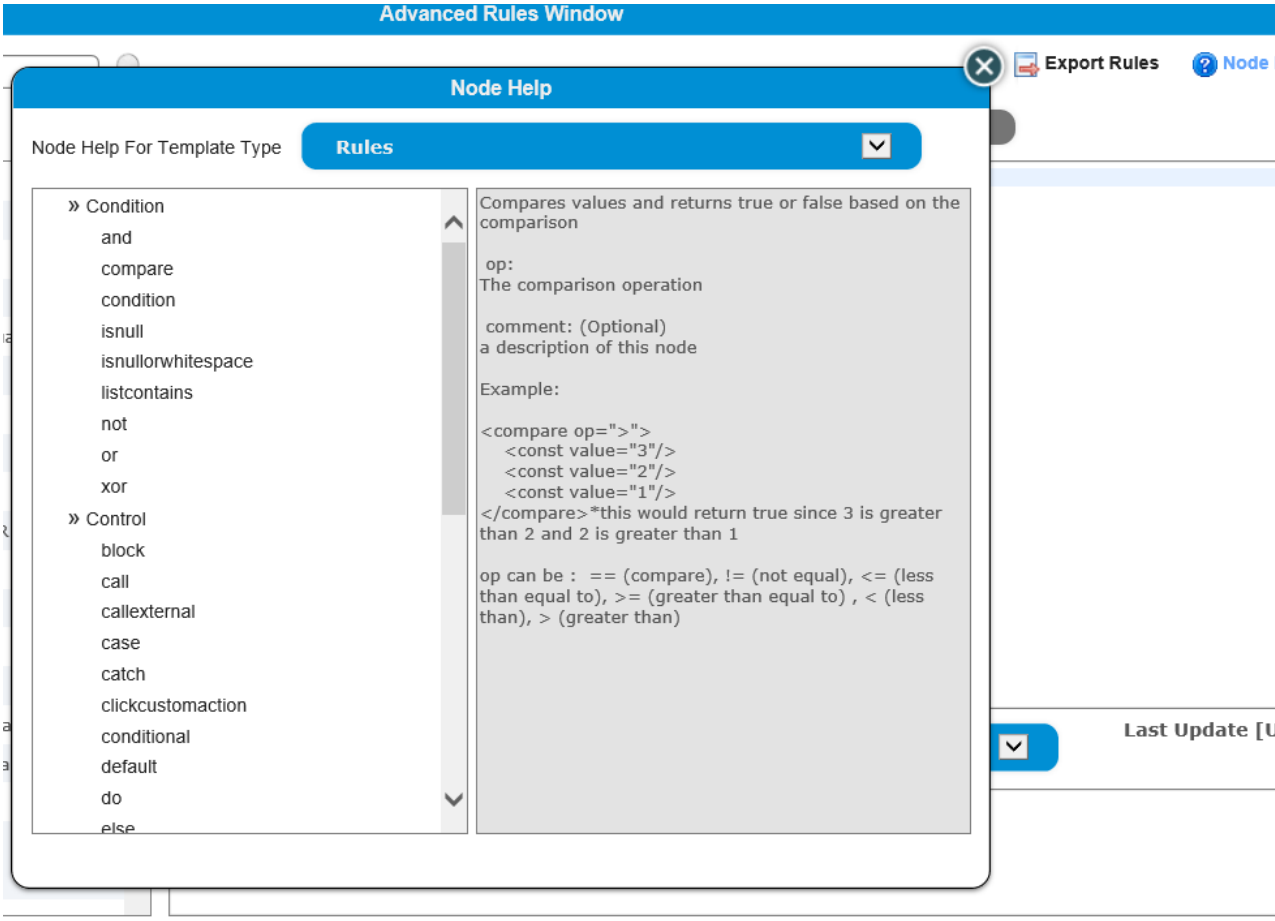

- "Copy Rules", "Export Rules," "Show All Rule Definitions," and "Templates Window" will function the same as they do today under the Designer but will now exist on this screen. Please note that these options will be removed from the Designer view.
- Rule Set History: The username and time of last modification of each rule will also be displayed in the Rule Set editor. Track the rules that change and the user ID that made the changes.

Action	Old Value	New Value	Action Date	Login
Form Saved and Updated			6/5/2017 5:57:06 PM	Katherine_FLADEMO
Form Saved and Updated			6/5/2017 5:31:39 PM	katherine_FLADEMO
Form Uploaded			6/5/2017 5:31:17 PM	katherine_FLADEMO
Form Saved and Updated			5/22/2017 7:24:51 PM	Katherine_FLADEMO
Field 'Replacement_Company_Name[FORM_INDEX]' was dragged	Top:367,Left:50	Top:364,Left:52	5/22/2017 7:24:51 PM	Katherine_FLADEMO
Field 'ButtonOpen1035' was dragged	Top:331,Left:67	Top:337,Left:63	5/10/2017 5:20:48 PM	IT
Form Saved and Updated			5/10/2017 5:20:48 PM	IT
Form Saved and Updated			5/10/2017 5:18:39 PM	IT
Field 'ButtonOpen1035' - Text was updated	SURRENDERING COMPANY POLICY/ACCOUNT/CONTRACT INFORMATION	Surrendering Company Lookup	5/10/2017 5:18:39 PM	IT
Form Saved and Updated			4/19/2017 3:30:57 PM	Katherine_FLADEMO

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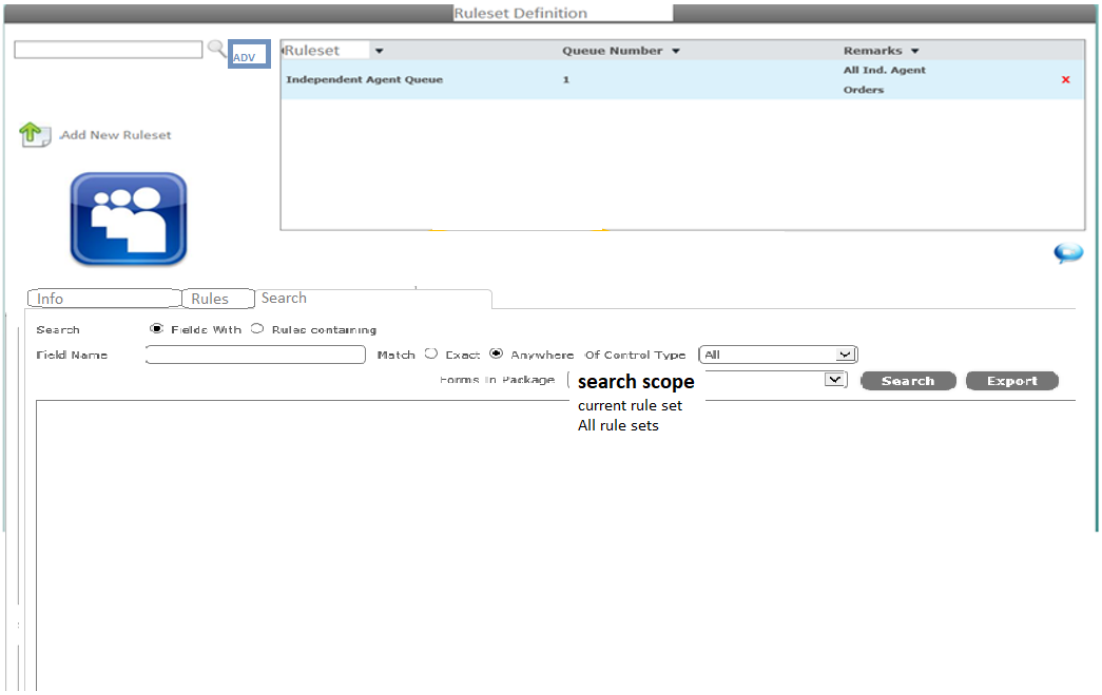
3. Search - The Search tab in the Form Library will be replicated in the new Profile Admin/Rule Sets. This search option will support searching data items/field names in the selected rule set or all rule sets
    - Advanced Search will have the option to search current rule set or all rule sets.
    - Enhance the search to support search by control with a form index



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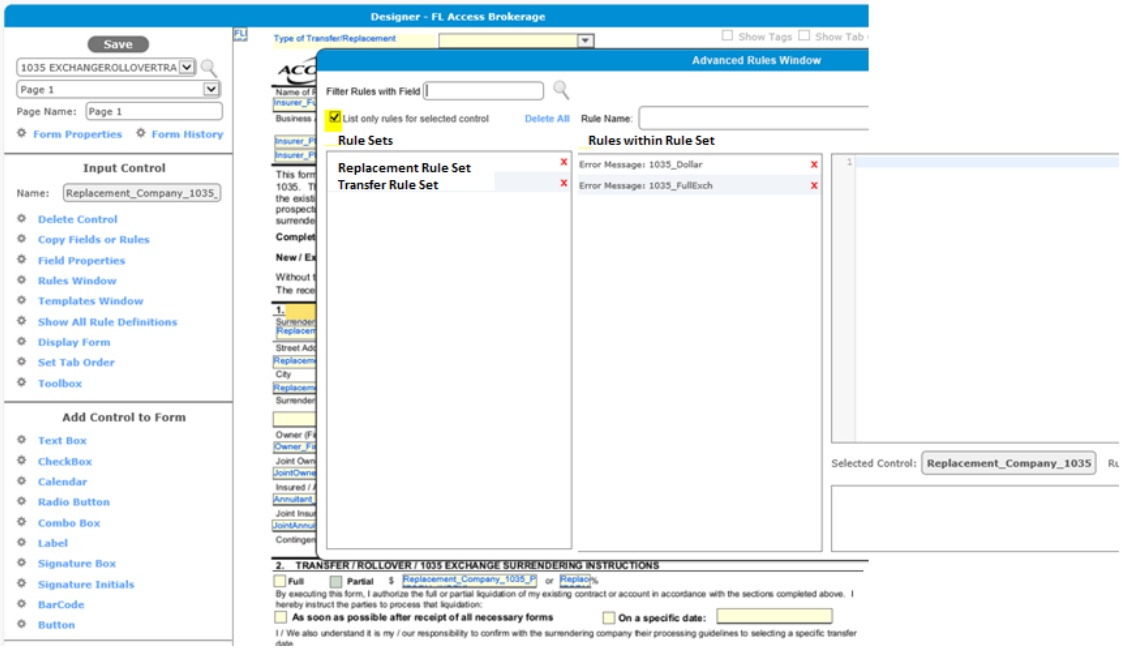
Requirements: Form Designer/Rules Window

It is important to clients that the Form Designer/Rules Window view to search rules associated with fields remain. Clients need to be able to create rules based on a form and the form data items and use the "List only rules for selected control" for search. For this reason the Form Designer / Rules Window will remain; however, the "List only rules for selected control" will remain checked.



1. "List only rules for selected control"
   - Still need to be able to go into a form, select a field and see rules associated with that control.
   - Include the rule set to the left. If the "List only rules for selected control" is selected, we will filter the rule sets and then once the rule set is selected, then the rules will further filter.
   - Do not allow the uncheck of "List only rules for selected control"
   - The dialogue will always be filtered by the selected control. (Do not allow the removal of the selected control. This means you if you write new rules on this screen for data items that are not selected, they will not appear in the list because it is filtered.)

2. Enhance the Search
   - Enhance the search to support search by control with a form index

3. Writing Rules in the Form Designer/Rules Window
   - If we change a rule in a rule set, we prompt to save before moving to another rule set. (This is similar functionality to what we do with forms today.)
     - That means, saving the rule will now actually save the rule in the Rule Set, regardless of saving the form.

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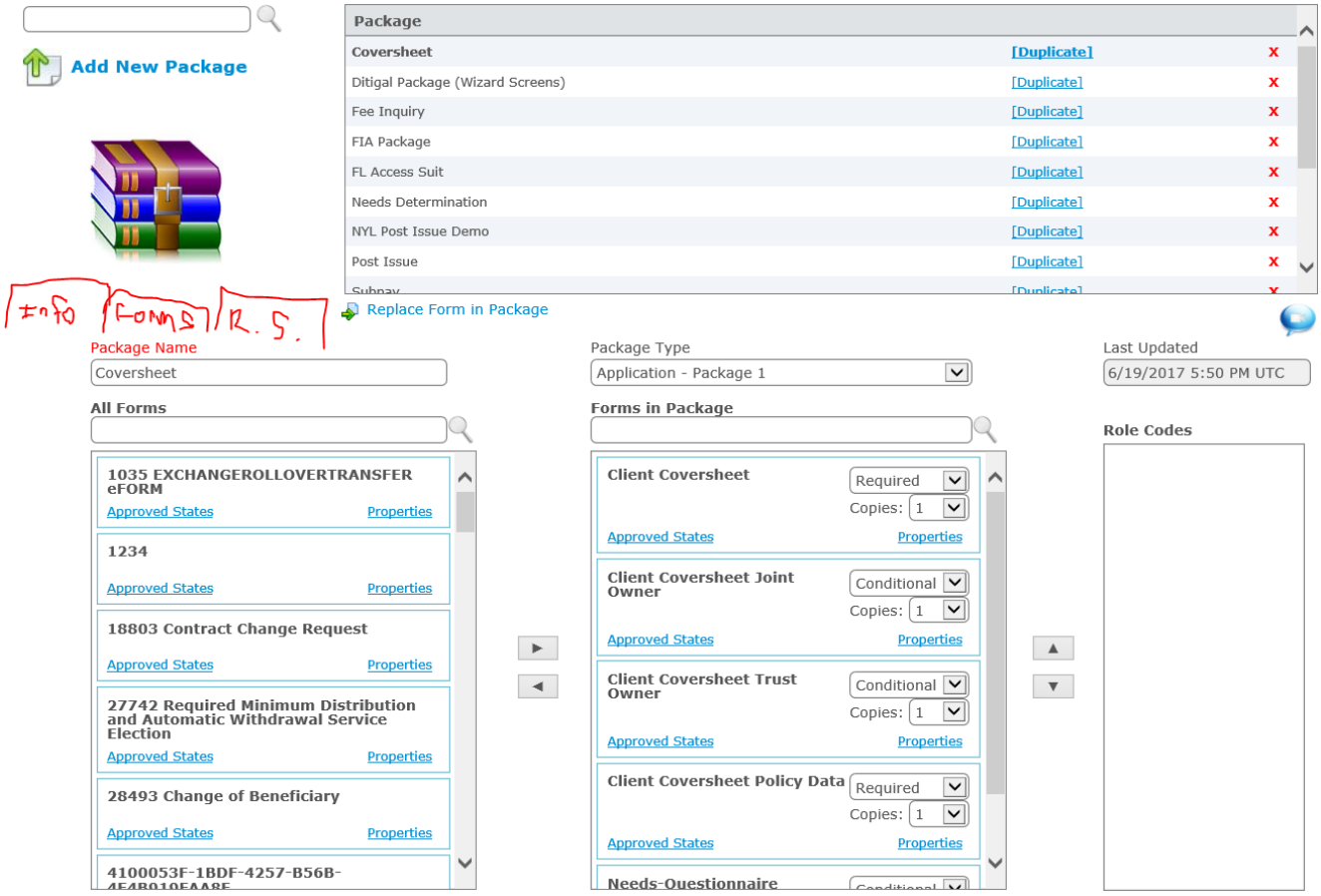
- Template DataItem search in the Designer view because it is associated with a specific form, it will contain the dataitems in the form as it does today.
    - If writing a new rule, the intelli-sense will only pull the dataitems for the selected form.

4. Other changes to Forms Designer/Rules Window
    - "Show All Rule Definitions" and "Export" goes away from this view but moves to the Rule Set view.

Packages

Packages will be enhanced with 3 new tabs

- Package Detail: Label of number of Forms, # rule sets (go to the tabs to change), Package name, type, last updated, Role Codes on the Info
- Forms In Package: only change is to move Role Codes from this view
- Rule Sets In Package: Assign the RS to the package (mirror the package view with available RS on the left and added RS on the right.)



Rule Behavior:

If the control or data point is not in the package, then the rule will not fire. Carriers want a scrub/troubleshoot option to tell them if there are rules that will not fire because the data items are not in the package.

Conditional form rules are not changing.

Conversion Routine (We will we run the conversion routine in the side-by-side environment of UAT for testing. Then we will run the official conversion on all environment for our release.)

In 2.11, FireLight will need to run a conversion routine to create rule sets. The conversion routine will be performed on the existing FireLight databases, creating rule sets by the form and assigning the rule sets to the associated package in Packages profile. This will allow the forms and rules to work as they do today.

1. Day 1: Conversion will be by form
   - FireLight cannot remove duplicates in the conversion b/c the conversion is by form. Clients will have the option to use the Merge Rule Sets feature to clean up and organize rule sets as well as eliminate duplicate rules.
   - Client will not be required to clean-up rule sets for them to work as they do today/
   - If no rules are associated with a form, no rule set will be created.
2. There is no defined order of rules that are loaded into the engine. There could be a concern about rules firing in a different order. Heavy testing will need to occur. (If a specific order of rules is critical, clients need to block the rules into 1 rule.)

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Use Cases / Workflow Changes

1. Project work and multiple BAs working in FireLight rules:

While working on a "project" that is still in progress, rule sets can be created and assigned to packages for testing purposes. The rule set can also be locked as desired. Before a production deployment, the assigned rule sets can be changed back to the production rule sets. This will allow multiple people to work in different FireLight Rule Sets and manage the supporting rules at a time. The work in one Rule Set will not be overwritten by the work in another Rule Set. And if desired, a user will also be able to lock a rule set to prevent others from editing the rule set while they are being edited.

2. Deploying Projects separately:

While working on a "project" that has a defined production date, BAs can copy the existing rule set and use the Start and Expiration dates to control the two rule sets and then apply them to the appropriate packages. Using the Start and Expiration dates, FireLight can determine whether the rule set will be active when editing an application or it is ignored. Whenever a package is deployed, any associated rule sets will also be deployed along with the start and expiration dates, which will determine if the associated rule sets will be applied for the package. Clients will be able to deploy rule sets separately, which will allow clients to have multiple projects going on at a time. If anything changes with the Production release timeline, carriers can pull that rule set from the packages or alter the start dates. During testing, the Override Date can be specified when creating applications in order to test rule sets with a future effective date.

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Testing

Please note that we encourage heavy testing for this project as the order of rules firing and the desire outcome could be impacted. Today, unless a rule controls the order of rules, there is no defined order for loading rules into the engine. The order could be impacted with the conversion and that could impact the outcome.

Since there is no defined order of rules being loaded into the engine and we are now grouping rules into rule sets, we will need to test to ensure rules are firing correctly. There is a concern about rules firing in a different order. (If a specific order of rules is critical, clients need to block the rules into 1 rule.)

1. Clients will then want to test the new rule set will create a new rule set using a copy Rule Set. Name the New rule set and then modify the rules for testing. (set expiration and start date as desired.) Then add it to the package to test. IF you are not ready to use the rule set, then clients can replace the testing rule set with the rule set they want to use.
2. Easy way to create a copy/clone a form – take the form, create a copy, and apply the rules.
    a. **Create a rule project, save it, and apply it to a cloned form**
3. Best practice will be to test these rule in UAT and ProdSim/Staging and then deploy to production

Day 2 (Intent is to add this to the first minor release):

- Reporting - When creating a rule set and assigning it to a package, clients want to know what dataitems will not fire because the data items are not in any of the forms in the assigned package.
    - Create a report that shows the duplicate rules in different form Rule Sets.

Admin Deployment Changes

Deployment functionality is not changing with this project. FireLight will however include the new Rule Sets in the below deployment options and create a new Rule Set Deployment scope. The carrier and distributor scope functionality is also not changing.

1. Package deployment – 2.10.0.169 now includes the forms with the distributor package deployment. With this 2.11 project, we will include rule sets to avoid failures and will be consistent for distributor and carrier scopes. This will be the highest level of deployment.
2. Product Deployment – include any rule sets that apply. Now it includes form that include rules but moving the rules to rule sets will mean that we now have to deploy rule sets as part of product deployment.
3. Rule Set deployment – include any changes to the rule sets.
4. Distributor Package deploy - will include rule sets.
5. Distributor Product - – include any rule sets that apply. Now it includes form that include rules but moving the rules to rule sets will mean that we now have to deploy rule sets as part of product deployment.
6. Distributor Rule Set – include any changes to the rule sets with the distributor scopes.

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App Changes

NA

Reporting

Day 2: This project will need to expand on the deployment reporting to include what Rule Sets "projects" have been deployed and in what environment. Similar to iConnect: 127640. If we implement this Reporting, we need to also implement 127640.

Day 2: A pending project deployment report would be helpful. Clients can use this to manage projects that need to be completed and moved to production.

UI Mock Ups

See attached PP.

How to Enable and Use This Feature

All clients will be converted to Rule Sets. The conversion routine will be performed on the existing FireLight databases, creating rule sets by the form and assigning the rule sets to the associated package in Packages profile. This will allow the forms and rules to work as they do today. Client will not be required to make changes to their rule sets for them to function as they do today. Clean-up of rule sets will be an option but not required.

Please note that we encourage heavy testing for this project as the order of rules firing could be impacted. Today, unless a rule controls the order of rules, there is no defined order for loading rules into the engine. The order could be impacted with the conversion and that could impact the outcome.

Areas Impacted

System Area	Yes	Comment
Admin Tool		
- **Form Library**	X	
- **Design Forms**	X	Require List Only Rule for Selected Control
- **Rules**	X	New Rule Sets (potential impact to how rules are loaded into the database which could impact validations.)
- **Profile Administration**	X	Rule Sets assigned to Packages

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		New Rule Set section (Info, Rules, Search)
- **Reports**	X	
- **Deployment**	X	New deployment option for Rule Sets Inclusion of Rule Sets in the deployment Carrier and Distributor deployment scopes (Package deployment, product deployment, rule set deployment)
FireLight App		
- **New Application**		
- **Edit Application**		
- **Signature Process**		
- **Review Queue**		
- **Manual Review**		
- **User Preferences**		
- **Inbound Integration**		
- **Outbound Integration**		
- **PDF Generation**		
- **Email System**		
FireLight Console		
- **Windows**	X	
- **iOS**	X	
Other Systems		
- **DTCC Integration**		
- **Commission Netting**		
- **Activity Reporting**		

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