





TABLE OF CONTENTS

Forms	Builder Overview	2
1.1	What is Forms Builder?	2
1.2	Logging into Etrieve Forms Builder and Page Layout	2
1.3	Central Page Layout	4
1.4	The Header and Navigation	6
Forms	Configuration	9
2.1	Configuration Menu	9
2.2	Forms Main Menu Option	10
Etrieve	Forms Navigation	13
3.1	General Settings	13
3.2	Files	17
3.3	Input	19
3.4	Preview	19
3.5	Connect	19
3.6	Disclaimer for Use of Connect Sources on Forms	19
Forms	Builder	20
4.1	Things to Know Prior to Building a Form with Forms Builder	20
4.2	Toolbar	20
4.2.1	Top Toolbar	20
4.2.2	Bottom Toolbar	25
4.3	Row Level	27
4.3.1	Columns	27
4.3.2	Properties	28
4.3.3	Classes	28
4.3.4	Styles	29
4.3.5	Advanced	31
4.4	Column Level	32
4.4.1	Elements	33
4.4.2	Options	33

4.4.3	Properties	33
4.4.4	Classes	34
4.4.5	Styles	35
4.5	Element Level	37
4.5.1	Element Type	38
4.5.2	Options	44
4.5.3	Classes	.44
4.5.4	Styles	45
4.5.5	Properties	48
Advanced	Techniques and Examples	.49
5.1	Show/Hide Sections	.49
5.2	Conditionally Required	.51
5.3	Extender Library Link in the Viewmodel	51

Forms Builder Overview

1.1 What is Forms Builder?

Etrieve Forms Builder is an extension of the browser-based Etrieve Forms solution; allowing institutions to easily create, modify and deploy mobile-ready, dynamic HTML forms. The user-friendly interface allows users to build forms with no coding required. Specific customization and advanced integration needs are an available option to assist in building out form functionality through HTML code.

1.2 Logging into Etrieve Forms Builder and Page Layout

Before logging into Etrieve Forms Builder, a user must first open a web browser and navigate to the Etrieve Central website address. The following browsers are supported:

- ► Microsoft Edge Chromium
- ▶ Google Chrome
- Mozilla Firefox
- ► Safari (Mac/iOS)

Next, the initial "splash page" will be presented, allowing the user to select an identity provider.

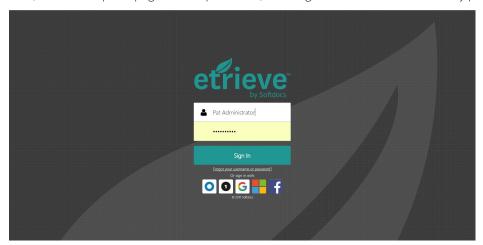


FIGURE 1.1 Etrieve Sign In "Splash" Page

TIP Add the Etrieve Central website to the list of trusted websites in the domain. The list of possible identity providers will depend on the institution's particular needs and configurations. An institution may elect to use a single sign-on or third-party provider. The Sign In page may also be branded with the institution's logo.

Depending on the institution's needs, users will either Sign In using an Etrieve account or will be authenticated using an external identity provider, such as ADFS, Google, Facebook, Microsoft, Okta, or OneLogin.

If an identity provider is selected, its Sign In page will be presented if the user has not yet been authenticated. Your institution may have elected to implement an initial message (such as a FERPA warning) which must be agreed to after logging in.

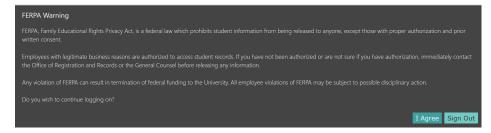


FIGURE 1.2 FERPA Warning Acknowledgement

After the user enters the correct login information and selects the "Sign In" button, they will be directed to Etrieve Central.



FIGURE 1.3 Etrieve Sign In Page

Etrieve Central's page layout is divided into four sections:

- ► Header (top bar)
- Primary Navigation Panel (always displayed, left side of screen)
- Alternate Navigation Panel (display toggled on/off, right side of screen)
- ► Flow/Forms/Group Settings

The tabs that appear in these four sections will vary depending on the user's security settings. For instance, the Settings selection in the Alternate Navigation Panel on the right will only display if the user is granted the privilege to manage workflows or forms.

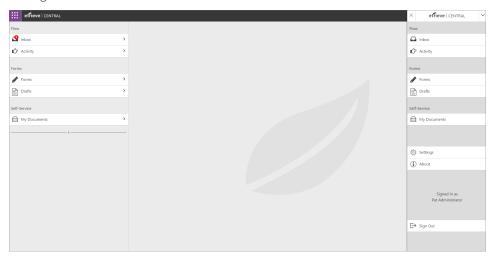


FIGURE 1.4 Etrieve Central Page Layout

1.3 Central Page Layout

To perform any function within Etrieve, users must navigate to the appropriate section of the Navigation Panel. The primary Navigation Panel is located on the left portion of the home page and consists of two sections, Flow and Forms, with sub panels that contain available Flow and Forms options.

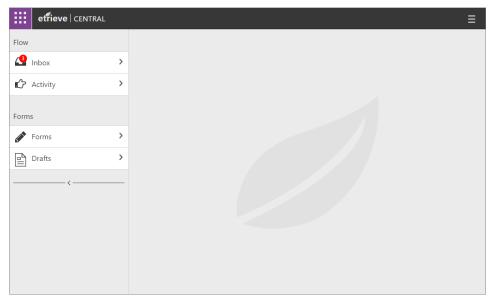


FIGURE 1.5 Etrieve Central Home Page

The Document Viewer displays when the user is working with items in one of the sub panels and will show for Inbox, Activity, Forms and Drafts.

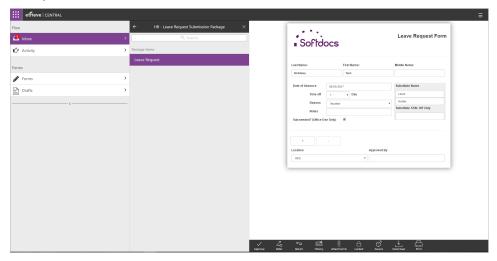


FIGURE 1.6 Etrieve Central Document Viewer

The Header is displayed across the top of the Etrieve Central home page. It is described in greater detail in Section 1.4. Figure 1.7 shows the appearance of the Etrieve Central home page when the Alternate Navigation Panel has been toggled on.

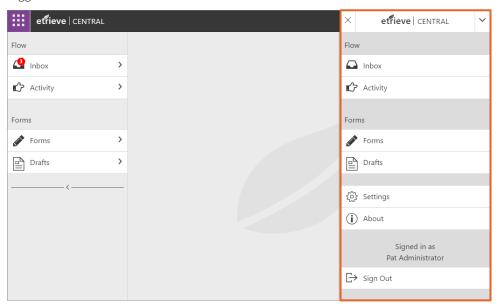


FIGURE 1.7 Etrieve Central Expanded Menu Options

The Primary Navigation Panel may be collapsed to increase the screen space available for the Document Viewer by clicking the arrowhead (<) at the center of the line at the bottom of this Panel. Clicking it again will restore the original Panel size.

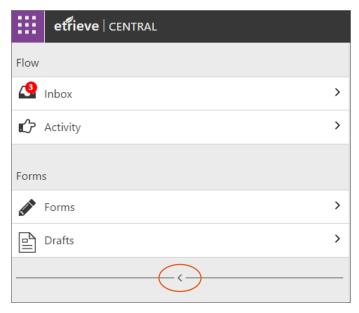


FIGURE 1.8 Collapse Main Navigation Panel

1.4 The Header and Navigation

The header is the top most bar on the Central Page. It contains three sections:

- App Switcher
- ► Etrieve | Central (View Reset)
- ► Alternate Panel Toggle (Three stacked bars)



FIGURE 1.9 The Header

APP SWITCHER | Clicking this icon (nine white squares) opens a three-button menu, allowing the user to navigate between Central, Content, and Security, which are the three main Etrieve applications.



FIGURE 1.10 App Switcher

ETRIEVE | CENTRAL | Clicking here resets the user's view, closing any Inbox packages currently being viewed. It will return the user to the initial Etrieve Central home page.



FIGURE 1.11 Etrieve | Central

MENU ACCESS | Clicking the three stacked bars menu icon on the right toggles on the Alternate Navigation Panel, the elements of which are described below.

The settings menu provides Central Flow and Forms settings that are configured to meet your institution's business processes, forms and Workflows.

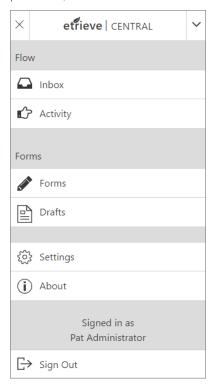


FIGURE 1.12 Etrieve | Central Alternate Navigation Panel

The Alternate Navigation Panel may be toggled off by clicking the X in the upper left of the Panel. On this Panel, the user may switch to other Etrieve Applications by clicking the down arrowhead (**v**) in the top right of the Panel and selecting the desired application.

FLOW AND FORMS ACCESS | After the Alternate Navigation Panel is toggled on, if the user clicks on Inbox, Activity, Forms or Drafts, this Panel will be immediately toggled off, and the equivalent selection on the Primary Navigation Panel will be activated.

SETTINGS COG | The Settings Cog will be visible to users who have access to manage Etrieve Workflows and Forms. Clicking the Cog will open the Central Settings main menu.

ABOUT | About provides details on the version of Etrieve Central that the user is accessing, as well as copyright and licensing information.

USERNAME | The username of the currently logged-in user is displayed here.

SIGN OUT | Signs out the currently logged in user.

The Document Viewer fills the available space on the right side of the Etrieve Central homepage. Forms to which the user has been given access may be filled and submitted in this space.

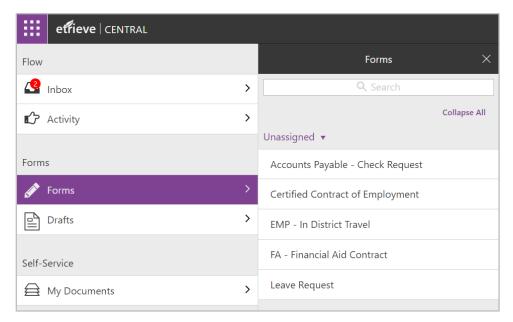


FIGURE 1.13 Etrieve Central Forms



FIGURE 1.14 Etrieve Central Forms - View Forms Library and Associated Form in Document Viewer

Forms Configuration

2.1 Configuration Menu

The Settings Cog/Menu provides Etrieve Central Administrators access to the Flow, Forms, and Form Groups Settings.

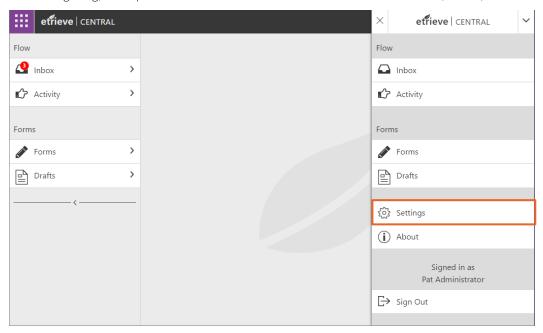


FIGURE 2.1 Etrieve Central Alternate Navigation Panel | Settings

Access to the Settings Cog is a user-based privilege established within Etrieve Security. Click on the Settings Cog to access Forms.

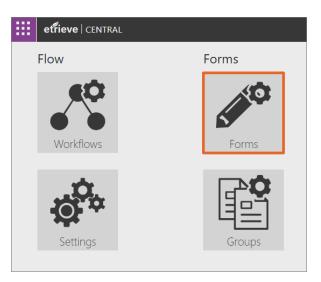


FIGURE 2.2 Etrieve Forms Settings

2.2 Forms Main Menu Option

The menu selections for Etrieve Forms consists of four options:

- 1 Add a new Form
- 2 Edit an existing Form
- 3 Delete an existing Form
- 4 Search for an existing Form

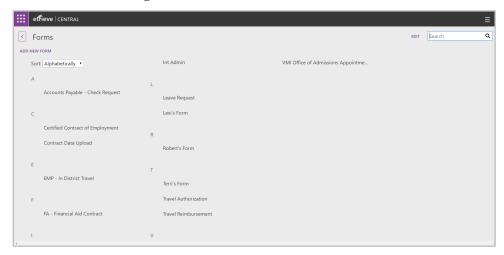


FIGURE 2.3 Forms List

1 To add a new Form, select the Add New Form option and the Form Configuration page will display. This page will be explained in further detail in the next chapter.



FIGURE 2.4 Add New Form

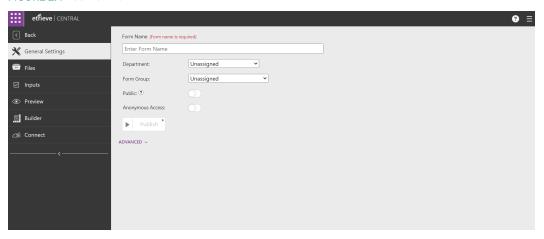


FIGURE 2.5 Form Configuration | General Settings Tab

To edit an existing Form, either click on 'EDIT,' then click the name of the Form or click on the Form name. Either action will cause the Form Configuration Page to display.

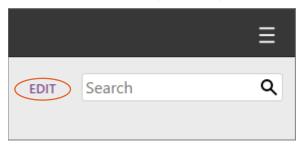


FIGURE 2.6 EDIT Option

To delete an existing Form click on the 'EDIT' option and the user will see the 'DELETE' and 'CANCEL' options. Checkboxes will display next to the name of each Form on the list. Click on the checkbox(es) beside the desired Form(s), then click the word 'DELETE.' A Confirmation Panel will be displayed, and the Administrator may click either CONFIRM or CANCEL. Cancel will take the user back to the Forms list.

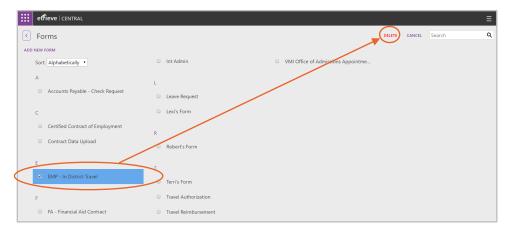


FIGURE 2.7 DELETE Option

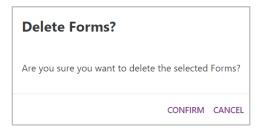


FIGURE 2.8 Delete Forms Message

Use Search to locate a specific Form (s) or to filter the list. Start typing in the Search field and Etrieve Central will start narrowing the options based on what is entered.

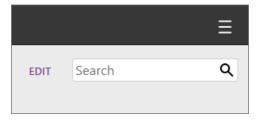


FIGURE 2.9 a Search Option for Existing Form



FIGURE 2.9 b Search Option with Filtered Results



Etrieve Forms Navigation

3.1 General Settings

Access the Form Configuration Page from one of the different sequences described above. The simplest way is to Add New Form. Once on the Configuration Page, all tabs on the Navigation Panel on the left will be grayed out except for the General Settings Tab.

The administrator can collapse the navigation panel on a desktop/tablet to decrease the panel view to only the icons. This allows for a wider view of the screen for better viewing. Click on the (<) within the line at the bottom of the tabs to collapse. To expand the panel, click on the (<) again.

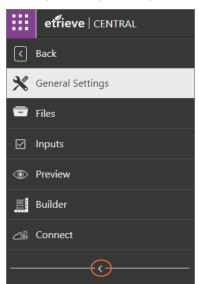


FIGURE 3.1 Configuration Page | Navigation Panel

Form Name is a required field with a maximum length of 300 characters. The form name must be unique from any other Forms within the institution's Etrieve system. Once a name has been entered, and the user has clicked out of the Form Name box, a draft will automatically be saved. A green prompt will appear in the bottom right corner alerting of the success of the saved draft. Any saved changes that happen while on the General Settings tab will be indicated by the green success prompt. If for some reason a save was unsuccessful, a red prompt appears stating there was a failure to save. Once a Form Name has been successfully saved, the grayed-out tabs within the Navigation Panel will become active.



FIGURE 3.2 Form Template Saved Prompt

Under the Form Name, there will be either a black arrow pointing towards a field that will note 'Publish,' or a black square pointing towards an area which will note 'Un-Publish.'

DEPARTMENT | A form can be assigned to a Department. A Department helps categorize the form and makes it easier to assign access to the form. If no Department is assigned, the form will remain under Unassigned. The form can then be assigned to a department at any point.

FORM GROUP | A form can be assigned to a Form Group as well. A Form Group helps categorize the form and makes it easier to assign access to the form. If no Group is assigned, the form will remain under Unassigned. The form can then be assigned to a group at any point. If the Form Group is updated, a green 'Success' prompt will appear in the bottom right corner once it is saved.

PUBLIC | Beneath the Publish field, there will be a button for a 'Public' field. This button will be green if it is turned on otherwise it will be grey. If the form is made public, all privileges a user has regarding Form viewing will no longer apply and it will appear in every user's Inbox regardless of Security privileges.

ANONYMOUS ACCESS | In order to allow a form to be more widely available, a form will sometimes need to be accessible to those without Etrieve logins. Within the General Settings Tab of a form, an administrator has the option to toggle the "Anonymous Access" setting. Switching "Anonymous Access" on will allow "anonymous" users—those without Etrieve logins—to access the form. The form will display for anonymous users in the standard form viewer, without other Etrieve interface elements. Alternatively, a signed-in user will view the form in the standard form viewer with their form list visible. Once a user submits an anonymous form, the form will enter the assigned workflow, but any authorized users submitting the form will not be anonymous in the form's history. The flow of an anonymous form will behave normally, with the exception that a package cannot be returned to an anonymous user.

PUBLISH | This setting allows the administrator to access the form and make changes that can then be saved. While in this mode, the form is not located in the Forms section on the Central Home Page nor is it visible in drafts. The small red circle indicates this form cannot be viewed by any users since it is in an edit mode. Once all changes to the form have been made, the administrator must click the Publish button to publish the form to users who have access.

NOTE | If no source files are yet associated with the current form, the "Publish" button will be disabled and appear gray.

UN-PUBLISH | This setting allows the form to become public to all users with access. The administrator can still make edits but there is no way to save the edits to the form. The form will be visible and accessible from the Central Home Page under the Forms tab. An easy way to remember this is to edit the form and save the changes, the administrator must click the Un-Publish button to rescind the published version and make any necessary changes.

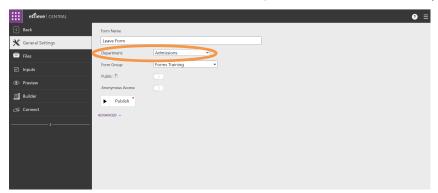


FIGURE 3.3 Configuration Page | General Settings Tab

ADVANCED | Advanced Forms configuration provides the ability to allow trusted sites. This configuration was added because of the implementation of Content Security Policy (CSP), which is now enabled for Forms in Central. CSP adds a layer of security that helps detect and mitigate certain types of attacks, including Cross-Site Scripting (XSS) and data injection. In addition to preventing XSS, CSP may prevent access to external domains if not specified as a Trusted Site. A Forms Administrator can allow any domains that may be causing violations by adding them to the Trusted Sites list. The violation will get logged to the CSP violations list. It is recommended that, when creating a form, rather than starting out by allowing all domains that may be used by the form, try creating the form without allowing them. This will allow administrators to know what is being blocked that may break the form (by referencing the CSP violations UI), and then allow only the domains they wish to trust. Therefore, it is important to note that when adding domains to Trusted Sites, administrators should do so only after identifying and confirming that the specified domain is being blocked.

Administrators can submit a support ticket to turn on a feature to block forms users from further interacting with a form if a CSP violation is found. If administrators intend to have the blocking functionality turned on, it is recommended to start paying attention to which of their forms are presenting violations and consider adding trusted sites or making changes to forms.

Clicking on "Advanced" will reveal the following UI (Advanced expanded): etrieve | CENTRAL **≺** Back Leave Request Form **X** General Settings Unassigned Department: Files Form Group: Forms Training ✓ Inputs Public: ? Anonymous Access Preview Publish Builder ADVANCED ^ ∠∰ Connect CSP Trusted Sites Etrieve Forms uses Content Security Policy (CSP) to impose restrictions on content. The main objective is to help prevent cross-site scripting (XSS) and other code injection attacks. To dynamically load an external website onto a form, after a user starts interacting with it, add that website as a CSP Trusted Site below. The rule of thumb is that if you're writing client-side code to load the external site, after the form has been loaded , only then you'd need to add the site as a Trusted Site. The following examples will help understand when a CSP Trusted Site needs to be added and when it's not o If you are embedding a YouTube video using html tags, a CSP Trusted Site entry is not needed. If JavaScript code is used to embed the video, then a CSP Trusted Site entry is required. Enter Trusted Site URL ADD TRUSTED SITE **Trusted Sites** EDIT www.google.com

FIGURE 3.4 Configuration Page | General Settings Tab | Advanced

- a. In the text box "Enter Trusted Site URL" enter a new domain to be trusted. Once a domain URL is entered, click "Add Trusted Site" to add to the Trusted Sites list. It should then display in a list, under the "Trusted Sites" header.
- b. From this section you may also click on the edit button to present the following options:

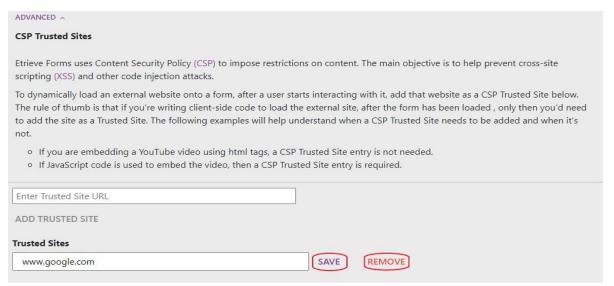


FIGURE 3.5 Configuration Page | General Settings Tab | CSP Trusted Sites

- a. To edit the existing URL, make your edits and then click "Save."
- b. To remove a URL from the Trusted Sites list, click "Remove."

To view CSP violations, access the CSP Violations file from the Central Configuration menu.



FIGURE 3.6 Etrieve Forms Settings | CSP Violations

Selecting the CSP Violations tile will display the list of CSP violations. The following example contains only one violation and displays the violation details in json format.

```
etrieve | CENTRAL
      CSP Violations
Violation
       "id": "1".
       "dateCreated": "2021-02-04T21:34:32.4303037",
       "blockedUri": "https://cdnjs.cloudflare.com/ajax/libs/knockout/3.5.1/knockout-latest.js",
       "columnNumber": 0,
       "disposition": "enforce",
       "documentUri": "https://localhost:44301/forms/api/TemplateVersion/2004/?1612474471580",
       "effectiveDirective": "script-src-elem",
       "lineNumber": 0,
       "originalPolicy": "script-src 'self' 'sha256-F3K/CgXTTxIkyajbxetrCJ4U5o7hf5nOpfrJI3KA9AA=' 'unsafe-eval' https://ghcdn.rawgit.org; child-src 'none'",
       "referrer": "https://localhost:44301/",
       "sample": "",
       "sourceFile": "",
       "statusCode": 0.
       "violatedDirective": "script-src-elem"
```

FIGURE 3.7 CSP Violations

3.2 Files

Etrieve Forms are comprised of multiple files that operate together to create a functional, electronic form. The Files Tab enables the administrator to create, manage and edit these files independently of one another and separately for each form. Once a form is developed and saved with the Forms Builder, the files that define the design, logic and functionality of each form are represented and accessible here. It is important to note that although an administrator can edit a file's contents using the code editor provided in the application, any changes made to individual files WILL NOT BE TRANSLATED to the form that is represented within the Forms Builder. As a result, direct file editing should only be practiced by users with HTML/CSS and JavaScript knowledge. Common file types found in each form are as follows:

- .HTML
- .CSS
- .JS
- . JSON

Depending on the type of form that is being implemented, they may be additional file types located in this tab (such as .JPG, .PDF, etc.).

The Toolbar at the top of the page allows the administrator to perform the following functions:

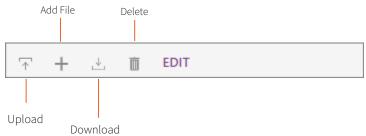


FIGURE 3.8 Configuration Page | Files Toolbar

UPLOAD | Select the bar with an arrow pointing upward to upload from your machine. This symbol will open the dialog box to allow the user to select which file they want to upload. Multiple files can be selected to upload simultaneously. Any file type will upload to the page, but if it is not recognized, a red box will appear in the bottom right corner alerting the user that the file will not be able to be viewed due to an incorrect file type. For Example: .JSON File Types are not able to be viewed or edited within the in-application code editor and would be followed by the red failure prompt once uploaded.

Accepted file types include:

- ► HTML
- CSS
- JS
- ▶ .PNG
- .JPEG
- .GIF

NOTE | Does not include .bmp files.

ADD FILE | The (+) button allows the user to create a new, manual file and customize the code for desired attributes. The system automatically will tab in to begin writing the code from the proper location.

DOWNLOAD | Select the bar with an arrow pointing downward to download the files locally. Select the 'Edit' button and then choose specific files. Once selected, click the 'Download' icon.

DELETE | This will delete any files you select. Select the 'Edit' button and then select any files that are to be removed. Once selected, click the 'Delete' icon. Click 'Edit,' then select the files you wish to delete, then click 'Delete.'

SEARCH | Allows for a filtered search through the Files that have been uploaded or created for this specific form. As the administrator types in the search box, the results are filtered and narrowed down.

NOTE | In the viewmodel.js file, a user can incorporate information from a form's workflow. This feature allows users to enable certain fields to display on a form depending on it's previous or current step in its workflow. The following viewmodel.js objects are available for use when creating a new form:

- pkg: includes properties about the package and the package status throughout the workflow.
- stepCode: a string with the step code for the step to which the package is assigned.
- > stepName: a string with the step name for the step to which the package is assigned.
- isAtStep: This method returns true if the package is on the step indicated by the parameter the user sets.
- is Exporting: This method returns true if the package is being downloaded, printed, or converted to PDF at the last step in the workflow.
- b user: This object returns the user that is active at a step in the workflow.
- isInActivity: This method returns true if the user is on the Activity section of the workflow.

3.3 Input

The Input tab allows administrators to select fields that will be used in Workflow and/or select exported key fields.

When a field is selected, it becomes highlighted in green. In the bottom right corner of the page, the 'Show' button will preview all selected fields. To re-order the fields on that list, just drag and drop in the designated space. The specific order of the list will determine the order the key fields are exported when a form is exported through Workflow. The name of the selected input must be unique and must be less than 80 characters. If an input is in error, it will be highlighted in red.

It is not advised to choose the 'Select All' button unless you wish to export all the fields on a form, as this option may select more data fields than necessary.

3.4 Preview

This tab will remain empty until the form has been created.

Once the form is created, the user must save the updates to the form when necessary and will be able to navigate to the Preview screen to access a snapshot of what will be published to Etrieve. This allows an administrator to observe any mistakes or errors within the HTML code and input to fix before the final publish.

3.5 Connect

Etrieve Connect is a foundational component of Etrieve that allows Etrieve products to integrate with third party solutions such as ERP and student information systems. Using Etrieve Connect, users can create things like Forms that pre-fill fields with data from your ERP and Workflows that export Etrieve data to another system. Please refer to the Etrieve Connect Administrator Guide that can be found on the Softdocs Community Portal at community.softdocs.com.

3.6 Disclaimer for Use of Connect Sources on Forms

In Central for Forms on the Connect Tab, there is an option to add a disclosure to inform Form Designers that use of Sources are not filtered and may result in expected data exposure. The recommendation is to apply Source Action Privileges to the Source to prevent inadvertently exposing data and ensure Sources, which are not filtered by the current user, only return public information.

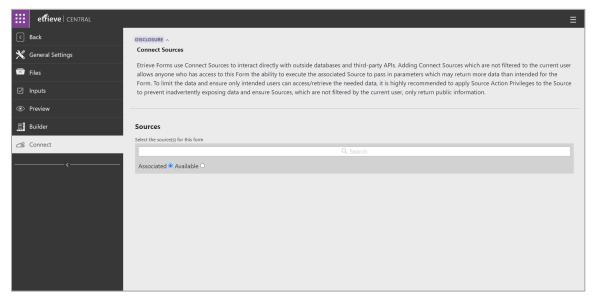


FIGURE 3.9 Connect Sources - Disclosure



Forms Builder

4.1 Things to Know Prior to Building a Form with Forms Builder

Forms Builder is a highly utilized option for administrators that are looking to create a simple or complex form without taking the time to input intricate coding or create their own HTML.

ROW | The first horizontal layer an administrator can add functionality to within the Forms Builder. It will span the entire page from left to right. A row is displayed as **Purple**.

COLUMN | A cell within a row that can be customized. There can be up to 12 columns in a row, and a column is represented with the color **Teal**.

ELEMENT | A cell within the column that can be customized with text, buttons, drop-down lists, etc. There can be up to 12 elements per column and elements are identified by the color Green.

4.2 Toolbar

The toolbar is split into a top toolbar and a lower toolbar. The top toolbar contains functions for modifying, saving, importing, and exporting forms, while the lower toolbar has features and options for modifying the form as well as a help module.

4.2.1 Top Toolbar

The top Toolbar will remain the same throughout the entire form building process.



FIGURE 4.1 Forms Builder Top Toolbar

The functions of the Toolbar include the following:

ADD NEW ROW | This button creates a new row. The new row will always be included at the bottom of the form and can be moved with the 'Move Row' function discussed later.

DELETE ROW | This button will remove a row. A prompt will appear in the top right corner asking to click on the specific row to remove. Click on the desired row, and it will disappear. Removing a row is a permanent deletion.



FIGURE 4.2 Prompt to Remove Row

MOVE ROW | There must be more than one row in the form to use this function. A prompt will appear in the top right corner asking the administrator to select the row to move and then which row to put it above. When a row is selected to be moved, it will jump up and down slightly and alternate between green and yellow. The row that it will be moved to will be highlighted in solid green and will not have an animation.



FIGURE 4.3 a Prompt to Move Row

Click on Row to move selected Row above.

FIGURE 4.3 b Prompt to select which Row to move to

DUPLICATE ROW | This button will replicate whichever row is highlighted. Any columns or elements inside that row will be replicated as well. replicated row will always be created at the end of the form and then can be moved to its designated location by the Move Row function. All element ID's within the newly copied rows will be given a new unique identifier.

ADD QUICK ROW | This opens a panel on the right-hand side of the page that allows the user to choose between commonly used inputs for a form. There are four different sections to choose from that open alternate options. A newly created row will always be added to the bottom of the form and can be moved by the Move Row function. The four sections are:

- ► Form/Input
- ► Text/Content
- Saved Sections

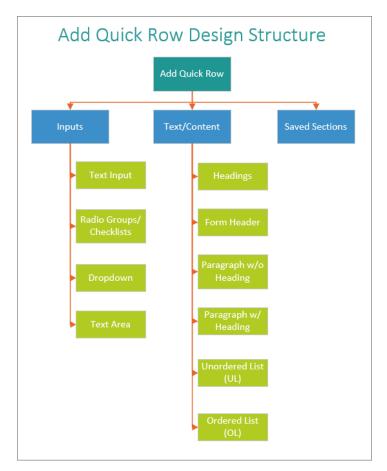


FIGURE 4.4 Add Quick Row Design Structure

FORM/INPUT | Pre-configured elements that can be interacted with (given input) by the user. Subsections include:

TEXT INPUT ROWS | Adds a row at the bottom of the form with the desired number of fillable elements. Choose between full width, 2 half width, 3 third width or 4 quarter width text inputs. The labels for these elements can be configured by selecting the element (it will highlight green) and change the name of the label on the right side of the page under 'Input Label.' This will be discussed in further detail later in this guide.

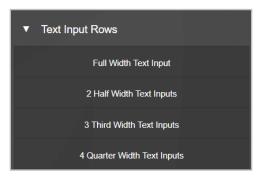


FIGURE 4.5 a Form/Input | Text Input Rows



FIGURE 4.5 b Form/Input | 2 Half Width Text Inputs

RADIO GROUPS | Adds a row of radio buttons at the bottom of the form. Gives the option to choose from a range of buttons depending on what is needed for the form. For example, the form may ask for gender, and the radio buttons will be labeled 'Male' and 'Female.' The user can choose between 2 – 4 radio groups and horizontal, vertical and

column options. To change the Label, click on the row number and then select the element and change the 'Input Label' on the right side of the page. This will be discussed further later in this guide.

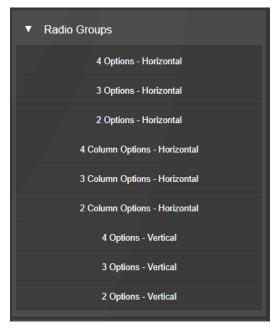


FIGURE 4.6 a Form/Input | Radio Groups



FIGURE 4.6 b Form/Input | 4 Options - Horizontal

DROPDOWN | Adds a new row at the bottom of the form that is a dropdown list. To change the list label and dropdown list values, select the element and change the values in the configuration area on the right. The label will be under 'Dropdown Label,' and the list values will be under 'Option Values.' Be sure to follow the noted directions regarding how to separate each option.



FIGURE 4.7 Form/Input | Dropdown List

TEXT AREA | Adds a row at the bottom of the form with a text area that allows multiple fillable lines for text. Click inside the element to change the label. The configurations will be on the right side of the page.



FIGURE 4.8 Form/Input | Text Area

TEXT/CONTENT | Frequently used form options that allow for multiple lines of text and other features that are time consuming to build from scratch.

HEADINGS | Pre-sized headings that can be dropped anywhere on the form. Each option offers a different size of heading. To change the heading text, select the element and then fill in the necessary information under 'Header Text' in the configuration area on the right.

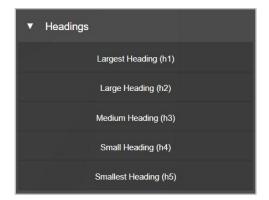


FIGURE 4.9 a Text/Content | Headings

Medium Heading

FIGURE 4.9 b Text/Content | Medium Heading (h3)

FORM HEADER | A skeleton of a typical form header. This is a prebuilt area to drop in the institution's logo.

[Change Element To Image]

Form Heading

FIGURE 4.10 Text/Content | Form Header

PARAGRAPH WITHOUT HEADING | Adds a row with multiple lines of text but does not provide a paragraph header. Click inside the element to change the paragraph text in the configuration area on the right under 'Paragraph Text.'

Cras tristique quis quam quis volutpat. Phasellus rhoncus feugiat egestas. Integer vel varius mi. Nulla facilisi. Sed posuere leo efficitur elit laoreet, at ultricies eros ornare. Aliquam dolor quam, aliquet ut nisi sit amet, lacinia tempus orci. Suspendisse gravida lectus a nibh accumsan, sed hendrerit ipsum feugiat. Vivamus nec ornare eros. Etiam varius, magna non pulvinar suscipit, turpis erat dignissim orci, laoreet tempus quam libero a leo. Aenean nulla lectus, rhoncus sed bibendum ac, suscipit vel velit.

FIGURE 4.11 Text/Content | Paragraph without Heading

PARAGRAPH WITH HEADING | Adds a row with multiple lines of text with a paragraph heading. The Heading will be in a larger font than the paragraph's text. Click inside the element to change the paragraph text and heading in the designated fields in the configuration area on the right.

Paragraph Header

Cras tristique quis quam quis volutpat. Phasellus rhoncus feugiat egestas. Integer vel varius mi. Nulla facilisi. Sed posuere leo efficitur elit laoreet, at ultricies eros omare. Aliquam dolor quam, aliquet ut nisi sit amet, lacinia tempus orci. Suspendisse gravida lectus a nibh accumsan, sed hendrerit ipsum feugiat. Vivamus nec ornare eros. Etiam varius, magna non pulvinar suscipit, turpis erat dignissim orci, laoreet tempus quam libero a leo. Aenean nulla lectus, rhoncus sed bibendum ac, suscipit vel velit.

FIGURE 4.12 Text/Content | Paragraph with Heading

UNORDERED LIST (UL) | Adds a new row that contains multiple lines of text in a bullet-styled format. Click inside the element to change the list values. Use the 'Unordered List lines' field on the right side of the page and follow directions regarding the beginning of a new line.

- · Quisque nisl sapien, dapibus vitae dui et, eleifend semper est. Nullam ultrices aliquam scelerisque
- · Nunc pellentesque mattis nisl id egestas.
- Interdum et malesuada fames ac ante ipsum primis in faucibus. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae;
- Nam faucibus, velit eu sodales consectetur, ipsum sem mattis ante, a gravida orci mauris at orci. Mauris eu fermentum sapien.
- · Integer in nisl nec justo porttitor pretium at volutpat purus.

FIGURE 4.13 Text/Content | Unordered List (UL)

ORDERED LIST (OL) | Adds a new row that contains multiple lines of text and is in a numbered format starting with 1. Click inside the element to change the text. Use the 'Ordered List lines' field on the right side of the page and follow directions regarding the beginning of a new line.

- 1. Quisque nisl sapien, dapibus vitae dui et, eleifend semper est. Nullam ultrices aliquam scelerisque.
- 2. Nunc pellentesque mattis nisl id egestas.
- Interdum et malesuada fames ac ante ipsum primis in faucibus. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae:
- Nam faucibus, velit eu sodales consectetur, ipsum sem mattis ante, a gravida orci mauris at orci. Mauris eu fermentum sapien
- 5. Integer in nisl nec justo porttitor pretium at volutpat purus.

FIGURE 4.14 Text/Content | Ordered List (OL)

SAVED SECTIONS | Prebuilt rows are created through the Row Level and described in more detail under 'Advanced' in Section 4.3. When a row is created and saved here, it becomes globally available to all administrators given permission to Forms Builder. For Example, if a header was created for the University of South Carolina with the Gamecock logo by John Doe Administrator, Jane Smith Administrator would also be able to use the branded header and would access it through this tab.

SAVE | Preserves all changes made to the form since the previous save. The form must be in 'Publish' mode under General Settings to save. If it is in 'Un-published' mode, the form will not save, and the system will alert you that it was unable to save any changes. All changes will be lost if the administrator needs to change from 'Un-publish' to 'Publish'.

NOTE When leaving the Forms Builder Page to navigate elsewhere or away from Etrieve, a prompt will appear stating there are unsaved changes. Clicking 'OK' DOES NOT save the changes it merely exits the Forms Builder and proceeds to the next screen. To save the changes, exit the prompt by selecting Cancel and then select the Save icon.

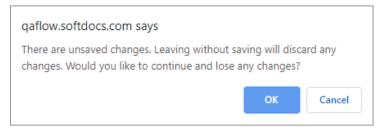


FIGURE 4.15 Save | Unsaved Changes Prompt

4.2.2 Bottom Toolbar

As with the Toolbar at the top of the page, the Toolbar at the bottom of the page will also be visible throughout the entire form creation.



FIGURE 4.16 Bottom Toolbar

The Bottom Toolbar has four different tabs to choose from. Each will be discussed in greater detail below.

GRIDNAV | Prepopulates a color-coded visual showing the administrator which row, column, and element is currently selected. This can help when needing to know which element is which or if information needs to be entered in a specific row. The example below, the location of this user is in Row 4, Column 1 and Element 1.

The GridNav will continue to appear on the screen behind the form unless the tab is clicked again.

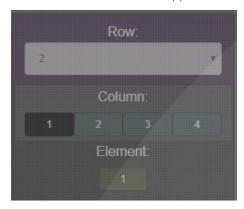


FIGURE 4.17 Bottom Toolbar | GridNav

COLORSAVER | Shows the colors that have been created and used during the current log-in session. Any background or text color that has been used in the 'Styles' tab on the Forms Builder Navigation Panel will be located here. This tab is only to delete colors from the saved list; you cannot choose a color to use from this tab. Once deleted it no longer appears in the selection for the 'Select from ColorSaver' button on the 'Styles' page. To delete a color from the ColorSaver, simply open the tab and click on the color and it will disappear.



FIGURE 4.18 Bottom Toolbar | Color Saver

FORM OPTIONS | This tab opens a page under the Navigation Panel on the right side of the page. There is space to add additional attributes to both the body tag and in between head tags throughout the form. There is also the option to change the title given to the form. Once any information has been updated, select the Update button to save changes.

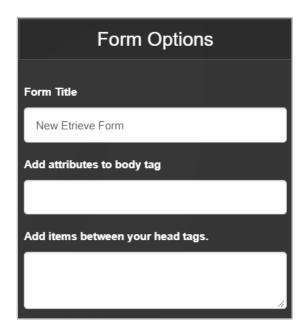


FIGURE 4.19 Bottom Toolbar | Form Options

HELP | Takes the administrator through a learning module that will assist and clear up any confusion that has been brought up while creating a form. To exit 'Help' at any point, simply select the 'Start Building' button, and the page will be redirected back to Forms Builder.

4.3 Row Level

The first horizontal layer the administrator can add functionality to through Forms Builder. It will span the entire page from left to right. There are two different ways to access a row. Click on the 'Add Row' Button in the Toolbar or click on the black numbered box next to which row you would like to select. A row is always **Purple**.

4.3.1 Columns

These will be discussed further in Section 4.4. To add a column or delete a column select the associated buttons.

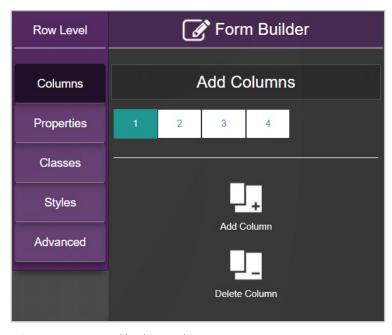


FIGURE 4.20 Row Level | Column Tab

4.3.2 Properties

Each row has unique ID and Name that is located in this tab. To change either field just click inside each field and begin to type. To personalize the row and add any attributes that have not yet been created, enter additional code in the HTML Code field at the bottom. Once all updates to this tab have been made, you must select update to save any changes.

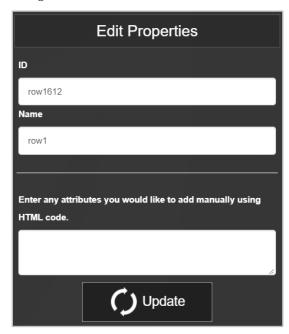


FIGURE 4.21 Row Level | Properties Tab

4.3.3 Classes

Allows the end user to apply bootstrap classes to a selected row through text alignment. Custom classes can also be applied.

TEXT ALIGNMENT | Choose how the text will be justified within the row. The options to choose between are left, center or right. The user must click Update to save any changes that were made.

OTHER CLASSES | Gives the ability to customize each row by adding specific classes. These classes are applied to the form in the designated row and are space delimited. The information entered here is applied to the rows class attribute. Follow the directions regarding class separation within the text field. The user must click Update to save any changes that were made.

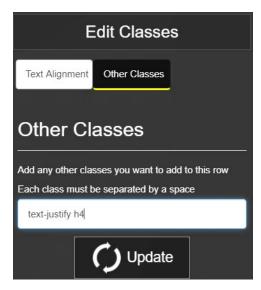


FIGURE 4.22 Row Level | Classes | Other Classes Example

4.3.4 Styles

Creates a visually appealing form and allows the administrator to adjust color, margins and other aesthetic features of the row.

SET COLORS | Ability to change the colors of both the background and the text within the row. As a color is selected for either option, it automatically saves in the ColorSaver and remains there for the entire session the user is logged in for. There is the option to manually enter the color hex code into the blank field and gain access to specific colors. Make sure to add the '#' to the beginning of the hex code to allow the color to show up in the ColorSaver. The exact color can be used anywhere throughout the form during that session. Take note of the hex code if the color will be needed at a later date or session. Select the ColorSaver button under either the Background Color or Text Color to gain access to the saved colors. The user must click Update to save any changes that were made.

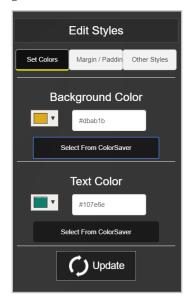


FIGURE 4.23 a Row Level | Styles | Set Colors



FIGURE 4.23 b ColorSaver

MARGIN/PADDING

UNIT TYPE | An option must be chosen from the drop-down list before the margin or padding will activate.

- Pixels (px): Relative to the viewing device. For low-dpi devices, 1px is one device pixel (dot) of the display. For printers and high-resolution screens 1px implies multiple device pixels.
- Percent: A measurement unit relative to the containing block. The affected element will be defined in size as relative to its parent object. This is recommended for responsive form development.
- ▶ EM: Relative font-size of the element (2em means 2 times the size of the current font).

MARGIN | Allows the user to create a larger area of distance for the perimeter of the row; clears the area around a row. But outside the border.

PADDING | Alters the area within the row or column in between where the text starts and the edge of the box; clears the area around the row but inside the border.

NOTE | For the development of dynamic web content (i.e. mobile responsive forms), it is recommended to use padding over margin whenever possible.



FIGURE 4.24 a Row Level | Styles | Margin/Padding



FIGURE 4.24 b Row Level | Styles | Margin/Padding | 20% Top Margin for Row

The user must click Update to save any changes that were made. If a Unit Type is empty, a message will appear prompting the user to select.



FIGURE 4.24 c Row Level | Styles | Margin/Padding | Missing Unit Type

OTHER STYLES | Use the empty field to enter any additional styles to add to that row through CSS format.

4.3.5 Advanced

DYNAMIC LIST | Dynamically set a minimum and a maximum number of rows available. The minimum number is what will be visible on the form until more rows are necessary. This will add plus (+) and minus (-) buttons to the form. The maximum number of rows is not generated onto the form until the plus (+) button has been clicked. The user must click Update to save any changes that were made.

DYNAMIC ROW | Set a minimum and a maximum number of rows available. The minimum number is what will be visible on the form until more rows are necessary. This will add plus (+) and minus (-) buttons to the form. The maximum number of rows are written onto the form and hidden until the plus (+) button is pressed and the next row becomes visible. Set a finite number of rows that are available for text. The rows will only become available if key field information is entered. The user must click Update to save any changes that were made.

EXAMPLE Provide the Account Number (s) for the Purchase Order:

The form will have two available rows (the minimum number that was set) but can be expanded up to 10 rows if necessary (the maximum number that was set).

CREATE NEW CUSTOM SECTIONS | Ability to add a custom row to the list of Prebuilt Rows in the Saved Sections tab of the 'Add Quick Row' icon.

Select the 'Create' button and configure the customized new row. Frequently used functions and rows can be built and saved here for later use in a different form or during a separate session. Give the new section a unique name to make it easily recognizable.

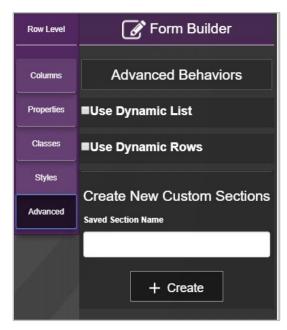


FIGURE 4.25 Row Level | Advanced | Create New Custom Sections

4.4 Column Level

A customizable cell within a row. A column is always the color Teal. To access a column, click on the associated number on the Columns Tab under Row Level. The first column in the row is associated with box number 1. Another way to access a column is to select the row and then click inside the column.

ADD COLUMN | Creates a column in the selected row. Click on the black box next to the row with the number in it to select. In the Navigation Panel on the right side of the page select the Add Column button. There can be up to 12 columns within a row.

DELETE COLUMN | Removes a column from the selected row. Click on the black box next to the row to select it. In the Navigation Panel on the right side of the page select the Delete Column button. All columns will become highlighted in red. Select the column with the associated number to remove from the row.

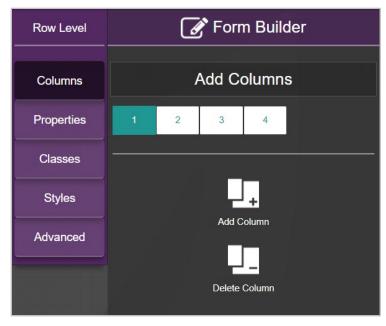


FIGURE 4.26 Add Column Panel

4.4.1 Elements

To add an element or delete an element select the associated buttons. Elements will be further discussed in Section 4.5

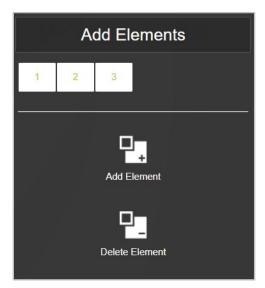


FIGURE 4.27 Column Level | Add Elements

4.4.2 Options

There must be more than one column in the row to use this function. The administrator can then move the column to the left or to the right using the provided arrows. This change will be automatically saved to the form.



FIGURE 4.28 Column Level | Options

4.4.3 Properties

Shows the Unique ID and Name for the selected column. Both can be altered through their selected fields. Any additional attributes can be added in the corresponding field above the Update button. They must be input through HTML code. The user must click Update to save any changes that were made.

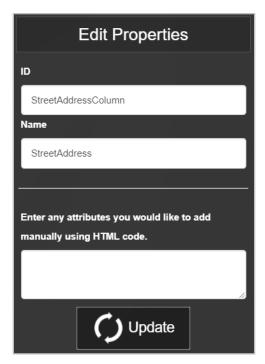


FIGURE 4.29 Column Level | Properties

4.4.4 Classes

Allows the administrator to apply bootstrap classes to a selected column through width and text alignment. Custom classes can also be applied through the 'Other Classes' tab.

SET WIDTH | Determine the screen width for each column on the form and how it will appear on either a desktop or a mobile device. The width can be different for each device it is displayed on. The radio buttons are available to choose between full screen, half width, third width or quarter width. To create a customized width, enter a number between 1 and 12 in the "Other" field. The number 1 corresponds to the smallest width a column could be while 12 corresponds to a full screen column width. The user must click Update to save any changes that were made.

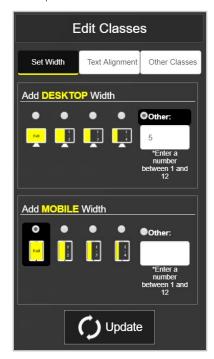


FIGURE 4.30 Column Level | Classes | Desktop Width of 5/12 | Mobile Width of Full Screen

TEXT ALIGNMENT | Choose how the text will be justified within the column. A use can choose between left, center or right. The user must click Update to save any changes that were made.

OTHER CLASSES | Ability to customize each column by adding specific classes. These classes are applied to the form in the designated column and are space delimited. The information entered here is applied to the column's class attribute. Follow the directions regarding class separation within the text field. The user must click Update to save any changes that were made.

4.4.5 Styles

SET COLORS | Ability to change the colors of both the background and the text within the column. As a color is selected for either option, it automatically saves in the ColorSaver and remains there for the entire session the user is logged in for. There is the option to manually enter the color hex code into the blank field and gain access to specific colors. The exact color can be used anywhere throughout the form during that session. Take note of the hex code if the color will be needed later. Select the ColorSaver button under either the Background Color or Text Color to gain access to the saved colors. The user must click Update to save any changes that were made.

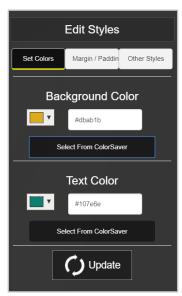


FIGURE 4.31 a Column Level | Styles



FIGURE 4.31 b ColorSaver

MARGIN/PADDING

UNIT TYPE | An option must be chosen from the drop-down list before the margin or padding will activate.

- Pixels (px): Relative to the viewing device. For low-dpi devices, 1px is one device pixel (dot) of the display. For printers and high-resolution screens 1px implies multiple device pixels.
- Percent: A measurement unit relative to the containing block. The affected element will be defined in size as relative to its parent object. This is recommended for responsive form development.
- ▶ EM: Relative font-size of the element (2em means 2 times the size of the current font).

MARGIN | Allows the user to create a larger area of distance for the perimeter of the row; clears the area around a row. But outside the border.

PADDING | Alters the area within the row or column in between where the text starts and the edge of the box; clears the area around the row but inside the border.

NOTE | For the development of dynamic web content (i.e. mobile responsive forms), it is recommended to use padding over margin whenever possible.



FIGURE 4.32 a Column Level | Styles | Margin/Padding



FIGURE 4.32 b Column Level | Styles | Margin/Padding | 20% Top Margin for "City" Column



FIGURE 4.32 c Column Level | Margin Padding | 4% Left Padding for "City" Column

The user must click Update to save any changes that were made. If a Unit Type is empty, a message will appear prompting the user to select.



FIGURE 4.32 d Column Level | Styles | Margin/Padding | Missing Unit Type

OTHER STYLES | Use the empty field to enter any additional styles to add to that column through CSS format. Styles are semicolon (;) delimited and will be applied to the selected column's style attribute.



FIGURE 4.33 a Column Level | Styles | Other Styles Input



FIGURE 4.33 b Column Level | Styles | Other Styles Example

4.5 Element Level

A cell within a column that can be customized. An element is always the color **Green**. To access an element, click on the associated number on the Elements Tab under Column Level. Another way to access an element is to select the row and then click inside the column and then click once more to access the element.

ADD ELEMENT | Creates an element in the selected column. Click on the black box next to the row with the number in it to select. In the Navigation Panel on the right side of the page select the corresponding number to the column. From the Column level, select the Add Element button from the Elements tab. There can be up to 12 elements within a row.

DELETE ELEMENT | Removes an element from the selected column. Click on the black box next to the row to select it. In the Navigation Panel on the right side of the page select the column and then the Elements Tab. Select the Delete Element button and all elements within that column will become highlighted in red. Select the element with the associated number to remove from the row.

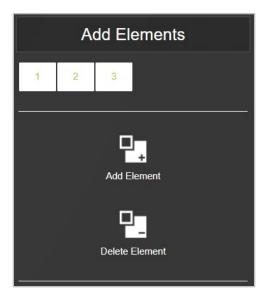


FIGURE 4.34 Column Level | Add/Delete Elements

4.5.1 Element Type

Determines the configuration of the input of data that will be within the element.

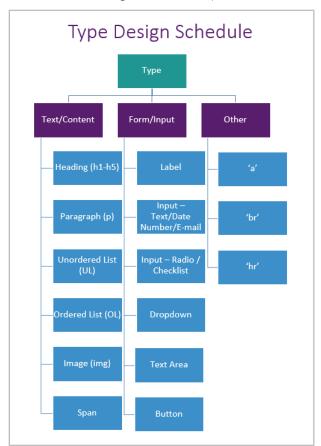


FIGURE 4.35 Type Design Schedule

TEXT/CONTENT | The user will need to select a Text Element Type from the dropdown. The subject of what is input will include actual text data. The Text Element Type dropdown will appear, and one will need to be chosen. Once the Text Type is chosen, the unique Element ID and Element Name are provided and can be changed if needed. Types are listed below. The Update button must be clicked to save any changes.

HEADING (h1-h5) | Spans between smallest to largest with 5 different options to choose from. The Header text can be input in the associated field.

Drop Class Form

FIGURE 4.36 Element Level | Type | Text/Content | Large Heading h2

PARAGRAPH (p) | Used for multiple lines of text. The paragraph text can be entered on this page in the associated field. There is no label for this paragraph.

I feel the information taught throughout the first three weeks of this course provided great value. I no longer need the credit and therefore request permission to discontinue and drop the above addressed course.

FIGURE 4.37 Element Level | Type | Text/Content | Paragraph

UNORDERED LIST (UL) | A list that is declared by bullet points and has no particular order. This could be used for a degree that requires 4 core classes that are in no particular order. Enter the list in the specified field and press Enter to begin a new list item.

- ENGL 101
- ENGL 102
- CTWR 104
- CTWR 206

FIGURE 4.38 Element Level | Type | Text/Content | Unordered List (UL)

ORDERED LIST (OL) | A list that is declared by numbers, starting with the number 1, and is in a particular order. This could be used for the desired steps to take to drop a class. Each step must be completed before the following step can take place. Enter the list in the specified field and press Enter to begin a new list item.

- Fill out Required Form
- 2. Professor Signature
- Dean Signature

FIGURE 4.39 Element Level | Type | Text/Content | Ordered List (OL)

IMAGE (IMG) | The element will be an image. Choose the file by browsing the machine database and allow it to enter the Etrieve system. The Image Source will automatically populate when a file is chosen. The Image Width and Image Height can be adjusted to customize the size of the image within the element.

SPAN | Used to group inline elements in a document and provides no visual change. Also, provides a way to add a hook to a piece of text within the form. Create the tag in the Content field in the lower portion of the page.

Span Content All required signatures must be in blue ink

FIGURE 4.40 a Element Level | Type | Text/Content | Span Content Field

All required signatures must be in blue ink

FIGURE 4.40 b Element Level | Type | Text/Content | Span Example

INPUTS | Gives the administrator the ability to create more specific and customized pieces throughout the form. Each Text Element Type will have a unique Element ID and Element Name that can be changed at the user's discretion. The Update button must be clicked to save any changes.

LABEL | The label includes text only. It does not create a fillable box beneath it but rather becomes a title describing another element within the form. The 'Label Content' field is where the title or label text that appears will be entered. The 'Label For' field is the ID of the element that will be associated with this label. Use margin/padding to bring elements closer together for a visual connectedness. In Figure 74, the 'Label For' content is the element ID for the Text Box that the user would utilize to describe his or her reason for dropping the course. The 'Label Content' in this example would be the title "Reason for Course Drop."

Reason for Course Drop:
This course is no longer suiting my needs because...

FIGURE 4.41 Element Level | Type | Form/Input | Label

TEXT/NUMBER/DATE | Select the radio button from the lower portion of the panel on the right side of the screen that corresponds to the desired option. Each option will create a label on the top and a fillable portion beneath it (unless the Label on the Bottom checkbox is checked, then the label will appear beneath the fillable portion). The Place Holder is also referred to as "Ghost Text." This means it is the grey text that appears in the fillable portion and disappears as a user begins to type in the box.

The Input Label is the title that is used to describe the fillable portion.

There is a checkbox for 'Set as Required,' that is utilized when that element is a necessary piece that must be filled out. There is also a checkbox to 'Set as Readonly.' The function of it is to set the element to read only, preventing the user from typing in that element. The 'Label on Bottom' checkbox will put the text that is in the Label field below the open text within the form.

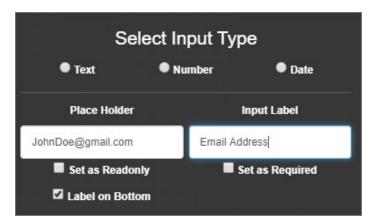


FIGURE 4.42 Element Level | Type | Form/Input | Input Email Example

RADIO/CHECKLIST | Choose either the radio button or checkbox to configure what will be created on the form. A radio button is a white circle that gets filled in by a smaller black circle when selected. A checkbox is a white square that holds a black checkmark when selected.

Only one radio button/checkbox will be created; a separate element will need to be set up if more than one option will be available.

The 'Input Value' is what is sent and saved on the server when the user clicks on the box/button. Each radio button/check box will need to have a unique value. In Figure 77 c, Male would be the 'Input Label' for that element. If the field is left blank on a radio button, an error message will appear to alert the user to input a value.

NOTE | For the Radio Groups to work together (Choose either Male or Female for Gender), both elements will need to have the same Element Name. A unique Name can be created, or the element name of one element can be copied and pasted into the element name of the other element to force them to work together.

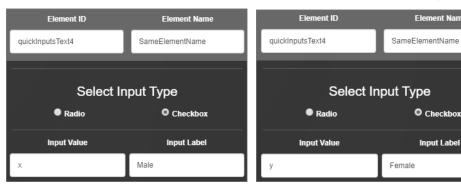


FIGURE 4.43 a Similar Element Name to

FIGURE 4.43 b Similar Element Name to

Element Name

Checkbox

Input Label



FIGURE 4.43 c Element Level | Type | Form/Input | Radio Button Example with Multiple Elements



FIGURE 4.43 d Element Level | Type | Form/Input | Checkbox Example with Multiple Elements

DROPDOWN | Creates a customizable dropdown list within the element. Create the name for the list in the Dropdown Label field and select the "Label on Bottom" to move the label from the top of the list to underneath it. The values populated when the list is engaged are entered in the Option Values field. Options are line delimited so be sure to press ENTER between each value in the list to make it another option.

NOTE | It is recommended to have the first Option Value be a blank space to allow the end user to select a blank if a listed option is not applicable.

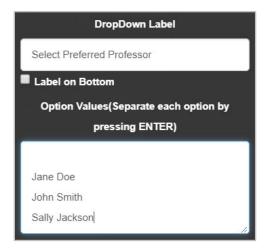


FIGURE 4.44 a Element Level | Type | Form/Input | Dropdown Input

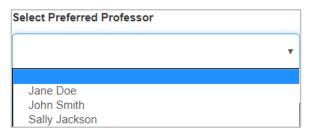


FIGURE 4.44 b Element Level | Type | Form/Input | Dropdown Example

TEXT AREA | This option creates a label along with a fillable portion for multiple lines of text. Some examples of use include when a user needs to describe something in detail or give a reason for something. There are checkboxes at the bottom of the panel that can move the label below the text, make the text a required field or make the text area a read only section. Choose the appropriate box for the desired result.

The Text Area Label is what the title of the element will become. The Place Holder, also known as 'Ghost Text,' is what will appear in the fillable portion in a grey color until the user begins to type in the box.

NOTE | To increase the number of visible rows to a Text Area, go to the Properties Tab and enter a number of rows needed. For Example: To set a visible number of rows to 5, add the following code to the 'Properties Tab:' rows="5".



FIGURE 4.45 Element Level | Type | Form/Input | Text Area Example

BUTTON | Gives the user of the form the ability to click on the button and the form will automatically populate a reaction.

The 'Event Type' is a pre-populated drop-down list that allows a user to choose an action and when that action is executed by the form user – a reaction will automatically happen. Event type options include:

ON CHANGE | An HTML element has been changed.

ON CLICK | The event occurs when the user clicks on an element.

ON MOUSE OVER | The event occurs when the pointer is moved onto an element.

ON MOUSE OUT | The event occurs when a user moves the mouse pointer out of an element.

ON KEY DOWN | The event occurs when a user is pressing a key.

ON KEY UP | The event occurs when a user releases a key board key.

ON KEY PRESS | The event occurs when the user presses a key.

ON BLUR | The event occurs when an element loses focus.

ON FOCUS | The event occurs when an element gets focus.

ON LOAD | The browser has finished loading the page.

ON SELECT | The event occurs when the element is selected.

ON SUBMIT | The event occurs when the element is submitted.

The 'Functions to Call' field is where a customized JavaScript function is designed to perform a particular task when the event or action has taken place. Something must invoke the JavaScript function for it to execute. For example, when a button is clicked a certain function will be prompted to run.

The 'Button Text' is the title of the button that will be shown on the form.

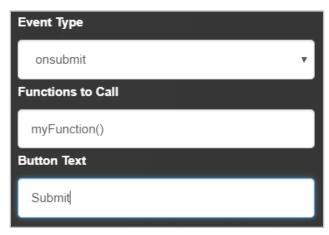


FIGURE 4.46 Element Level | Type | Form/Input | Button

OTHER | Gives the administrator the ability to add more customizable functions to the form. Each Text Element Type will have a unique Element ID and Element Name that can be changed at the user's discretion. The Update button must be clicked to save any changes.

The Text Element Type has three different categories to choose from. These are described in more detail below:

'a' – This describes the <a> HTML tag that defines a link. When this link is selected, it will cause the browser to jump to another document. The mouse arrow will turn into a small hand when hovering over a link.

The 'Link Text' is the visible portion of the form the user will see. When they click on the link, it will then take them to a specified address.

The 'Link HREF' is the destination address. The specified place the form user will end up once they have selected the 'Link Text.'

The 'Link Target' specifies where to open the linked document. The target attribute can have one of the following values:

- _blank: Opens the linked document in a new page or tab (this is default).
- 2 _self: Opens the linked document in the same page/tab as it was clicked.
- 3 _parent: Opens the linked document in the parent frame.
- 4 _top: Opens the linked document in the full body of the page.
- 5 Framename: Opens the linked document in a named frame.

- br' This describes the
br> HTML tag that inserts a single line break. It is an empty tag, so there is no end tag associated either.
- 'hr' This describes the <hr> HTML tag that defines a thematic change in content or a shift of topic. The element separates content and defines a change within the HTML page.

The 'Line Width' must be a numerical character (1234) followed by the value type for either Pixels (px), Percent (%) or EM (em). These will be discussed further in 4.5.4 if clarification is needed.

4.5.2 Options

There must be more than one element in the column to use this function. This allows the administrator to move an element to the left or to the right using the provided arrows. This change will be automatically saved to the form. The panel will state that column is shifting, but it will be the element that shifts to the left or to the right depending on which arrow was chosen.



FIGURE 4.47 Element Level | Options | Shift Element

4.5.3 Classes

CLASSES | Allows the end user to apply bootstrap classes to a selected element through width and text alignment. Custom classes can also be applied.

SET WIDTH | Determine the screen width for each element on the form and how it appears on either a desktop or a mobile device. The radio buttons are available to choose between full screen, half width, third width, or quarter width. To create a customized width, enter a number between 1 and 12 in the "Other" field. The number 1 corresponds to the smallest width an element could be while 12 corresponds to the width of a full screen element. The user must click Update to save any changes made.

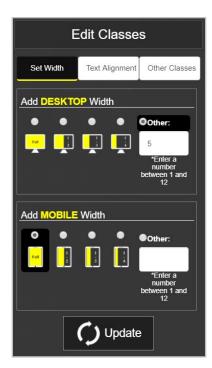


FIGURE 4.48 Element Level | Classes | Desktop Width of 5/12 | Mobile Width of Full Screen

TEXT ALIGNMENT | Choose how the text will be justified within the element. The options to choose between are left, center or right. The administrator must click Update to save any changes that were made.

OTHER CLASSES | Ability to customize each element by adding specific classes. These classes are applied to the form in the designated row and are space delimited. The information entered here is applied to the elements class attribute. Follow the directions regarding class separation within the text field. The administrator must click Update to save any changes that were made.

4.5.4 Styles

SET COLORS | Provides the option to change the colors of both the background and the text within the element. As a color is selected for either option, it automatically saves in the ColorSaver and remains there for the entire session the user is logged in for. There is the option to manually enter the color hex code into the blank field and gain access to specific colors. The exact color can be used anywhere throughout the form during that session. Take note of the hex code if the color will be needed later or in a subsequent forms design session. Select the ColorSaver button under either the Background Color or Text Color to gain access to the saved colors. The user must click Update to save any changes that were made.



FIGURE 4.49 a Column Level | Styles



FIGURE 4.49 b ColorSaver

MARGIN/PADDING

UNIT TYPE | An option must be chosen from the drop-down list before the margin or padding will activate.

- Pixels (px): Relative to the viewing device. For low-dpi devices, 1px is one device pixel (dot) of the display. For printers and high-resolution screens 1px implies multiple device pixels.
- Percent: A measurement unit relative to the containing block. The affected element will be defined in size as relative to its parent object. This is recommended for responsive form development.
- ▶ EM: Relative font-size of the element (2em means 2 times the size of the current font).

MARGIN | Allows the user to create a larger area of distance for the perimeter of the row; clears the area around a row. But outside the border.

PADDING | Alters the area within the row or column in between where the text starts and the edge of the box; clears the area around the row but inside the border.

NOTE: For the development of dynamic web content (i.e. mobile responsive forms), it is recommended to use padding over margin whenever possible.



FIGURE 4.50 a Element Level | Styles | Margin/Padding



FIGURE 4.50 b Element Level | Styles | Margin/Padding | 20% Top Margin for "Last Name" Element



FIGURE 4.50 c Element Level | Margin Padding | 20% Left Padding for "Last Name" Element

If a Unit Type is empty, a message will appear prompting the user to select.



FIGURE 4.50 d Column Level | Styles | Margin/Padding | Missing Unit Type

OTHER STYLES | Use the empty field to enter any additional styles to add to that element through CSS format. Styles are semicolon (;) delimited and will be applied to the selected element's style attribute.



FIGURE 4.51 a Element Level | Styles | Other Styles Input



FIGURE 4.51 b Element Level | Styles | Other Styles Example

4.5.5 Properties

This tab allows the administrator to enter any remaining attributes that should be applied to the element through HTML Code. This can include features such as extra lines in the Text Area or text color.

Advanced Techniques and Examples

5.1 Show/Hide Sections

The administrator can determine what happens and what appears if a certain radio button is chosen out of a group of radio buttons. This example shows how to configure the system to know what to do and where to go when a certain action is taken

Example 1 The administrator wants a row to appear stating 'Year Graduated,' when the 'Graduated' radio button is selected.

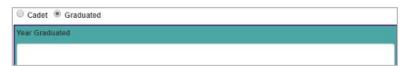


FIGURE 5.1 Example 1 | Graduated Button Select – Show Year Graduated

To configure this, the Element Name of the radio button and Value of the radio button must be known. Once that is known, go to the 'Properties' Tab within the Row Level. In the 'Properties Tab,' there is a field for additional manual HTML codes. Make sure to change the red and yellow highlighted fields to the actual inputs and enter the following:

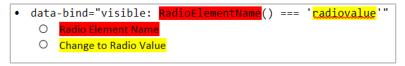


FIGURE 5.2 Example 1 | HTML Code

Once the input has been configured correctly, the administrator must select the Update button to save any changes.

Example 2 The administrator wants a row to appear stating 'Please Explain' when the Department drop-down has a value of 'Other'.



FIGURE 5.3 Example 2 | Dropdown Value is Other – Show 'Please Explain' Textarea

To configure this, the Element Name of the dropdown and the desired value must be known. Once that is known, go to the 'Properties' Tab within the Row Level. Utilize the field for additional manual HTML codes. Make sure to change the red and yellow highlighted fields below to the actual inputs. Enter the following:



FIGURE 5.4 Example 2 | HTML Code

Example 3 The administrator wants a row to appear when the corresponding checkbox is checked.

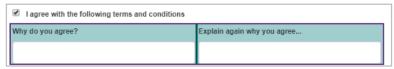


FIGURE 5.5 Example 3 | Checkbox Checked – Additional Row Appears

To configure this, the Element ID of the checkbox must be known. Once that is known, go to the 'Properties' tab of the row that will be shown/hidden. In the additional manual HTML codes, change the red highlighted items to the actual inputs. Enter the following:

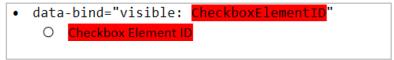


FIGURE 5.6 Example 3 | HTML Code

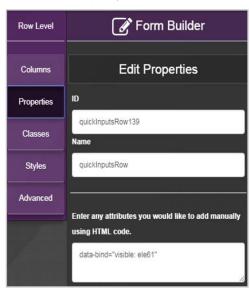


FIGURE 5.7 Example 3 | Properties Tab

Once the input has been configured correctly, the administrator must select the Update button to save any changes.

5.2 Conditionally Required

Example 1 If the Graduated radio button is selected, then the Year Graduated becomes required.

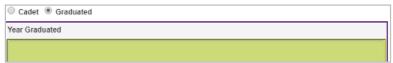


FIGURE 5.8 Example 1 | Graduated Radio Button Selected - Year Graduated Required

The Element Name of the radio button and Value of the radio button must be known. Once these are known, go to the 'Properties' tab of the element (green) that will be required.

Enter the following attributes to configure that element to become required, make sure to change the red highlighted items to the actual inputs.

```
    data-bind="attr: {required: RadioElementName}"
    Radio Element Name
```

FIGURE 5.9 Example 1 | HTML Code

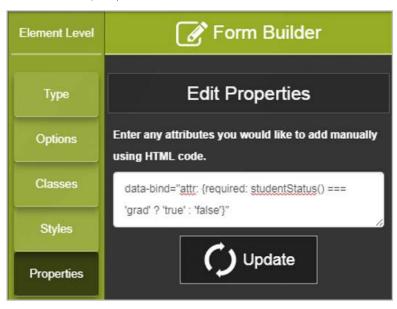


FIGURE 5.10 Example 1 | Element Properties Tab

Once the input has been configured correctly, the administrator must select the Update button to save any changes.

5.3 Extender Library Link in the Viewmodel

The link to add the extender library in the viewmodel of a form is now commented out by default. The comments can now be removed for the link to be used with the CDN extender library.

```
CDN: 'https://softdocscdn.etrieve.cloud/extenders/extenders.min.js'
```

FIGURE 5.3 Viewmodel Extender