

## Purpose

This document describes SmartPath™ Forms, a data-driven architecture for defining, rendering, and capturing end-user responses on intelligent question-and-answer smart forms.

SmartPath™, by Mountain Pass Solutions (MPS), is a comprehensive faculty position management suite helping higher education faculty affairs and HR departments optimize workflows and increase efficiency.

## Audience

The document is designed for individuals needing to create and/or modify SmartPath™ Forms. This includes all MPS personnel who have responsibility for installing and/or maintaining Customer installations, such as Software Engineers, Implementation Engineers, and Product Managers. The document is also applicable to end-users who have been granted authority by Mountain Pass Solutions to administer SmartPath™ Form content for their site.

## What is SmartPath™?

SmartPath™ is streamlined Faculty Position Management software. SmartPath™ improves efficiency within the Office of Faculty Affairs, between Departments, and throughout the faculty management lifecycle.

A SmartPath™ customer installation has highly-configured faculty position management workflows. These workflows form the basis for managing faculty positions. Typically, a customer installation defines workflows for Appointing, Credentialing, and Enrolling for existing or prospective Faculty.

## What are SmartPath™ Workflows?

A SmartPath™ Workflow is a series of discrete steps. End-users in various roles interact with SmartPath™ to complete the steps in any given workflow. When all steps in a workflow are complete, status changes for the applicable Positions and Faculty are reflected in the SmartPath™ Faculty Profile.

Each individual step in any given workflow has a well-defined purpose. Example workflow steps might include:

- Filling out an RFP (Request for Position)
- Identifying a candidate
- Uploading Recent Significant Publications (or other documents)
- Managing Evaluations
- Committee Approvals

## What are SmartPath™ Forms?

SmartPath™ Forms are one type of discrete step that may appear in workflows. They are essentially collections of questions with associated responses. Although forms may be designed for any end-user, Department and Candidate end-users are typically the people who fill out forms.

Example SmartPath™ Forms uses include:

- Filling out an RFP (Request for Position)
- Candidate Personal Information
- Credentialing Application

## SmartPath™ Form Features

SmartPath™ Forms were designed to handle a wide variety of question/response scenarios. A survey of features includes, but is not necessarily limited to, the following:

✓ Numerous Data Types

Each question is configured with a Data Type, which defines the nature of the expected response, as well as the type of HTML control used to render the question to the end-user. Supported data types are:

- Text
- Text Area
- Repeating Text
- Radio
- Checkbox
- Dropdown

- Multi-select Dropdown
- Date

Each data type is discussed in detail later in the document.

✓ Allowable Values

For Radio button and Dropdown controls, the collection of permissible responses is configurable. For Dates, the form designer chooses among Year, Year-Month, and Year-Month-Day as the desired input format.

✓ Conditional Questions

Questions can be configured as selectively shown or hidden based on the response to another question.

✓ Required / Optional

All questions can be marked as required or optional.

✓ Encryption

As an added security measure, responses to questions can be encrypted, meaning that the response is encrypted when stored in the underlying SmartPath™ database. Sensitive data, such as Social Security Numbers and Passwords are generally encrypted.

✓ Layout Options

Several basic layout options are configurable so that the resulting form is presented in a logical and visually pleasing manner.

✓ Identifier Codes

Responses can be tagged with Identifier Codes so that other parts of the system can re-use the response. For example, a candidate's name fields are tagged to identify them as such.

✓ Data Driven Configuration

Best of all, the entire SmartPath™ Form configuration is data driven. No questions are "hard-coded", and the framework is quite adaptable to many situations.

## SmartPath™ Form Components

SmartPath™ Forms are comprised of three fundamental components: Questions, Options, and Groups. A thorough understanding of these concepts is essential in order to competently create new and/or edit existing SmartPath™ Forms.

**Questions** are the most basic unit. A SmartPath™ Form Question is a textual prompt, plus a data entry field that allows the end-user to respond. The form designer specifies the prompt, and a data type for the response (Text, Multi-line Text, Dropdown, etc.). For example, a prompt might be “Grandma’s Telephone Number:”, and the expected response is a simple Text entry field.

**Options** may be associated with Questions that require them (data types Radio buttons and Dropdown lists). Options define allowable responses. For example, a Question with data type “Radio” and text prompt “Do you eat cheese?” might have responses “Yes”, “No”, and “Only on Thursdays”.

**Groups** organize Questions for presentation to the end-user. A Group specifies a collection of Questions or other Groups in the order that they should be shown to the end-user. A top-level Group is specified in a Workflow Component to drive the Questions that appear in that particular step.

## SmartPath™ Form Paradigms

SmartPath™ Form architecture mandates that the form designer follow several accepted paradigms.

- 1) All components have a unique ‘Code’.

Every Question, Option, and Group has a unique ‘Code’. The Code is the identifier for the Question, Option, or Group. The Code is how one component references (or identifies) another component. For example, a Group specifies a collection of Questions or other Groups in the order that they should be shown to the end-user. Collection components are specified using each Question or Group’s unique Code.

- 2) Codes are unique across all SmartPath™ Form Components.

Every Question, Option, and Group has a unique ‘Code’. Any given Code cannot be used more than once. That means you can’t have both a Question and a Group that use the Code ‘foo’. One can be ‘foo’, but the other must be something different, such as ‘bar’.

- 3) Develop a naming strategy for your Codes.

It is highly recommended that you develop and use a naming strategy for your Codes. You might want all Codes to be entirely in uppercase letters, and you might want to prefix your Codes with characters that indicate which specific Form they are associated with.

For example, PI\_FIRST\_NAME, PI\_MIDDLE\_NAME, and PI\_LAST\_NAME might all be Questions on a PI (Personal Info) Form. And they might be part of a PI\_DEMOGRAPHICS Group.

4) All components have a 'Description'.

The Description is a short, human-readable summary of the component. Descriptions only appear in the Administrative interfaces. Descriptions never appear when a Form is presented to the end-user.

5) Spelling matters.

The administrative interfaces rely largely on the form designer's ability to enter the correct Question, Option, or Group Code precisely as it is defined. Carelessness does not break the rendered SmartPath™ Form. If you do not type a desired Code character-for-character, in the proper case, Questions simply don't appear, and the Form designer will be left with a head-scratcher.

## Questions

**Questions** are the basic unit of SmartPath™ Forms. Every form design begins with a complete enumeration of the questions that need to appear on that particular Form.

The administrative interface for Questions is organized into functional sections. Following is a description of the data elements that the form designer specifies for each Question, organized by functional section.

### Question ‘Identity’ Data Elements

The Question “Identity” data elements define general attributes about how a particular Question is identified, both in the end-user presentation, and by other Questions, Options, and Groups.

The screenshot shows a configuration window titled "Identity:". It contains four labeled input fields:

- \* Code:** A text box containing the value "PI\_ADDRESS\_CELL\_PHONE".
- \* Description:** A text box containing the value "Mobile Phone Number".
- Display Text:** A larger text box containing the value "Mobile Phone:". A small edit icon (two diagonal lines) is visible in the bottom right corner of this box.
- Header Text:** An empty text box.

### Code

The Code is the unique identifier for the Question, and is required. Codes must be unique across all SmartPath™ Form Components (Questions, Options, and Groups).

A naming strategy for Codes is highly recommended. See the Paradigms discussion above.

For existing Questions that have actual end-user responses already entered, changing or altering the value of a Code in any way is highly discouraged. Responses are stored in the SmartPath™ database on the basis of the actual Code value. Modifying a Code value mid-stream will likely result in the total loss of any data associated with the Question.

### Description

The Description is a short, human-readable summary of the component, and is required.

Descriptions only appear in the Administrative interfaces. Descriptions never appear when a Form is presented to the end-user.

## Display Text

The Display Text is the text shown to the end-user on the Form, and is optional.

Any punctuation, such as a ending colon or question mark, should be included in the Display Text (e.g. “Do you have a Social Security Number?”, “First Name:”). It is possible to leave this text blank, but this is done very infrequently.

## Header Text

The Header Text is used infrequently, and is optional.

When questions are managed by Repeating Group Tables, and that Question is shown as a column in Repeating Group’s summary table, this is the column’s heading in the summary table. It is usually a terse version of the Question’s Display Text. For example, if the Display Text is “Do you have a Social Security Number?”, the associated Header Text might be “Has SSN”.

See *Form Groups: Repeating* for additional information on Repeating Groups.

See *Form Groups: Repeating Table* for additional information on Repeating Group Tables.

## Question ‘Size and Placement’ Data Elements

The Question “Size and Placement” data elements define the general appearance and placement of the Question in the end-user presentation.

SmartPath™ uses the popular Bootstrap presentation library (<http://getbootstrap.com>). Bootstrap uses a fluid grid system that appropriately scales up to 12 columns as the device or viewport size changes. This 12-column system is the basis for SmartPath™ Forms size and placement information for Questions.

SmartPath™ Forms splits the available 12 columns into 3 chunks: Offset, Label, and Prompt:

*Offset* specifies the number of columns on the left-hand side that should not be used. Think “indentation”.

*Label* specifies the number of columns reserved for the Display Text (described above). Think “prompt size”.

*Prompt* specifies the number of columns reserved for the data entry control. Think “data entry control width”.

The total number of columns specified by these three values cannot exceed 12. Fewer than 12 columns may be specified, which will generally result in unused white space on the right side.



**Size and Placement:**

* Offset Columns:	<input type="text" value="0"/>
* Label Columns:	<input type="text" value="2"/>
* Prompt Columns:	<input type="text" value="8"/>

## Offset Columns

The Offset Columns indicates how many of the 12 available columns should be left unused on the left side of the screen. Values range from zero to twelve, and a value is required.

## Label Columns

The Label Columns indicates how many of the 12 available columns should be allocated to the question text, which is specified in the Display Text field above. Values range from zero to twelve, and a value is required.

## Prompt Columns

The Prompt Columns indicates how many of the 12 available columns should be allocated to the HTML control where the response is entered. Values range from zero to twelve, and a value is required.

## Question ‘Behavior’ Data Elements

The Question “Behavior” data elements control aspects regarding how the response to the question must be entered.



**Behavior:**

\* **Required:** ☒ Yes ☐ No

\* **Wrap:** ☐ Yes ☒ No

\* **Encrypt:** ☐ Yes ☒ No

\* **Data Type:**

**Data Type**

**Attributes:**

## Required

The Required attribute indicates whether or not an end-user response must be entered. Specification of the Required attribute is required.

When 'Required' is 'Yes', the end-user may not successfully complete the Form until a value is entered. When 'Required' is 'No', the end-user may successfully complete the Form with or without a response to this Question.

## Wrap

The Wrap attribute indicates whether or not a visual "box" surrounding the Question should be drawn when the Form is displayed. Specification of the Wrap attribute is required.

The Wrap attribute is also available on SmartPath™ Form Groups to surround a collection of Questions with a visual "box". Form designers typically "box" individual Questions, or Groups of Questions, on any given Form. Wrap is generally not specified on both a Question and an enclosing Group at the same time.

## Encrypt

The Encrypt attribute indicates whether or not responses to the question are encrypted, meaning that the value typed by the end-user is encrypted when stored in the underlying SmartPath™ database. This service is provided as an added security measure. Specification of the Encrypt attribute is required.

Sensitive data, such as Social Security Numbers and Passwords are generally encrypted.

For existing Questions that have actual end-user responses already entered, changing or altering the value of the Encrypt setting in any way is highly

discouraged. Responses are stored in the SmartPath™ database on the basis of this setting. Modifying the Encrypt setting mid-stream will likely result in the total loss of any data already associated with the Question.

## Data Type

The Data Type attribute specifies the HTML control used for the end-user's response. Specification of the Data Type attribute is required.

The following Data Types are supported:

- Text
- Text Area
- Repeating Text
- Radio
- Checkbox
- Dropdown
- Multi-select Dropdown
- Date

### Text

The Text data type is the simplest possible data type. A simple, single-line HTML text input field is rendered, in which the end-user enters a response.

**First Name:**

Guido

### Text Area

The Text Area data type is a simple, multi-line HTML textarea input. Return characters are retained inside the entered response. On most modern browsers, the text area's physical size can be modified by clicking and dragging the affordance in the lower-right corner.

**Notes:**

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Suspendisse a sapien nec quam cursus sollicitudin. Donec non venenatis velit. Pellentesque semper lorem eget libero blandit rhoncus. Sed sodales consectetur finibus. Nunc pellentesque purus eu fringilla gravida. Duis vitae tellus augue. Vivamus pellentesque magna vitae ex vestibulum, id vehicula nisl suscipit. Nunc sed sapien ac felis consectetur iaculis.

*Optional*

### Repeating Text

The Repeating Text data type allows an unlimited number of single-line Text controls to be bundled together as a single response. 'Plus' and 'Minus' button affordances allow the end-user to control the number of single-line responses.

This data type is especially useful for capturing a variable number of postal address lines.

**Street Address:**

## Radio

The Radio data type allows one of a collection of radio button controls to be selected as an end-user response.

The number of radio buttons and their associated texts originates from a list of Options provided by the Form designer. See *Options* (below) for additional information.

Radio buttons may be visually presented as either a horizontal or vertical list. See *Questions: Data Type Attributes* (below) for additional information.

**Do you have office space?** ☒ Yes ☐ No

## Checkbox

The Checkbox data type presents an HTML checkbox control for an end-user response. The checkbox has only two states: Checked, or Not Checked. Using a Checkbox with the Required setting is useful for attestations.

Checkboxes may be visually presented with the box to the left or right of the associated Display Text. See *Questions: Data Type Attributes* (below) for additional information.

Checkboxes may control whether other questions are shown/hidden when checked. See *Questions: Data Type Attributes* (below) for additional information.

☒ **I certify for the Chair/Director that the resources necessary to support this faculty member in performing the requested privilege are currently available or will be available when the faculty member's appointment begins.**

## Dropdown

The Dropdown data type allows the end-user to select exactly one of a number of presented options. The Dropdown is presented visually as an HTML dropdown (or 'select') control.

The number of dropdown options and their associated texts may originate from a list of Options provided by the Form designer. See *Options* (below) for additional information.

The number of dropdown options and their associated texts may originate from a pre-defined list of values provided by SmartPath™. See *Questions: Data Type Attributes* (below) for additional information.

State:

## Multi-Select Dropdown

The Multi-Select Dropdown data type allows the end-user to select multiple responses from a number of presented options. The Dropdown is presented visually as an HTML dropdown (or 'select') control.

This data type is a hybrid control, combining the regular Dropdown data type with a Repeating Text data type. This permits an unlimited number of Dropdown responses to be bundled together as a single response. 'Plus' and 'Minus' button affordances allow the end-user to control the number of responses.

This type is useful for capturing the end-user responses when multiple options are applicable, such as a list of languages spoken.

Languages:

Optional

## Date

The Date data type is an extension of the simple Text data type. The value entered must be able to be interpreted as a calendar date. A date-picker popup is also provided to facilitate entry.

The date format is specified by the form designer. By default, a full Month-day-year is required. See *Questions: Data Type Attributes* (below) for additional information.

Dates may optionally be configured to not allow entry of dates in the future. See *Questions: Data Type Attributes* (below) for additional information.

Dates may optionally be configured to require that an entered date be on or after another date specified in a different question. See *Questions: Data Type Attributes* (below) for additional information.

**Date discussed with chair:**



04/01/2015

## Data Type Attributes

Data Type Attributes provide additional information about certain Data Types. Specification of the Data Type Attribute is optional.

The following describes how Data Type Attributes are used for each Data Type.

### Text

#### Repeating Text

Not applicable.

### Text Area

By default, Text Area data types render an HTML control initially sized to accommodate 3 lines of text. To modify this behavior, specify the number of desired lines in Data Type Attributes.

### Radio

By default, the radio buttons are presented horizontally, next to the Display Text. This works well when there are a small number of available choices, such as “Yes”, “No”, and “Not Applicable”.

The radio buttons can be presented in a vertically stacked presentation by including the keyword ‘stack:true’ in the Data Type Attributes.

By default, the Display Text renders on the left-hand side of the screen, and the radio button control renders to the right. To reverse this behavior, include the keyword ‘reverse:true’ in the Data Type Attributes.

### Checkbox

By default, the Display Text renders on the left-hand side of the screen, and the Checkbox control renders to the right. To reverse this behavior, include the keyword ‘reverse:true’ in the Data Type Attributes.

By default, any show/hide questions associated with the Checkbox are shown when the Checkbox is ‘checked’. To reverse this behavior, include the keyword ‘hidewhenchecked:true’ in the Data Type Attributes.

## **Dropdown**

### **Multi-Select Dropdown**

The number of dropdown options and their associated texts may originate from a pre-defined list of values provided by SmartPath™. These are lists of common entities, such as lists of States or Countries.

The following lists are provided by SmartPath™, and are largely self-explanatory. To utilize one, specify its identifier in Data Type Attributes.

- COUNTRIES
- DEGREES
- ETHNICITIES
- GENDER
- LANGUAGES
- LICENSES
- STATES

## **Date**

By default, full Month-Day-Year dates must be specified for Date data types. To use either Month-Year or Year, specify the appropriate format in the Data Type Attributes from the list below:

- format:M/D/Y
- format:M/Y
- format:Y

By default, any date may be entered in a Date prompt. To disallow entry of future dates, include the keyword 'future:false' in the Data Type Attributes.

By default, entered dates on a form have no ordinal relationship with each other. To specify that an entered date must be on or after another date on the form, include the keyword 'after:', followed by the Code of the other Date, in the Data Type Attributes. For example: 'after:PICCA\_START\_QUESTION'.

## **Question 'Accessibility' Data Elements**

The Question "Accessibility" data elements control when specific Questions are displayed, and how specific Questions can be identified by other areas of SmartPath™ to facilitate data sharing.

**Accessibility:**

**Job Action Types:**

Appointment

Select

Select

Select

Select

**Identifier Code:**

address\_cell\_phone

**Show Codes:**

**Hide Codes:**

## Job Action Types

The Job Action Types attribute indicates the Job Actions on which a particular Question may appear. Specification of Job Action Types is optional. However, if no Job Action Types are specified for a Question, that Question will never appear in any SmartPath™ workflow.

Values are site-specific.

## Identifier Code

The Identifier Code attribute names a particular Question as a data element that may be shared with other areas of SmartPath™. Specification of Identifier Code is optional.

A limited set of possible values are recognized within SmartPath™. Only a single value from the following list may optionally be specified.

- JOB\_POSTING\_WAIVER
- address\_cell\_phone
- address\_city
- address\_country
- address\_fax
- address\_home\_phone
- address\_lines
- address\_postal
- address\_state

- aliases
- birth\_country
- birth\_date
- email
- ethnicity
- first\_name
- gender
- has\_ssn
- hd\_city
- hd\_country
- hd\_degree
- hd\_end
- hd\_institution
- hd\_name
- hd\_program
- hd\_start
- hd\_state
- languages
- last\_name
- living\_in\_us
- middle\_name
- name\_match
- scholarly\_focus
- ssn
- suffix
- us\_citizen

## Show Codes

The Show Codes attribute identifies specific Questions or Groups that should be shown when a response to the Question is entered by the end-user. Show Codes works in tandem with Hide Codes (below) to selectively Show/Hide other Questions based on whether or not a response to a specific Question has been entered. Specification of Show Codes is optional.

Enter a comma-separated list of Question and/or Group Codes that are to be shown when a response is entered for the Question.

Show/Hide functionality is also available on Options. See *Options* (below) for additional information.

## Hide Codes

The Hide Codes attribute identifies specific Questions or Groups that should be hidden when no response to the Question has been entered by the end-user. Hide Codes works in tandem with Show Codes (above) to selectively Show/Hide other



Questions based on whether or not a response to a specific Question has been entered. Specification of Hide Codes is optional.

Enter a comma-separated list of Question and/or Group Codes that are to be hidden when no response has been entered for the Question.

Show/Hide functionality is also available on Options. See *Options* (below) for additional information.

## Options

**Options** provide supplementary information for **Questions** that have certain Data Types. Options encapsulate a concrete list of available response options from which the end-user must choose.

Options are only applicable for the following Data Types: Radio, Dropdown, and Multi-select Dropdown.

The administrative interface for Options displays on the related Question's detail page. Any Question can have an unlimited number of Options. Options are presented in the order they appear in the list in the administrative interface. They can easily be re-ordered by using the affordances on the left-hand side of each entry. Use the arrows to move a particular Option up or down. Click and drag the handle affordance to move larger distances.

Associated Options:

Options are only applicable for Data Types:  
Radio, Dropdown, and Multi-select Dropdown

Option

* Code:	PI_GENDER_OPT_M	Show Codes:	<input type="checkbox"/>
* Description:	Gender - Male	Hide Codes:	<input type="checkbox"/>
Display Text:	Male		
* Code:	PI_GENDER_OPT_F	Show Codes:	<input type="checkbox"/>
* Description:	Gender - Female	Hide Codes:	<input type="checkbox"/>
Display Text:	Female		
* Code:	Unique question/option/group code	Show Codes:	<input type="checkbox"/>
* Description:		Hide Codes:	<input type="checkbox"/>
Display Text:			

Option data elements are discussed below.

## Code

The Code is the unique identifier for the Option, and is required. Codes must be unique across all SmartPath™ Form Components (Questions, Options, and Groups).

A naming strategy for Codes is highly recommended. See the Paradigms discussion above.

For existing Questions that have actual end-user responses already entered, changing or altering the value of an Option Code in any way is highly discouraged. Responses are stored in the SmartPath™ database on the basis of the actual Code value. Modifying a Code value mid-stream will likely result in the total loss of any data associated with the Question.

## Description

The Description is a short, human-readable summary of the component, and is required.

Descriptions only appear in the Administrative interfaces. Descriptions never appear when a Form is presented to the end-user.

## Display Text

The Display Text is the text shown to the end-user on the Form, and is optional. It is possible to leave this text blank, but this is done very infrequently.

## Show Codes

The Show Codes attribute identifies specific Questions or Groups that should be shown when a specific Option is selected by the end-user. Show Codes works in tandem with Hide Codes (below) to selectively Show/Hide other Questions based on whether or not a selected Option has been selected. Specification of Show Codes is optional.

Enter a comma-separated list of Question and/or Group Codes that are to be shown when the Option is selected.

Show/Hide functionality is also available on Questions. See *Questions* (above) for additional information.

## Hide Codes

The Hide Codes attribute identifies specific Questions or Groups that should be hidden when a specific Option is selected by the end-user. Hide Codes works in tandem with Show Codes (above) to selectively Show/Hide other Questions based on whether or not a selected Option has been selected. Specification of Hide Codes is optional.

Enter a comma-separated list of Question and/or Group Codes that are to be hidden when the Option is selected.

Show/Hide functionality is also available on Questions. See *Questions* (above) for additional information.

## Groups

**Groups** bundle sets of related Questions together for presentation to the end-user. Groups may contain any number of Questions and other Groups. There is no limit on how many levels that Groups may be nested within other Groups.

Groups are optional, but necessary. A Question that is not in any Group will never see the light of day on any SmartPath™ Form.

The administrative interface for Groups is organized into functional sections. Following is a description of the data elements that the form designer specifies for each Group, organized by functional section.

### Group ‘Identity’ Data Elements

The Group “Identity” data elements define general attributes about how a particular Group is identified, both in the end-user presentation, and by other Questions and Groups.



The screenshot shows a form titled "Identity:" with a blue header bar. Below the header, there are three input fields. The first field is labeled "\* Code:" and contains the text "piNameInfo". The second field is labeled "\* Description:" and contains the text "Name Information". The third field is labeled "Display Text:" and is empty. The form has a light blue border and a small icon in the bottom right corner.

### Code

The Code is the unique identifier for the Group, and is required. Codes must be unique across all SmartPath™ Form Components (Questions, Options, and Groups).

A naming strategy for Codes is highly recommended. See the Paradigms discussion above.

### Description

The Description is a short, human-readable summary of the component, and is required.

Descriptions only appear in the Administrative interfaces. Descriptions never appear when a Form is presented to the end-user.

## Display Text

The Display Text is the text shown to the end-user on the Form, and is optional.

Any punctuation or HTML formatting should be included in the Display Text (e.g. “<h4>Name Information</h4>”). This field is frequently left blank.

## Group ‘Size and Placement’ Data Elements

The Group “Size and Placement” data elements define the general appearance and placement of the Group in the end-user presentation.

SmartPath™ uses the popular Bootstrap presentation library (<http://getbootstrap.com>). Bootstrap uses a fluid grid system that appropriately scales up to 12 columns as the device or viewport size changes. This 12-column system is the basis for SmartPath™ Forms size and placement information for Questions and Groups.

SmartPath™ Forms splits the available 12 columns into 2 chunks: Offset, and Label:

*Offset* specifies the number of columns on the left-hand side that should not be used. Think “indentation”.

*Label* specifies the number of columns reserved for the Display Text (described above). Think “prompt size”.

The total number of columns specified by these two values cannot exceed 12. Fewer than 12 columns may be specified, which will generally result in unused white space on the right side.



Size and Placement:	
* Offset Columns:	<input type="text" value="0"/>
* Label Columns:	<input type="text" value="12"/>

## Offset Columns

The Offset Columns indicates how many of the 12 available columns should be left unused on the left side of the screen. Values range from zero to twelve, and a value is required.

## Label Columns

The Label Columns indicates how many of the 12 available columns should allocated to the Group Display Text. Values range from zero to twelve, and a value is required.

## Group ‘Behavior’ Data Elements

The Group “Behavior” data elements control aspects regarding how the group is displayed and functions.



**Behavior:**

- \* Repeating: ☐ Yes ☒ No
- \* Repeating Table: ☐ Yes ☒ No
- \* Required: ☐ Yes ☒ No
- \* Wrap: ☒ Yes ☐ No
- \* Filler: ☐ Yes ☒ No

## Repeating

The Repeating attribute makes the Group a ‘Repeating Group’. Specification of the Repeating attribute is required.

Groups normally contain a set of Questions. Those Questions are displayed once on the Form, and each Question has a single response. A Repeating Group allows multiple response sets.

Repeating Groups can be managed and displayed using one of two distinct methodologies.

### Method 1

In the first management scenario, all entered sets of responses appear on the end-user display simultaneously. The end-user uses Plus/Minus buttons to add/remove entire copies of the Question set. If many Question response sets are entered, the Form gets very long, very quickly, and can become unwieldy.

To create a Repeating Group with this management style, simply set the Repeating attribute to Yes, and do nothing else.

### Method 2

A second management scenario attempts to alleviate issues with Method 1. With Method 2, a separate, summary table of entries is displayed. Only one set of responses appears at any given time. The end-user controls which response set is displayed and editing using basic controls on the table rows.

To create a Repeating Group using this management style, set the Repeating attribute to 'Yes'. Then create a second Group with the Repeating attribute 'No', and the 'Repeating Table' attribute 'Yes'. The table Group will get linked to the Repeating Group on the basis of the specified Children attribute, described below.

Never, ever, create a Group that has both the Repeating and Repeating Table attributes turned on. You'll only get a big mess.

## **Repeating Table**

The Repeating Table attribute creates a Group that manages a Repeating Group. Specification of the Repeating Table attribute is required.

See the text immediately above for a discussion of Repeating Groups, and management of those Groups using a Table.

## **Required**

The Required attribute indicates whether or not at least one response set in a Repeating Group must be entered. Specification of the Required attribute is required.

The Required attribute is only applicable to Groups that have been identified as Repeating Groups.

## **Wrap**

The Wrap attribute indicates whether or not a visual "box" surrounding the underlying Questions in the Group should be drawn when the Form is displayed. Specification of the Wrap attribute is required.

The Wrap attribute is also available on SmartPath™ Form Questions to surround an individual Question with a visual "box". Form designers typically "box" individual Questions, or Groups of Questions, on any given Form. Wrap is generally not specified on both a Question and an enclosing Group at the same time.

## **Filler**

The Filler attribute provides a mechanism to simply display arbitrary text on the Form. Specification of the Filler attribute is required.

Any punctuation or HTML formatting should be included in the Display Text (e.g. “<h4>Name Information</h4>”).

## **Group ‘Child Groups and Questions Data Elements**

The Group “Child Groups and Questions” data elements control the collection of Questions and Groups are displayed as part of the Group. Groups normally contain a set of underlying Questions.

?	Group or Question Code
↑ ≡ ↓	PI_FIRST_NAME
↑ ≡ ↓	PI_MIDDLE_NAME
↑ ≡ ↓	PI_LAST_NAME
↑ ≡ ↓	PI_SUFFIX
↑ ≡ ↓	PI_ALIASES
↑ ≡ ↓	PI_NAME_MATCH
↑ ≡ ↓	
↑ ≡ ↓	

Child Groups and Questions is simply an ordinal list of the Group’s underlying set of Questions, some of which may be contained in other Groups. The form designer enters the appropriate Question or Group Codes.

Any Group can have an unlimited number of Children. Questions are presented in the order they appear in the list in the administrative interface. They can easily be re-ordered by using the affordances on the left-hand side of each entry. Use the arrows to move a particular item up or down. Click and drag the handle affordance to move larger distances.



[End of Document]