

## Field Template Additional Configuration

When creating Field Templates, the product will endeavor to create the best validation rules for each Field or Property it finds. While good Swaggers can deliver excellent results, bad Swaggers or other meta data do not have the details so each Field Template will have minimal validation rules based on what is known.

It is recommended that all Field Templates are thoroughly reviewed and enhanced before Business Capabilities are created so that the best Field Templates are used.

### Field Templates

All Field Templates have the following format with an ability to create Data Validation and Data Generation rules. For the purposes of this demo, we will use a field used extensively by organizations, the "firstName" field:

**firstName** [X]

Field Name\*  
firstName

Description  
The Sender's first name. If you cannot provide th

**Data Validation**

**Data 1** (+)

Data Type\*  
String

Validation type  
Length is Between

Minimum\*  
1

Maximum\*  
40

Error Type\*  
Custom\_Error

Custom Message

**Data Generation**

Data Type\*  
String

Generation type  
Length Between

Minimum\*  
1

Maximum\*  
40

Cancel Save

The Field Template contains the following sections:

1. The Name of the Template. This cannot be changed.
2. The description for the Field Template. This can be changed as often as necessary.
3. Then there are two separate sections that we will cover separately:
  - a. The Data Validation rule or rules for the Field Template.
  - b. The Data Generation rule for the Field Template.

## The Data Validation Rule(s)

These rules are used to validate any data for a Field Name that uses a given template. In the above example, the following applies:

- Data type: This is the Type of Data Validation routine described later.
- Validation type: Is the function to be used to validate the data described later.
- This may be followed by one or more parameters for the function.
- Error Type: is the type of error to be raised if to categorize the error if it is triggered. This is available to the Validation Error defined in the Error Templates to be filled out for each error raised. The available values are:
  - o Field\_Required: Field value is required and has not been provided.
  - o Invalid\_Length: The value provided is too short or too long.
  - o Invalid\_Value: the value provided is not valid for the field.
  - o Invalid\_Format: The format of the value provided is not valid for the field.
  - o Custom\_Error: Cannot be categorized.
- Custom Message: This is a user specific value which is made available in the Validation Error template.

## The Data Generation Rule

This rule is used internally to generate a value for the field internally when required. This is useful when unique or specific values should be specified for a given Field Template. The following are the fields:

- Data type: This is the Type of Data Generation routine described later.
- Generation type: Is the function to be used to generate the data described later.
- This may be followed by one or more parameters for the function.

## Extending Field Templates

Field Templates may have multiple data validation rules for a given field. For example, our firstName field may have specific lengths that it must satisfy but it also may have restrictions on the characters that can be used. If only Latin characters may be provided, the following additional Data Validation rule could be added:

### Data Validation

Data 1
Data 2
+

Data Type\*  
String

Validation type  
Matches Java Pattern

Pattern\*  
^[0-9A-Za-z]\*\$

Error Type\*  
Invalid\_Value

Custom Message

The potential options are documented later in this document. You need to ensure that the Data Generation rule is adjusted when additional Data Validation rules are added.

## Additional Validation Rules

The following subsections document the additional validation possibilities that are available and where they may be useful. They are grouped by Data Type.

In the following tables, the following is available documented:

- Validation Type: the validation to be applied.
- Parameters: required parameters if any.
- Example of where it can be used

### "String" Data Type

The most common type of validation is String based.

Validation Type	Parameters	Example
"Equal To"	The specific value	Use when a specific, exact value must be provided for a field.
"Not Equal To"	The specific value	Use when a specific, exact value must not be provided for a field.
"Starts With"	The starting value	Use when the value provided for the field must start with the specific value.

"Ends With"	The ending value	Use when the value provided for the field must end with the specific value.
"Contains"	The ending value	Use when the value provided for the field must contain with the specific value.
"Length is Between"	The minimum and maximum lengths	Use when the value provided for the field must be between two different lengths.
"Length is Less Than or Equal To"	The maximum length	Use when the value must be a maximum length.
"Length is Greater Than or Equal To"	The minimum length	Use when the value must be a minimum length.
"Matches Java Pattern"	The Java Pattern that must be used	Use to validate that a field value matches a specific Java Regex value.
"Contained in CSV"	The comma seperated list of values.	Use when a field value must be one of a list of specific values.
"ISO3166 3 byte alpha"	N/A	Use when the field value must be a 3 character ISO3166 country code.
"ISO3166 2 byte alpha"	N/A	Use when the field value must be a 2 character ISO3166 country code.
"ISO3166 numeric"	N/A	Use when the field value must be a valid numeric ISO3166 country code.
"ISO369-1 2 byte alpha"	N/A	Use when the field value must be a valid 2 character ISO369 language code.
"ISO369-2 3 byte alpha"	N/A	Use when the field value must be a valid 3 character ISO369 language code.
"ISO4217"	N/A	Use when the field value must be a valid 3 character ISO4217 currency code.
"Valid US State"	N/A	Use when the field value must be a valid US State

		name or US State abbreviation.
"Valid Canadian State"	N/A	Use when the field value must be a valid Canadian State name or Canadian State abbreviation.
"Valid Email Address"	N/A	Use when the field value provided must be a valid email address. Note, this simply checks the format of the address.

## "Date" Data Type

Dates are all expected to be in Date Time format:

Validation Type	Parameters	Example
"Before"	The specific date	Use when the field value must be a valid date before the provided date.
"After"	The specific date	Use when the field value must be a valid date after the provided date.
"Within Range"	The specific date and the before and after range.	Use when the field value must be a valid date within the provided date range.
"Between"	The before and after date.	Use when the field value must be a valid date between the two provided dates.
"Before Today's Date"	N/A	Use when the field value must be a valid date before today's date.
"After Today's Date"	N/A	Use when the field value must be a valid date after today's date.
"Within Range of Today's Date"	The range from today's date.	Use when the field value must be a valid date within the provided date range of Today's date.
"Valid Format"	N/A	Use when the field value must be a valid date.

## "Decimal" Data Type

A Decimal number is a number value with a number of decimal places.

Validation Type	Parameters	Example
"Equal To"	The specific decimal value.	Use when the field value must be equal to the specific value.
"Less Than or Equal To"	The specific decimal value.	Use when the field value must be a decimal number less than or equal to the specific decimal value.
"Greater Than or Equal To"	The specific decimal value.	Use when the field value must be a decimal number greater than or equal to the specific decimal value.
"Between"	The two values.	Use when the field value must be a decimal number between the specified decimal values.
"Valid Format"	N/A	Ensure the field value is a valid decimal number.

### "Numeric" Data Type

A full, integer number

Validation Type	Parameters	Example
"Equal To"	The specific numeric value.	Use when the field value must be equal to the specific value.
"Less Than or Equal To"	The specific numeric value.	Use when the field value must be a number less than or equal to the specific numeric value.
"Greater Than or Equal To"	The specific numeric value.	Use when the field value must be a number greater than or equal to the specific numeric value.
"Between"	The two values.	Use when the field value must be a number between the specified numeric values.
"Valid Format"	N/A	Ensure the field value is a valid number.