OFS-Flow Knowledge Base (Gemini)

Building a form

Alerts

- Select Alert Group or create a new alert group
- Create New Alert -> 'Name the Alert'

General: Alert Name

- Ensure 'disable alert' is toggled off
- No need to include alert message

Form

- Heading - xyz for {{product}} on {{workcentre}}
- Info Text
- Integer - Whole numbers
- Decimal Field - numbers with decimal points
    - Unique Field Name (This is what appears only in Fusion)
    - Form Field Label (This is what appears on the form. If left blank, it is the same as Unique Field Name)
    - Help Text
    - Toggle 'Required' so the form pops up in the console

fieldTypes

Data Type	JSON fieldType	Purpose & Context
Whole Numbers Only	integer	Used for whole numbers only.
Numbers with Decimal Points	number	Used for numbers that include decimal points.
Information Display/Static Text	heading	Used for informational text. The conversion rule explicitly states to use "defaultValue" with this field type.
Multi-line Text Input	textarea	Used for capturing larger blocks of text like "Lost Time Details" or "Comments and Corrective Actions".
Single-line Text	text	Used for capturing single-line text inputs like "Person Responsible" or

Input		initials.
Radio Button/Dropdown Selection	select	Used for pre-defined selection options, commonly used for Pass/Fail, Yes/No, or cavity numbers.
Checkbox Selection	checkbox	Used for boolean (yes/no) selection that typically defaults to yesValue: "yes" and noValue: "no".
Date Input	date	Used specifically for date fields, such as "Best Before Date" or "Date Batched".
Time Input	time	Used for capturing time-of-day information, such as "Batch start time." Note: The Core Protocol ignores Time/Date fields, but the underlying system uses this type.
Calculated Field	calculation	Used to display a value derived from an internal formula (e.g., performing arithmetic on other fields).
Visual Separator	separator	Used to provide a visual break or line in the form layout.
Multiple Selection/Checkboxes	multiselect	Used for fields where a user can select multiple options from a list.
Image/Picture Upload	pictureupload	Used to capture and upload images directly from the device's camera or file system.

Field Validation Rules

Note:

- Case sensitive
- Space sensitive

Example:

- Drag decimal field to field validation rules
- Click Valid to choose a colour, add a message or choose invalid / error
    - Use Error sparingly, as this doesn't allow the form to pass through the workflow.
    - E.g. Error if a supervisor has not signed off
- Can validate values for ranges

Workflow

+ to create a new workflow

<u>Open State</u>

- Pending / To be completed / Not yet completed

  - Enter name
  - Interrupt (Ensure this is on so form pops up in console)
  - Toggle valid off
  - Toggle invalid off

Closed State

- In-Spec
  - Permit valid form on
  - Permit invalid form off
- Out of Spec
  - Permit valid form off
  - Permit invalid form on

Note: Training needs to be provided to operators to ensure they only focus in-spec and out of spec. Corrective

- Supervisor Sign-Off
  - Supervisors must use OFS-Analytics and filter to 'out of spec' or 'missed'
- Missed
  - Permit valid form
  - Permit invalid form

Sending Alerts

- use the services in closed state to send emails / SMS

Triggers

Total Time or Count: total amount of time regardless of jobs or shift

- Mostly used for 24hr operations

Job

- Create job trigger with + button
- Toggle 'start'
- Select Line
- Save

Shift

- Trigger on a shift

Machine state

Reason: However, are there any limitations to triggering off reason?

  - Operators have 30 seconds to set the reason from unplanned to planned. Alternatively, offset by 5 minutes.

Relay

- Related to monitoring points e.g. CIP

<u>Terms</u>

- Offset: if you want a form to populate any time during a job that is not start or finish
  - Used for jobs
- Repeat

Creating an Alert

Alerts

- Create Alert Group
- Create Alert

General tab

- Enter alert name
- Save

Services

- Email
- New Service
  - Title
  - Enter email address
  - Use schedule tab if want to schedule specific time

Go back to Alerts

General

- Select your alert
- Enter an alert message using variable and alert data
  E.g. {{>workcentre}} running {{product}} has stopped running since {{alert_time}} due to {{reason}}

Triggers

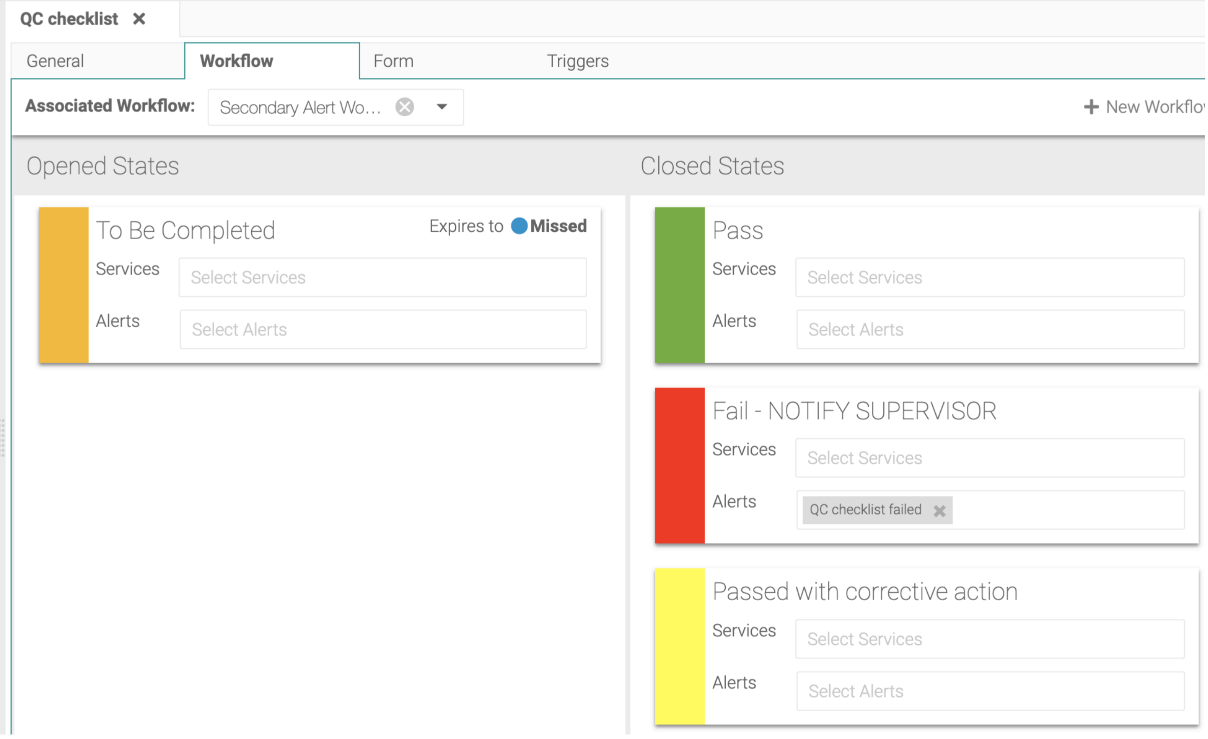
- Machine state
- + button
- Choose the machine state you want to alert to appear on
- Toggle on start
- Select the Line
- Select the service

Creating a secondary Alert within a form

Example: When a form fails or is out of spec, send an email alert with a message for Supervisor to complete with corrective action

Quality Checklist Form

- Workflow
  - Closed State: Fail
  - Insert the Alert (created prior) in 'Alerts'



QC checklist ×

Associated Workflow: Secondary Alert Wo…

Opened States

To Be Completed — Expires to Missed

Services: Select Services

Alerts: Select Alerts

Closed States

Pass

Services: Select Services

Alerts: Select Alerts

Fail - NOTIFY SUPERVISOR

Services: Select Services

Alerts: QC checklist failed

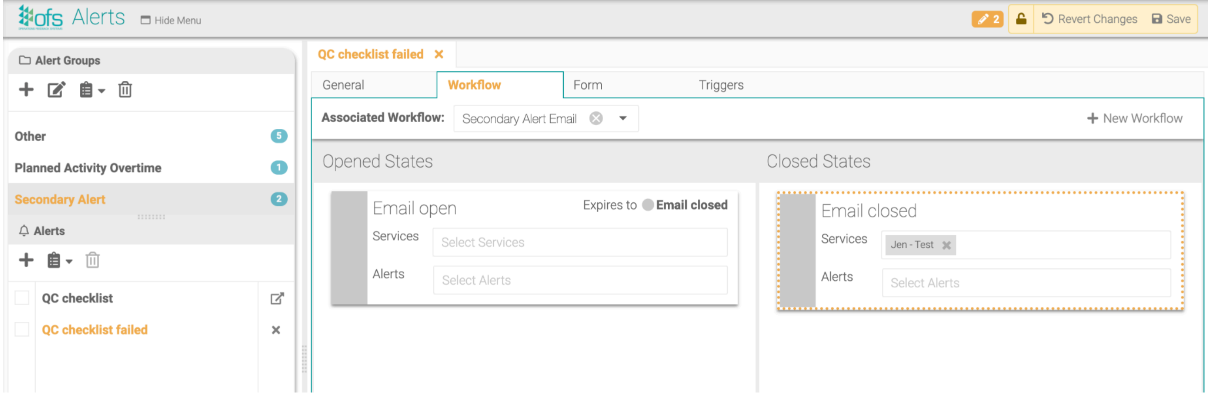
Passed with corrective action

Services: Select Services

Alerts: Select Alerts

Create an alert

- Name the alert
- In General, enter a message e.g. On line {{>workcentre}}, {{>product}} is out of spec. Supervisor's assistance is required.
- Workflow
  - Create a close state e.g. Email Sent
  - Services: QA Department



Other 5

Planned Activity Overtime 1

Secondary Alert 2

QC checklist

QC checklist failed

QC checklist failed ×

Associated Workflow: Secondary Alert Email

Opened States

Email open — Expires to Email closed

Services: Select Services

Alerts: Select Alerts

Closed States

Email closed

Services: Jen - Test

Alerts: Select Alerts

Create a service

- New Service
  - Title
  - Enter email address
  - Use the schedule tab if want to schedule a specific time

Conditional Expressions

- Alert variables document

Creating a trigger for a specific SKU with a rated speed of 10000 and firing at every 5000 units

- Support Case
- Create a trigger under ‘Job’
- E.g. Offset and repeat is 5000 units
- Conditional Expression
  - Product[rated speed] ==10000

Trigger on specific SKU

- Create a trigger under ‘Shift’ or ‘Job’
- Conditional Expression
  - Drag in Job Data
  - Select orderClientID
  - Drag in = sign
  - Enter the SKU number
  - job[“orderClientId”]==00000

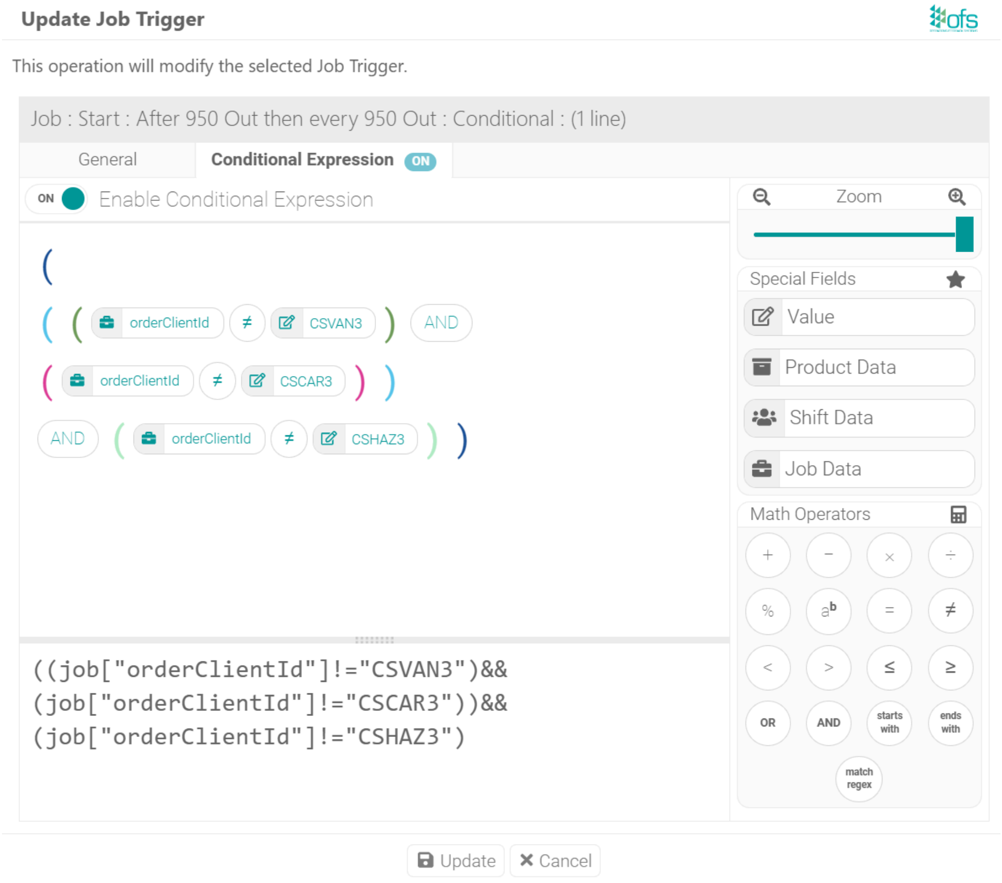
Trigger on multiple SKUs

- Create a trigger under ‘Job’
- Conditional Expression
  - Drag in Job Data
  - Select orderClientID
  - Drag in = sign
  - Enter the SKU number

- Drag in OR
- Repeat
- job[“orderClientId”]==00000

Trigger but exclude some SKUs

- Create a trigger under ‘Job’
- Conditional Expression
  - Drag in Job Data
  - Select orderClientID
  - Drag in ≠ sign
  - Enter the SKU number
  - Drag in ‘**AND’**
  - Repeat
  - job[“orderClientId”]!=00000



Update Job Trigger

This operation will modify the selected Job Trigger.

Job : Start : After 950 Out then every 950 Out : Conditional : (1 line)

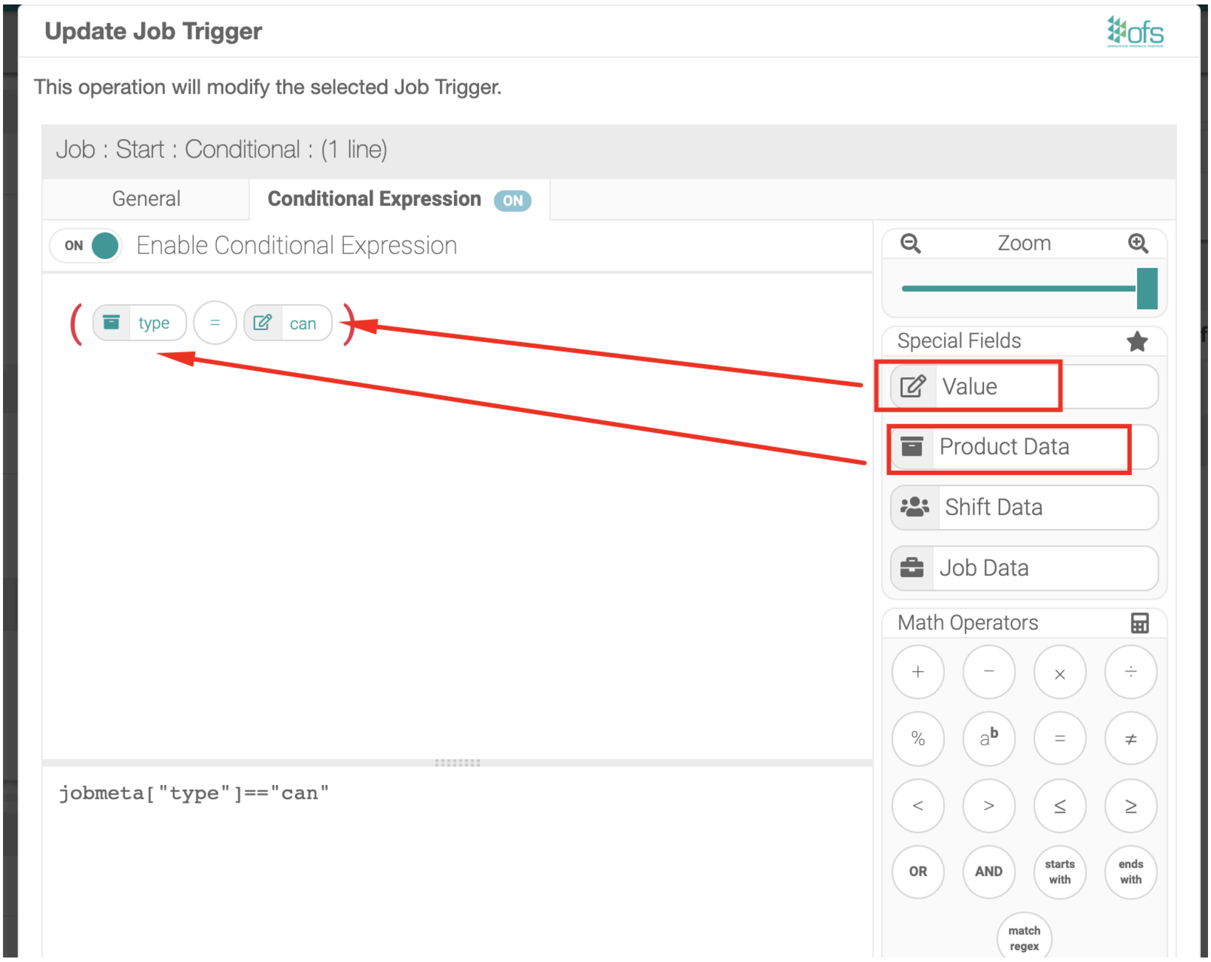
General | **Conditional Expression** ON

ON Enable Conditional Expression

```
((job["orderClientId"]!="CSVAN3")&&
(job["orderClientId"]!="CSCAR3"))&&
(job["orderClientId"]!="CSHAZ3")
```

Trigger on a specific metadata or column within the product list

- Conditional Expression
  - jobmeta["type"]=="can"



Update Job Trigger

This operation will modify the selected Job Trigger.

Job : Start : Conditional : (1 line)

ON Enable Conditional Expression

```
jobmeta["type"]=="can"
```

Advanced Validations

Alerts -> Form -> Validations

Validation Level 2

- Example: Range - Brix > 3 = Green
- 1 = = 1 = Red

  NOTE: When doing validations, always use 1==1 which allows us to control the data input. E.g. texts. Would mostly work for numbers

  - How can we explain this to customer - When it is true xyz, when it is false xyz

Validation Level 3 - 3 validations

NOTE: Start at furthest range

- Error: 0 - 20
- Green: Brix > 3
- Orange: 1 == 1

Validation Level 4 - expected range between 5 and 25

- VALID: box weight >=5 AND box weight<=25

  ((data["Box Weight (g) "]>=5)&&(data["Box Weight (g) "]<=25))
- INVALID: 1==1

Validation Level 8

Form: Batch code

Help:

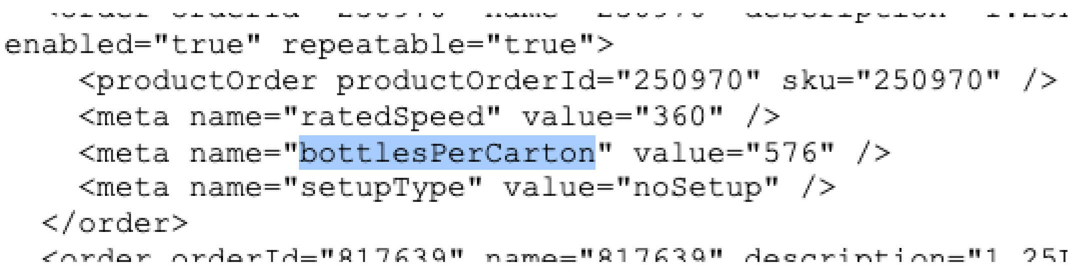
- 3 letter code
- 4 number serial code
- A year
- A check digit

Field Validation

- Valid: ^(MEL | SYD | BNE)-[0-9]{4}-(2022 | 2023)-[a-z A-Z] $
- INVALID: 1==1
- Can use REGEX101 webpage for programming

Validating if a customer has schedule integration

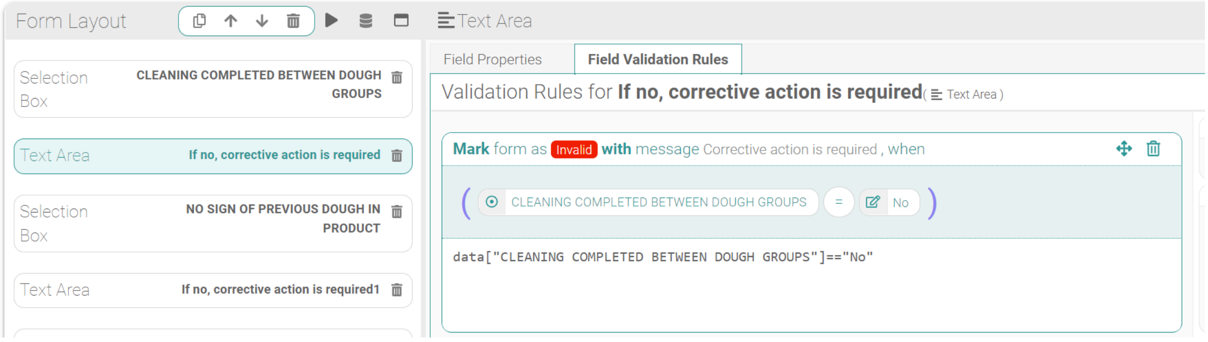
- OFS to obtain XML file from customers
- In Fusion Manager, create the validation as normal. However, to reference the product data, you will just need to replace the “ratedSpeed” which the naming convention as seen in the XML file.



```
enabled="true" repeatable="true">
    <productOrder productOrderId="250970" sku="250970" />
    <meta name="ratedSpeed" value="360" />
    <meta name="bottlesPerCarton" value="576" />
    <meta name="setupType" value="noSetup" />
  </order>
  <order orderId="817639" name="817639" description="1.25L
```

Validation Questions

How do I validate if answer is no, corrective action is required



Selection Box — CLEANING COMPLETED BETWEEN DOUGH GROUPS

Text Area — If no, corrective action is required

Selection Box — NO SIGN OF PREVIOUS DOUGH IN PRODUCT

Text Area — If no, corrective action is required1

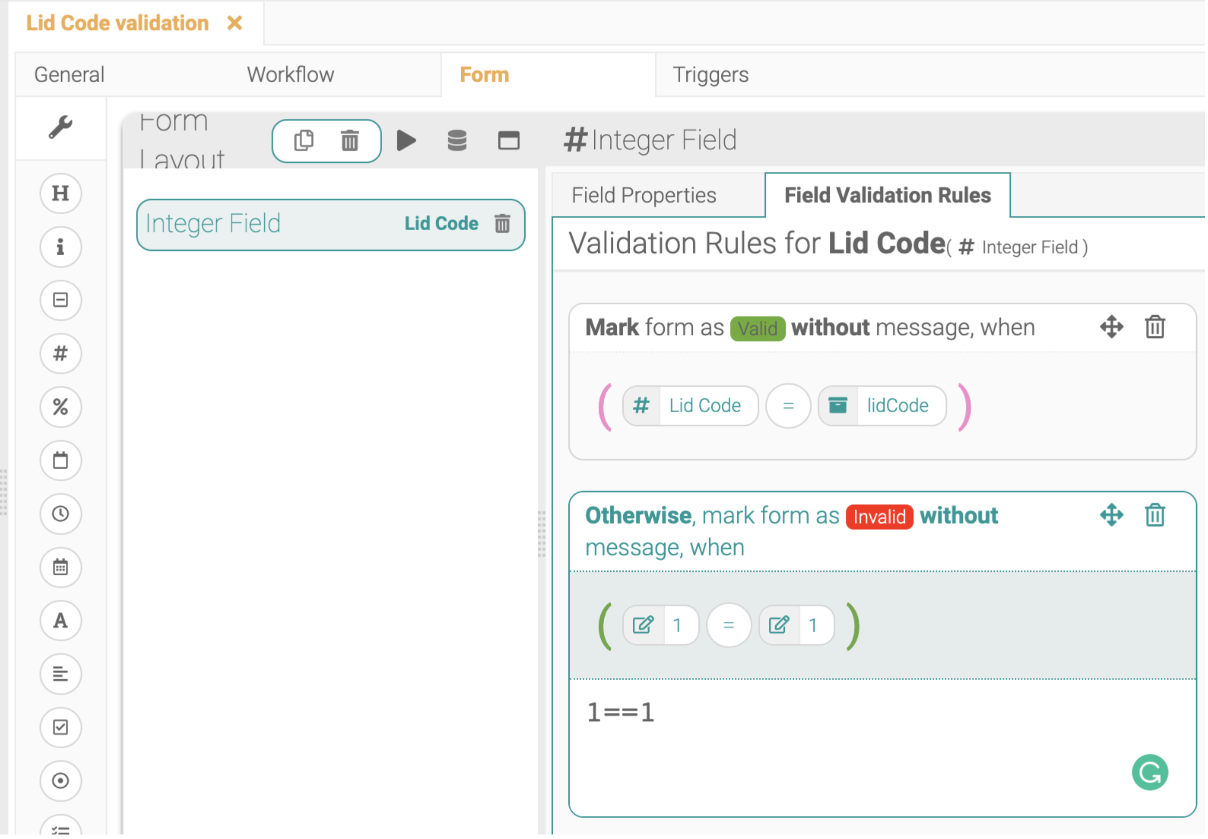
Validation Rules for **If no, corrective action is required** (Text Area)

Mark form as Invalid **with** message Corrective action is required , when

(CLEANING COMPLETED BETWEEN DOUGH GROUPS = No)

```
data["CLEANING COMPLETED BETWEEN DOUGH GROUPS"]=="No"
```

How to validate a code



Lid Code validation ✕

General | Workflow | Form | Triggers

Form Layout

Integer Field Lid Code

Integer Field

Field Properties | Field Validation Rules

Validation Rules for **Lid Code**(# Integer Field)

Mark form as Valid **without** message, when

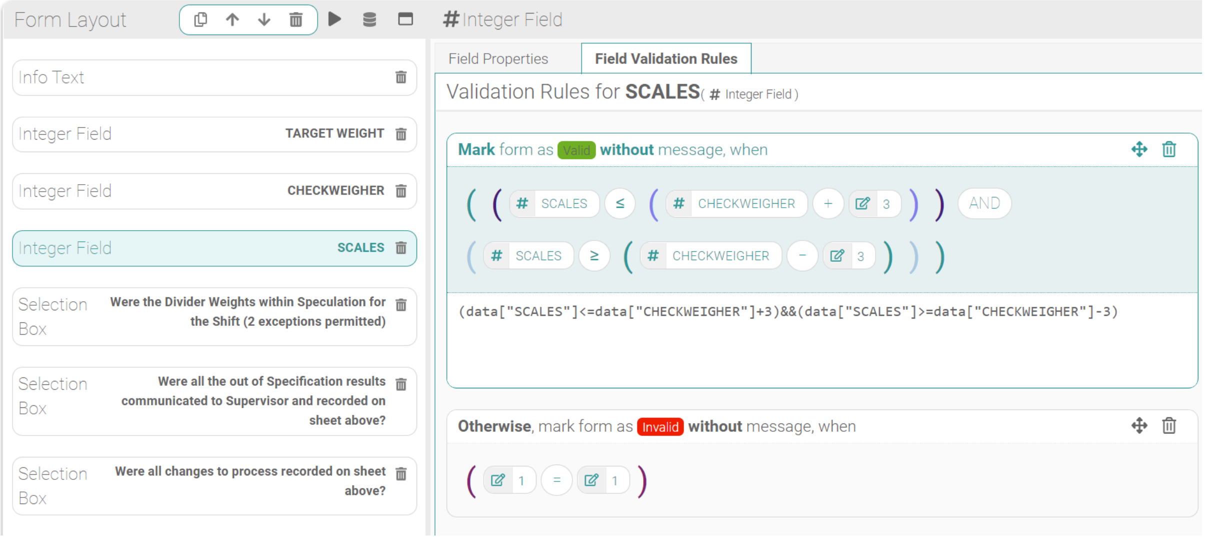
(# Lid Code = lidCode)

Otherwise, mark form as Invalid **without** message, when

(1 = 1)

```
1==1
```

How do I do calculations in a form? OFS can't spit out the number but if the operators inputs it, we can validate the answer by doing the calculations



Form Layout

- Info Text
- Integer Field — TARGET WEIGHT
- Integer Field — CHECKWEIGHER
- Integer Field — SCALES
- Selection Box — Were the Divider Weights within Speculation for the Shift (2 exceptions permitted)
- Selection Box — Were all the out of Specification results communicated to Supervisor and recorded on sheet above?
- Selection Box — Were all changes to process recorded on sheet above?

Integer Field

Field Properties | Field Validation Rules

Validation Rules for **SCALES**(# Integer Field)

Mark form as Valid **without** message, when

((# SCALES ≤ (# CHECKWEIGHER + 3)) AND (# SCALES ≥ (# CHECKWEIGHER − 3)))

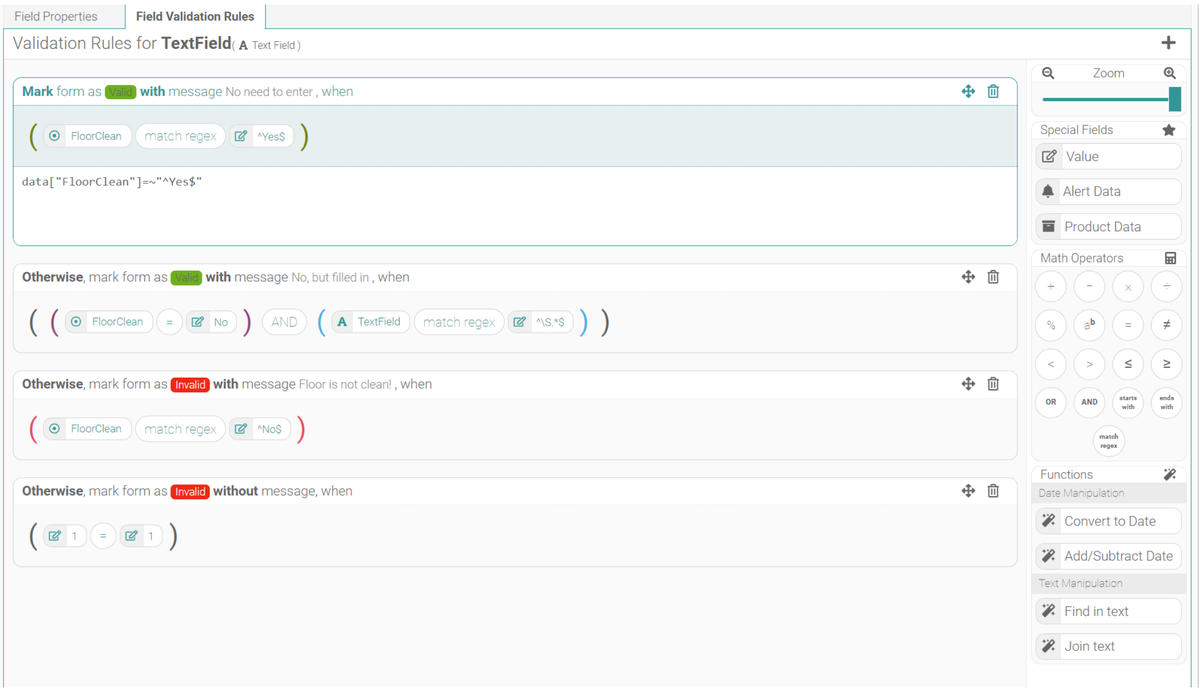
```
(data["SCALES"]<=data["CHECKWEIGHER"]+3)&&(data["SCALES"]>=data["CHECKWEIGHER"]-3)
```

Otherwise, mark form as Invalid **without** message, when

(1 = 1)

In a flow form, there is field A e.g. Is the floor clean: yes or no. If no is selected, how do we make field B required?

- We will have to toggle on required for both yes and no
- This is complicated and uses regex



Field Properties | Field Validation Rules

Validation Rules for **TextField**(A Text Field)

Mark form as Valid **with** message No need to enter , when

(FloorClean match regex ^Yes$)

```
data["FloorClean"]=~"^Yes$"
```

Otherwise, mark form as Valid **with** message No, but filled in , when

((FloorClean = No) AND (A TextField match regex ^\S.*$))

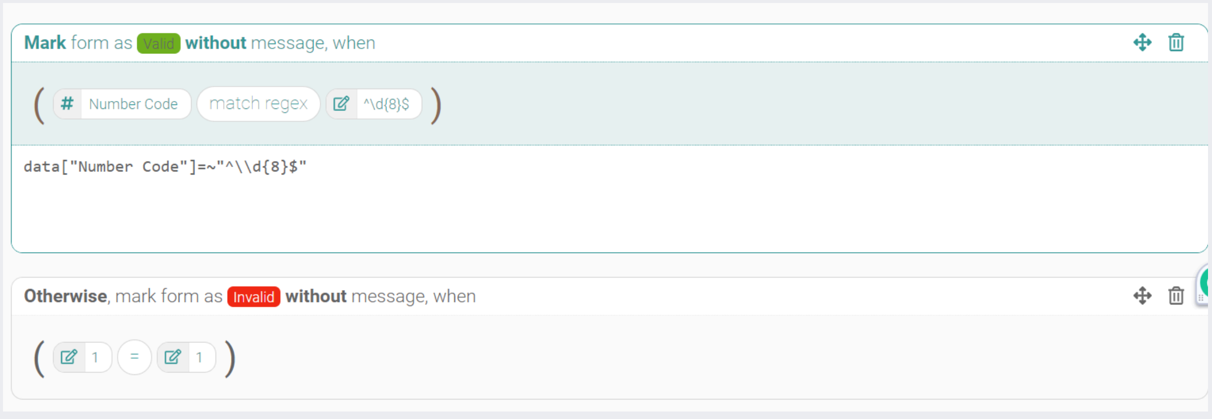
Otherwise, mark form as Invalid **with** message Floor is not clean! , when

(FloorClean match regex ^No$)

Otherwise, mark form as Invalid **without** message, when

(1 = 1)

Validate an integer field to ‘x’ number of characters e.g. 8 numbers.



Mark form as Valid **without** message, when

(# Number Code match regex ^\d{8}$)

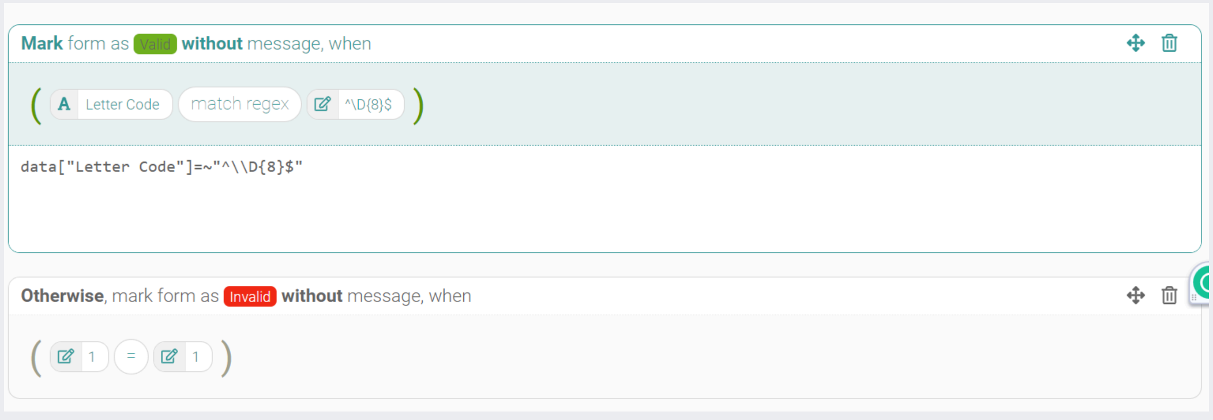
```
data["Number Code"]=~"^\\d{8}$"
```

Otherwise, mark form as Invalid **without** message, when

(1 = 1)

data["Number Code"]=~"^\ \d{8}$"

Validate an integer field to ‘x’ number of characters e.g. 8 letters



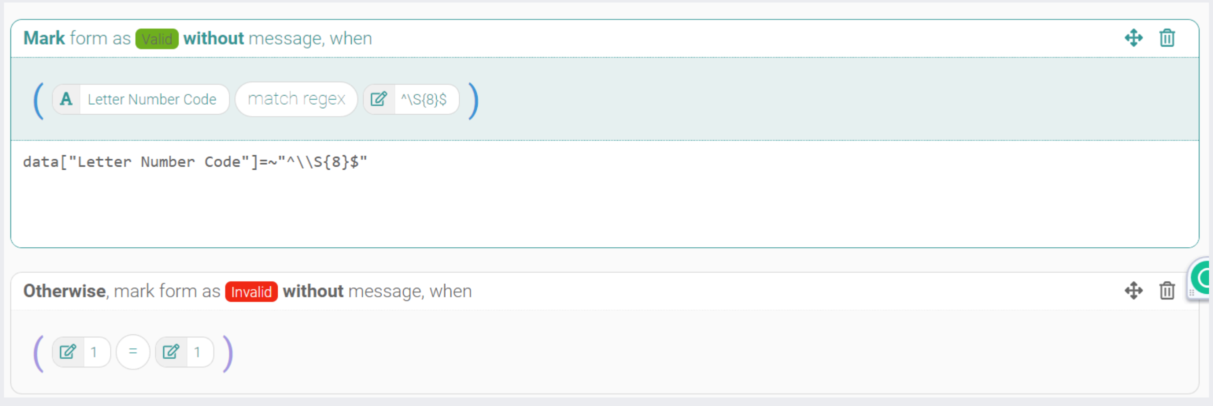
Mark form as Valid **without** message, when

```
data["Letter Code"]=~"^\\D{8}$"
```

Otherwise, mark form as Invalid **without** message, when

data["Letter Code"]=~"^\\D{8}$"

Validate an integer field to ‘x’ number of characters e.g. 8 letters and numbers.



Mark form as Valid **without** message, when

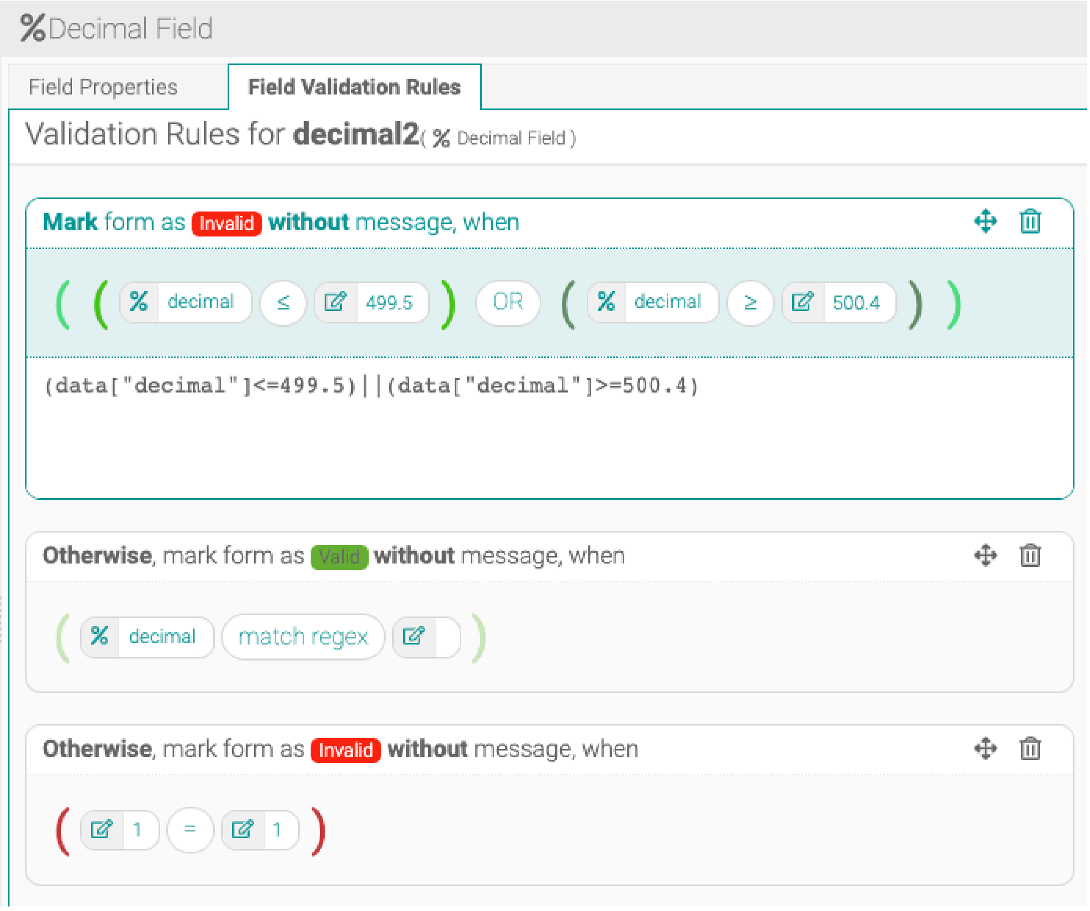
```
data["Letter Number Code"]=~"^\\S{8}$"
```

Otherwise, mark form as Invalid **without** message, when

data["Letter Number Code"]=~"^\\S{8}$"

MetaData

- Product
- Edit pencil
- Custom product list data
- First work lower case, second word capital e.g. batchNumber
- Import and export product list
- Note: only shows when you click a new job



%Decimal Field

Field Properties | **Field Validation Rules**

Validation Rules for **decimal2**(% Decimal Field)

Mark form as Invalid **without** message, when

((% decimal ≤ 499.5) OR (% decimal ≥ 500.4))

```
(data["decimal"]<=499.5)||(data["decimal"]>=500.4)
```

Otherwise, mark form as Valid **without** message, when

(% decimal match regex)

Otherwise, mark form as Invalid **without** message, when

(1 = 1)

FAQs

Can you change the date format in Flow?

- No

Can you trigger a form to fire at a specific time only when the line is running?

I have done some tests and also spoken to our support team regarding triggering a form at a specific time only when the line is running. Unfortunately, we are unable to trigger a form at 6:30am, only when the line is running.

There are a few ways to do this/workarounds:

1. Manually raise the form at 6:30am when the line is running.

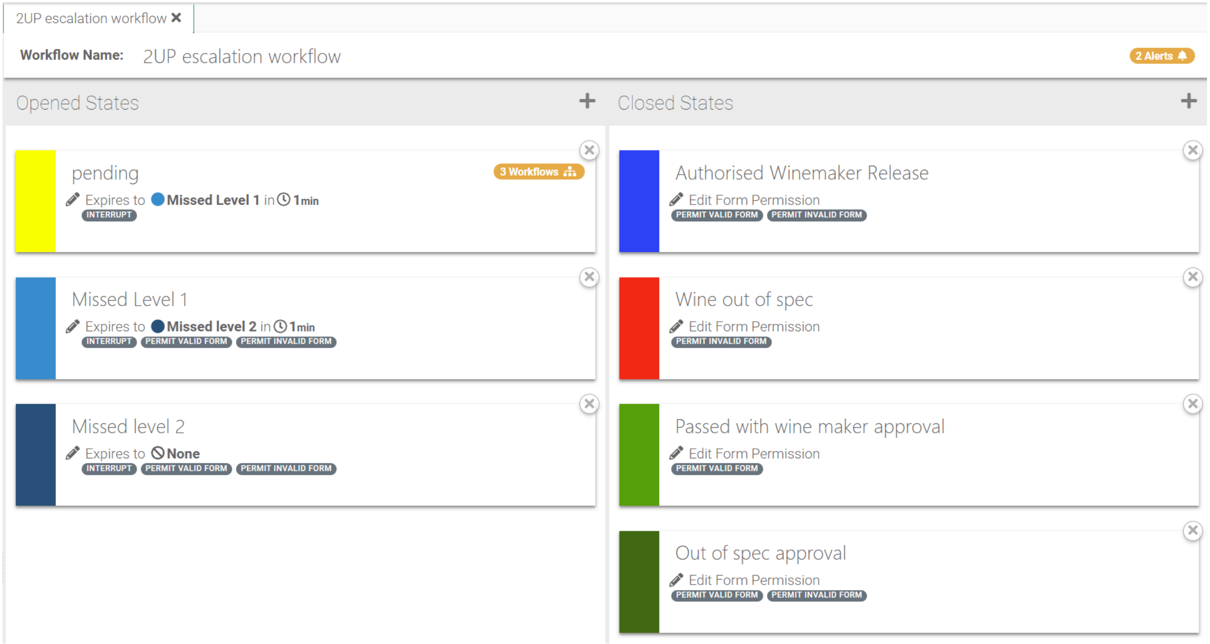
2. Use the 'Time or Total Count' to trigger the form at 6:30am, not factoring in the machine state.
3. Use the 'Machine State' to trigger the form when the line is running, with an offset of 'x' amount of hours if shifts are started at the same time daily.

Why is my flow form not firing?

1. In the workflow, the interrupt toggle is on
2. The disable alert toggle in general (fusion) is off
3. On the console in the Flow Icon, the alert group is ticked
4. Is the trigger assigned to a line?

How do I escalate a form to 2 levels?

- To have the same form appear at level 1 and level 2, toggle the interrupt on



2UP escalation workflow ✖

Workflow Name: 2UP escalation workflow

2 Alerts

Opened States

pending
Expires to Missed Level 1 in 1min
INTERRUPT

Missed Level 1
Expires to Missed level 2 in 1min
INTERRUPT PERMIT VALID FORM PERMIT INVALID FORM

Missed level 2
Expires to None
INTERRUPT PERMIT VALID FORM PERMIT INVALID FORM

Closed States

Authorised Winemaker Release
Edit Form Permission
PERMIT VALID FORM PERMIT INVALID FORM

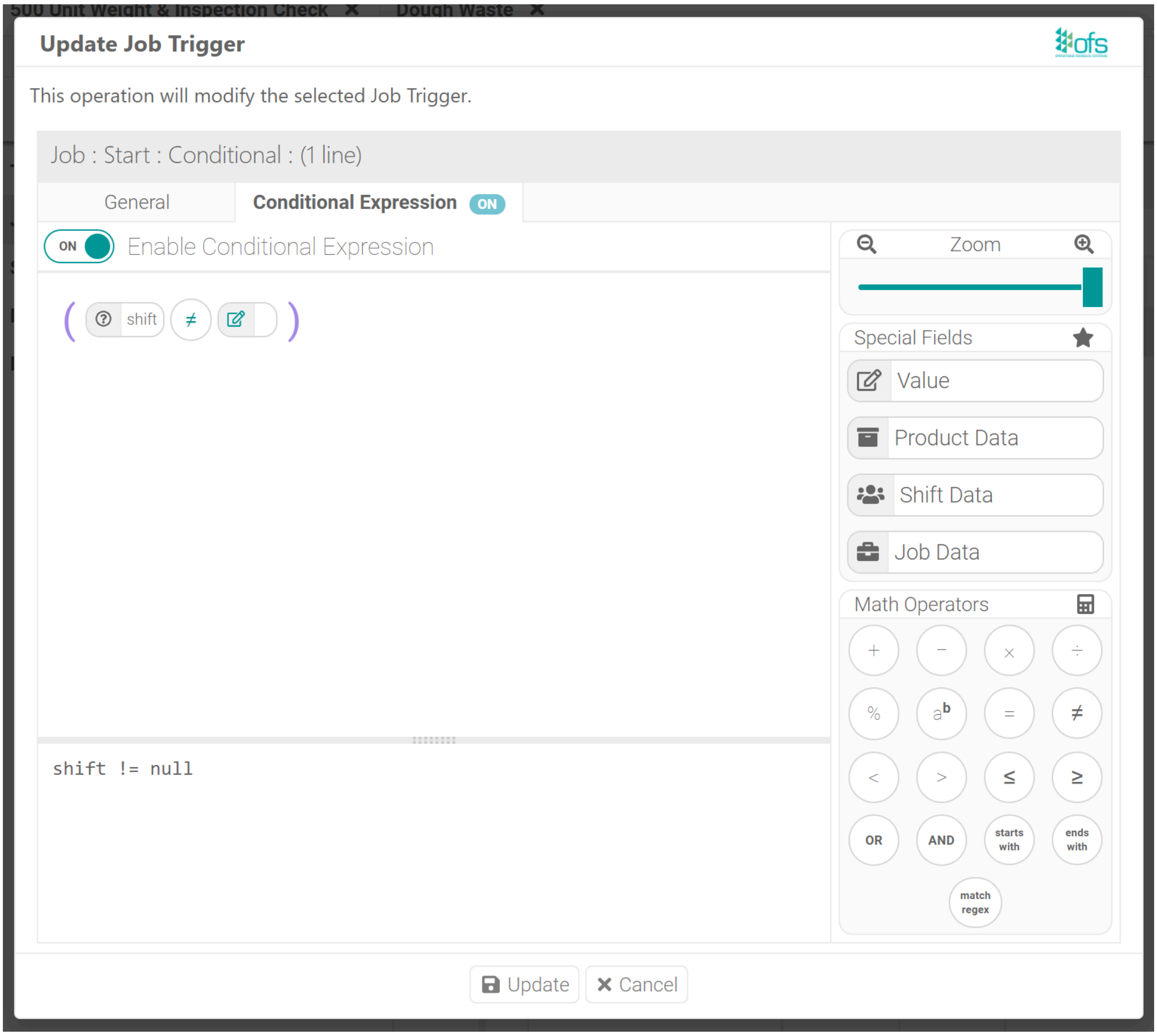
Wine out of spec
Edit Form Permission
PERMIT INVALID FORM

Passed with wine maker approval
Edit Form Permission
PERMIT VALID FORM

Out of spec approval
Edit Form Permission
PERMIT VALID FORM PERMIT INVALID FORM

How to stop time-based triggers from triggering outside of shift hours

Customer example: Sanitarium NZ have a half hourly check based on job. When they log out of their shift in the evenings they leave the job open as they will come back to that in the morning, but due to the job/time trigger and the standard structure/config of triggers the form will continue to trigger until someone selects "end" on the job.



Update Job Trigger

This operation will modify the selected Job Trigger.

Job : Start : Conditional : (1 line)

ON Enable Conditional Expression

```
shift != null
```

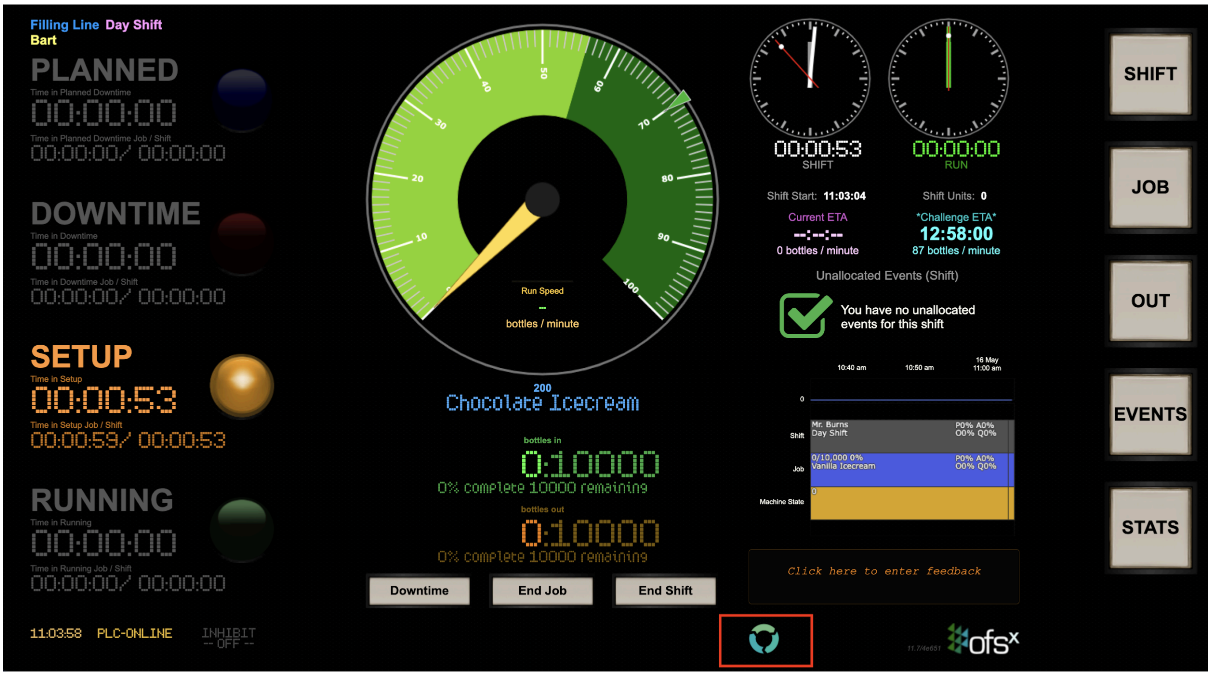
shift != null

Condition must be typed and isn't available from the drop-down menus. I have not yet tested it with other conditions.

How to manually raise a form?

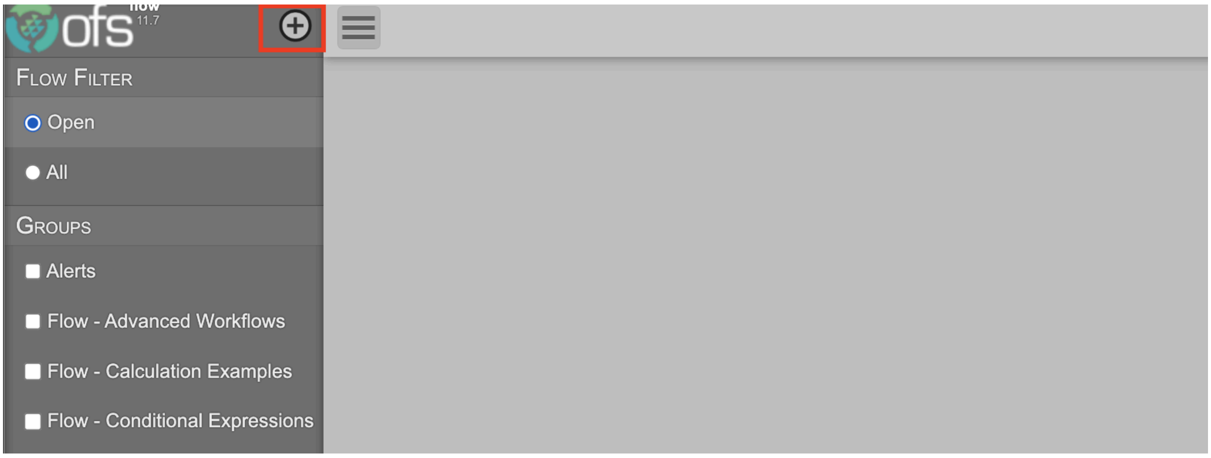
If you need to raise a form ad-hoc, you can do so by following the steps in this article.

Step 1 - Navigate to the Flow icon via the OFS menu or the OFS console

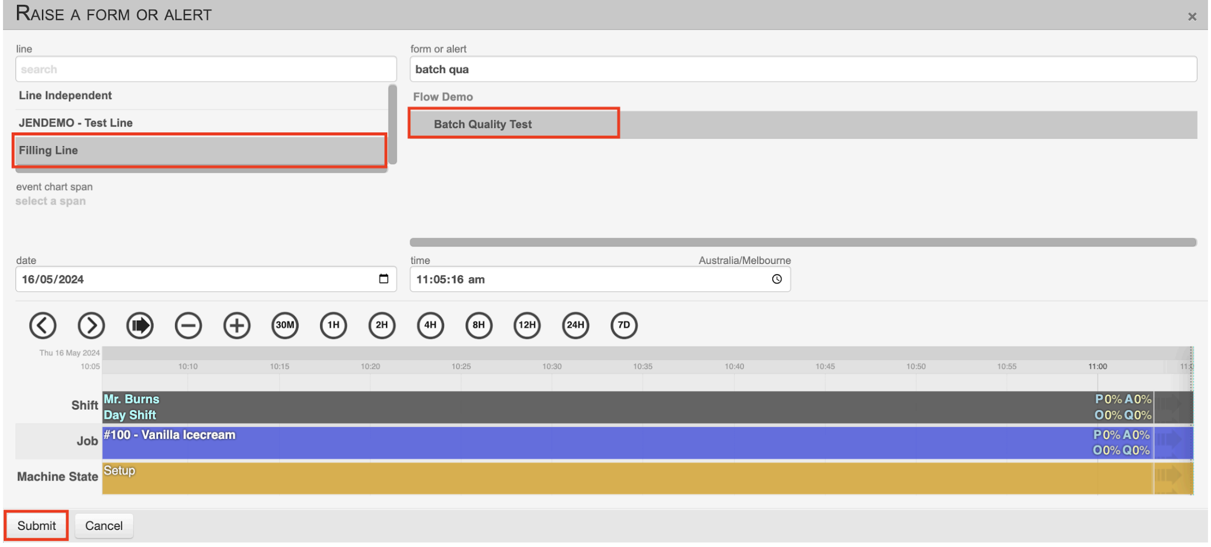


Step 2 - Click the + button in the top left corner

NOTE: The user must have an 'Analytics with editor' or 'Administrator' role.


ofs flow 11.7
Flow Filter
● Open
○ All
Groups
□ Alerts
□ Flow - Advanced Workflows
□ Flow - Calculation Examples
□ Flow - Conditional Expressions

Step 3 - Select the Line, select the form and click ‘Submit’



Raise a form or alert

line

search

Line Independent

JENDEMO - Test Line

Filling Line

event chart span

select a span

form or alert

batch qua

Flow Demo

Batch Quality Test

date

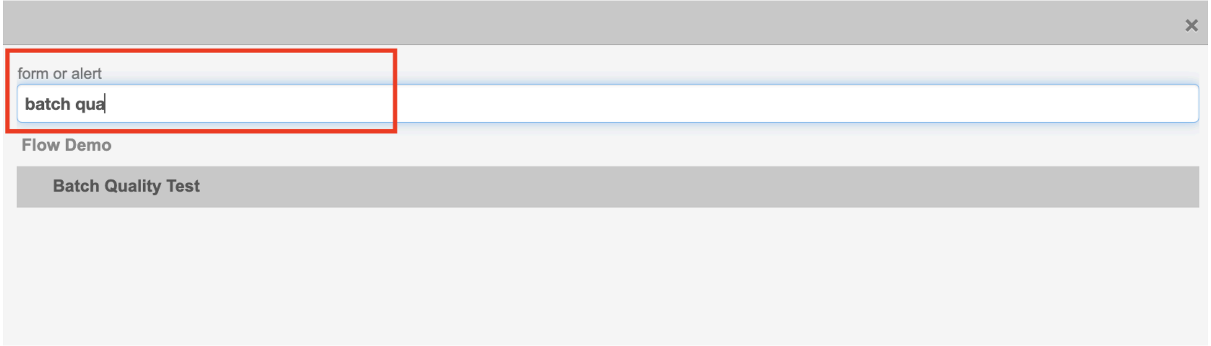
16/05/2024

time

Australia/Melbourne

11:05:16 am

- Find the form quickly by using the search bar



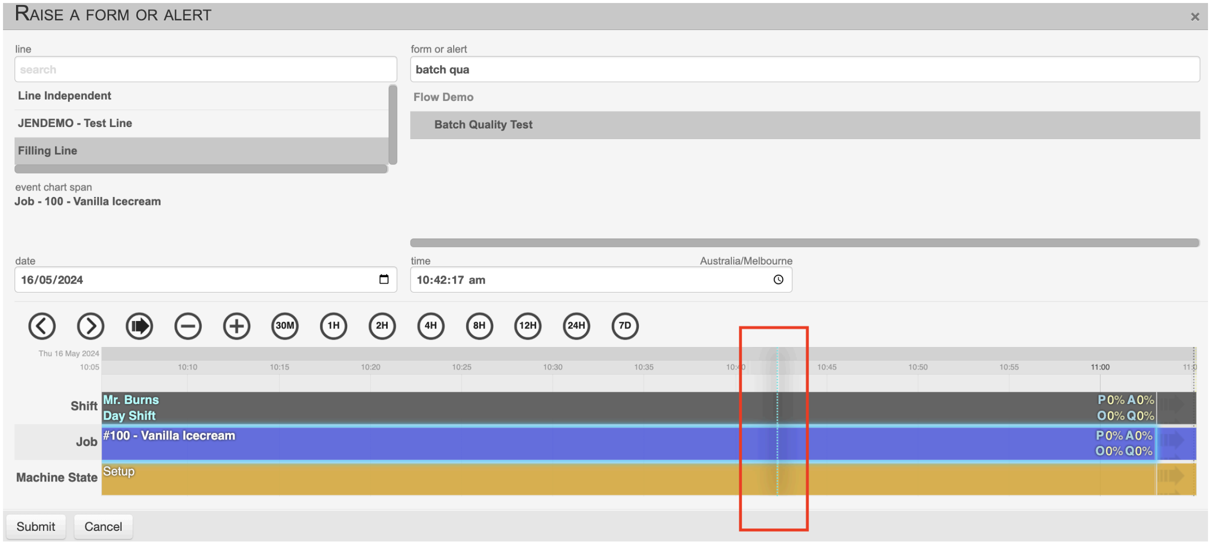
form or alert

batch qua

Flow Demo

Batch Quality Test

- Select a specific time via the Events Chart



RAISE A FORM OR ALERT

line

search

Line Independent

JENDEMO - Test Line

Filling Line

event chart span

Job - 100 - Vanilla Icecream

form or alert

batch qua

Flow Demo

Batch Quality Test

date: 16/05/2024

time: 10:42:17 am

Australia/Melbourne

Shift: Mr. Burns Day Shift

Job: #100 - Vanilla Icecream

Machine State: Setup

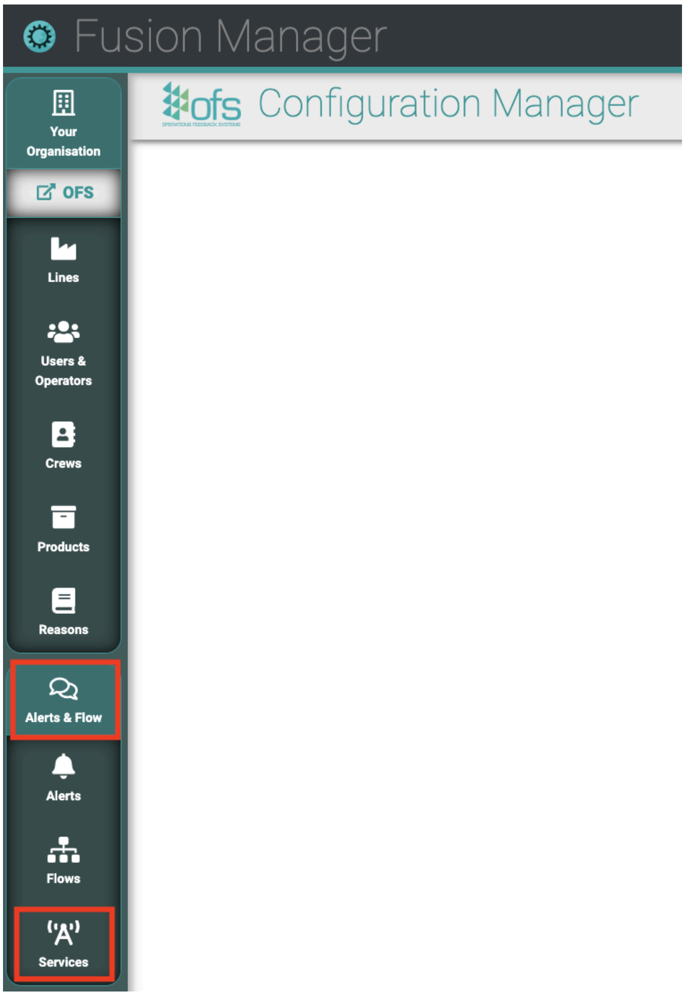
The form will appear in the Flow icon.

How to create a secondary alert in a form?

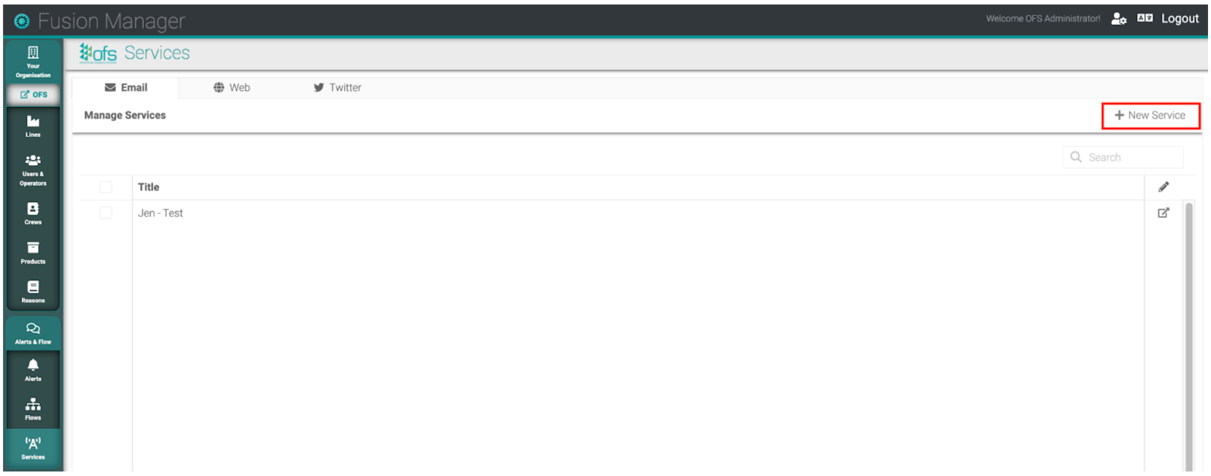
When a form is submitted, you can set up an alert to notify an individual. This is what we call a secondary alert. Example: When a form is submitted as failed, the supervisor receives an email alert immediately.

Creating the Service

Step 1 - From the left menu pane, Click "Alerts & Flow" and then click “Services”.

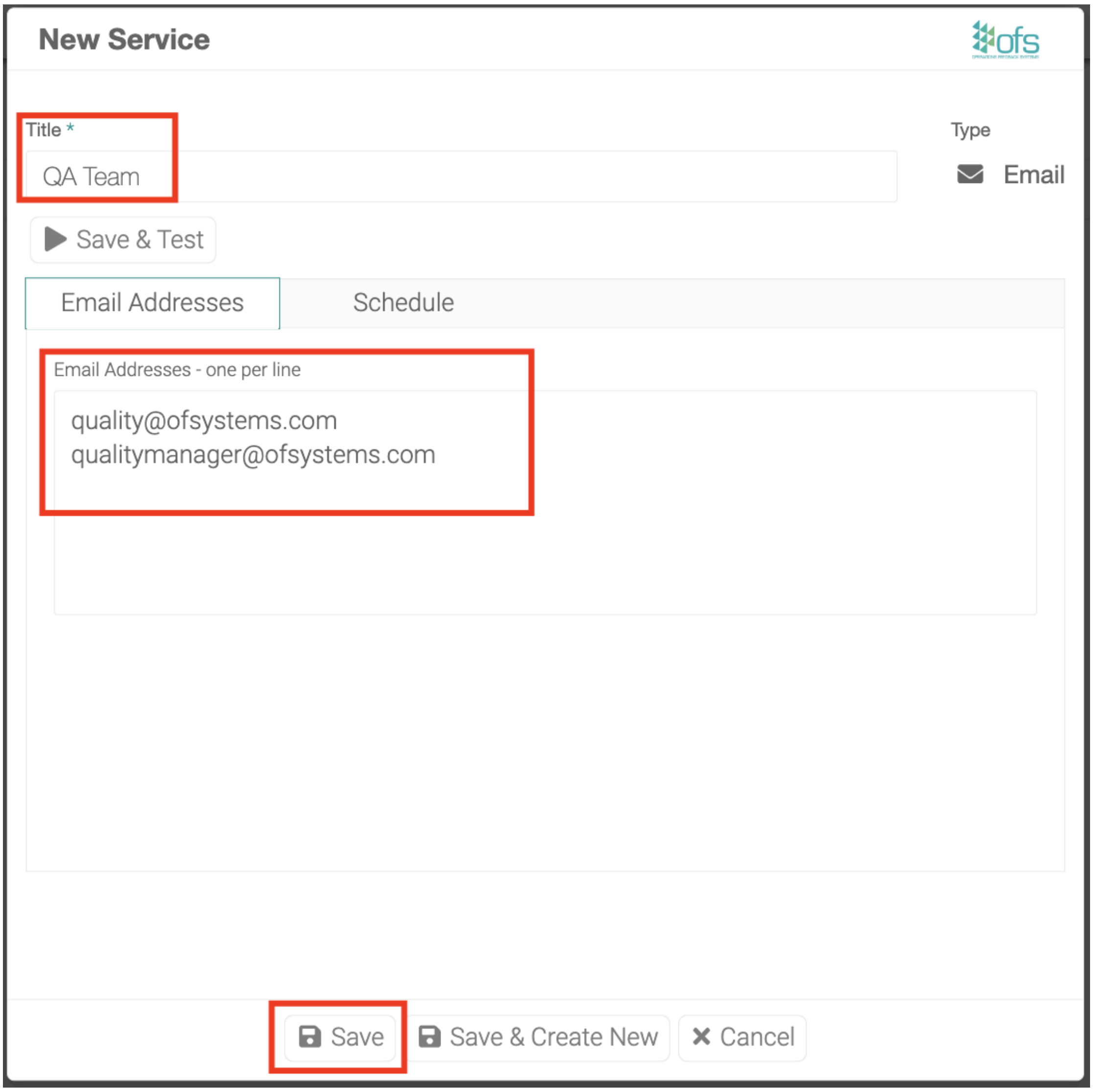


Step 2 - In the Email tab, click + "New Service".



Step 3 - Enter the Title of the service e.g. QA Team.

Step 4 - Enter the email addresses of the recipient(s) per line and click on "Save".



New Service

Title *: QA Team

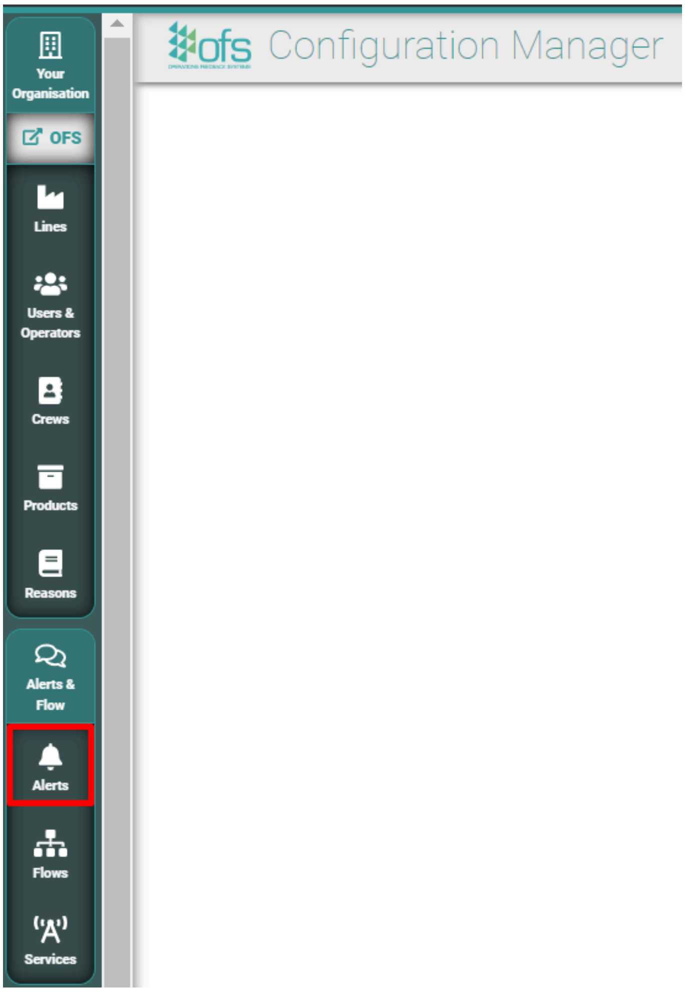
Type: Email

Email Addresses - one per line:

quality@ofsystems.com
qualitymanager@ofsystems.com

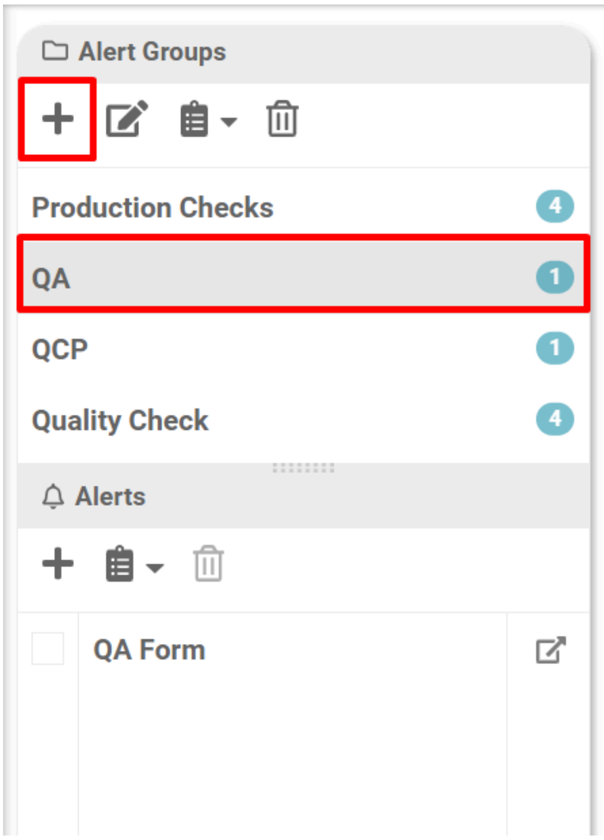
Creating the Alert

Step 1 - From the left menu pane, Click "Alerts & Flow" and then click “Alerts”.

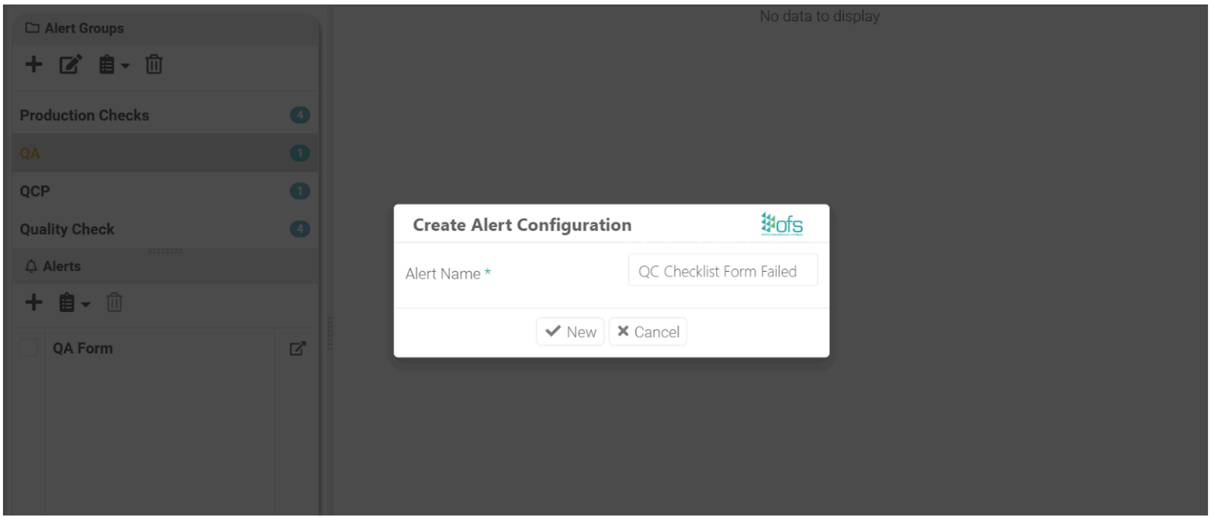


Step 2 - Create a new Alert Group or select from an Alert Group already created.

> Note: An Alert Group is a ‘folder’ or ‘category’ where all your forms live.



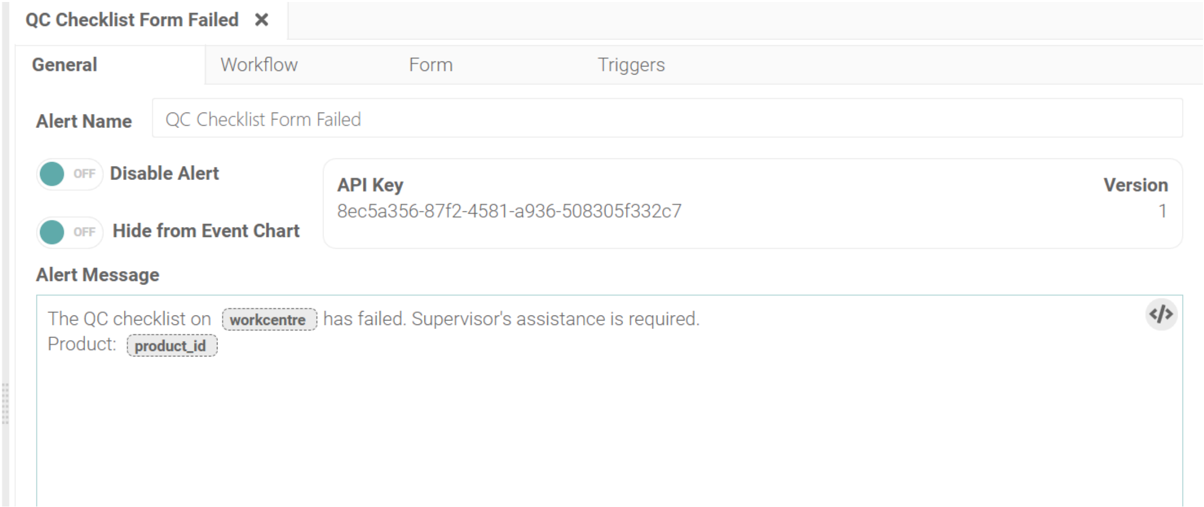
Step 3 - Create a new Alert e.g. QC Checklist Form Failed.



Alert Name * QC Checklist Form Failed

Step 4 - In the 'General' tab, enter the message you would like the email recipient to receive.

E.g. The QC checklist on has failed. Supervisor's assistance is required. Product:



QC Checklist Form Failed ✕

General | Workflow | Form | Triggers

Alert Name: QC Checklist Form Failed

OFF Disable Alert

OFF Hide from Event Chart

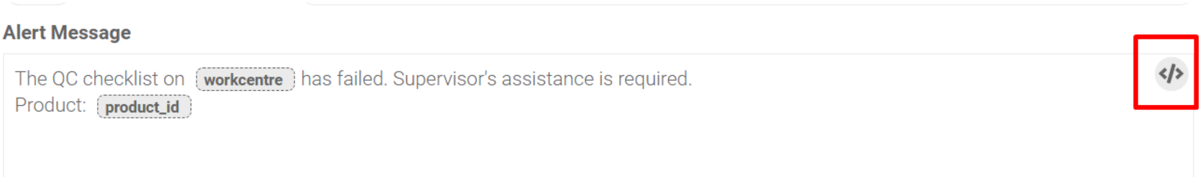
API Key: 8ec5a356-87f2-4581-a936-508305f332c7

Version: 1

Alert Message

The QC checklist on workcentre has failed. Supervisor's assistance is required.
Product: product_id

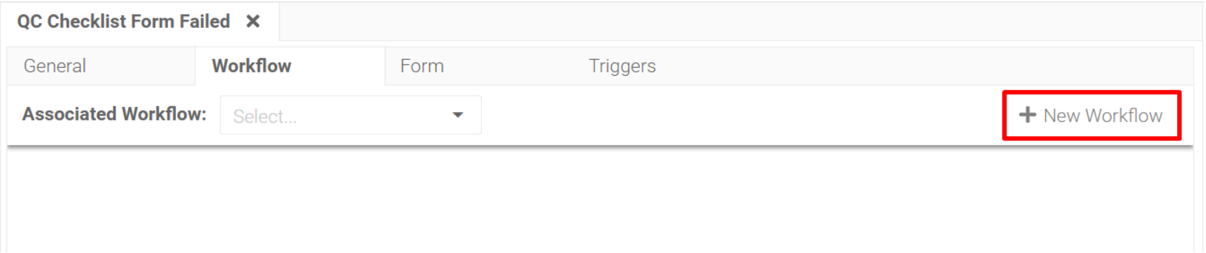
Note: The metadata such as product ID can be found in the below icon:



Alert Message

The QC checklist on workcentre has failed. Supervisor's assistance is required.
Product: product_id

Step 5 - Create a new workflow in the workflow tab by clicking "+ New Workflow".

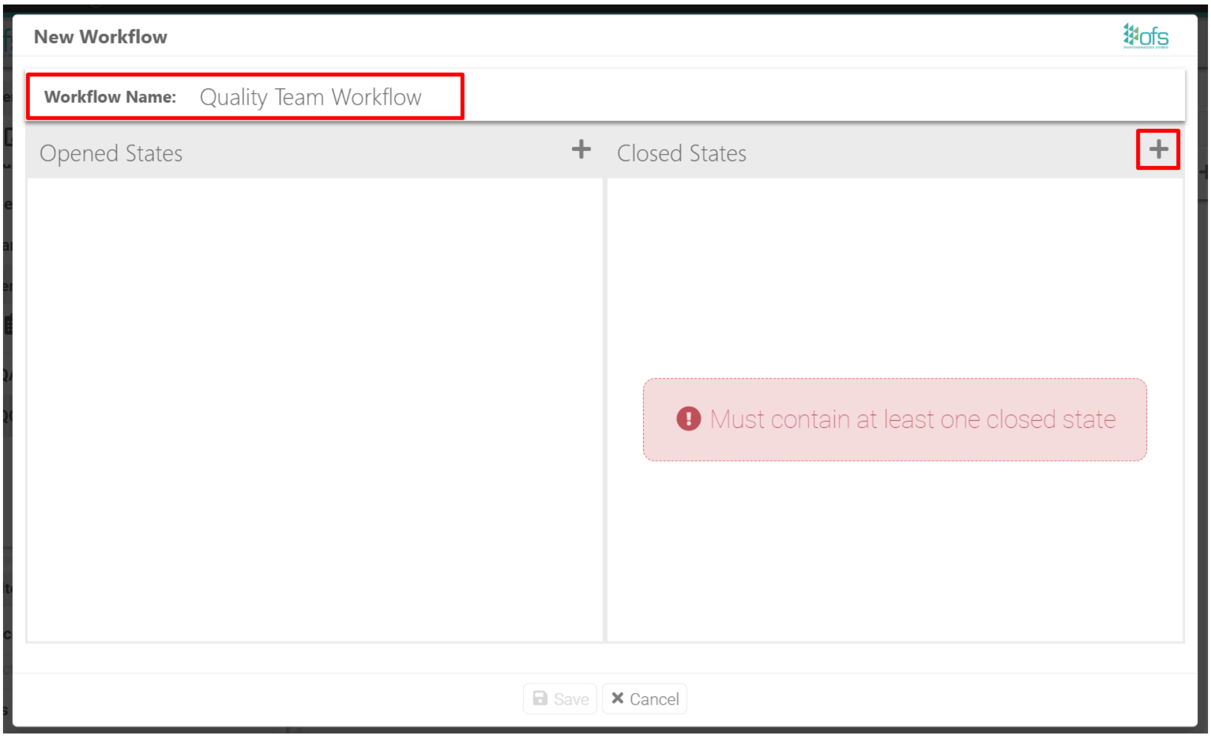


QC Checklist Form Failed ✕

General | Workflow | Form | Triggers

Associated Workflow: Select...

Step 6 - Name the New workflow and add a "Closed State".



New Workflow

Workflow Name: Quality Team Workflow

Must contain at least one closed state

Step 7 - Click + "Add State”.

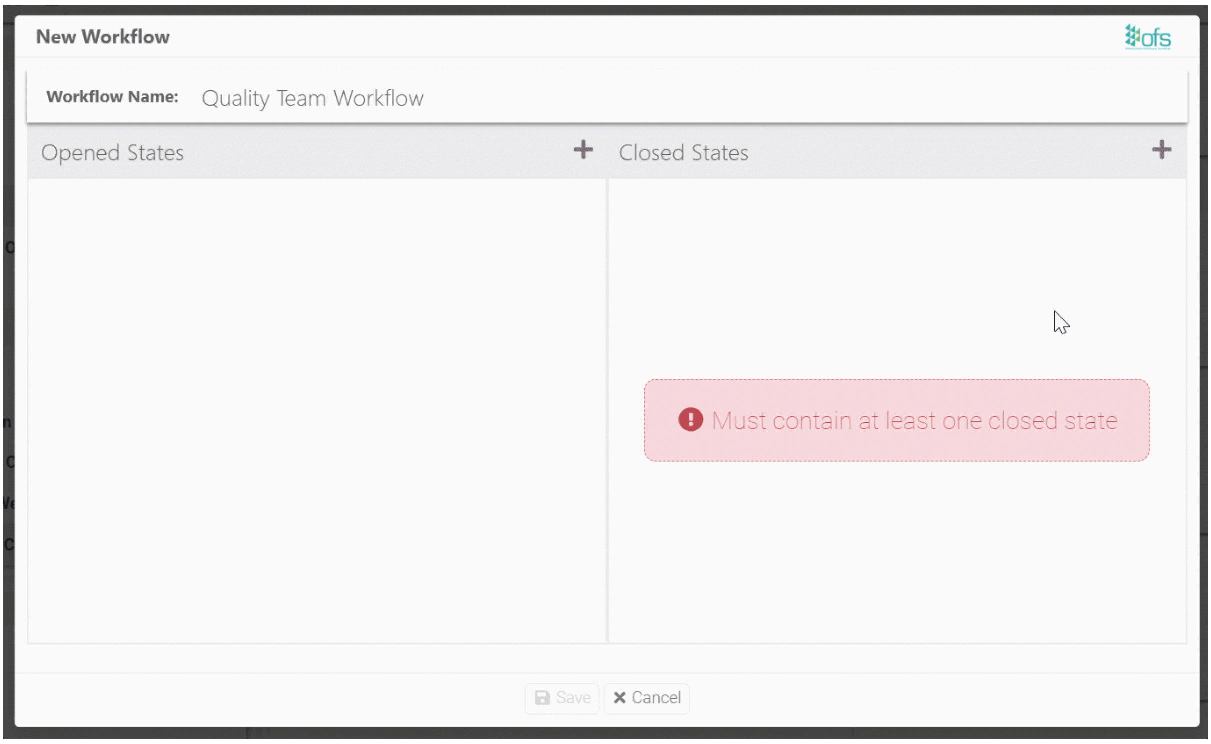
Step 8 - Enter the name of the state e.g. Email Sent.

Step 9 - Select the desired colour and “Add State”.

Step 10 - Edit Form Permissions and toggle both ‘Permit valid Form’ and ‘Permit Invalid Form’ <u>OFF</u>.

NOTE:

- Permit Valid Form allows operators to submit this form when all fields are valid.
- Permit Invalid Form allows operators to submit the form when there is an invalid field.
- We don’t want either of these turned ON for alerts as this does not need to show as an option when submitting a form.

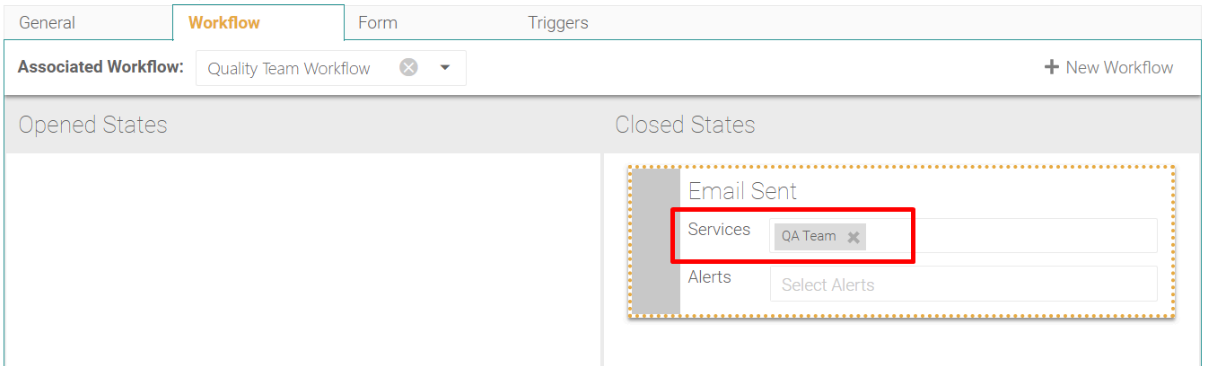


New Workflow

Workflow Name: Quality Team Workflow

Must contain at least one closed state

Step 11 - In Services, insert the email recipient of the relevant department for this particular Alert e.g. QA Team.

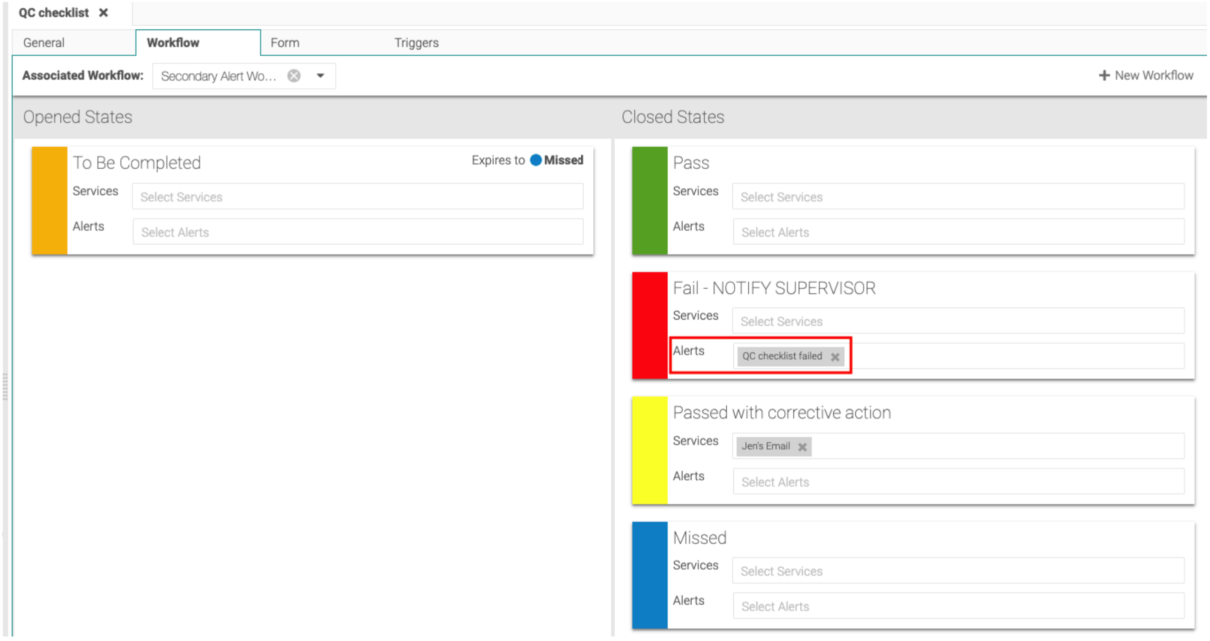


Associated Workflow: Quality Team Workflow

Services: QA Team

Alerts: Select Alerts

Step 12 - Finally, in the primary alert e.g. QC Checklist, attach the secondary alert 'QC Checklist Failed' to the Alerts section of the desired workstate.



QC checklist ✕

General | Workflow | Form | Triggers

Associated Workflow: Secondary Alert Wo... + New Workflow

Opened States

To Be Completed — Expires to ● Missed
Services: Select Services
Alerts: Select Alerts

Closed States

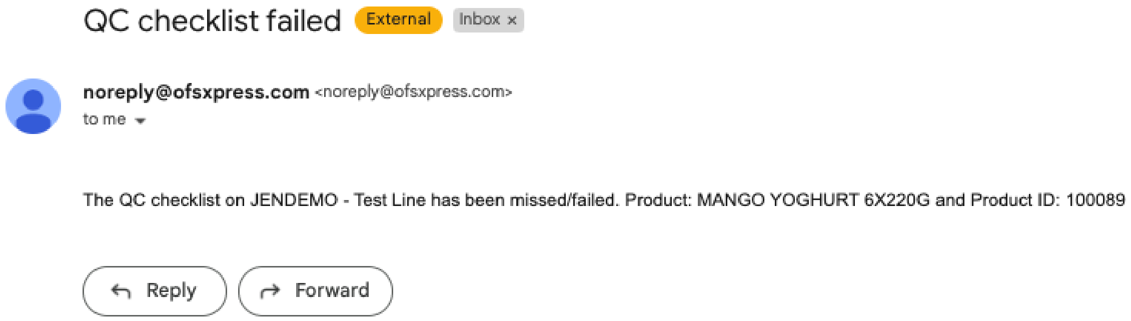
Pass
Services: Select Services
Alerts: Select Alerts

Fail - NOTIFY SUPERVISOR
Services: Select Services
Alerts: QC checklist failed ✕

Passed with corrective action
Services: Jen's Email ✕
Alerts: Select Alerts

Missed
Services: Select Services
Alerts: Select Alerts

Now, when the form fails, an email with the below message will be sent:



QC checklist failed External Inbox ×

noreply@ofsxpress.com <noreply@ofsxpress.com>
to me

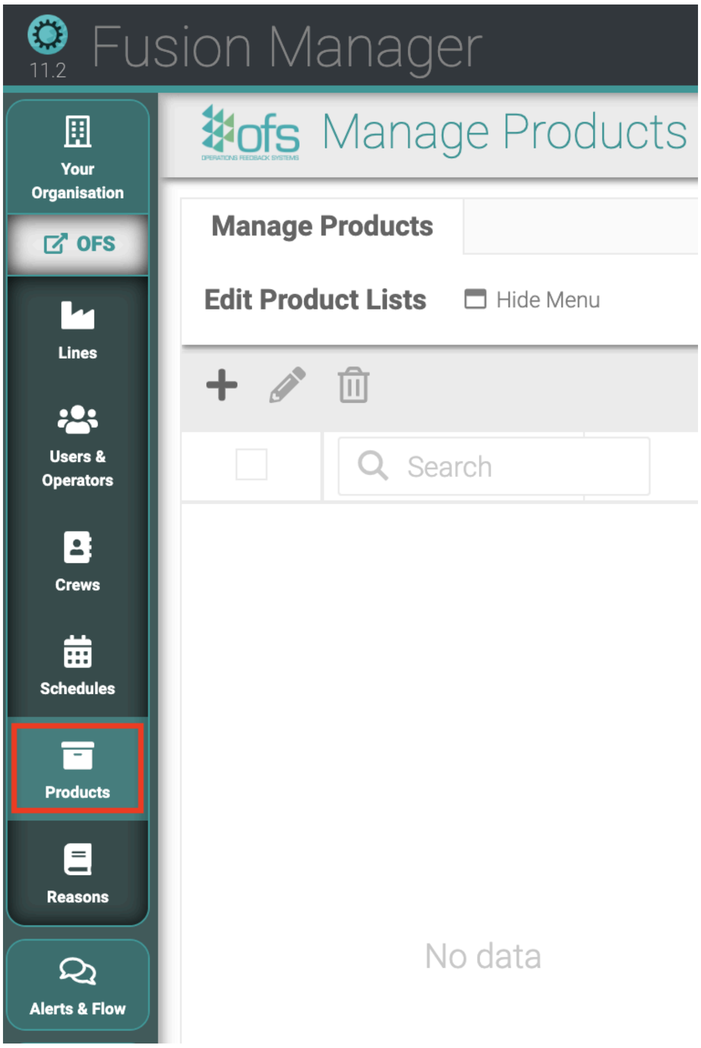
The QC checklist on JENDEMO - Test Line has been missed/failed. Product: MANGO YOGHURT 6X220G and Product ID: 100089

How to add an image link in a Flow form?

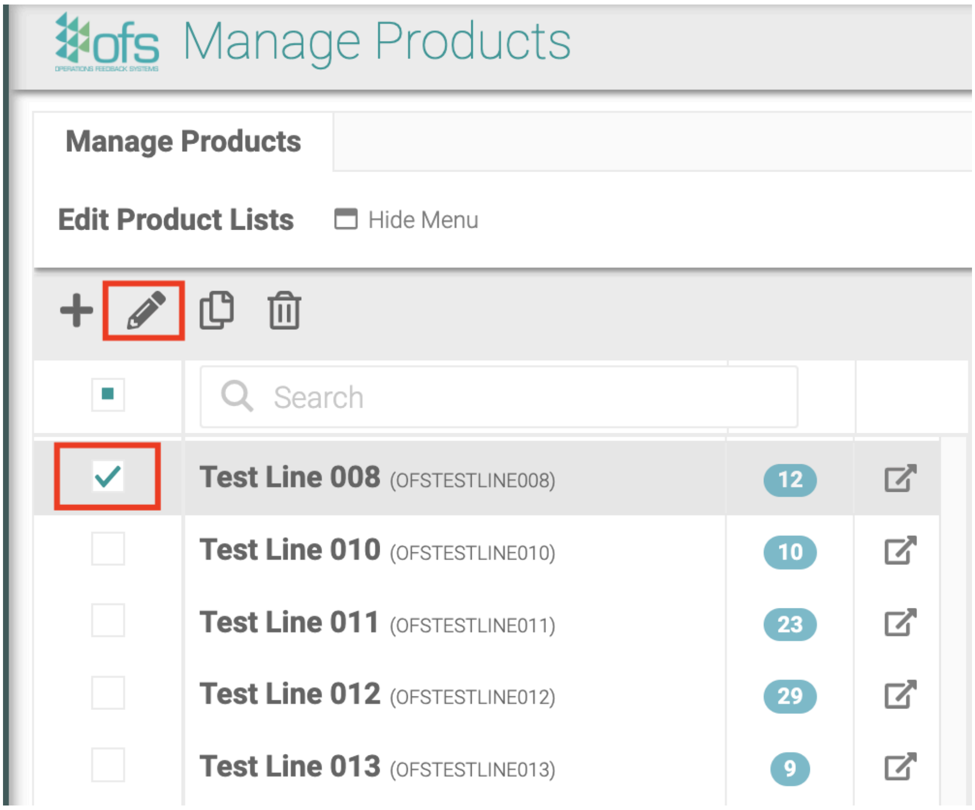
OFS Flow forms cannot store images, however, you can easily create a link to a product image.

Creating the URL link in the product data.

Step 1 - From Fusion Manager, go to “Products”.



Step 2 - Tick the line you want to add the images to and then click the pencil icon to edit.

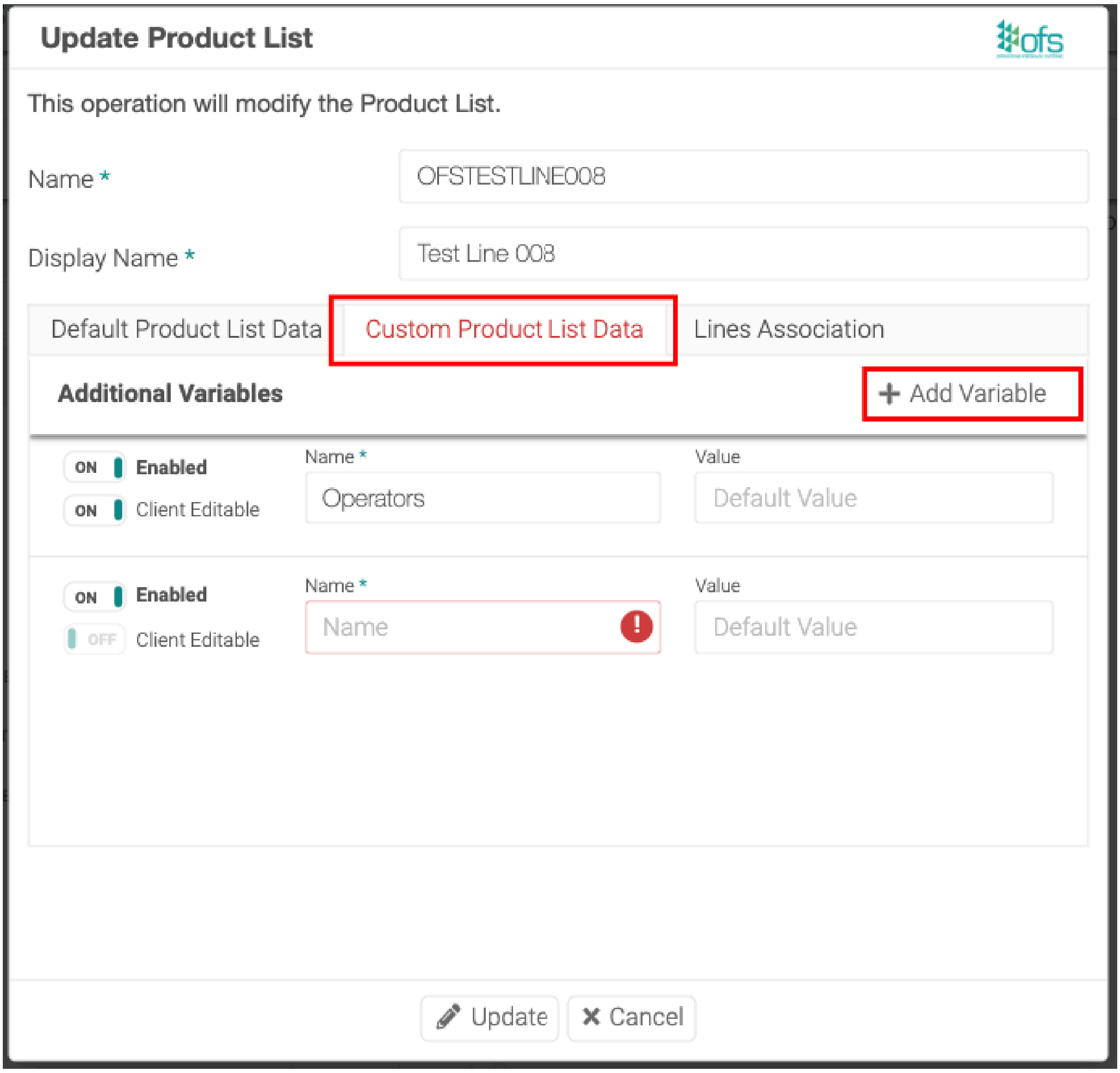

Manage Products

Manage Products

Edit Product Lists

☑	Test Line 008 (OFSTESTLINE008)	12	
□	Test Line 010 (OFSTESTLINE010)	10	
□	Test Line 011 (OFSTESTLINE011)	23	
□	Test Line 012 (OFSTESTLINE012)	29	
□	Test Line 013 (OFSTESTLINE013)	9	

Step 3 - Click "Custom Product List Data" and "Add Variable".



Update Product List

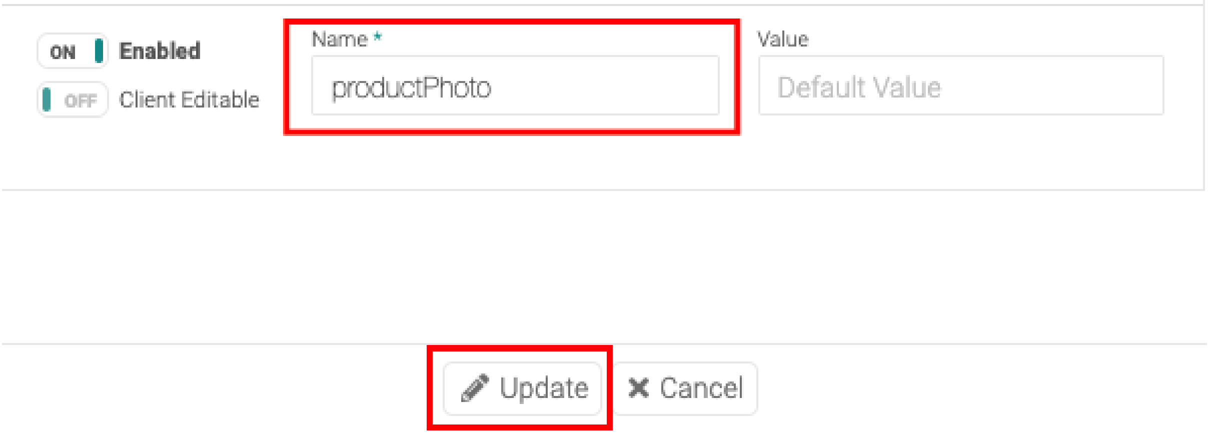
This operation will modify the Product List.

Name * OFSTESTLINE008

Display Name * Test Line 008

Step 4 - Enter the Name e.g. productPhoto. Click "Update" and "Save" changes.

> Note: The first letter of the first word must be lowercase and the first letter of the second word must be capital and so on.



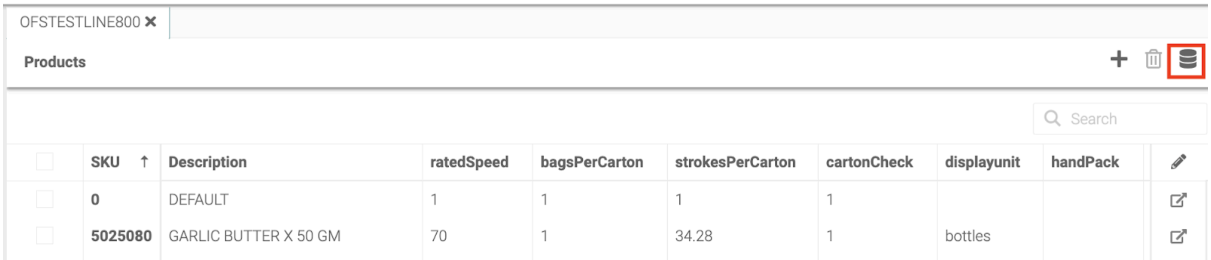
ON Enabled

OFF Client Editable

Name * productPhoto

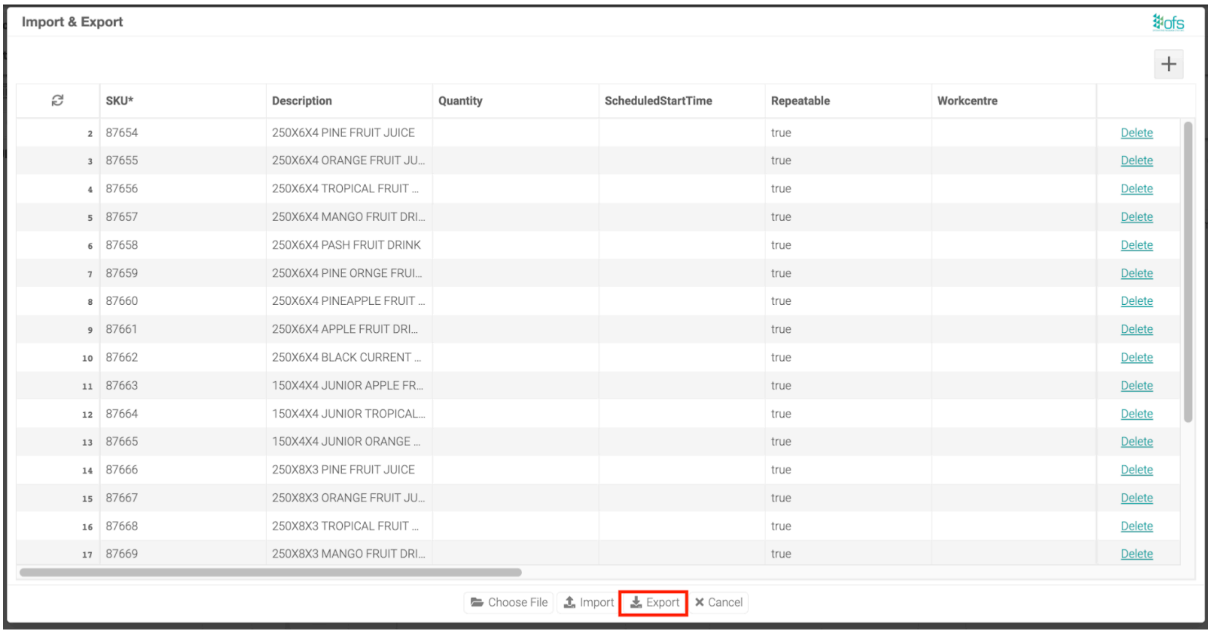
Value Default Value

Step 5 - In the products list, click the Import & Export Icon, click “Export” and open the .csv file.



Products

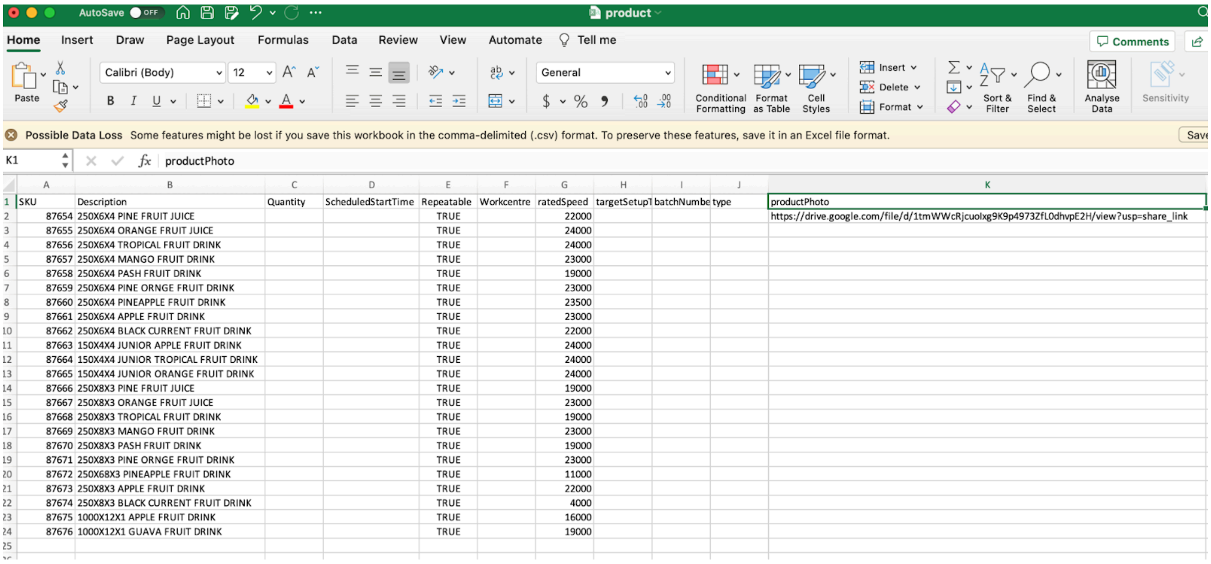
	SKU ↑	Description	ratedSpeed	bagsPerCarton	strokesPerCarton	cartonCheck	displayunit	handPack
□	**0**	DEFAULT	1	1	1	1		
□	**5025080**	GARLIC BUTTER X 50 GM	70	1	34.28	1	bottles	



Import & Export

	SKU*	Description	Quantity	ScheduledStartTime	Repeatable	Workcentre	
2	87654	250X6X4 PINE FRUIT JUICE			true		Delete
3	87655	250X6X4 ORANGE FRUIT JU...			true		Delete
4	87656	250X6X4 TROPICAL FRUIT ...			true		Delete
5	87657	250X6X4 MANGO FRUIT DRI...			true		Delete
6	87658	250X6X4 PASH FRUIT DRINK			true		Delete
7	87659	250X6X4 PINE ORNGE FRUI...			true		Delete
8	87660	250X6X4 PINEAPPLE FRUIT ...			true		Delete
9	87661	250X6X4 APPLE FRUIT DRI...			true		Delete
10	87662	250X6X4 BLACK CURRENT ...			true		Delete
11	87663	150X4X4 JUNIOR APPLE FR...			true		Delete
12	87664	150X4X4 JUNIOR TROPICAL...			true		Delete
13	87665	150X4X4 JUNIOR ORANGE ...			true		Delete
14	87666	250X8X3 PINE FRUIT JUICE			true		Delete
15	87667	250X8X3 ORANGE FRUIT JU...			true		Delete
16	87668	250X8X3 TROPICAL FRUIT ...			true		Delete
17	87669	250X8X3 MANGO FRUIT DRI...			true		Delete

Step 6 - In the productPhoto column, insert each individual link to their respective images and 'Save' changes.

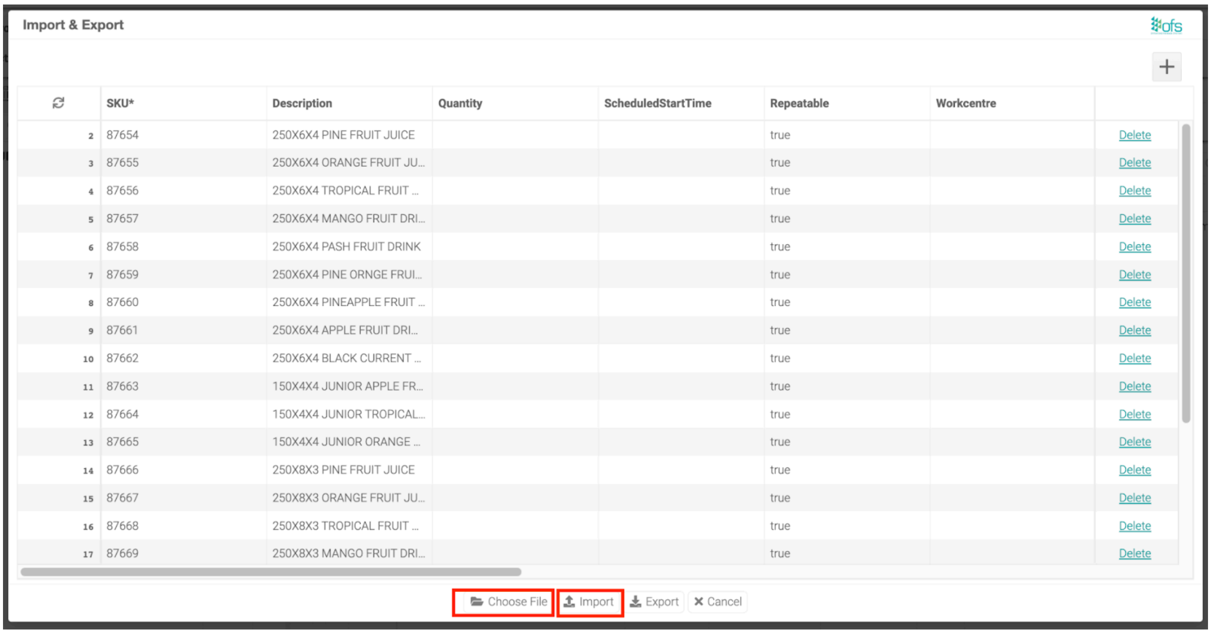


Possible Data Loss Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format.

K1 productPhoto

	SKU	Description	Quantity	ScheduledStartTime	Repeatable	Workcentre	ratedSpeed	targetSetupT	batchNumbe	type	productPhoto
2	87654	250X6X4 PINE FRUIT JUICE			TRUE		22000				https://drive.google.com/file/d/1tmWWcRjcuolxg9K9p4973ZfL0dhvpE2H/view?usp=share_link
3	87655	250X6X4 ORANGE FRUIT JUICE			TRUE		24000				
4	87656	250X6X4 TROPICAL FRUIT DRINK			TRUE		24000				
5	87657	250X6X4 MANGO FRUIT DRINK			TRUE		23000				
6	87658	250X6X4 PASH FRUIT DRINK			TRUE		19000				
7	87659	250X6X4 PINE ORNGE FRUIT DRINK			TRUE		23000				
8	87660	250X6X4 PINEAPPLE FRUIT DRINK			TRUE		23500				
9	87661	250X6X4 APPLE FRUIT DRINK			TRUE		23000				
10	87662	250X6X4 BLACK CURRENT FRUIT DRINK			TRUE		22000				
11	87663	150X4X4 JUNIOR APPLE FRUIT DRINK			TRUE		24000				
12	87664	150X4X4 JUNIOR TROPICAL FRUIT DRINK			TRUE		24000				
13	87665	150X4X4 JUNIOR ORANGE FRUIT DRINK			TRUE		24000				
14	87666	250X8X3 PINE FRUIT JUICE			TRUE		19000				
15	87667	250X8X3 ORANGE FRUIT JUICE			TRUE		23000				
16	87668	250X8X3 TROPICAL FRUIT DRINK			TRUE		19000				
17	87669	250X8X3 MANGO FRUIT DRINK			TRUE		23000				
18	87670	250X8X3 PASH FRUIT DRINK			TRUE		19000				
19	87671	250X8X3 PINE ORNGE FRUIT DRINK			TRUE		23000				
20	87672	250X68X3 PINEAPPLE FRUIT DRINK			TRUE		11000				
21	87673	250X8X3 APPLE FRUIT DRINK			TRUE		22000				
22	87674	250X8X3 BLACK CURRENT FRUIT DRINK			TRUE		4000				
23	87675	1000X12X1 APPLE FRUIT DRINK			TRUE		16000				
24	87676	1000X12X1 GUAVA FRUIT DRINK			TRUE		19000				

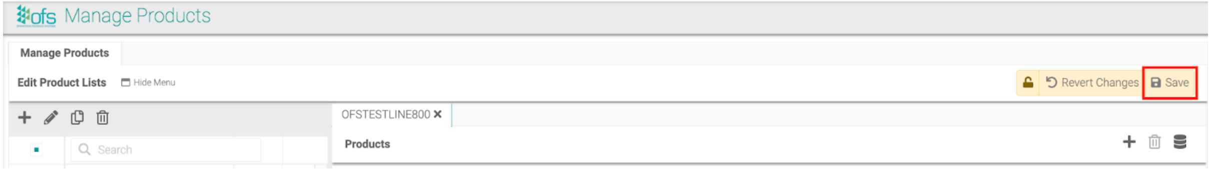
Step 7 - In Fusion Manager within the Import & Export Icon, click "Choose File" and select the saved .csv file. Then, click "Import".



Import & Export

	SKU*	Description	Quantity	ScheduledStartTime	Repeatable	Workcentre	
2	87654	250X6X4 PINE FRUIT JUICE			true		Delete
3	87655	250X6X4 ORANGE FRUIT JU...			true		Delete
4	87656	250X6X4 TROPICAL FRUIT ...			true		Delete
5	87657	250X6X4 MANGO FRUIT DRI...			true		Delete
6	87658	250X6X4 PASH FRUIT DRINK			true		Delete
7	87659	250X6X4 PINE ORNGE FRUI...			true		Delete
8	87660	250X6X4 PINEAPPLE FRUIT ...			true		Delete
9	87661	250X6X4 APPLE FRUIT DRI...			true		Delete
10	87662	250X6X4 BLACK CURRENT ...			true		Delete
11	87663	150X4X4 JUNIOR APPLE FR...			true		Delete
12	87664	150X4X4 JUNIOR TROPICAL...			true		Delete
13	87665	150X4X4 JUNIOR ORANGE ...			true		Delete
14	87666	250X8X3 PINE FRUIT JUICE			true		Delete
15	87667	250X8X3 ORANGE FRUIT JU...			true		Delete
16	87668	250X8X3 TROPICAL FRUIT ...			true		Delete
17	87669	250X8X3 MANGO FRUIT DRI...			true		Delete

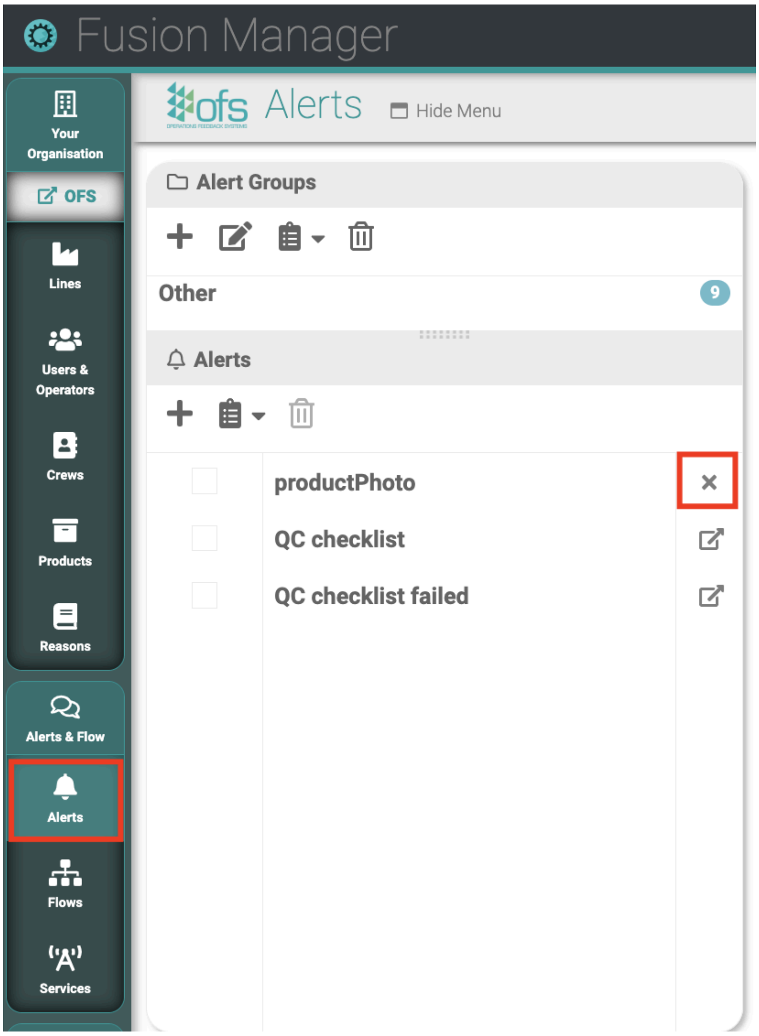
Step 8 - "Save" Changes.



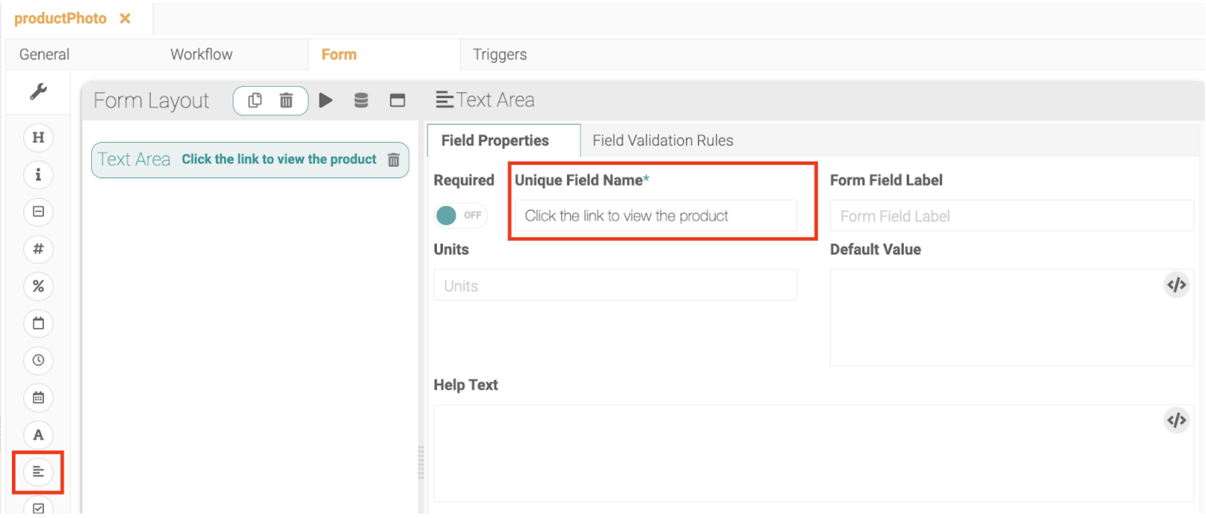
Inputting the image into the Flow form.

Step 1 - From Fusion Manager, go to Alerts.

Step 2 - Select the form you'd like to input the image.



Step 3 - In the 'Field Properties' tab, enter the Unique Field Name e.g. Click the link to view the product.



productPhoto ×

General | Workflow | Form | Triggers

Form Layout | Text Area

Text Area Click the link to view the product

Field Properties | Field Validation Rules

Required OFF

Unique Field Name*: Click the link to view the product

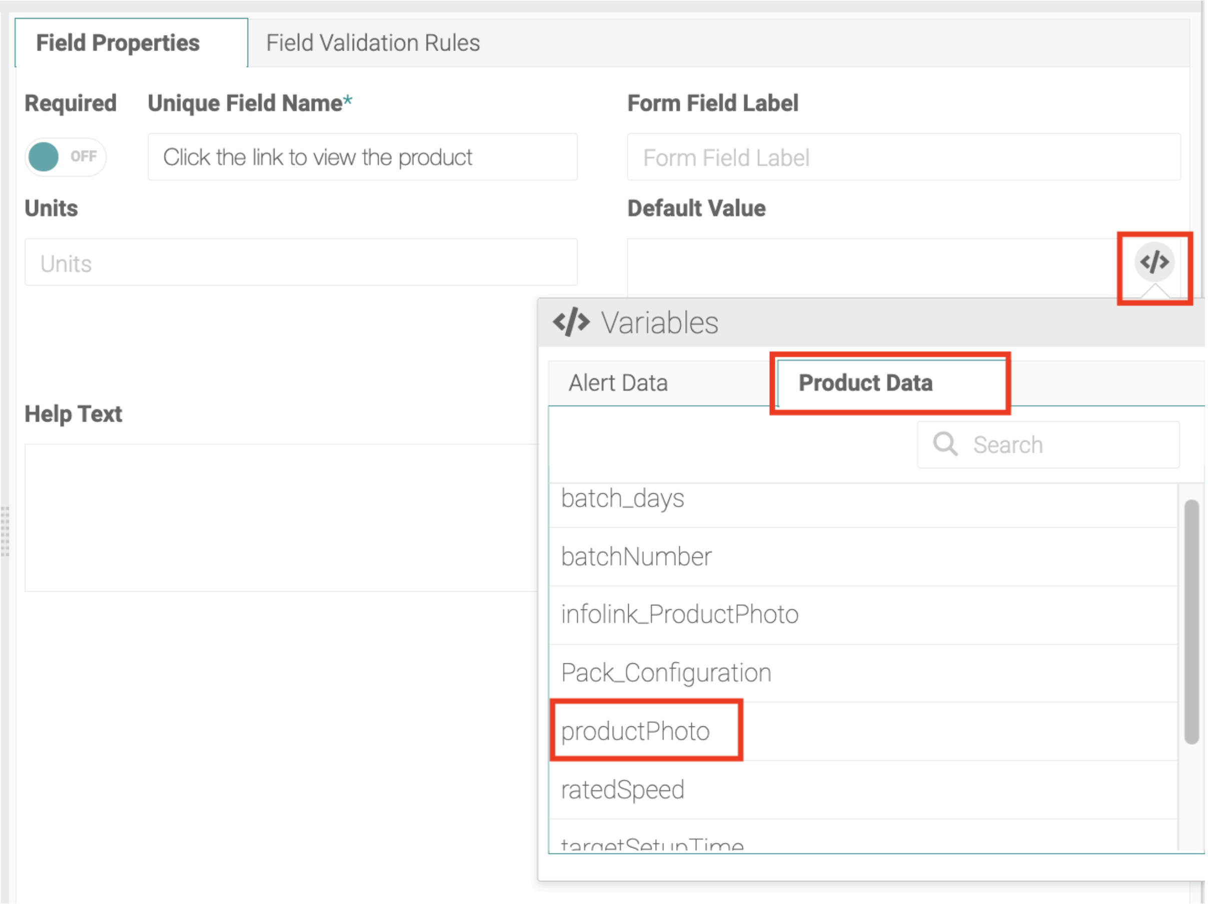
Form Field Label: Form Field Label

Units: Units

Default Value

Help Text

Step 4 - In 'Default Value', click the variable icon and select the 'product data' e.g. productPhoto.



Field Properties | Field Validation Rules

Required OFF

Unique Field Name*: Click the link to view the product

Form Field Label: Form Field Label

Units: Units

Default Value

Help Text

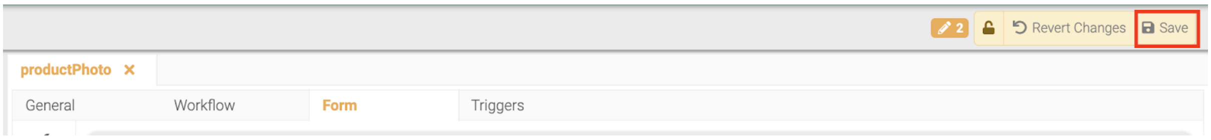
</> Variables

Alert Data | Product Data

Search

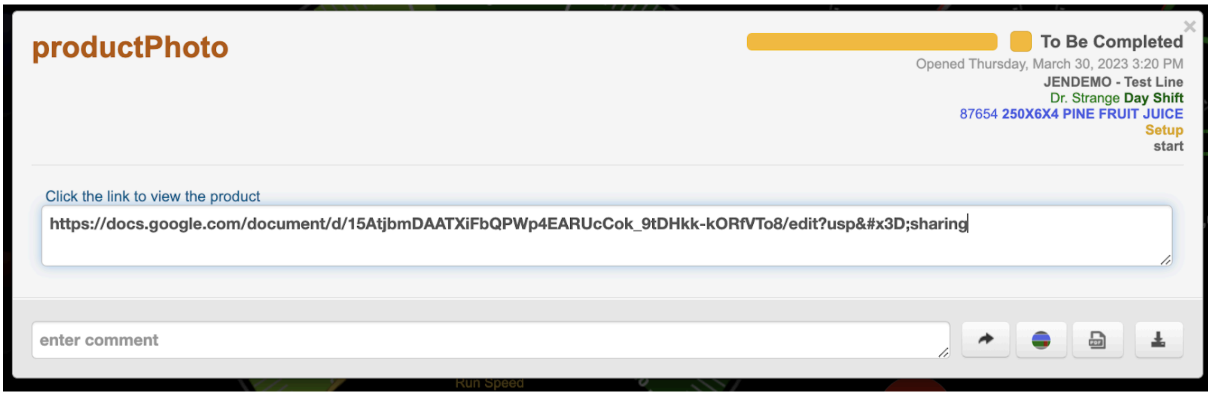
batch_days
batchNumber
infolink_ProductPhoto
Pack_Configuration
productPhoto
ratedSpeed
targetSetupTime

Step 5 - “Save” Changes.



Note: Please ensure the form has a workflow and a trigger before deploying the form on the Console.

Now, when the form is raised on the Console, operators can now copy the link into a new tab and view the image.


productPhoto

To Be Completed
Opened Thursday, March 30, 2023 3:20 PM
JENDEMO - Test Line
Dr. Strange Day Shift
87654 250X6X4 PINE FRUIT JUICE
Setup
start

Click the link to view the product

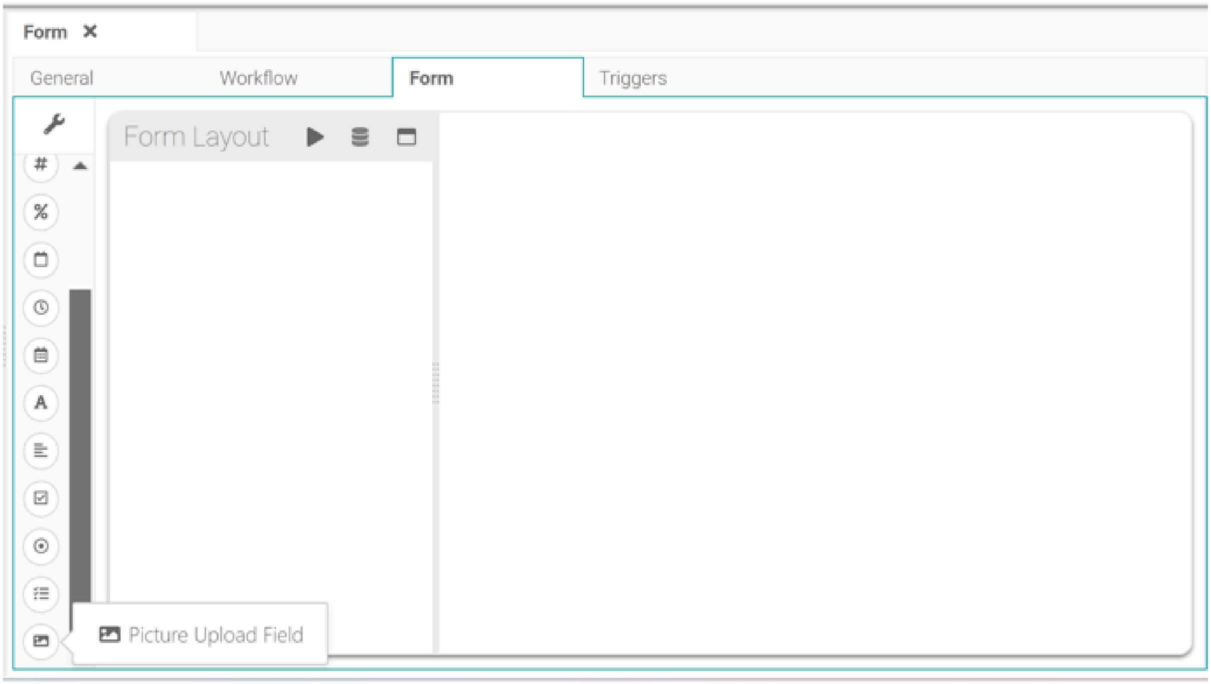
https://docs.google.com/document/d/15AtjbmDAATXiFbQPWp4EARUcCok_9tDHkk-kORfVTo8/edit?usp&#x3D;sharing

How to add Pictures to my form?

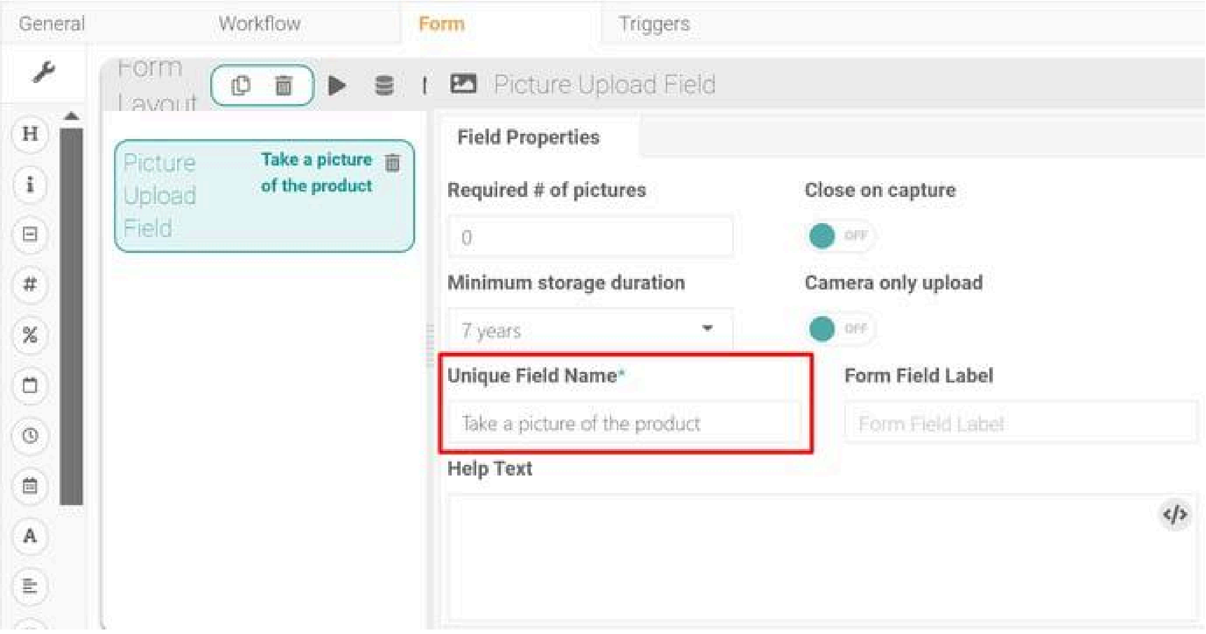
Picture Fields adds the capability to seamlessly capture and upload images in your forms. This article guides you through the features and how to create the picture field in Fusion Manager.

Picture Field Configuration in Fusion Manager

Step 1 - In your form, drag in or click on the picture icon from the left-hand side.



Step 2 - Enter the 'Unique Field Name'.



Required # of pictures: 0

Close on capture: OFF

Minimum storage duration: 7 years

Camera only upload: OFF

Unique Field Name*: Take a picture of the product

Form Field Label: Form Field Label

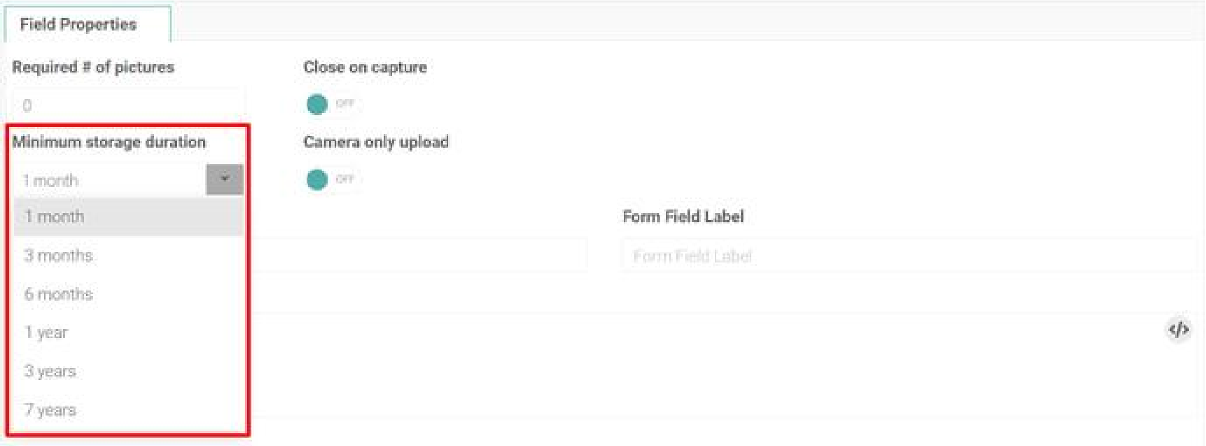
Help Text

Step 3 - The picture field has the following configuration options that are unique to this field type:

The *Unique Field Name, Form Field Label* and *Help Text* fields are the same as those used in other field types.

- Required # of pictures: This is the minimum number of mandatory images that must be uploaded.
- Minimum storage duration: This specifies the *minimum* amount of time that uploaded pictures should be stored.

Pictures are not automatically deleted when their storage duration exceeds the minimum storage duration. Deleting pictures will be entirely at the user's discretion.



Field Properties

Required # of pictures: 0

Close on capture: OFF

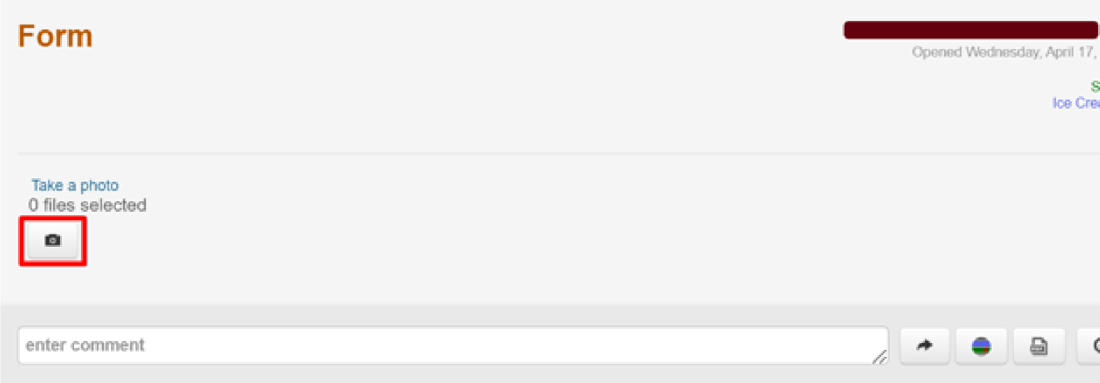
Minimum storage duration: 1 month

Camera only upload: OFF

Form Field Label: Form Field Label

- Close on capture: Determines whether the camera should close or remain open when a picture is taken.
- Camera-only upload: Determines whether pictures can be selected from the device file system or not.
    - If *Camera Only Upload* is on, the camera button will be available and pictures must be taken with the device

camera.



Form

[redacted]

Opened Wednesday, April 17,

S

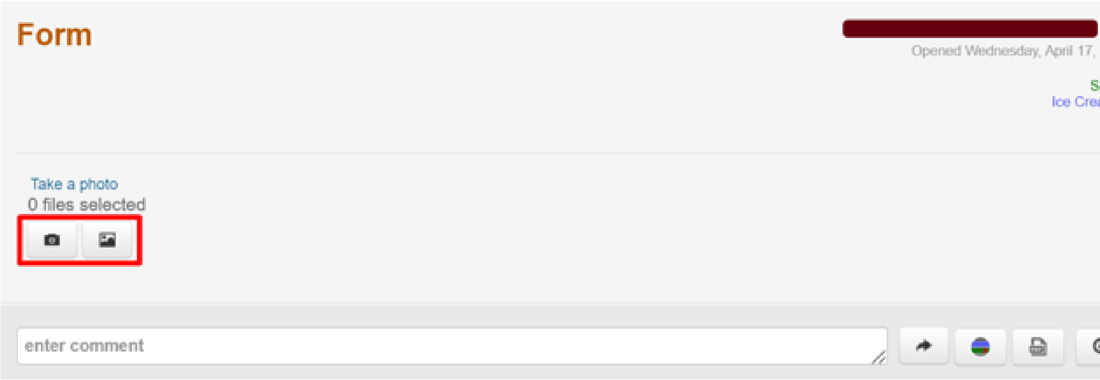
Ice Cre

Take a photo

0 files selected

enter comment

- ○ If *Camera Only Upload* is off, the user is allowed to select and upload from the device file system in addition to the camera button.



Form

[redacted]

Opened Wednesday, April 17,

S

Ice Cre

Take a photo

0 files selected

enter comment

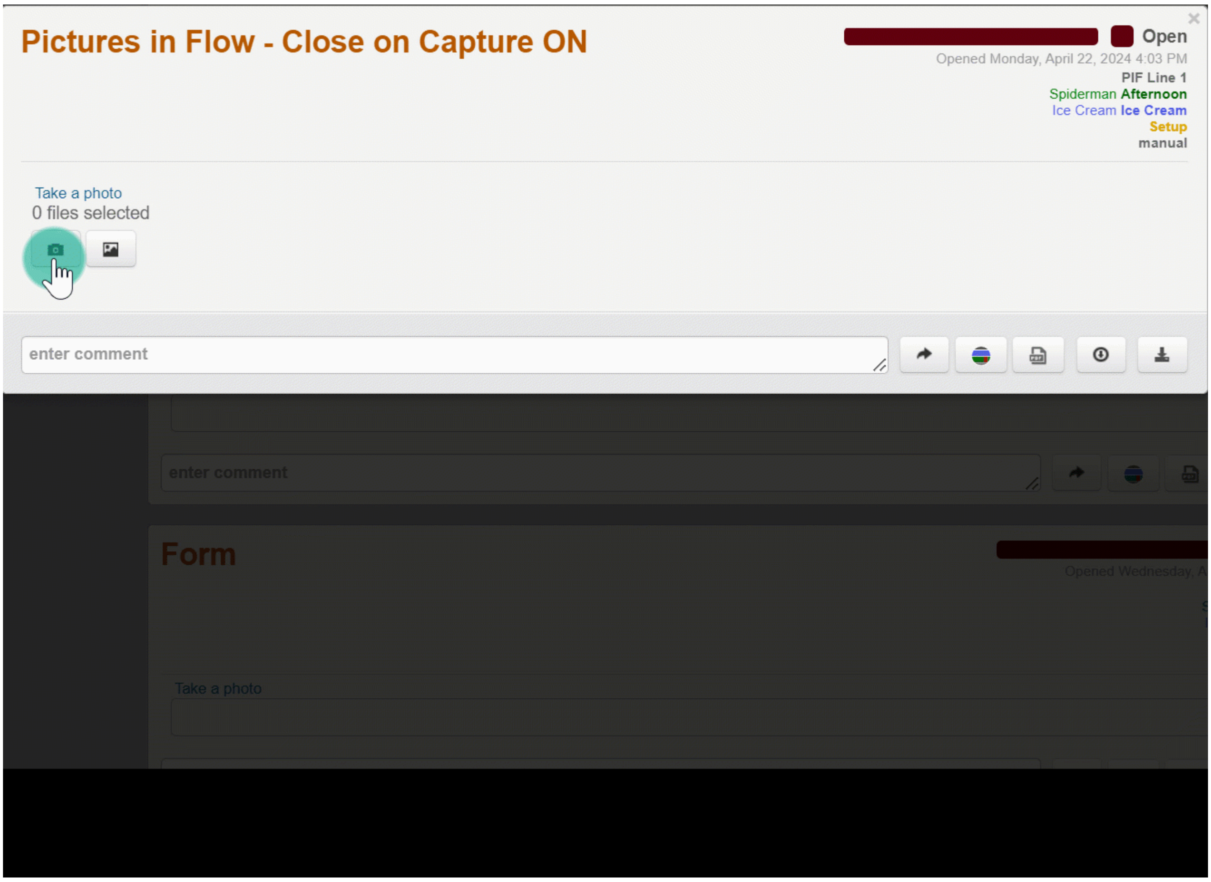
Completing Picture Fields in an Alert form

When using the device camera to upload pictures, the behaviour differs depending on the device type used:

- If *Close On Capture* is on, the camera screen will disappear after a picture is taken.
    - ○ For laptops and PCs, the device's camera output will be streamed to a page element in the alert form.

- ○ On mobile devices, the camera will open as normal and will automatically close once a picture has been taken and *confirmed*.

Picture 'confirmation' on mobile devices is likely to differ depending on the device.



Pictures in Flow - Close on Capture ON

[redacted] Open
Opened Monday, April 22, 2024 4:03 PM
PIF Line 1
Spiderman Afternoon
Ice Cream Ice Cream
Setup
manual

Take a photo
0 files selected

enter comment

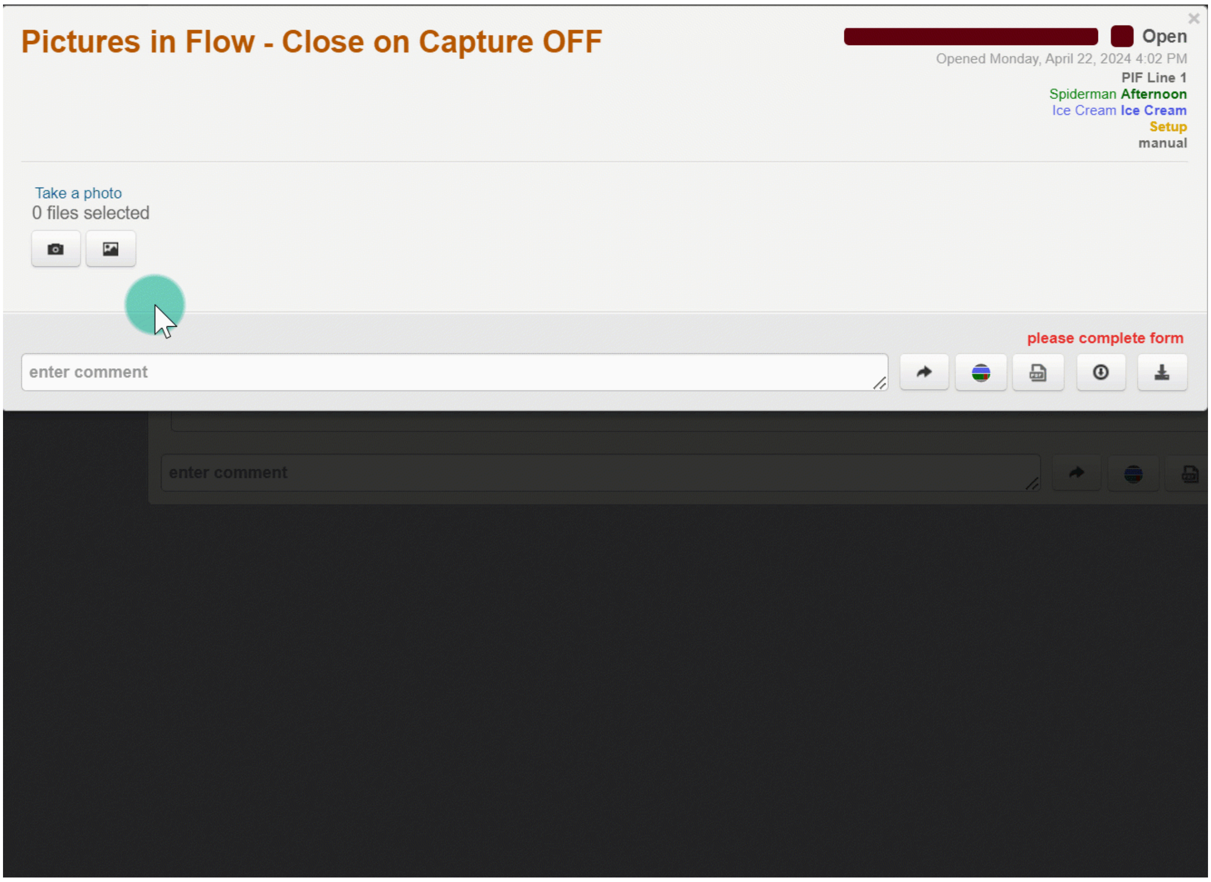
enter comment

Form

Opened Wednesday, A

Take a photo

- If *Close On Capture* is off, the camera screen will still appear once the photo has been captured. Otherwise, a *Close Camera* button will allow you to close the camera screen.



Pictures in Flow - Close on Capture OFF

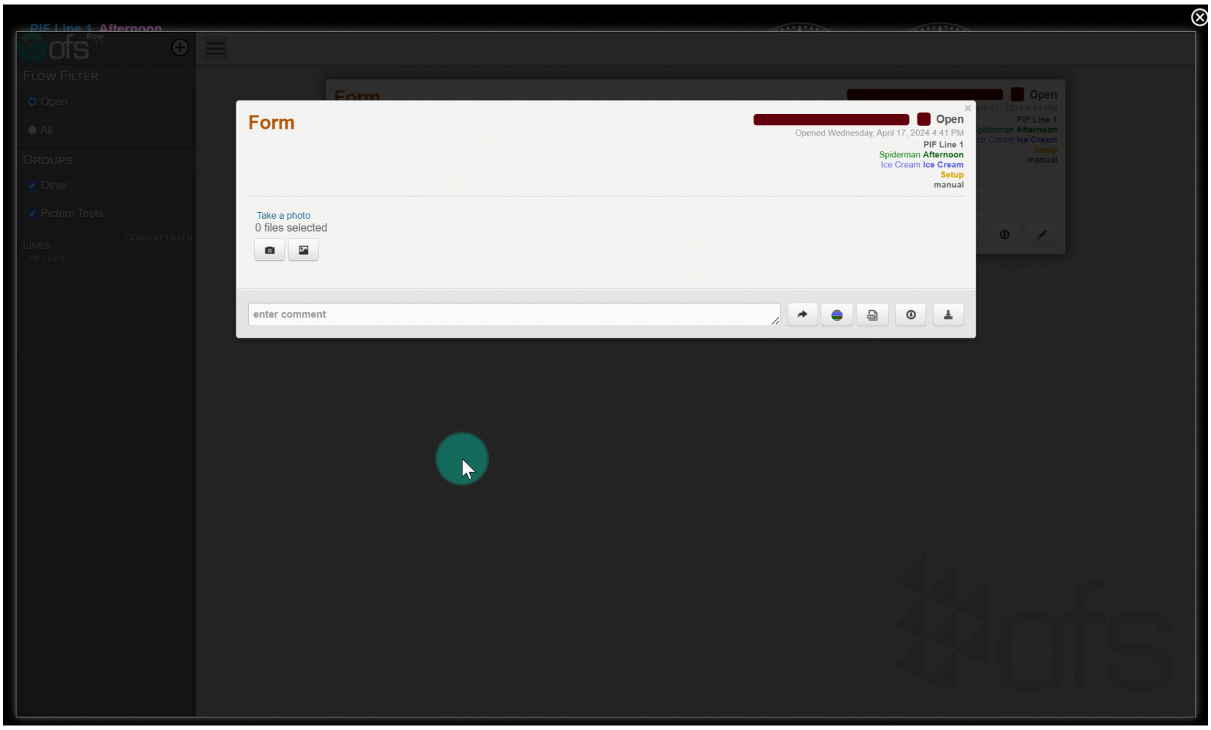
[redacted] Open
Opened Monday, April 22, 2024 4:02 PM
PIF Line 1
Spiderman **Afternoon**
Ice Cream **Ice Cream**
Setup
manual

Take a photo
0 files selected

please complete form

enter comment

Close Camera button:



Form

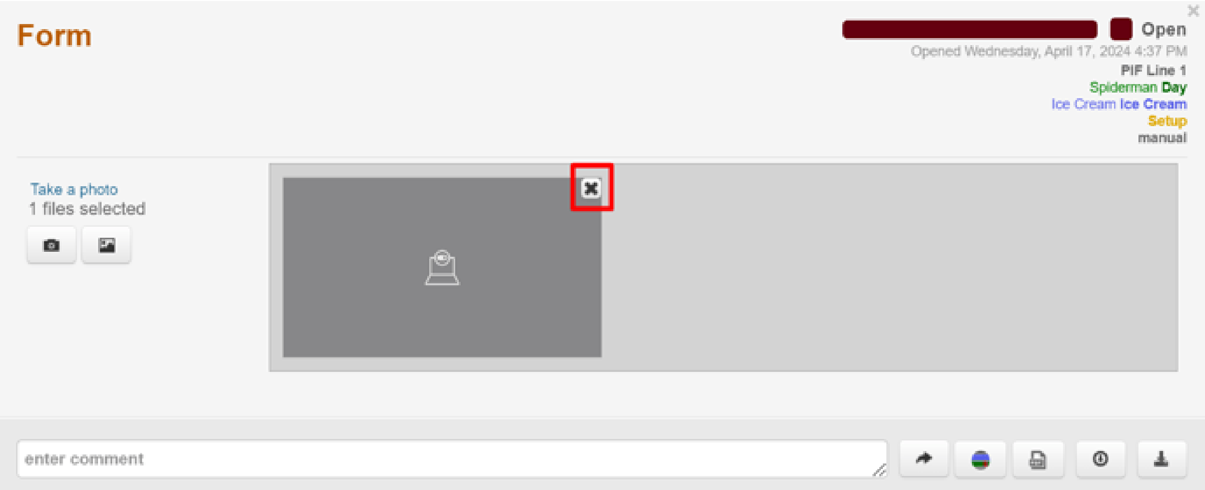
[redacted] Open
Opened Wednesday, April 17, 2024 4:41 PM
PIF Line 1
Spiderman **Afternoon**
Ice Cream **Ice Cream**
Setup
manual

Take a photo
0 files selected

enter comment

Once pictures have been captured or selected from the device's file system, they will appear in the form. Undesired pictures can be removed via the 'x' button on each picture, and clicking a picture will open the full-size image in a new tab.

> Note that at this point uploaded pictures have not been saved. Only once the form has been submitted will uploaded pictures be saved.



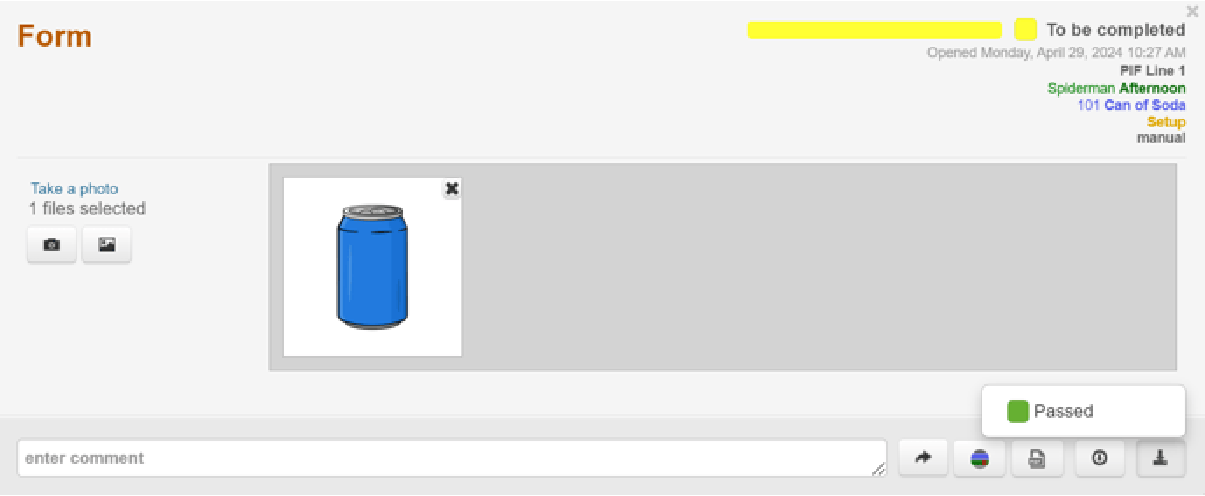
Form

Open

Opened Wednesday, April 17, 2024 4:37 PM
PIF Line 1
Spiderman Day
Ice Cream Ice Cream
Setup
manual

Take a photo
1 files selected

The form can finally be submitted as normal by submitting the form to the appropriate state.



Form

To be completed

Opened Monday, April 29, 2024 10:27 AM
PIF Line 1
Spiderman Afternoon
101 Can of Soda
Setup
manual

Take a photo
1 files selected

How to use Form Filters to Trace Data

Flow Manager allows you to trace data to determine important information for Quality Control. This article provides an example of how you can do this in OFS.

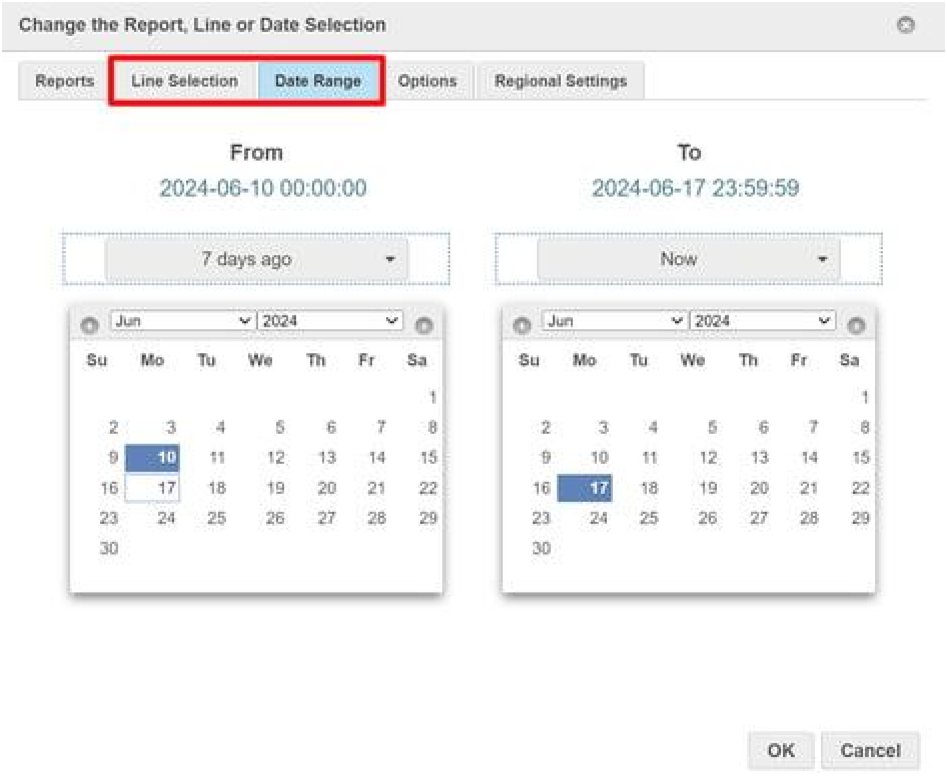
In this example, we are trying to find the pallet number from a specific form.

Go to Flow Manager

- Open Analytics > Flow Manager

Set your lines and date range

- Click the 'Change Selection' tab in the top-right.
- Choose the Date and Line you're investigating.



From: 2024-06-10 00:00:00

To: 2024-06-17 23:59:59

From: 7 days ago

To: Now

Jun 2024

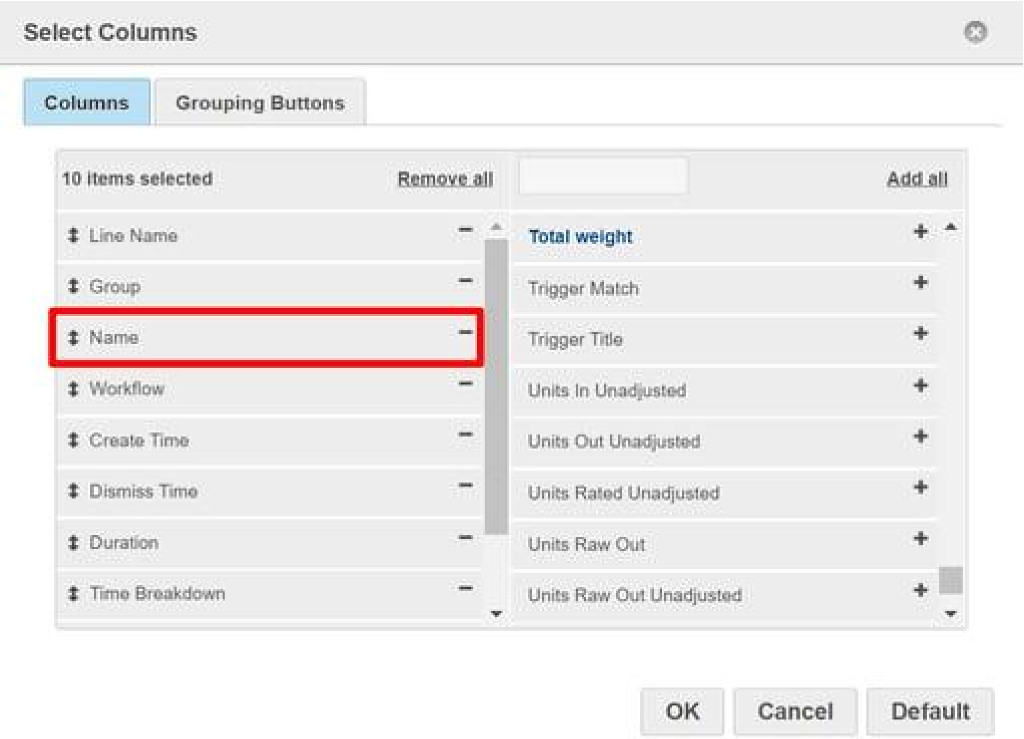
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Jun 2024

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Create your report

- Head to the 'Settings' tab.
- Add the 'Name' column from the right-hand side.
- While in 'Settings', add the key column that holds your tracking info.
    - Example: Aerosol WO Start – Can Batch Number

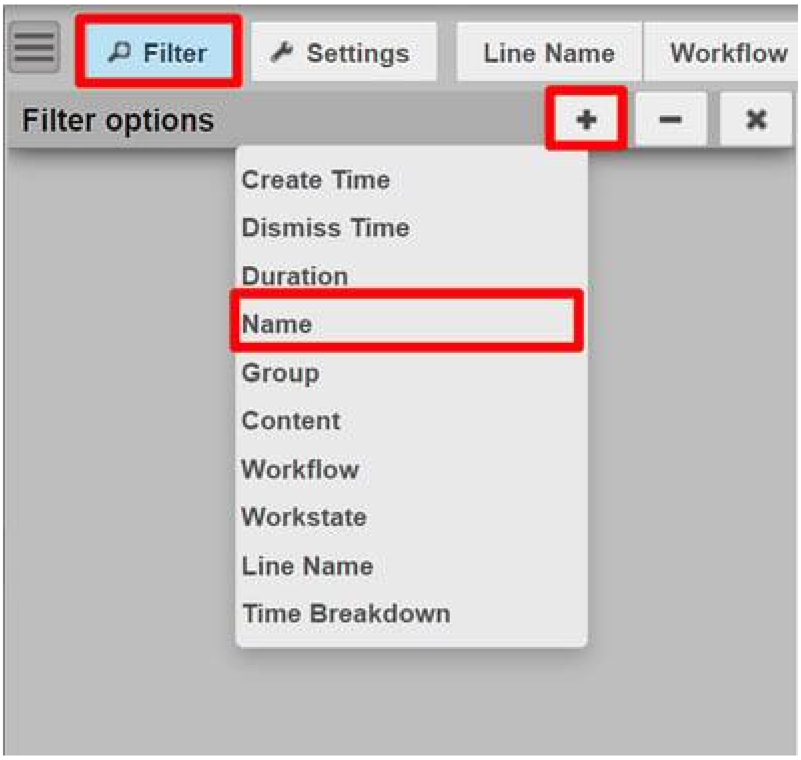


Select Columns

10 items selected	
Line Name	Total weight
Group	Trigger Match
Name	Trigger Title
Workflow	Units In Unadjusted
Create Time	Units Out Unadjusted
Dismiss Time	Units Rated Unadjusted
Duration	Units Raw Out
Time Breakdown	Units Raw Out Unadjusted

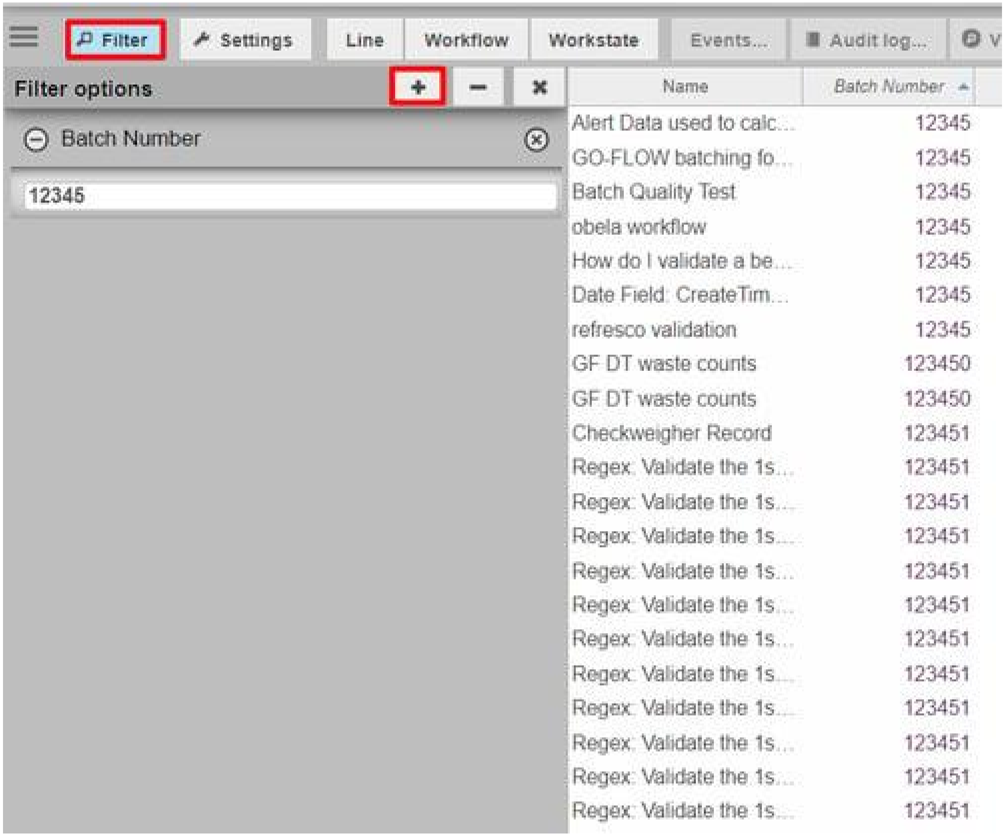
Filter to the Specific Form

- Click 'Filter' > '+' button
- Select 'Name'
- Choose the form you're after (e.g., Aerosol WO Start Flow)



Filter to the Specific Field

- Click ‘Filter’ again > ‘+’ button
- Select the target field (e.g., Can Batch Number)
- Enter or select the batch number you’re tracing



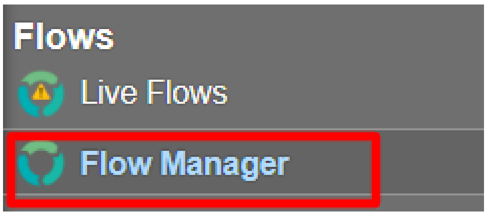
12345

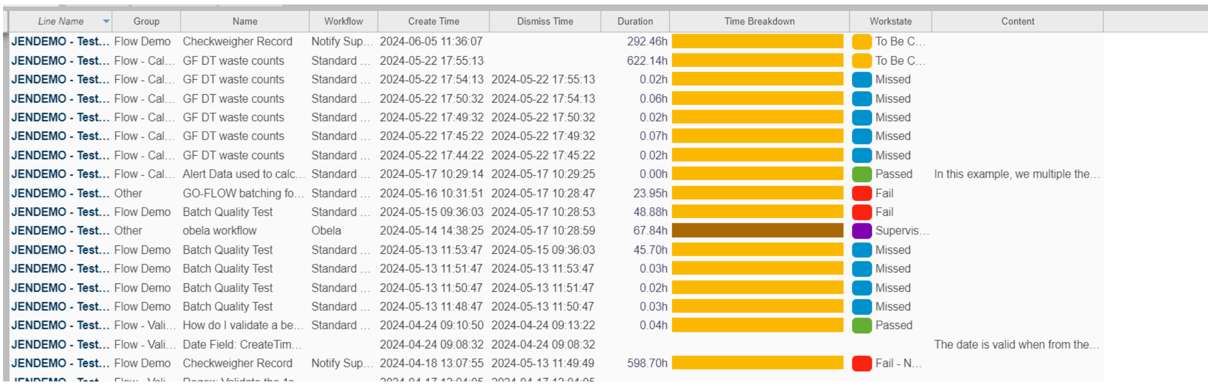
Name	Batch Number
Alert Data used to calc...	12345
GO-FLOW batching fo...	12345
Batch Quality Test	12345
obela workflow	12345
How do I validate a be...	12345
Date Field: CreateTim...	12345
refresco validation	12345
GF DT waste counts	123450
GF DT waste counts	123450
Checkweigher Record	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451
Regex: Validate the 1s...	123451

How to create an Out of Spec Flow Report?

When using OFS Flow, you can get notified when your form is submitted to an 'Out of Spec' or 'Failed' workstate. In this article, you will learn how to create a custom report that shows you the results of the Out of Spec forms.

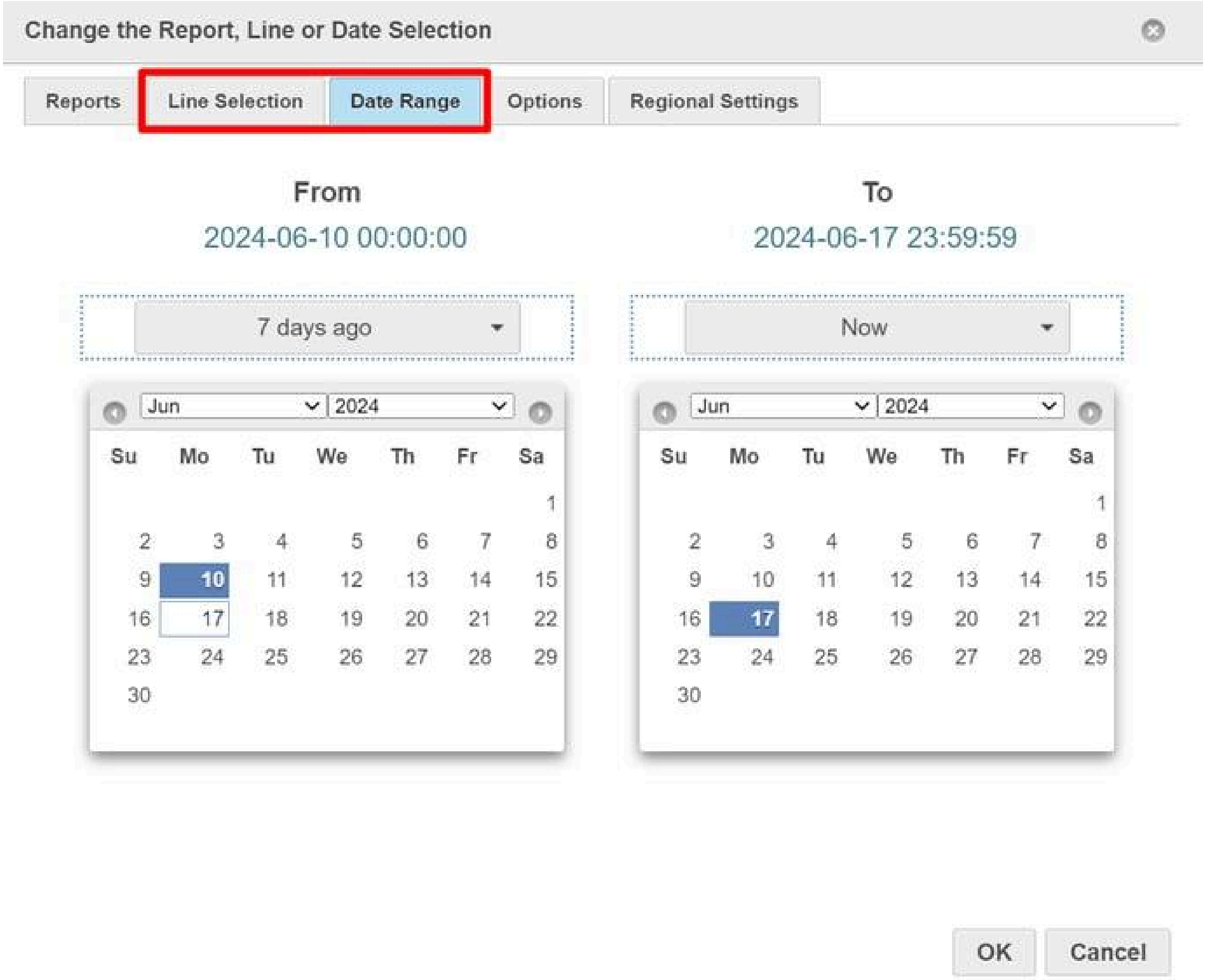
Step 1 - Open OFS Analytics and click on the Flow Manager report.





Line Name	Group	Name	Workflow	Create Time	Dismiss Time	Duration	Time Breakdown	Workstate	Content
JENDEMO - Test...	Flow Demo	Checkweigher Record	Notify Sup...	2024-06-05 11:36:07		292.46h	🟨	🟨 To Be C...	
JENDEMO - Test...	Flow - Cal...	GF DT waste counts	Standard ...	2024-05-22 17:55:13		622.14h	🟨	🟨 To Be C...	
JENDEMO - Test...	Flow - Cal...	GF DT waste counts	Standard ...	2024-05-22 17:54:13	2024-05-22 17:55:13	0.02h	🟨	🟦 Missed	
JENDEMO - Test...	Flow - Cal...	GF DT waste counts	Standard ...	2024-05-22 17:50:32	2024-05-22 17:54:13	0.06h	🟨	🟦 Missed	
JENDEMO - Test...	Flow - Cal...	GF DT waste counts	Standard ...	2024-05-22 17:49:32	2024-05-22 17:50:32	0.02h	🟨	🟦 Missed	
JENDEMO - Test...	Flow - Cal...	GF DT waste counts	Standard ...	2024-05-22 17:45:22	2024-05-22 17:49:32	0.07h	🟨	🟦 Missed	
JENDEMO - Test...	Flow - Cal...	GF DT waste counts	Standard ...	2024-05-22 17:44:22	2024-05-22 17:45:22	0.02h	🟨	🟦 Missed	
JENDEMO - Test...	Flow - Cal...	Alert Data used to calc...	Standard ...	2024-05-17 10:29:14	2024-05-17 10:29:25	0.00h	🟨	🟩 Passed	In this example, we multiple the...
JENDEMO - Test...	Other	GO-FLOW batching fo...	Standard ...	2024-05-16 10:31:51	2024-05-17 10:28:47	23.95h	🟨	🟥 Fail	
JENDEMO - Test...	Flow Demo	Batch Quality Test	Standard ...	2024-05-15 09:36:03	2024-05-17 10:28:53	48.88h	🟨	🟥 Fail	
JENDEMO - Test...	Other	obela workflow	Obela	2024-05-14 14:38:25	2024-05-17 10:28:59	67.84h	🟫	🟪 Supervis...	
JENDEMO - Test...	Flow Demo	Batch Quality Test	Standard ...	2024-05-13 11:53:47	2024-05-15 09:36:03	45.70h	🟨	🟦 Missed	
JENDEMO - Test...	Flow Demo	Batch Quality Test	Standard ...	2024-05-13 11:51:47	2024-05-13 11:53:47	0.03h	🟨	🟦 Missed	
JENDEMO - Test...	Flow Demo	Batch Quality Test	Standard ...	2024-05-13 11:50:47	2024-05-13 11:51:47	0.02h	🟨	🟦 Missed	
JENDEMO - Test...	Flow Demo	Batch Quality Test	Standard ...	2024-05-13 11:48:47	2024-05-13 11:50:47	0.03h	🟨	🟦 Missed	
JENDEMO - Test...	Flow - Vali...	How do I validate a be...	Standard ...	2024-04-24 09:10:50	2024-04-24 09:13:22	0.04h	🟨	🟩 Passed	
JENDEMO - Test...	Flow - Vali...	Date Field: CreateTim...		2024-04-24 09:08:32	2024-04-24 09:08:32				The date is valid when from the...
JENDEMO - Test...	Flow Demo	Checkweigher Record	Notify Sup...	2024-04-18 13:07:55	2024-05-13 11:49:49	598.70h	🟨	🟥 Fail - N...	
JENDEMO - Test...	Flow - Vali...	Regex: Validate the 1s...		2024-04-17 12:04:05	2024-04-17 12:04:05				

Step 2 - Choose a desired time range by going into the Change Selection button.



From: 2024-06-10 00:00:00

To: 2024-06-17 23:59:59

7 days ago

Now

Jun 2024

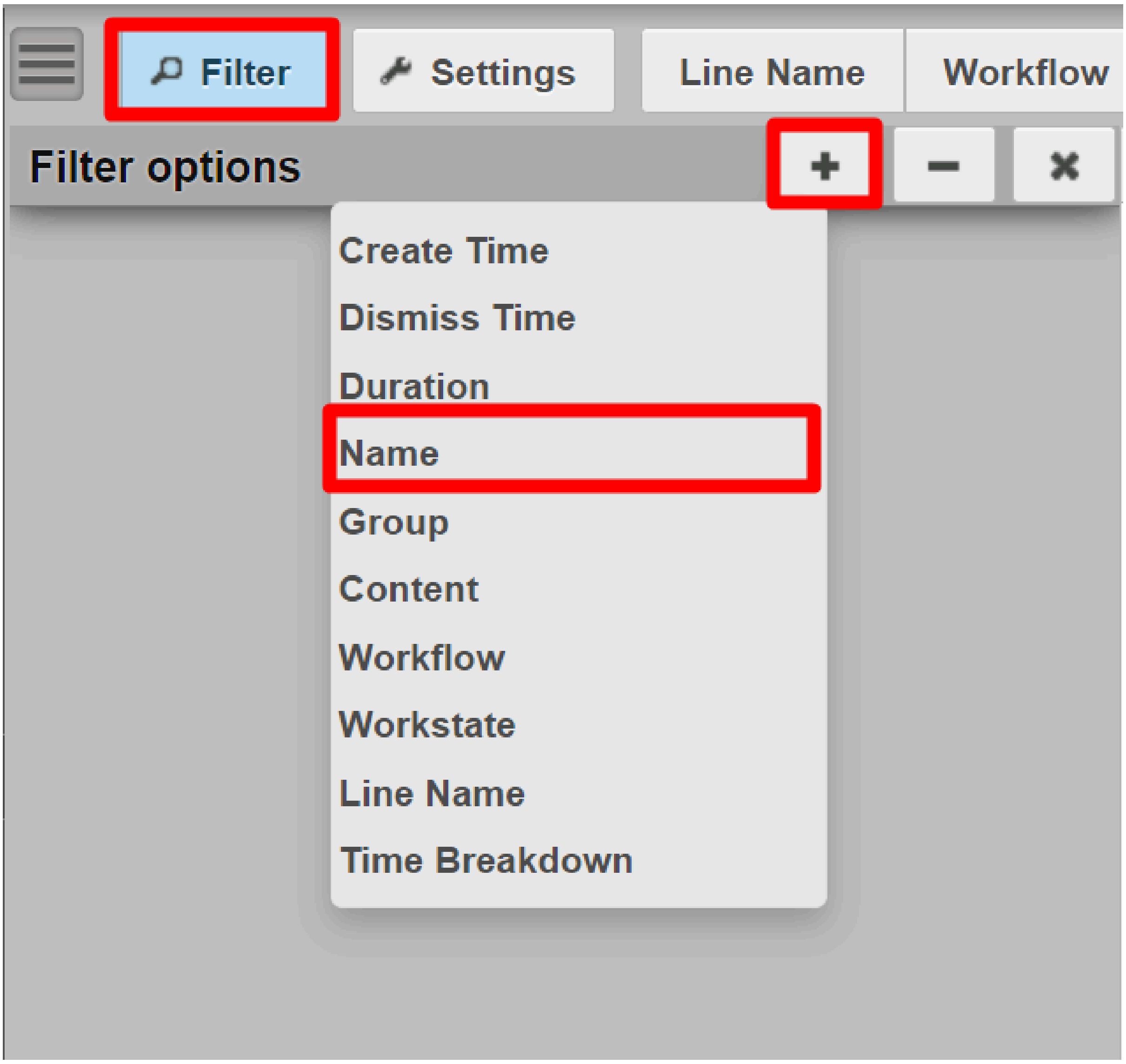
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Jun 2024

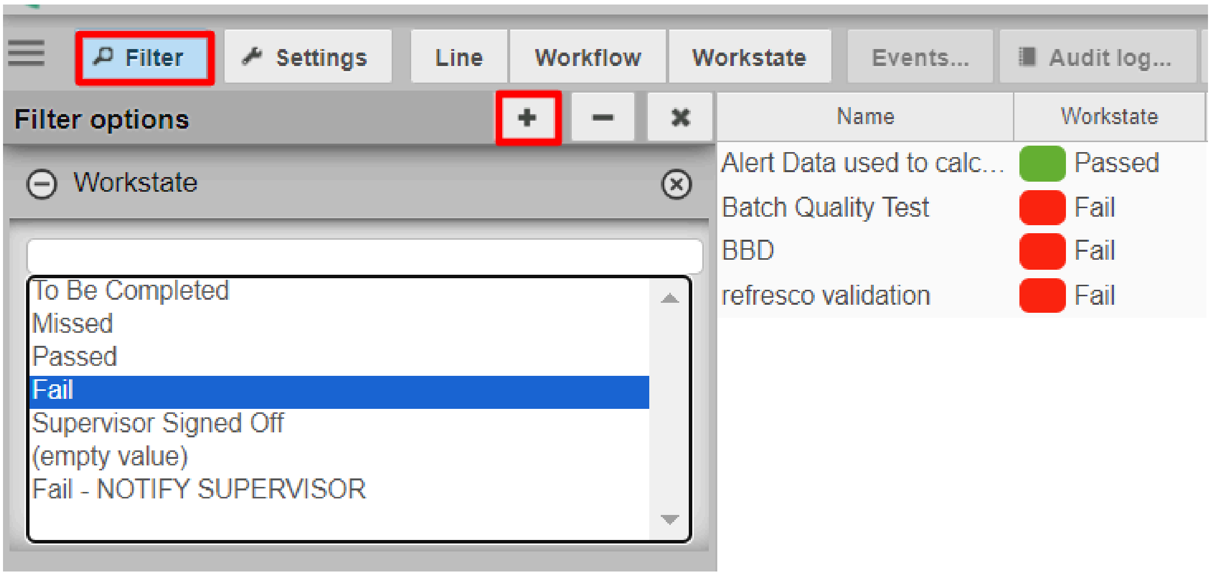
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Step 3 - If you are creating this report for a specific form, filter for the name of the form.

Note: In order to use the filter function, you will need to have the parameter present in the columns and it cannot also be used as a grouping button.



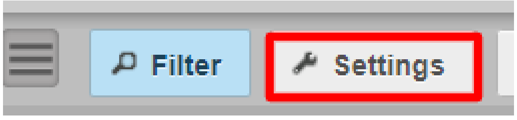
Step 4 - Filter for the ‘Out of Spec’ or ‘Failed’ workstate.

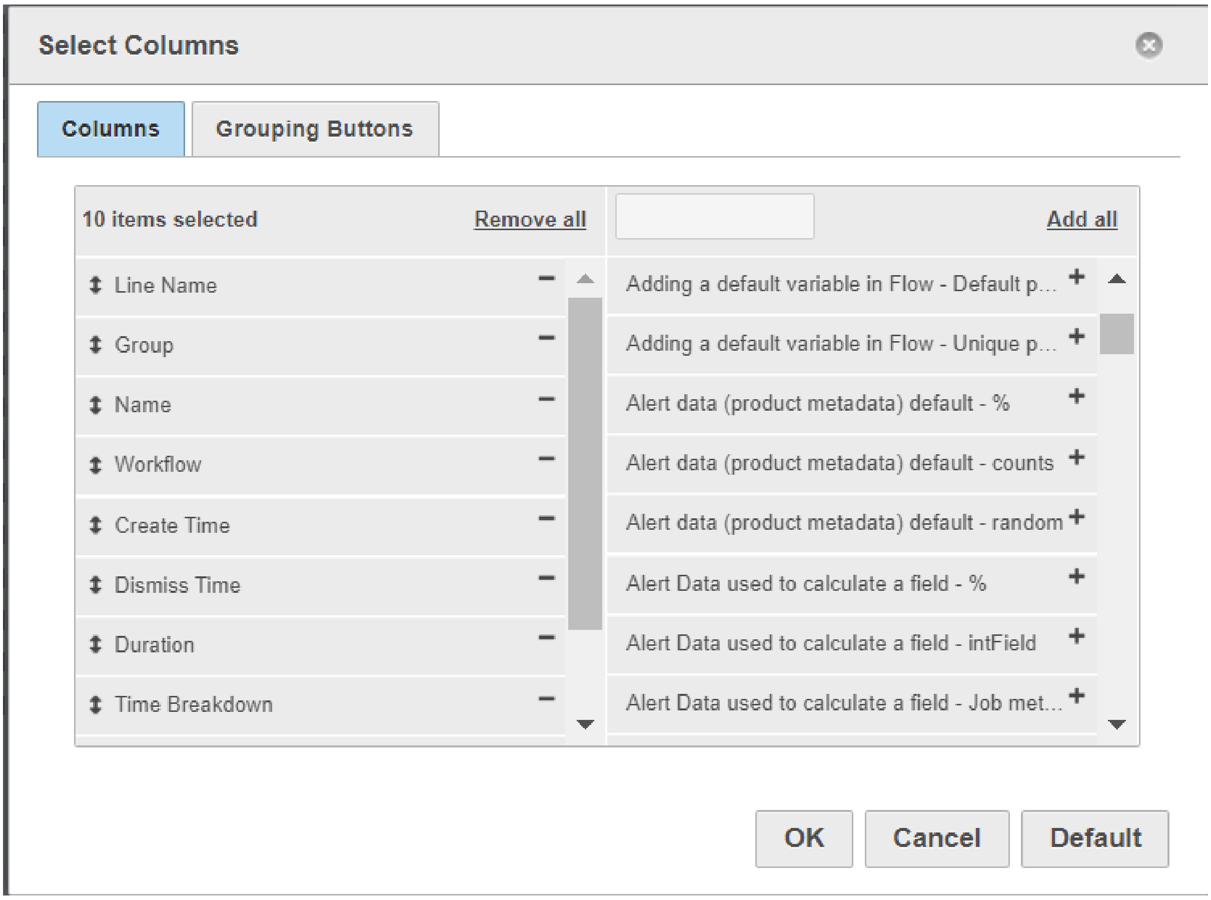


To Be Completed
Missed
Passed
Fail
Supervisor Signed Off
(empty value)
Fail - NOTIFY SUPERVISOR

Name	Workstate
Alert Data used to calc…	🟩 Passed
Batch Quality Test	🟥 Fail
BBD	🟥 Fail
refresco validation	🟥 Fail

Step 5 - Add specific columns relevant to the form by clicking into Settings.





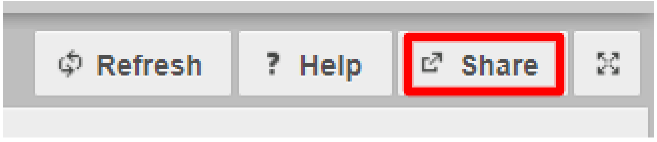
Select Columns

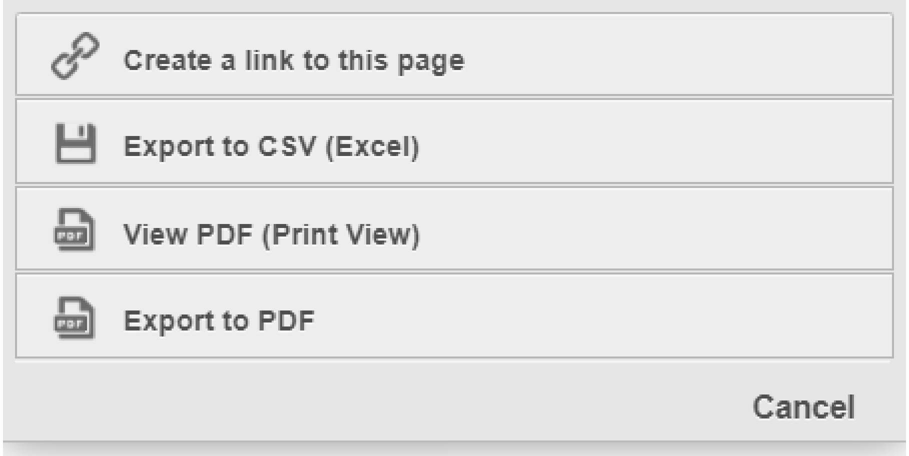
10 items selected

- Line Name
- Group
- Name
- Workflow
- Create Time
- Dismiss Time
- Duration
- Time Breakdown

- Adding a default variable in Flow - Default p...
- Adding a default variable in Flow - Unique p...
- Alert data (product metadata) default - %
- Alert data (product metadata) default - counts
- Alert data (product metadata) default - random
- Alert Data used to calculate a field - %
- Alert Data used to calculate a field - intField
- Alert Data used to calculate a field - Job met...

Step 6 - Create a custom URL to this report by using the share button.





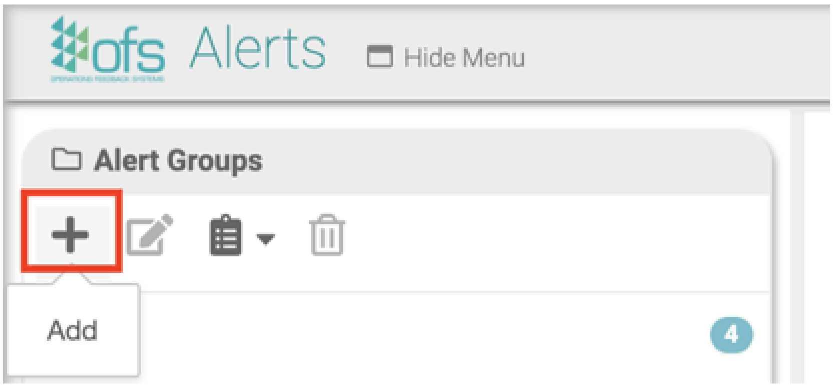
Step 7 - You can bookmark this page on your browser or add it to the Alert Message of any secondary alerts associated with 'Failed' workstates. Click here to learn more about secondary workflows.

How to add a default alert variable to my flow form?

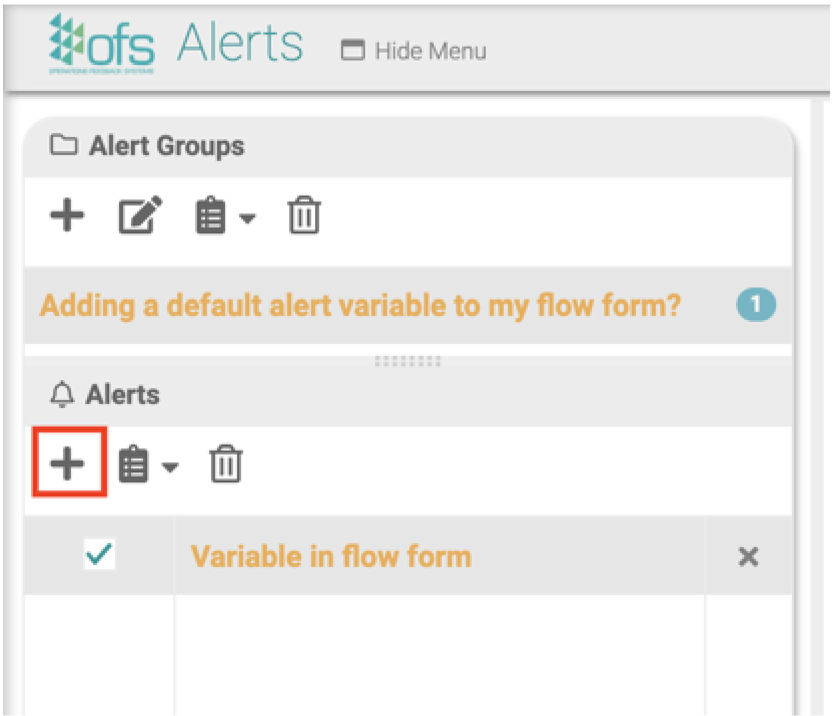
An alert variable is data from your Product List. This information can be displayed in your flow form. E.g. Product ID: 12345.

Navigate to Fusion Manager
Step 1. In the 'Alerts' tab, navigate to the form or create a new one.

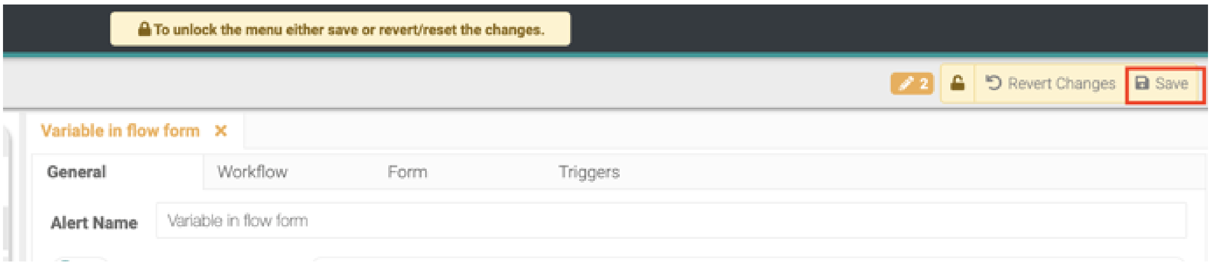
a) Create an Alert Group by clicking the '+' button.



b) Within this Alert Group, create an 'Alert'. This will be the form.



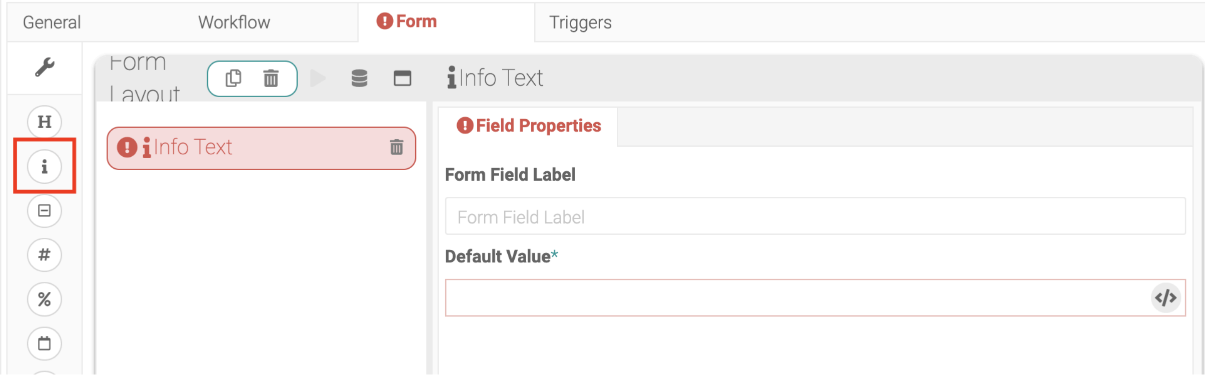
c) Save changes.



Alert Name: Variable in flow form

Step 2. In the 'Form' tab, select the form field you'd like to use. In this example, we will use the 'info text' field.

NOTE: you cannot bring in default value into a multi select or a checkbox field.

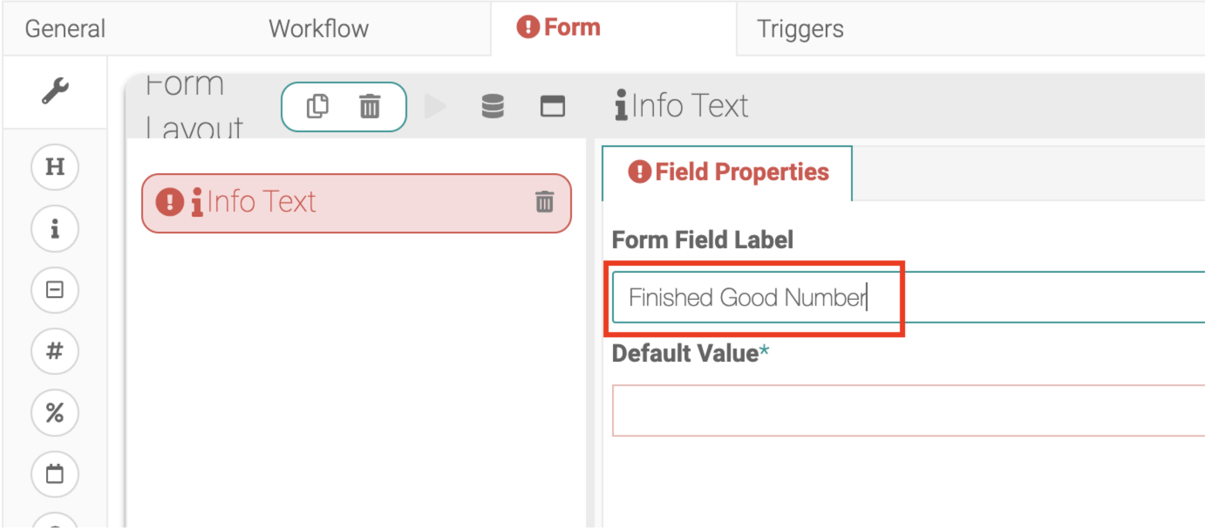


Form Field Label

Form Field Label

Default Value*

Step 3. In the 'Form Field Label', enter the title of the field as it will appear in the form. E.g. Finished Good Number.



Form Field Label

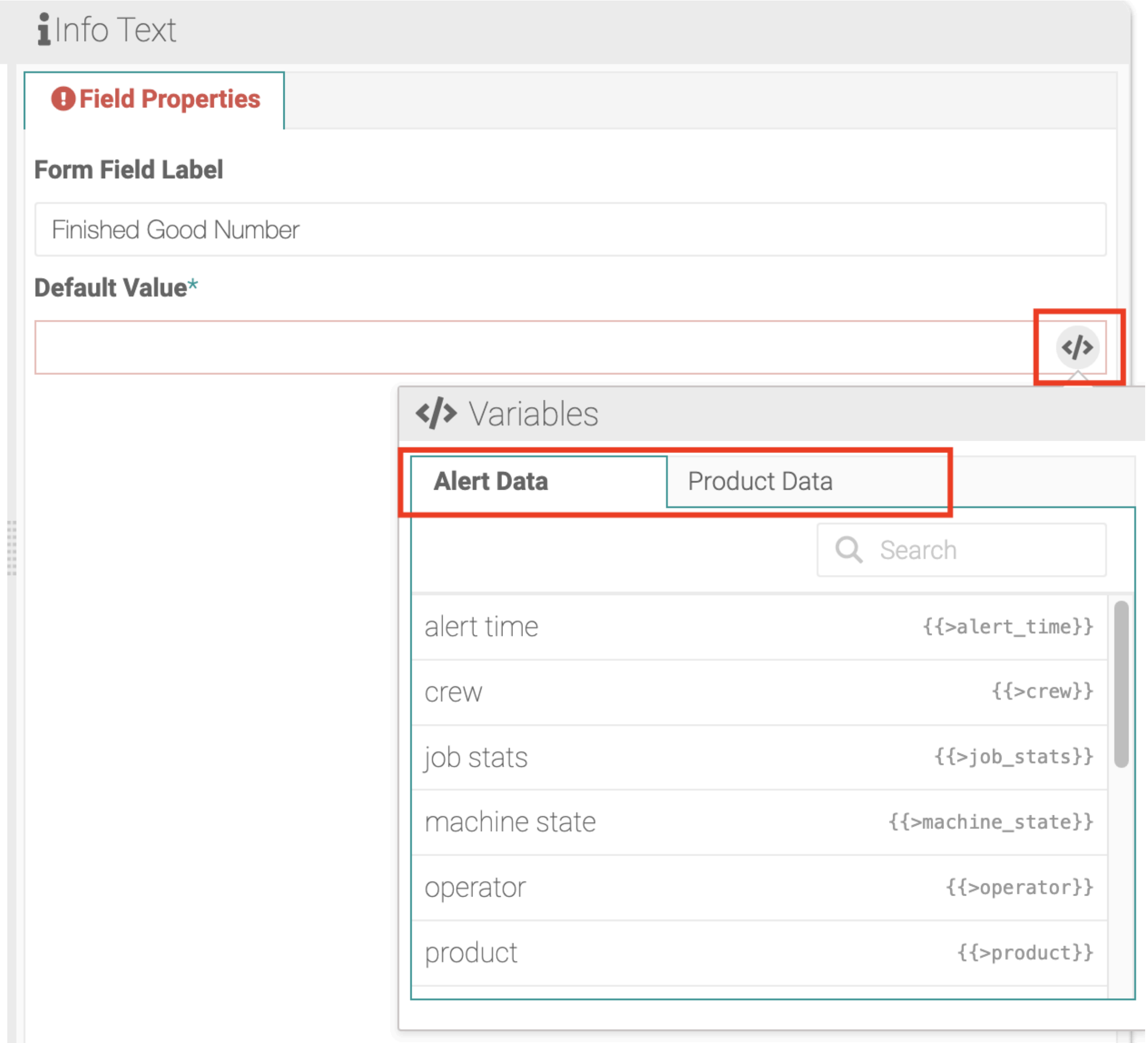
Finished Good Number

Default Value*

Step 4. In 'Default Value', click on the "Variables" icon. Then select from either 'Alert Data' or 'Product Data'.

Alert Data is information that comes from the OFS console at the time that the form is triggered.

Product Data is information stored within the Product List.



Info Text

Field Properties

Form Field Label

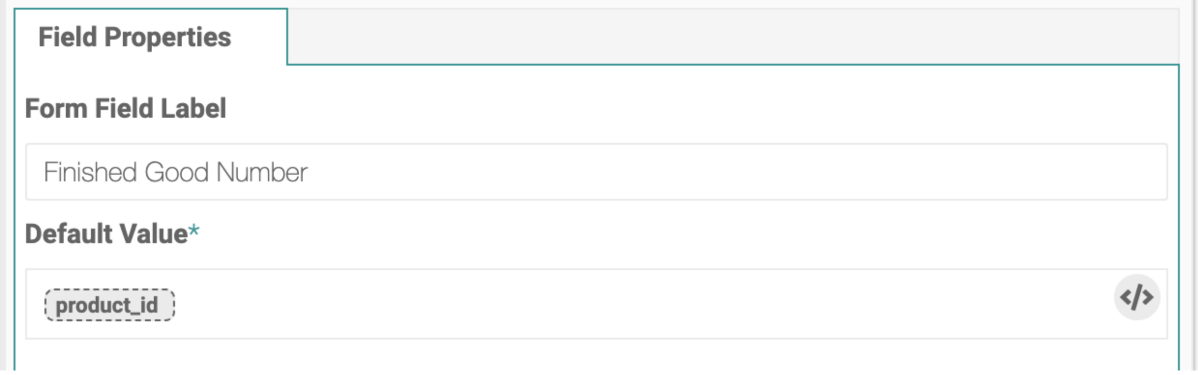
Finished Good Number

Default Value*

Variables

alert time	{{>alert_time}}
crew	{{>crew}}
job stats	{{>job_stats}}
machine state	{{>machine_state}}
operator	{{>operator}}
product	{{>product}}

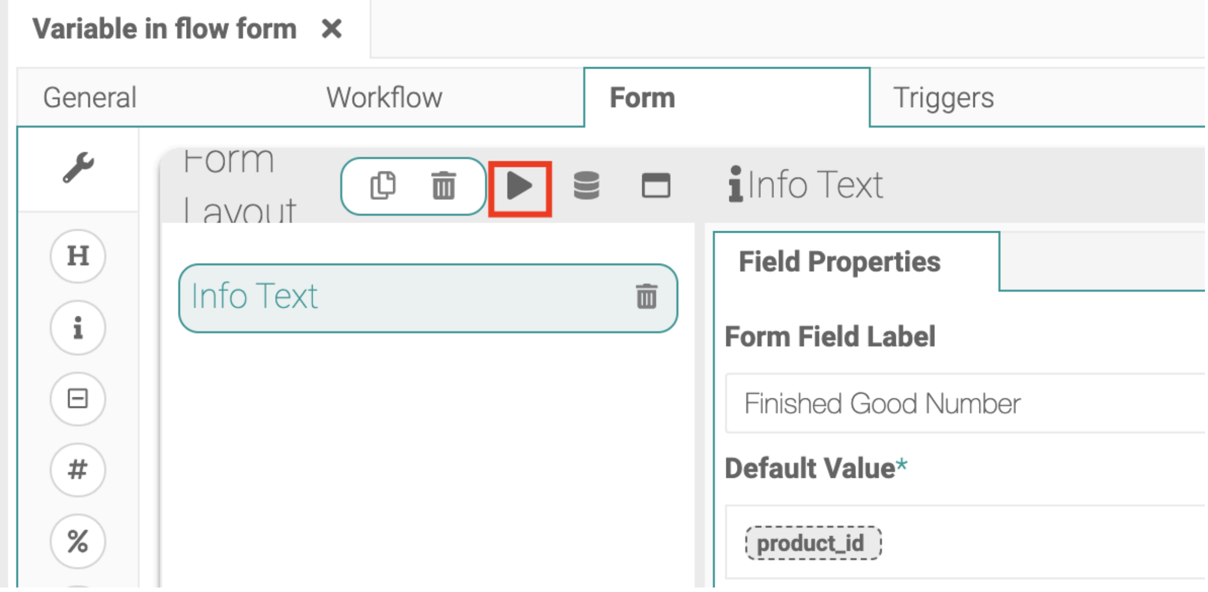
In this example, we selected Product ID.



Finished Good Number

product_id

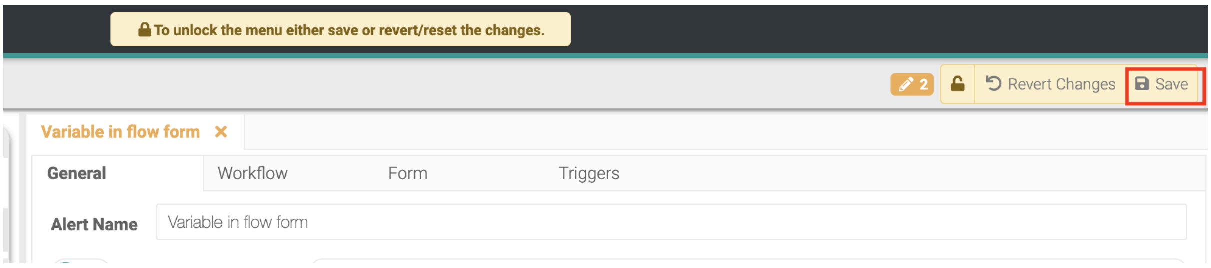
Step 5. Click the 'play' button to preview the form at any time.



Finished Good Number

product_id

Step 6. Save Changes.

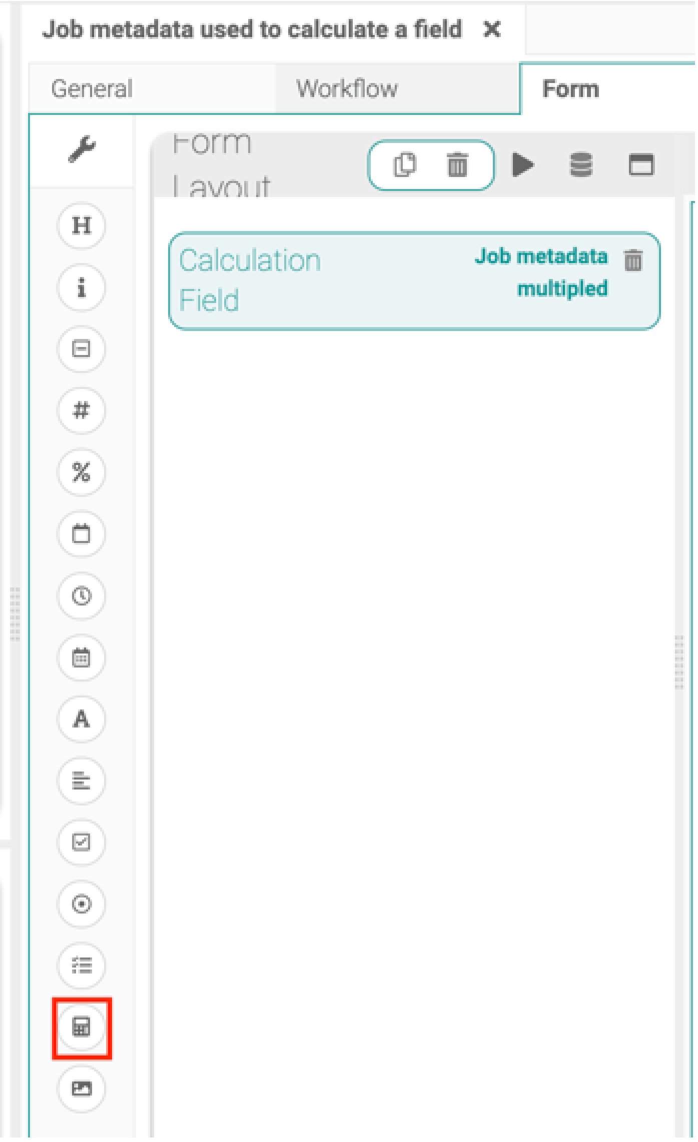

To unlock the menu either save or revert/reset the changes.

Alert Name: Variable in flow form

How to use job data in a calculation field within my flow form?

This article guides you in creating a calculation field using job metadata.

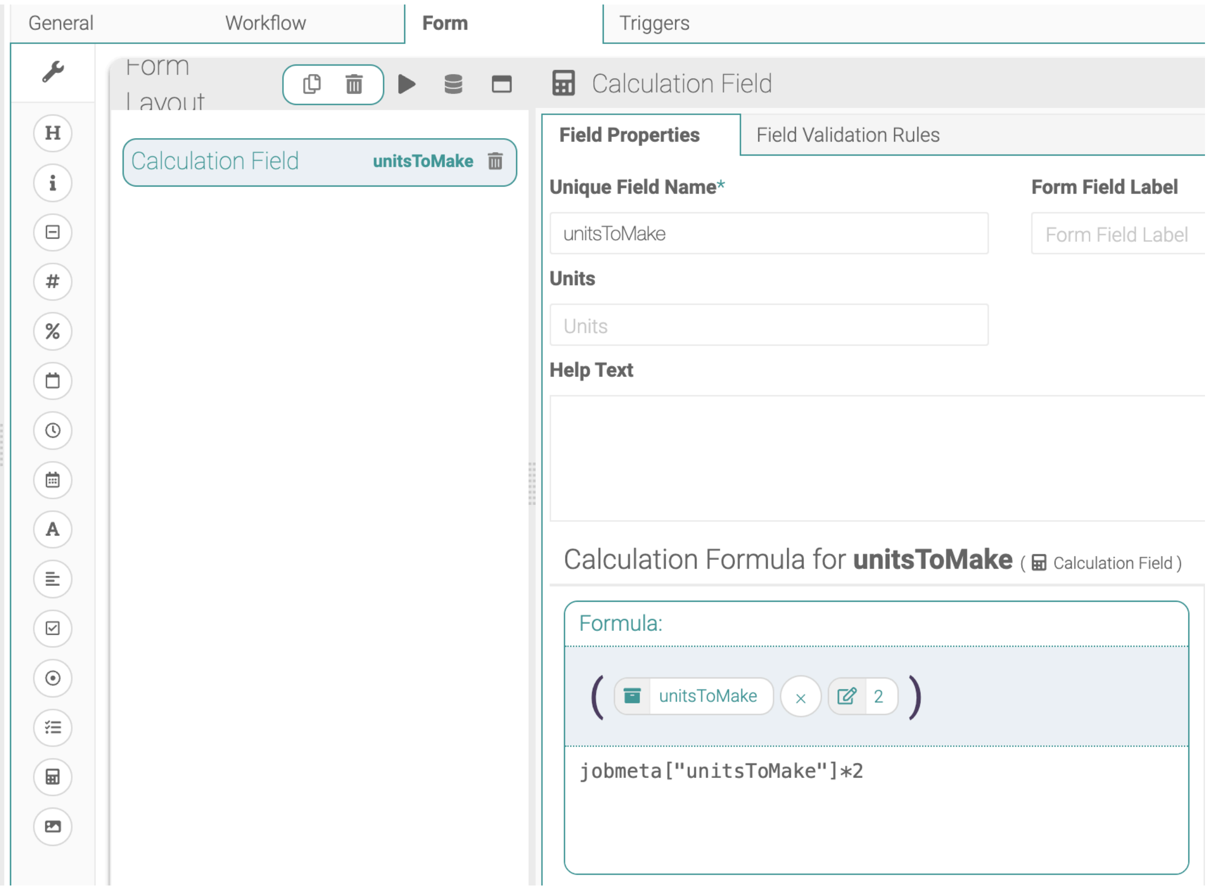
Step 1 - Drag in the calculation field in your form



Step 2 - In the formula area, use the following code to reference the job data. Ensure you put the name of the job data within the " ".

```
jobmeta[""]
```

In the below example, we are referencing Units to Make and multiplying it by 2



Calculation Field unitsToMake

Unique Field Name*: unitsToMake

Form Field Label: Form Field Label

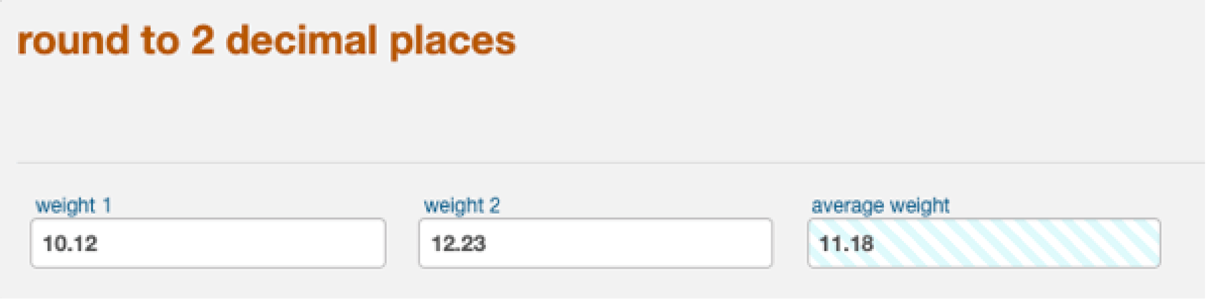
Units: Units

Calculation Formula for **unitsToMake** (Calculation Field)

```
jobmeta["unitsToMake"]*2
```

How to round my calculation field to 2 decimal places?

Example: Calculate the average weight of 'weight 1' and 'weight 2'

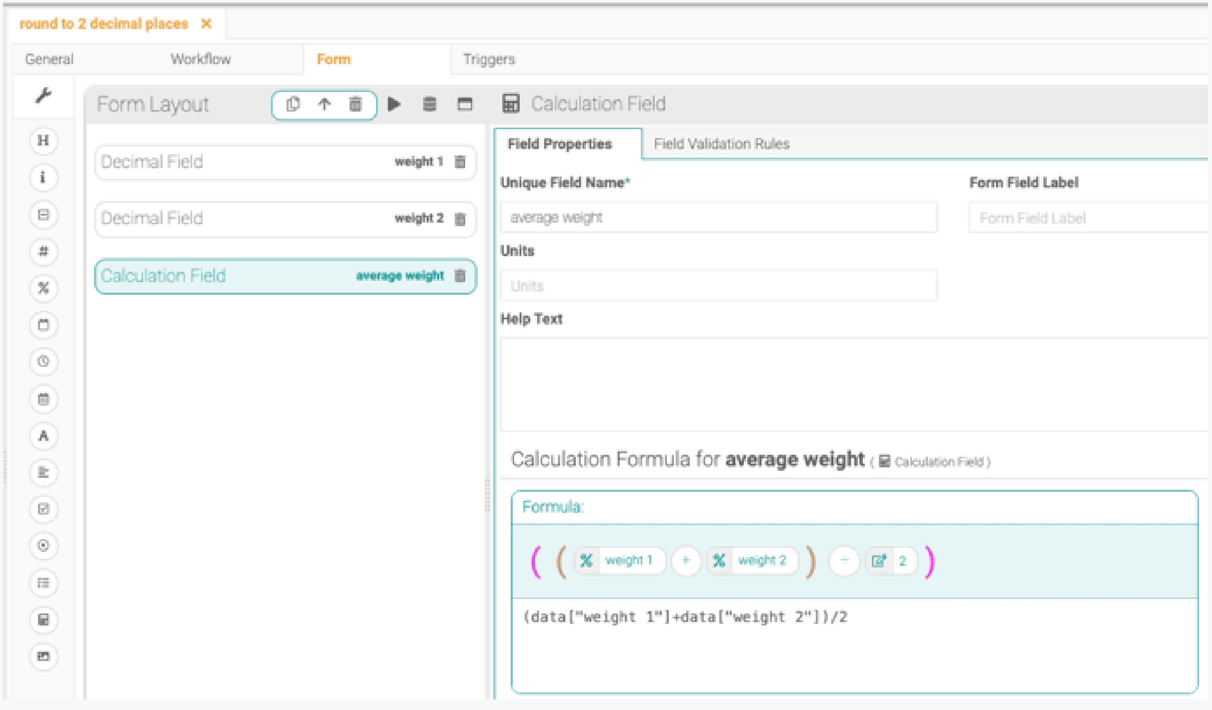


round to 2 decimal places

weight 1	weight 2	average weight
10.12	12.23	11.18

Step 1 - In the calculation field, build the formula, e.g.

(data["weight 1"]+data["weight 2"])/2



Decimal Field weight 1

Decimal Field weight 2

Calculation Field average weight

Unique Field Name*: average weight

Form Field Label: Form Field Label

Units: Units

Help Text:

Calculation Formula for **average weight** (Calculation Field)

Formula:

((weight 1 + weight 2) ÷ 2)

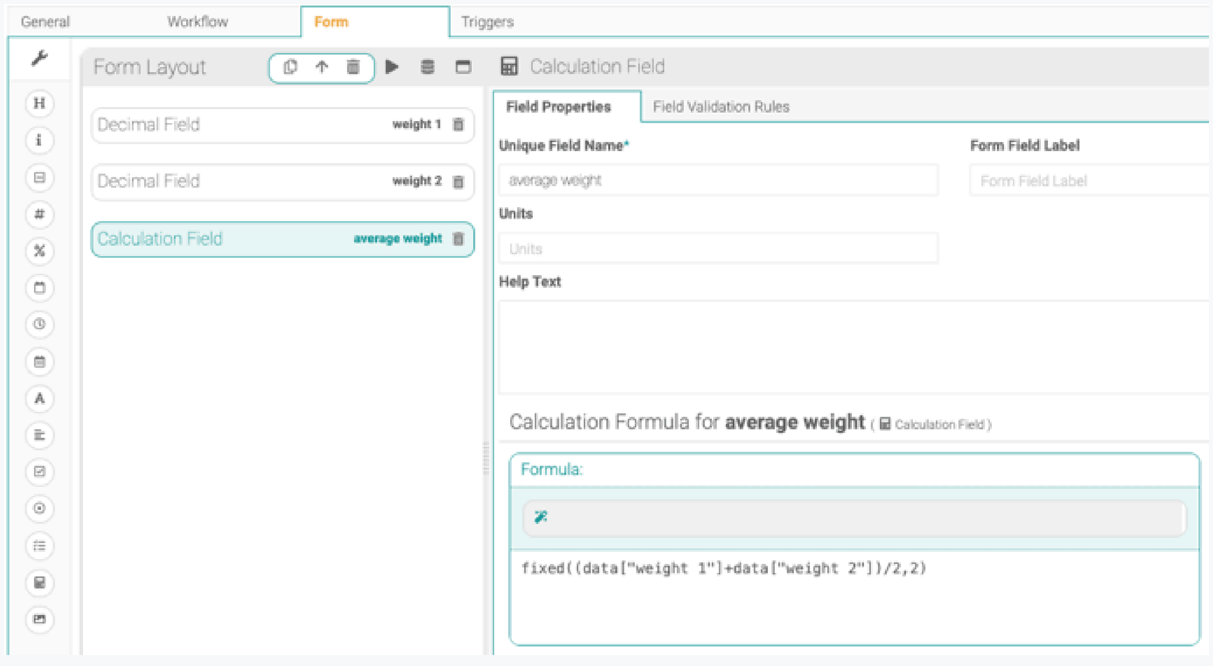
```
(data["weight 1"]+data["weight 2"])/2
```

Step 2 - Specify how many decimal places you want to round to using the below where 2 at the end is the number of decimal places.

fixed([insert formula] ,2)

It should look like this:

fixed((data["weight 1"]+data["weight 2"])/2,2)



Decimal Field weight 1

Decimal Field weight 2

Calculation Field average weight

Unique Field Name*: average weight

Form Field Label: Form Field Label

Units: Units

Help Text:

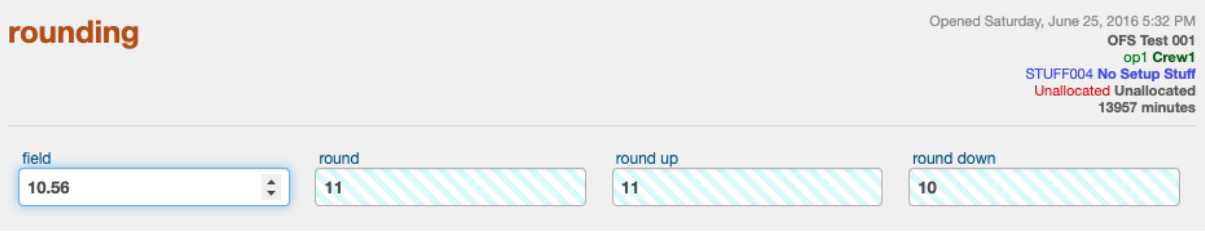
Calculation Formula for **average weight** (Calculation Field)

Formula:

```
fixed((data["weight 1"]+data["weight 2"])/2,2)
```

How to use calculation roundings in OFS-Flow

Example:



rounding

Opened Saturday, June 25, 2016 5:32 PM
OFS Test 001
op1 Crew1
STUFF004 No Setup Stuff
Unallocated Unallocated
13957 minutes

field	round	round up	round down
10.56	11	11	10

Round

Step 1 - In the calculation field, build the formula

```
round([insert formula])
```

Example:

```
round(data["weight 1"]+data["weight 2"])/2)
```

Round Down

Step 1 - In the calculation field, build the formula

```
rounddown([insert formula])
```

Example:

```
rounddown(data["weight 1"]+data["weight 2"]/2)
```

Round Up

Step 1 - In the calculation field, build the formula

```
roundup([insert formula])
```

Example:

```
roundup(data["weight 1"]+data["weight 2"]/2)
```

How to validate a range in my flow form?

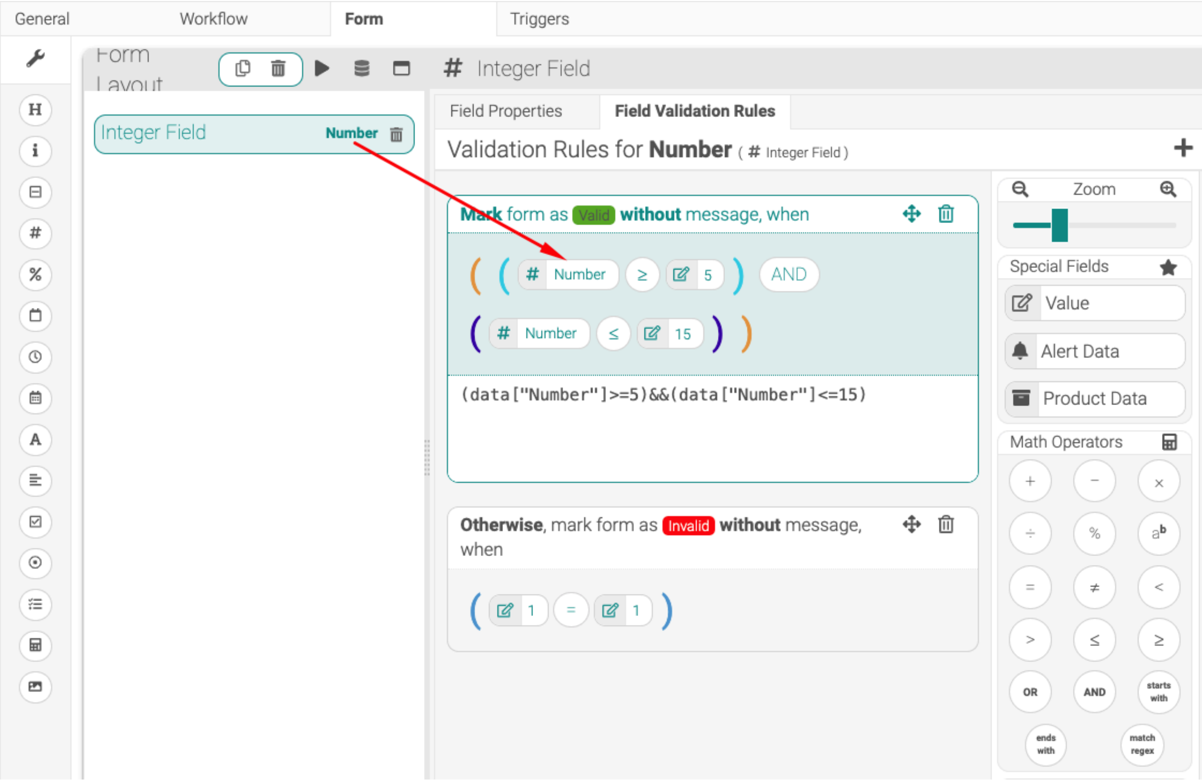
This article will guide you in validating a number range in your flow form.

In this example, the field is valid between 5 and 15.

Step 1 - Create the first valid range by:

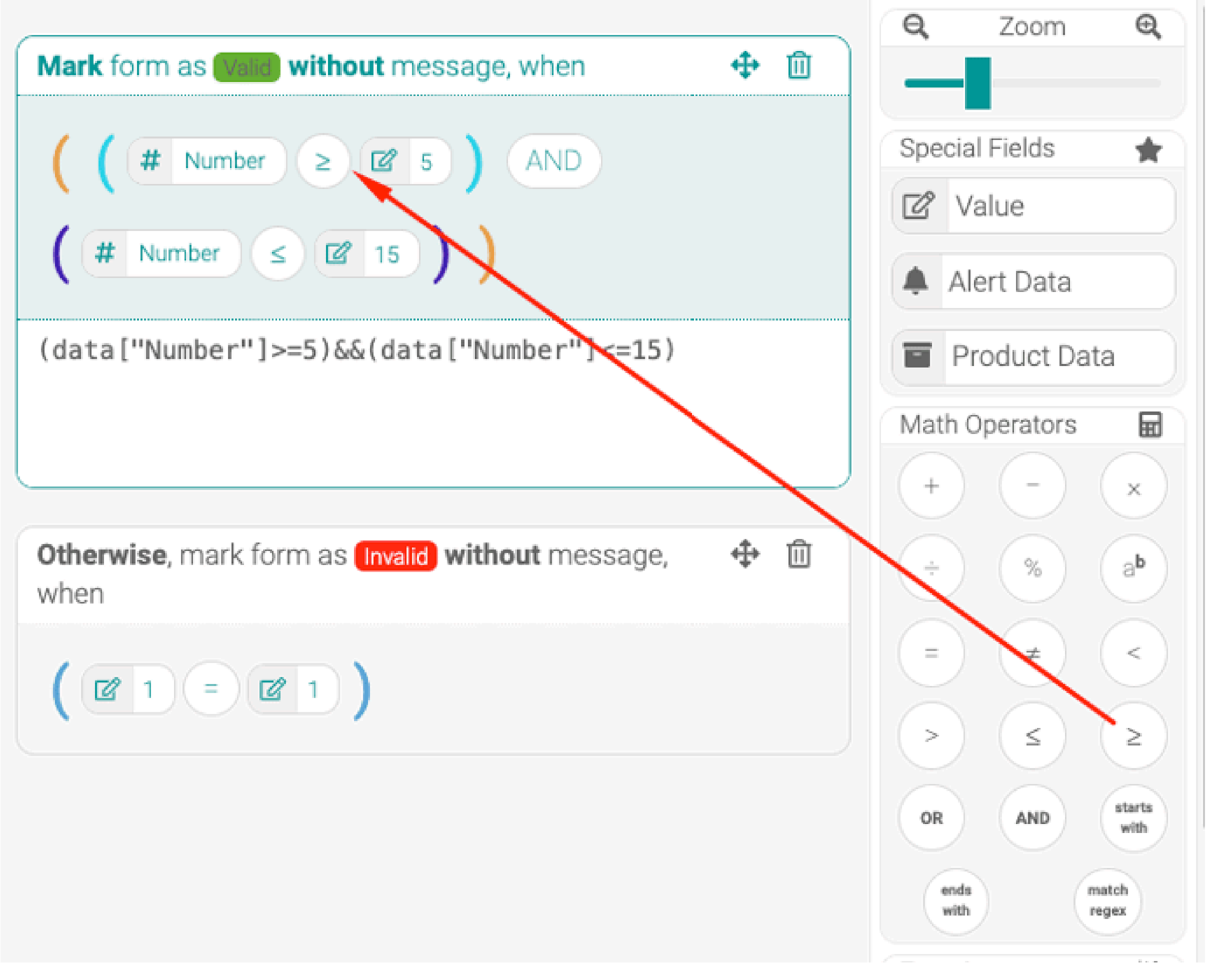
```
(data["Number"]>=5)&&(data["Number"]<=15)
```

- Dragging in the field from the form layout



```
(data["Number"]>=5)&&(data["Number"]<=15)
```

- Drag in the 'greater than ≥' symbol



Mark form as Valid without message, when

((# Number ≥ 5) AND
(# Number ≤ 15))

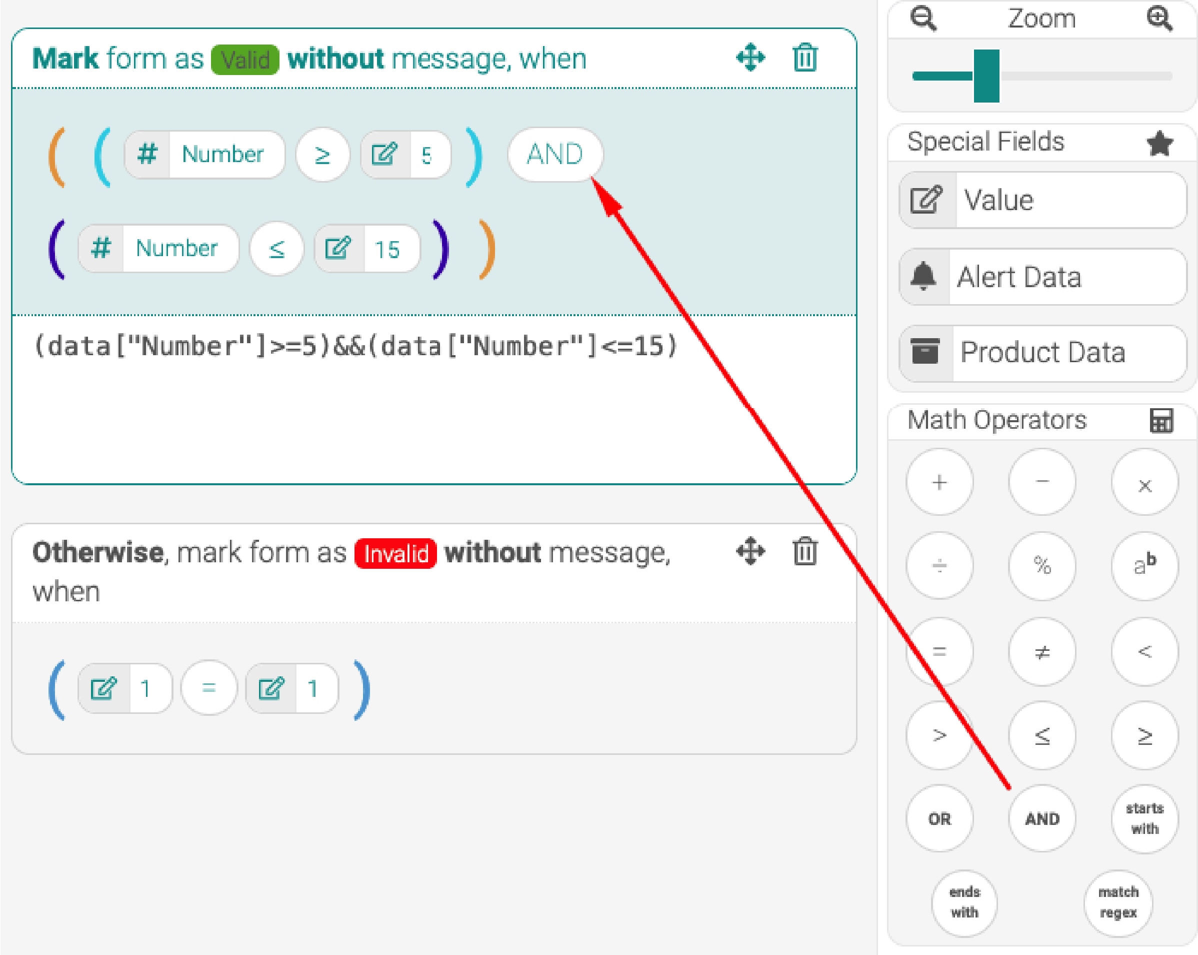
```
(data["Number"]>=5)&&(data["Number"]<=15)
```

Otherwise, mark form as Invalid without message, when

(1 = 1)

- Enter the minimum value 5

- Drag in the 'AND' operator



Mark form as Valid without message, when

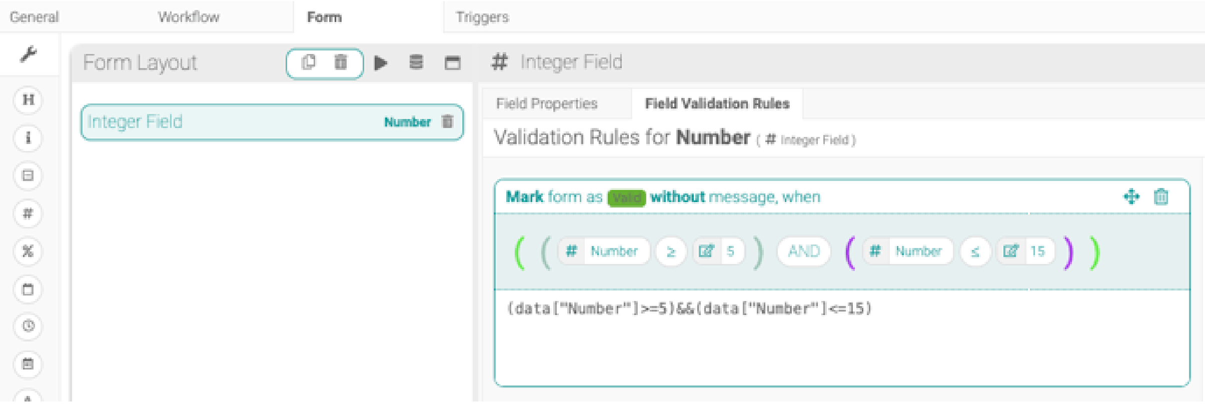
((# Number ≥ 5) AND (# Number ≤ 15))

```
(data["Number"]>=5)&&(data["Number"]<=15)
```

Otherwise, mark form as Invalid without message, when

(1 = 1)

- Drag in the number field from the form layout
- Drag in the 'less than ≤' symbol
- Enter the minimum value 15



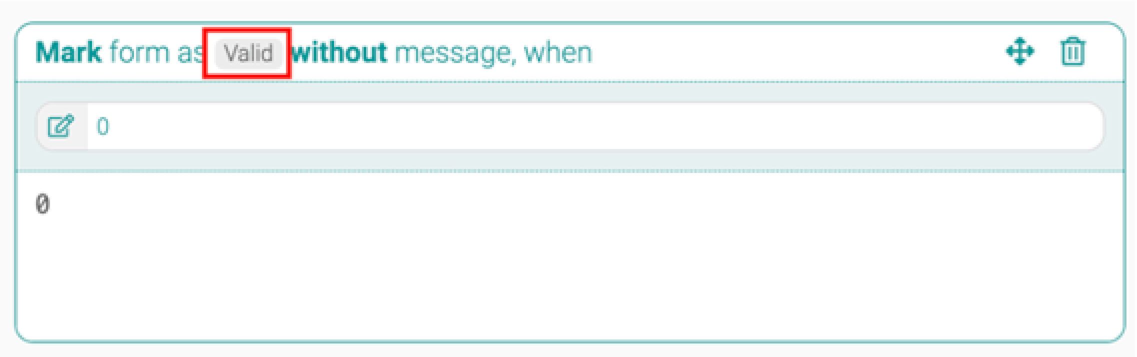
Validation Rules for Number (# Integer Field)

Mark form as Valid without message, when

((# Number ≥ 5) AND (# Number ≤ 15))

```
(data["Number"]>=5)&&(data["Number"]<=15)
```

Step 2 - Click on the 'Valid' word



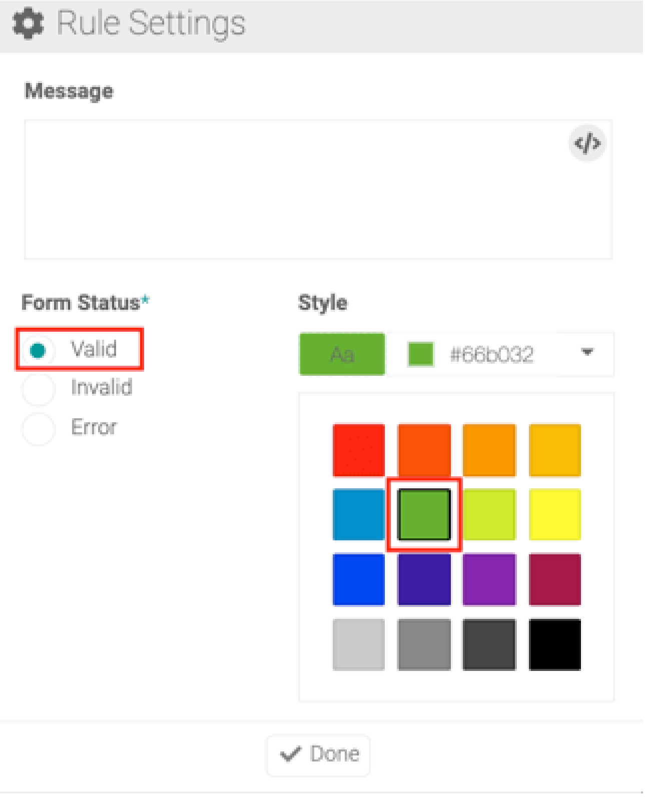
Mark form as Valid without message, when

0

0

Step 3 - Set up the Form Status, Colour and add a message if needed.

Note: The Error status will not allow the user to submit the form until the field is valid.



Rule Settings

Message

Form Status*

● Valid

○ Invalid

○ Error

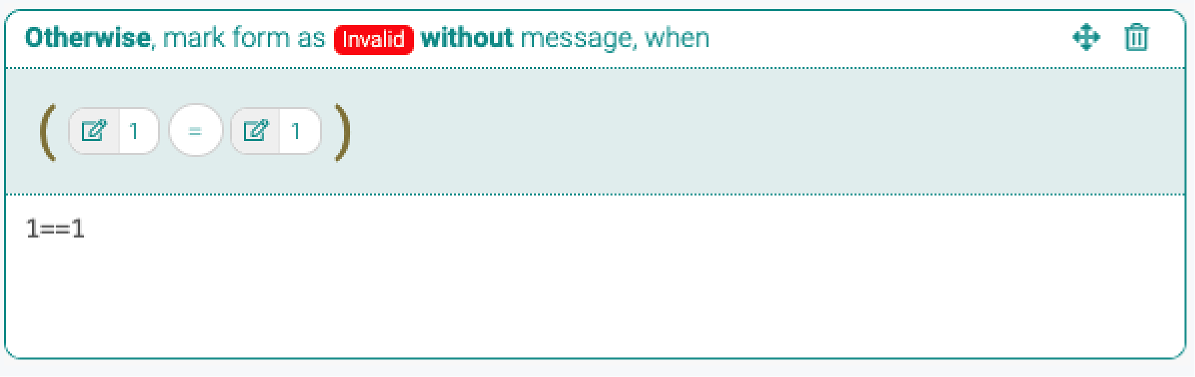
Style

Aa 🟩 #66b032

✓ Done

Step 4 - Invalidate everything outside of the valid range by inputting 1==1.

```
1==1
```



1==1

How to validate a range in my flow form using product metadata?

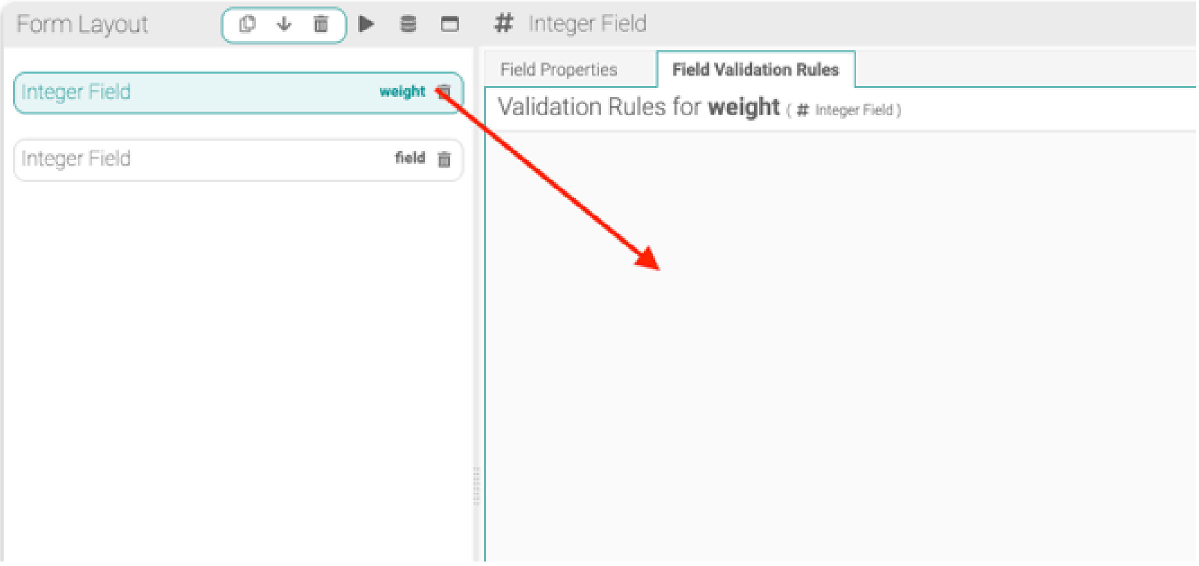
This article will guide you in validating a field based on the value from a product metadata in your flow form.

In this example, the field is valid between weightMin and weightMax

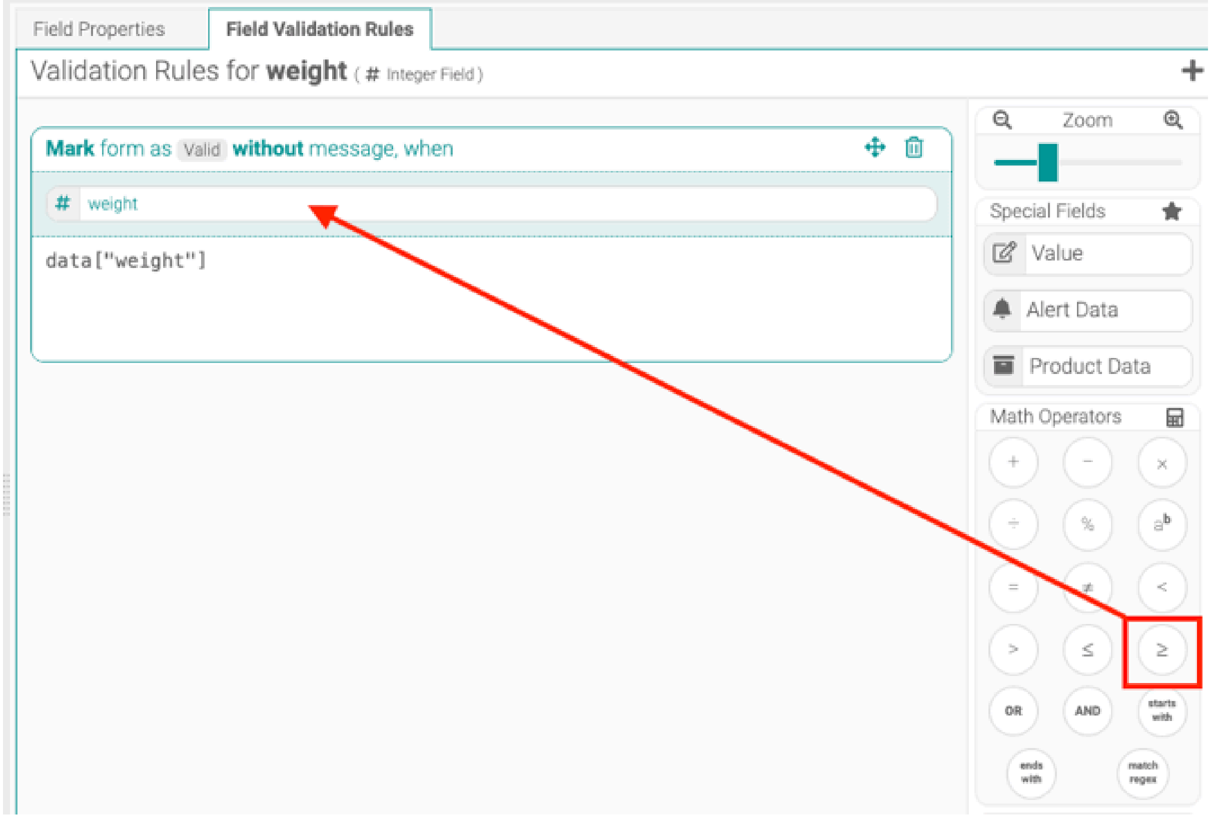
Create the first valid range by:

```
(data["weight"]>=(jobmeta["weightMin"]))&&(data["weight"]<=(jobmeta["
weightMax"]))
```

Step 1 - Dragging in the field from the form layout and drop anywhere in the grey space

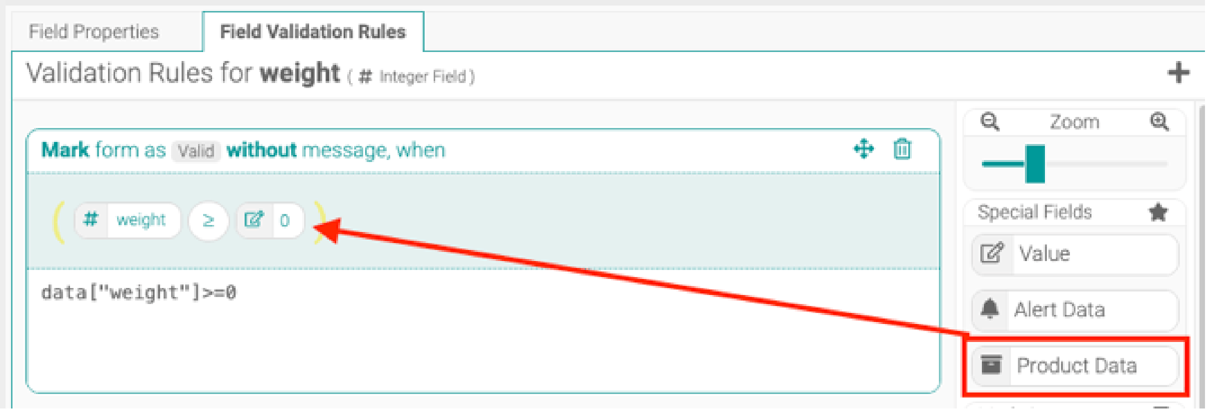


Step 2 - Drag in the 'greater than ≥' symbol

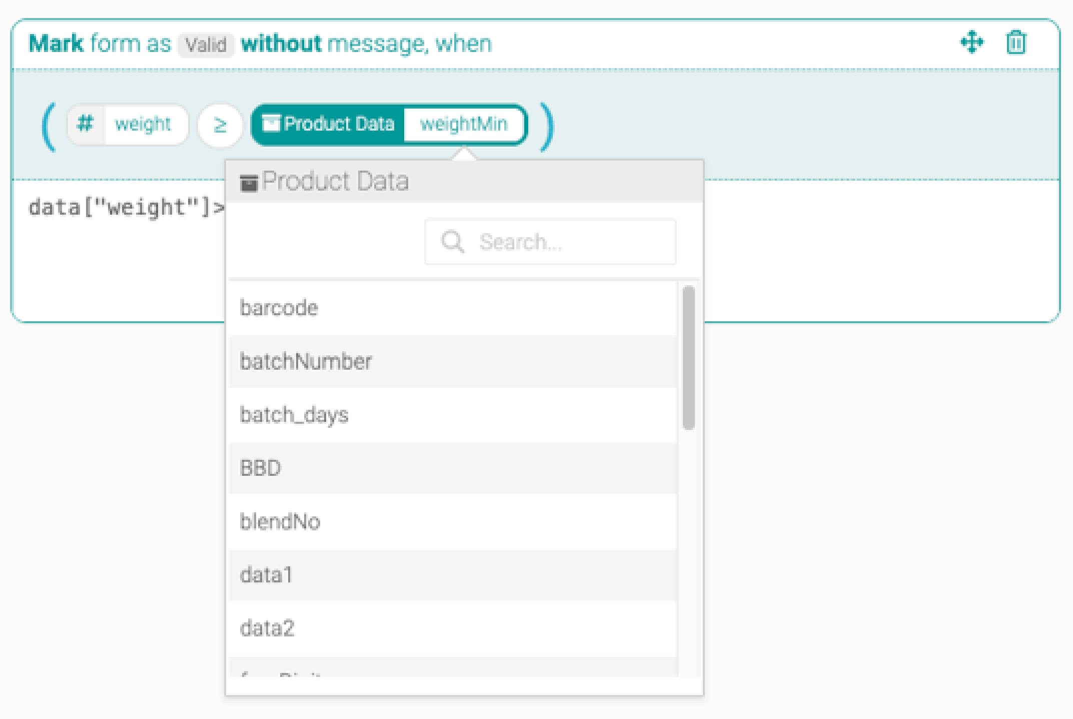


```
data["weight"]
```

Step 3 - Drag 'Product Data' on the '0' to replace. Click 'ratedSpeed' and select the product data e.g. weightMin



```
data["weight"]>=0
```

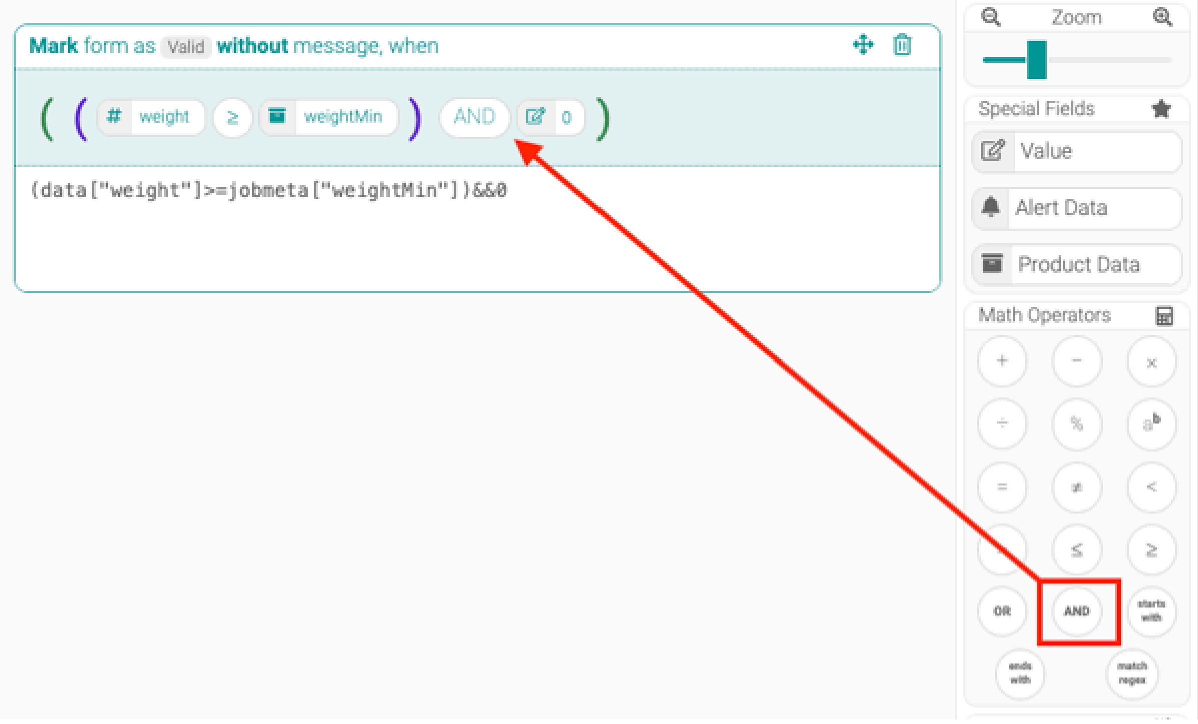


Mark form as Valid without message, when

(# weight ≥ Product Data weightMin)

```
data["weight"]>
```

Step 4 - Drag in the 'AND' operator and drop after the parentheses

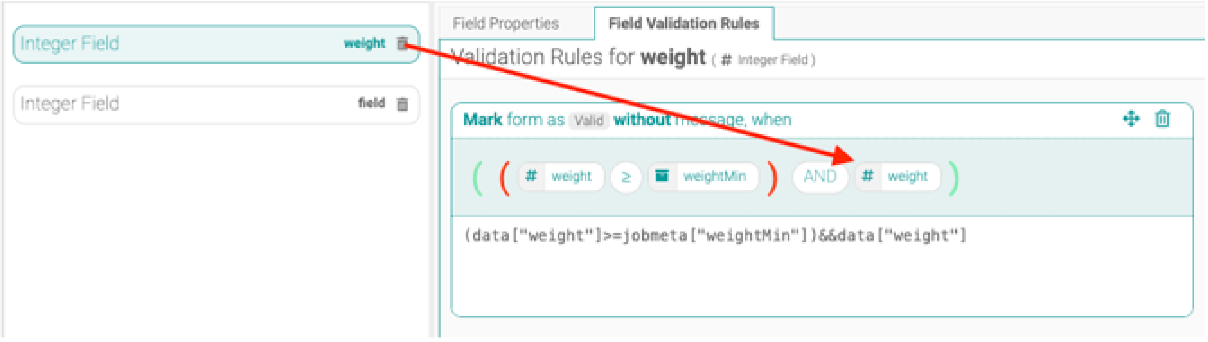


Mark form as Valid without message, when

((# weight ≥ weightMin) AND 0)

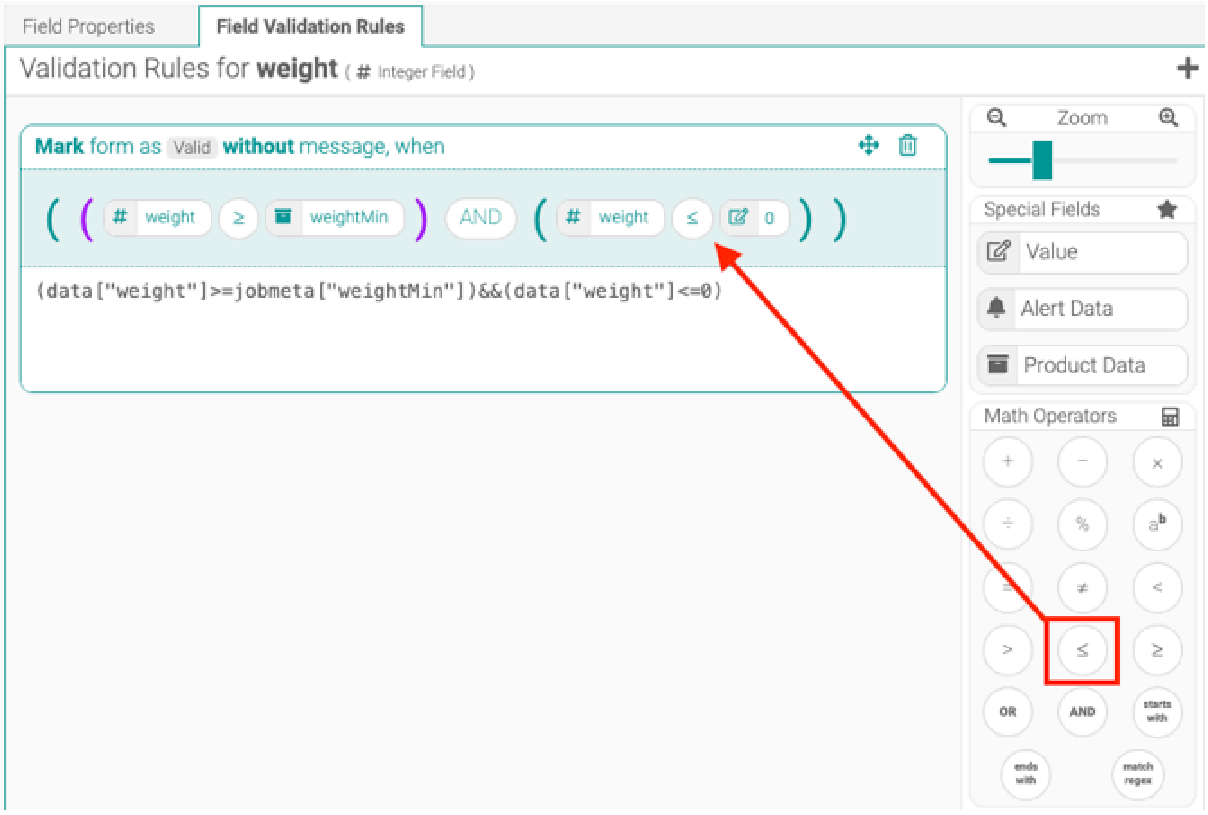
```
(data["weight"]>=jobmeta["weightMin"])&&0
```

Step 5 - Dragging in the field from the form layout and replace the '0'


Integer Field
weight
Integer Field
field
Field Properties
Field Validation Rules
Validation Rules for weight (# Integer Field)
Mark form as Valid without message, when
((# weight ≥ weightMin) AND # weight)

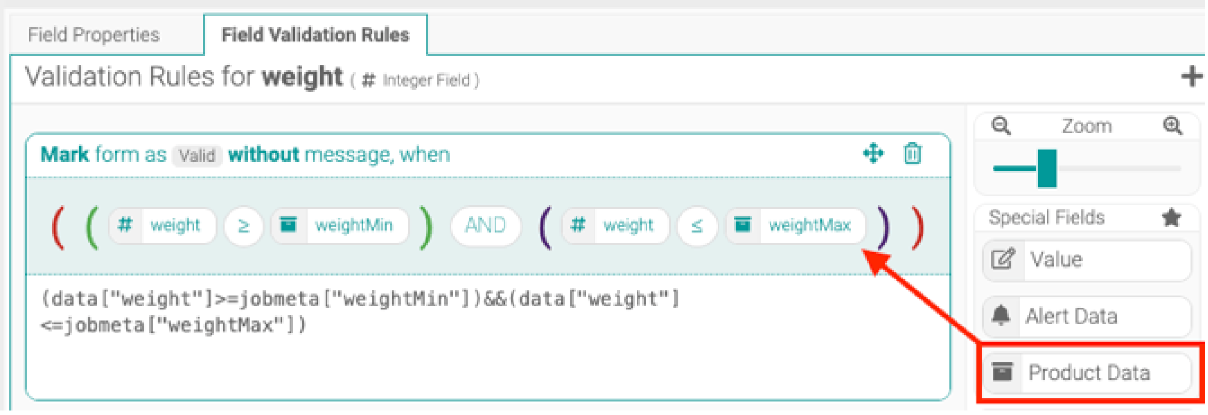
```
(data["weight"]>=jobmeta["weightMin"])&&data["weight"]
```

Step 6 - Drag in the 'less than' symbol ≤ and drop it inside the parentheses



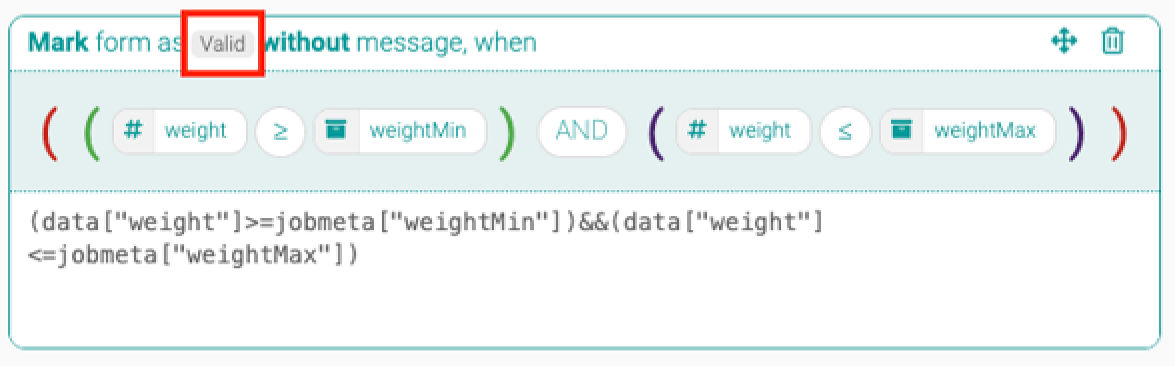
```
(data["weight"]>=jobmeta["weightMin"])&&(data["weight"]<=0)
```

Step 7 - Drag 'Product Data' on the '0' to replace. Click 'ratedSpeed' and select the product data e.g. weightMax


Field Properties
Field Validation Rules
Validation Rules for weight (# Integer Field)
Mark form as Valid without message, when
((# weight ≥ weightMin) AND (# weight ≤ weightMax))
Zoom
Special Fields
Value
Alert Data
Product Data

```
(data["weight"]>=jobmeta["weightMin"])&&(data["weight"]
<=jobmeta["weightMax"])
```

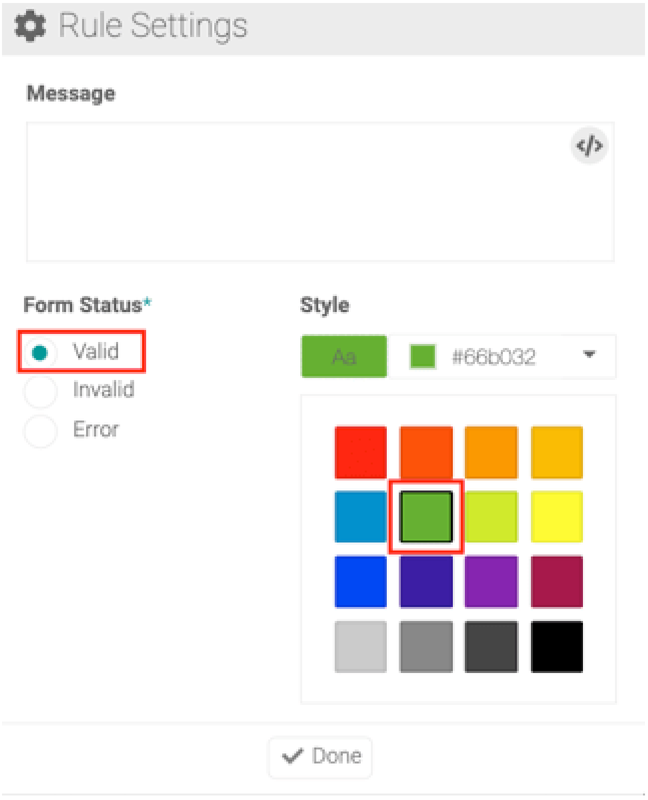
Step 8 - Click on the 'Valid' word


Mark form as Valid without message, when
((# weight ≥ weightMin) AND (# weight ≤ weightMax))

```
(data["weight"]>=jobmeta["weightMin"])&&(data["weight"]
<=jobmeta["weightMax"])
```

Step 9 - Set up the Form Status, Colour and add a message if needed.

Note: The Error status will not allow the user to submit the form until the field is valid.



Rule Settings

Message

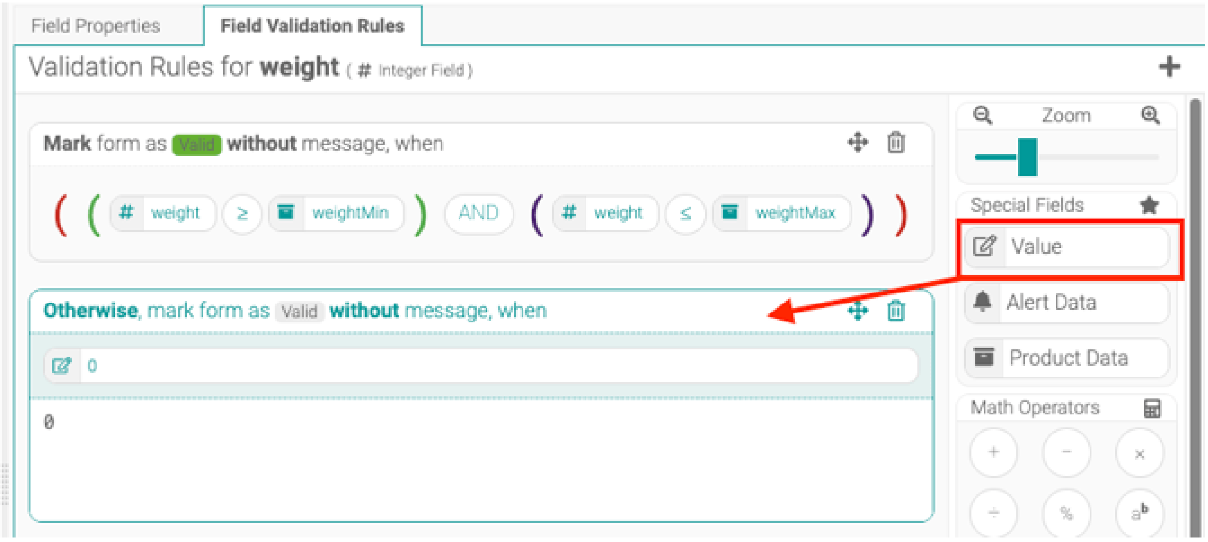
Form Status*

● Valid
○ Invalid
○ Error

Style

Aa | 🟩 #66b032

Step 10 - Create the invalid rule by dragging the value into the dotted line



Validation Rules for **weight** (# Integer Field)

Mark form as Valid **without** message, when

((# weight ≥ weightMin) AND (# weight ≤ weightMax))

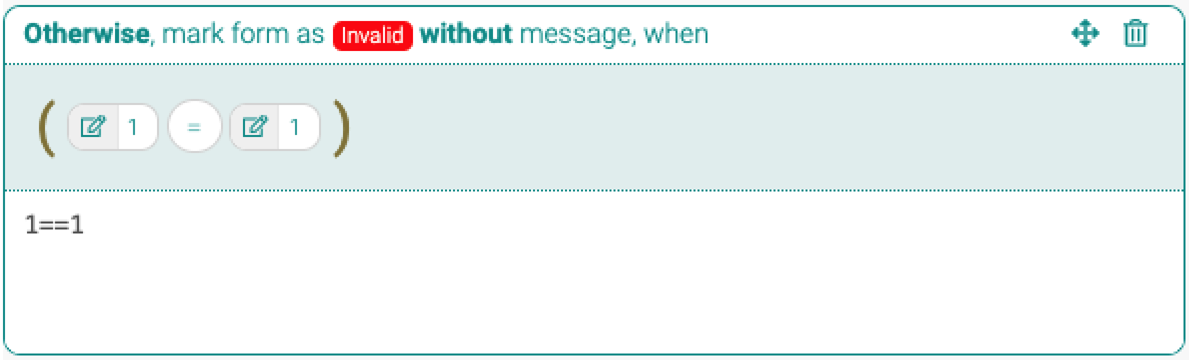
Otherwise, mark form as Valid **without** message, when

0

0

Step 11 - Enter the rule 1==1 in the white area. This code invalidates everything outside of the valid range.

Step 12 - Click the 'valid' word and set the Form Status to 'invalid', select a colour and add a message if needed.



Otherwise, mark form as Invalid **without** message, when

(1 = 1)

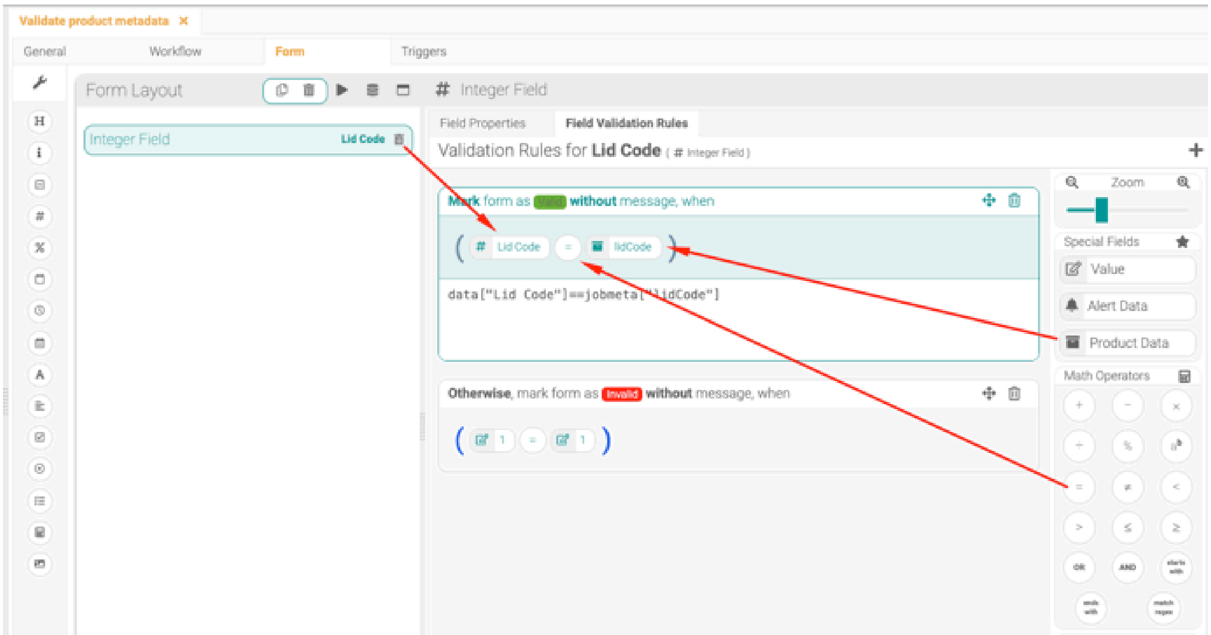
1==1

How to validate a code from my product list in my flow form?

In this example, we are validating the Lid Code field with the code in the product data.

Step 1 - Create the valid field by:

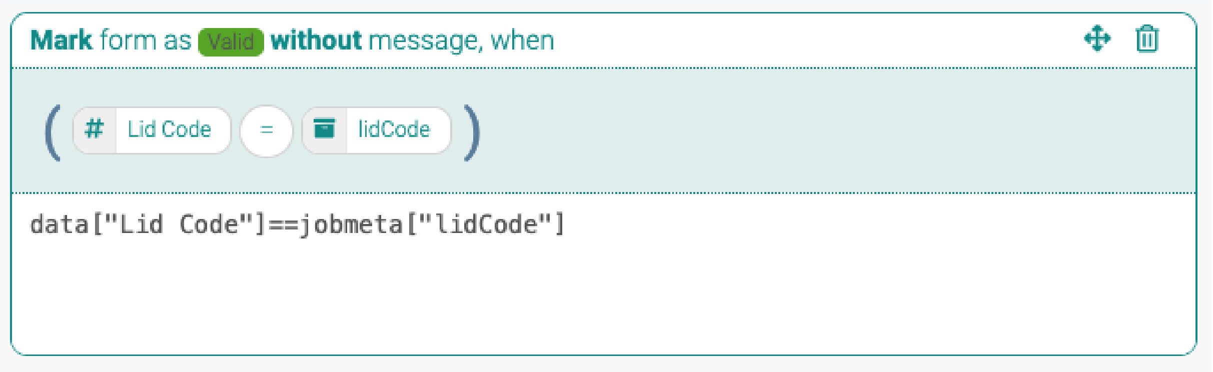
- Drag in the field you are validating
- Drag in the = sign from the Math Operators
- Drag in the Product Data and select the correct product data. I.e. Lid Code.



```
data["Lid Code"]==jobmeta["lidCode"]
```

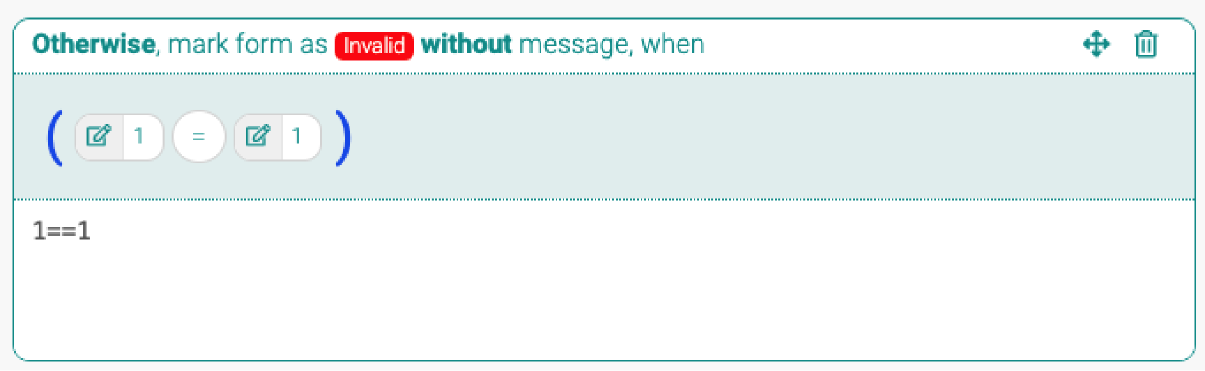
It should look like this:

```
data["Lid Code"]==jobmeta["lidCode"]
```



```
data["Lid Code"]==jobmeta["lidCode"]
```

Step 2 - Invalidate everything outside of the valid range by using "1==1"



Otherwise, mark form as Invalid **without** message, when

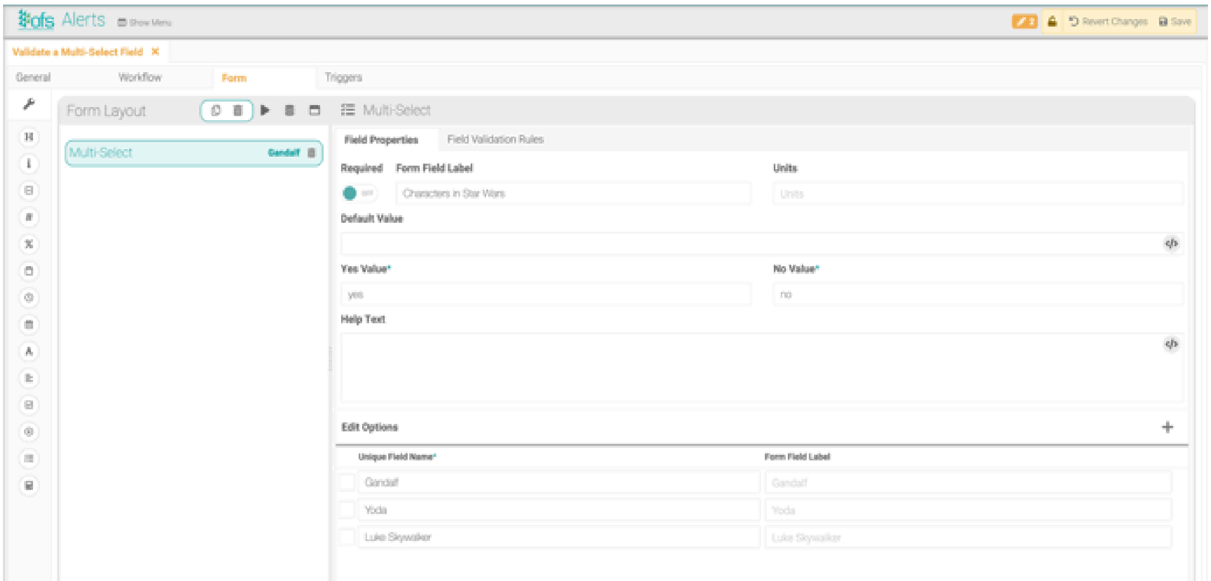
(1 = 1)

```
1==1
```

How to create a validation for the Multi-Select field in forms?

OFS Flow Forms and Multi-Select Fields support Field Validation, but there is a little extra complexity when validating a Multi-Select Field.

When using the Alerts Module in Fusion-Manager to create field validation for a multi-select field, your Validation Rules need to reference the Unique Field Name for each Multi-Select Option:



Multi-Select — Gandalf

Required: ● off

Form Field Label: Characters in Star Wars

Units: Units

Default Value:

Yes Value*: yes

No Value*: no

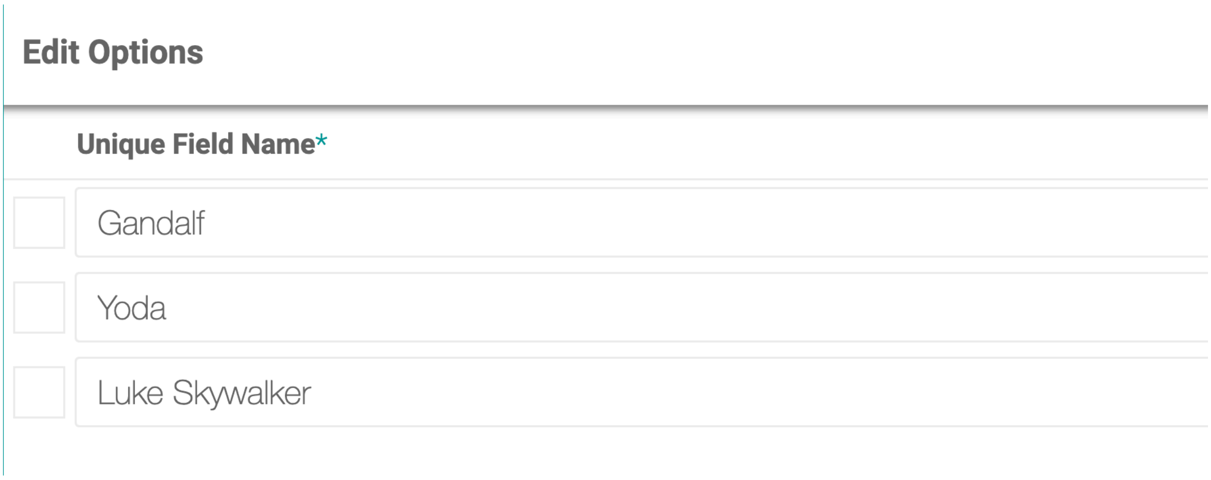
Help Text:

Edit Options

Unique Field Name*	Form Field Label
Gandalf	Gandalf
Yoda	Yoda
Luke Skywalker	Luke Skywalker

Unique Field Names cannot be dragged and dropped via the usual interface, so we recommend typing the field names into your Validation Formulas.

In the example field we've created here, there are 3 multi-select options:



Edit Options

Unique Field Name*

□ Gandalf

□ Yoda

□ Luke Skywalker

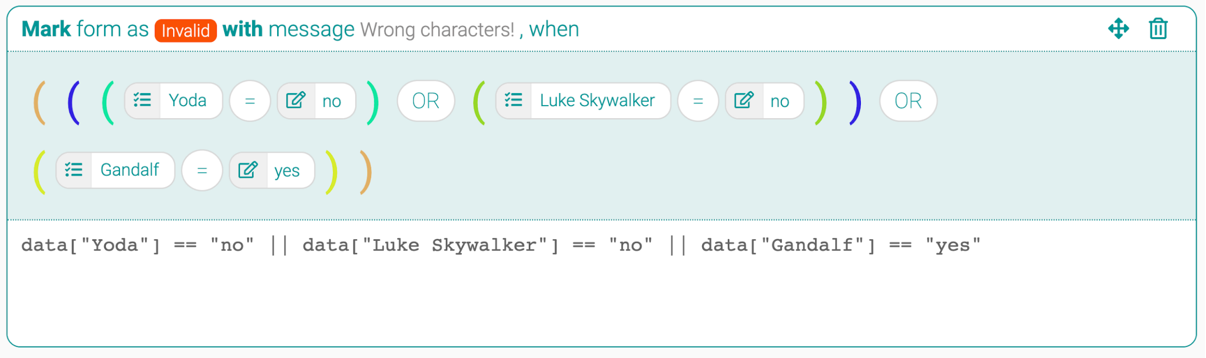
Within a validation formula, each value can be referenced as:

data["Unique Field Name"]

Where Unique Field Name matches your specific data, per the below example:

data["Yoda"] == "no" || data["Luke Skywalker"] == "no" || data["Gandalf"] == "yes"

These can be built into Validation Rules per the below example:



Mark form as Invalid **with** message Wrong characters! , when

(((Yoda = no) OR (Luke Skywalker = no)) OR (Gandalf = yes))

```
data["Yoda"] == "no" || data["Luke Skywalker"] == "no" || data["Gandalf"] == "yes"
```

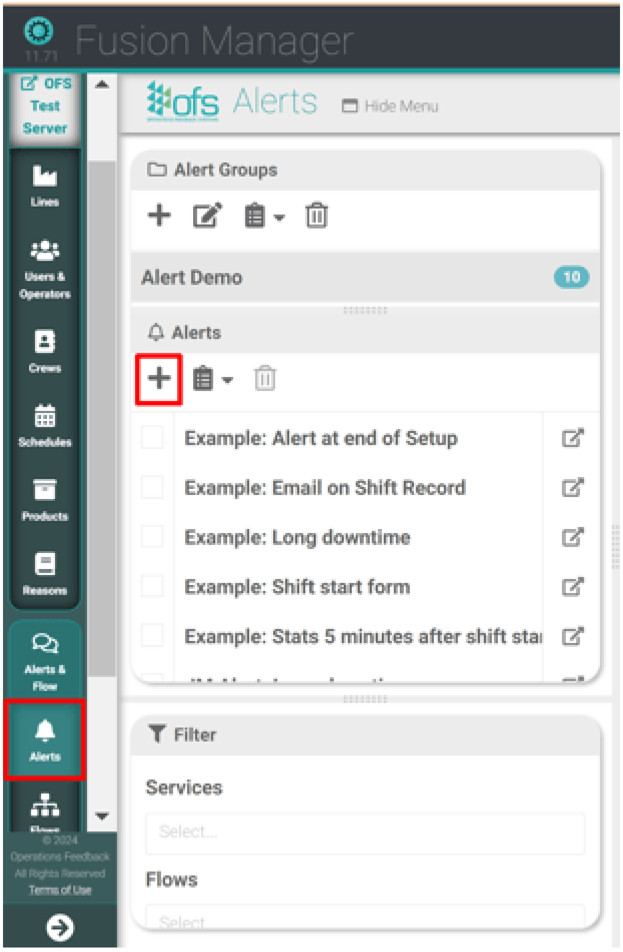
The rule above invalidates a user's repsonse when they have ticked Gandalf, or left Yoda OR Luke Skywalker unticked.

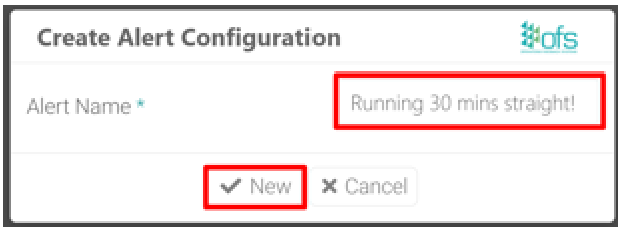
How to create run time alerts to celebrate team wins?

This article will show you how to configure an alert based on run time so you can celebrate production wins!

Note: Implementing this alert will require [OFS Flow](). If this is currently not in place, reach out to our sales team by emailing sales@ofsystems.com to discuss further.

Step 1: Create a new alert in Fusion Manager. If you are unsure on how to set this up, [watch this video]().

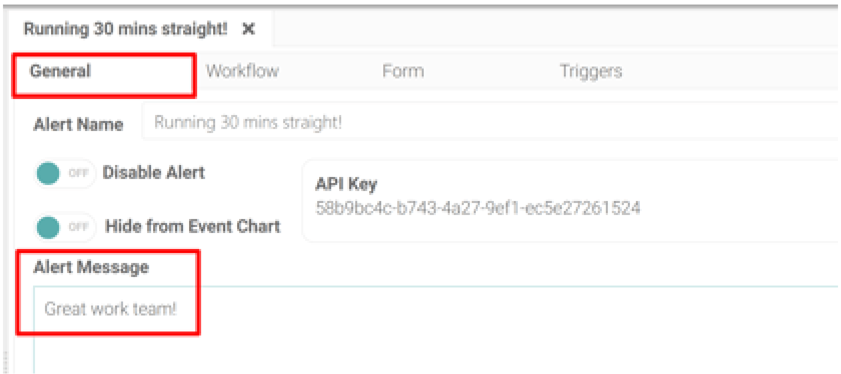




Create Alert Configuration

Alert Name * Running 30 mins straight!

Step 2: In the alert message area, write a note that you would like operators to see celebrating their accomplishment.



Alert Name: Running 30 mins straight!

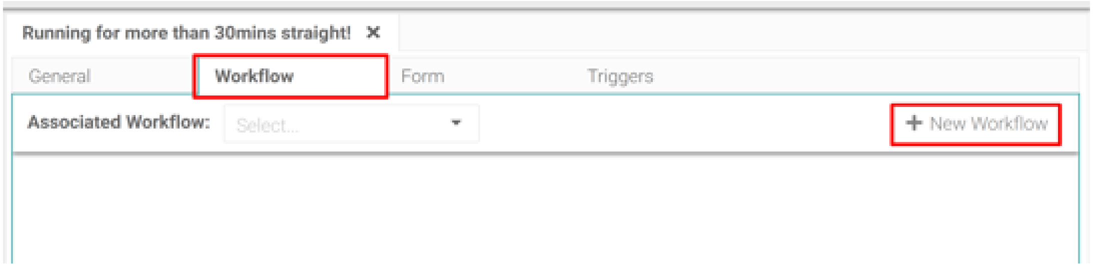
OFF Disable Alert

OFF Hide from Event Chart

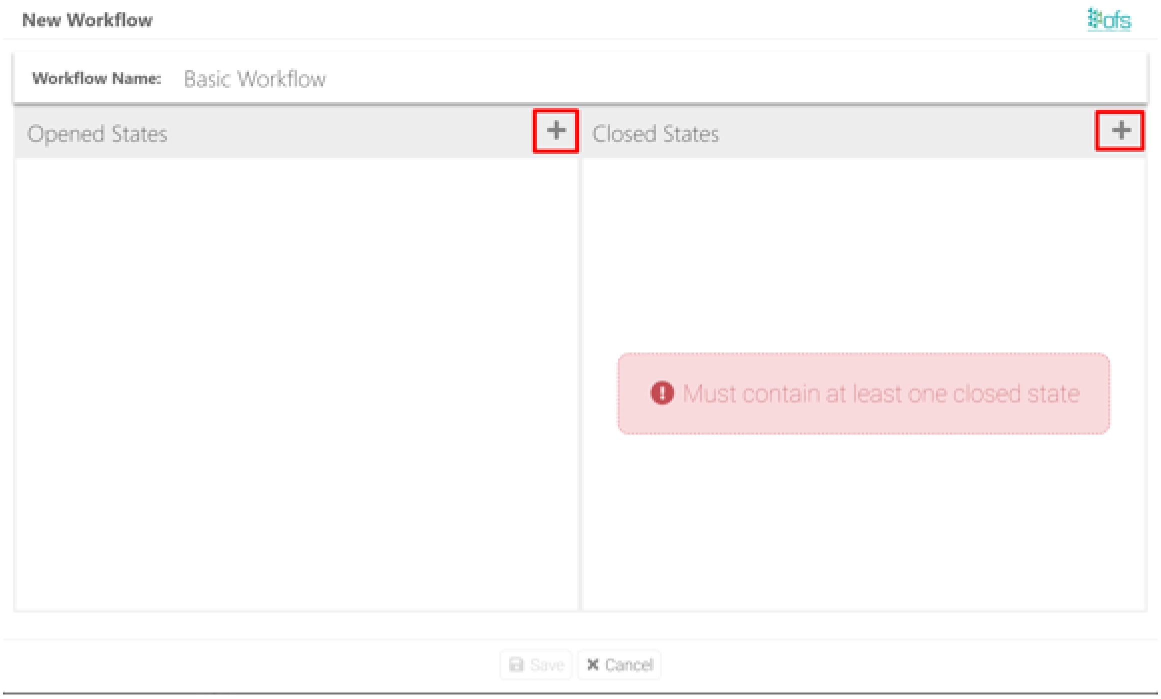
API Key: 58b9bc4c-b743-4a27-9ef1-ec5e27261524

Alert Message: Great work team!

Step 3: Set up a basic work flow with 1 Open and 1 Closed work state.



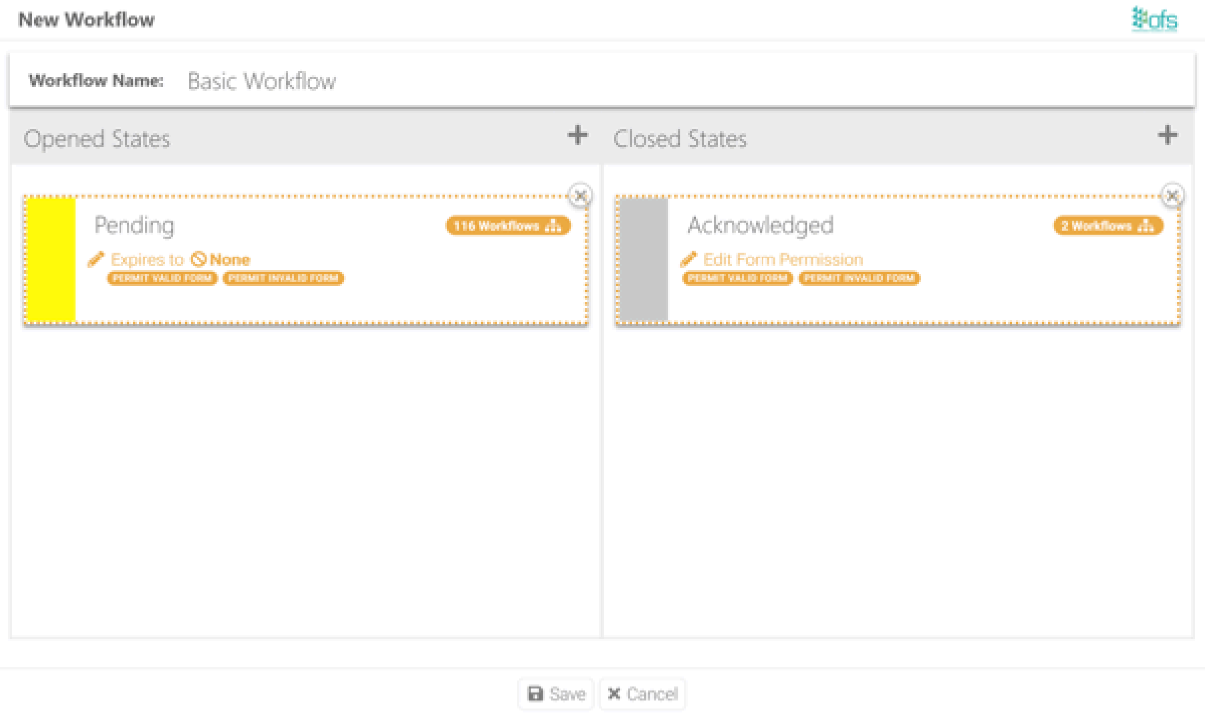
Associated Workflow: Select...



New Workflow

Workflow Name: Basic Workflow

Must contain at least one closed state



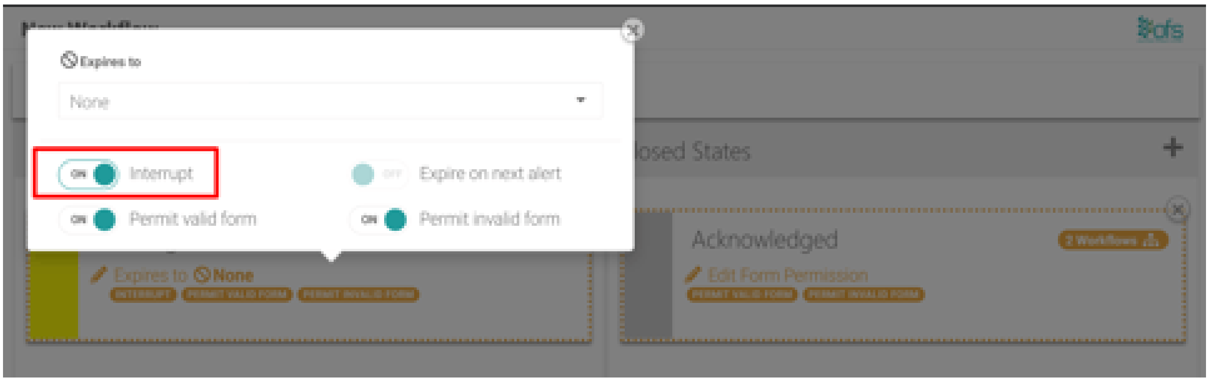
New Workflow

Workflow Name: Basic Workflow

Pending
116 Workflows
Expires to None
PERMIT VALID FORM
PERMIT INVALID FORM

Acknowledged
2 Workflows
Edit Form Permission
PERMIT VALID FORM
PERMIT INVALID FORM

Step 3: Ensure the Interrupt function is toggled to 'ON' for the Open work state.



Expires to

None

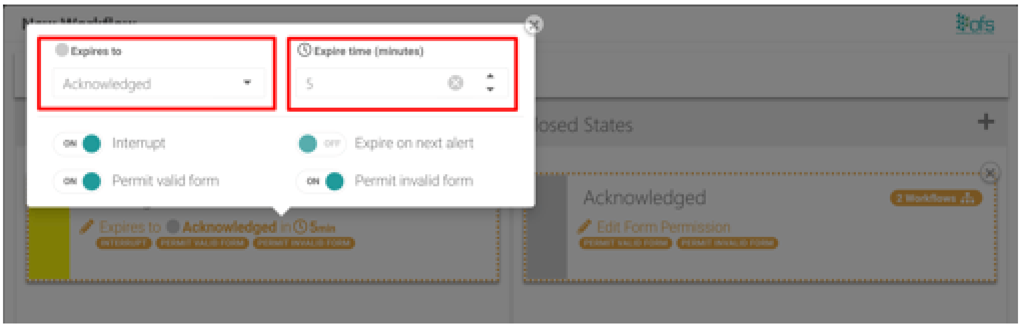
ON Interrupt

OFF Expire on next alert

ON Permit valid form

ON Permit invalid form

Step 4: Create an automatic expiry from the open to closed state, depending on how long you would like for the alert to remain on the operator console. Save your changes once you have completed your workflow.



Expires to

Acknowledged

Expire time (minutes)

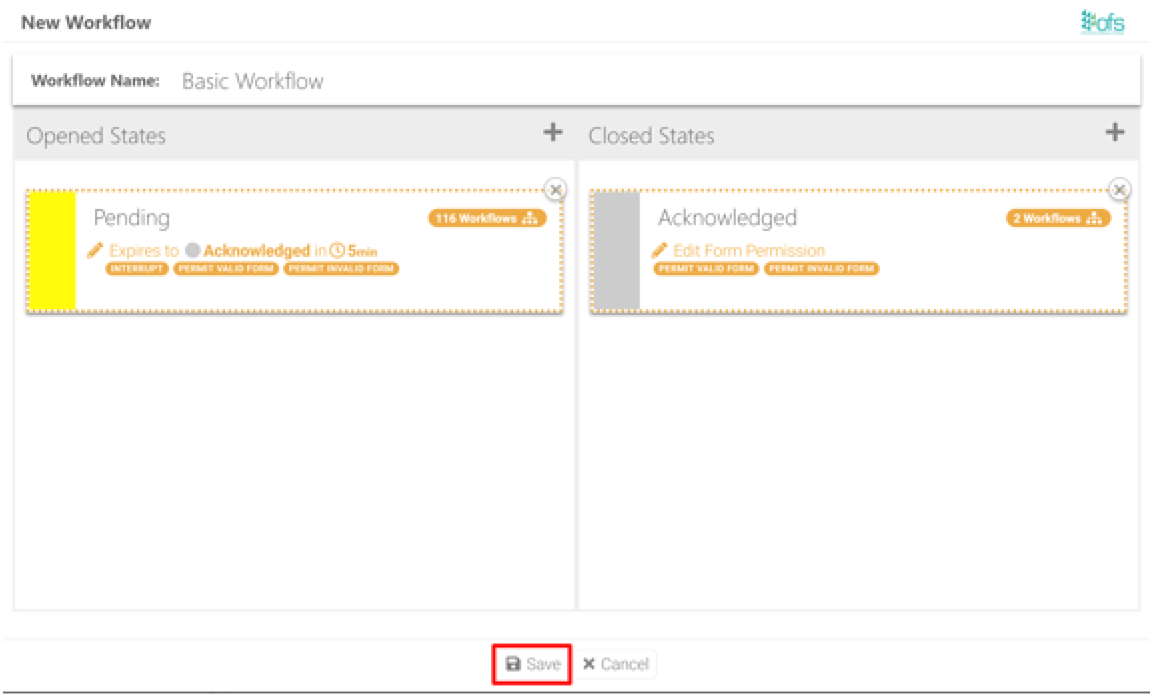
5

ON Interrupt

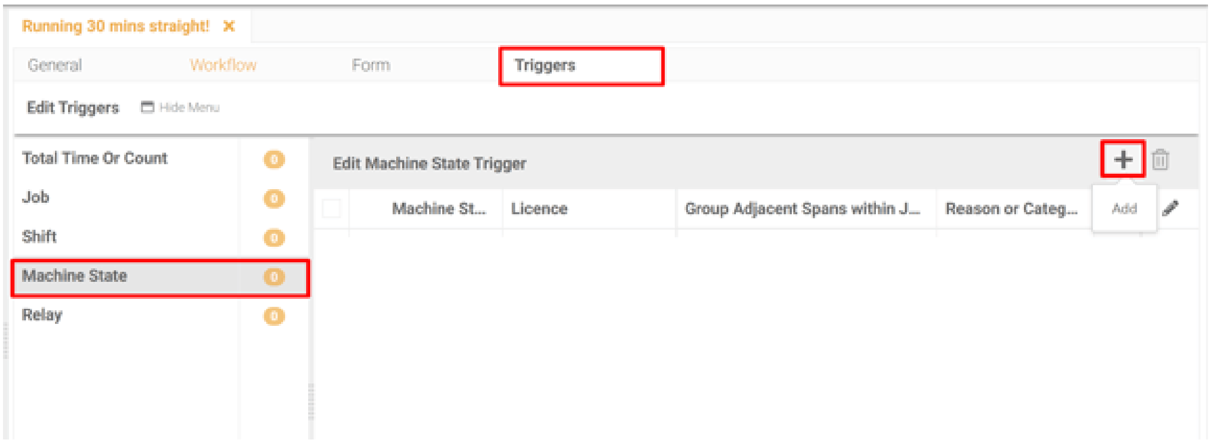
OFF Expire on next alert

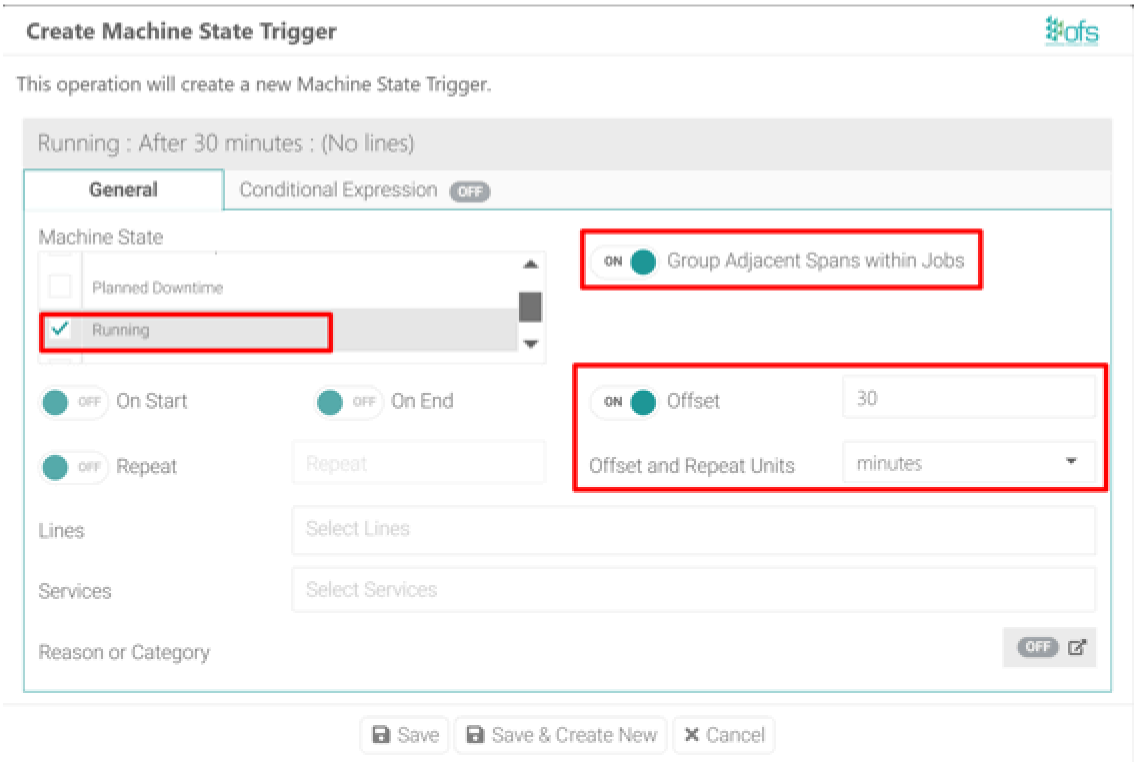
ON Permit valid form

ON Permit invalid form



Step 5: Create a Machine State trigger, such that the alert is activated after a set amount (offset) of run time.





Create Machine State Trigger

This operation will create a new Machine State Trigger.

Running : After 30 minutes : (No lines)

Machine State

- □ Planned Downtime
- ☑ Running

ON Group Adjacent Spans within Jobs

OFF On Start

OFF On End

ON Offset: 30

OFF Repeat

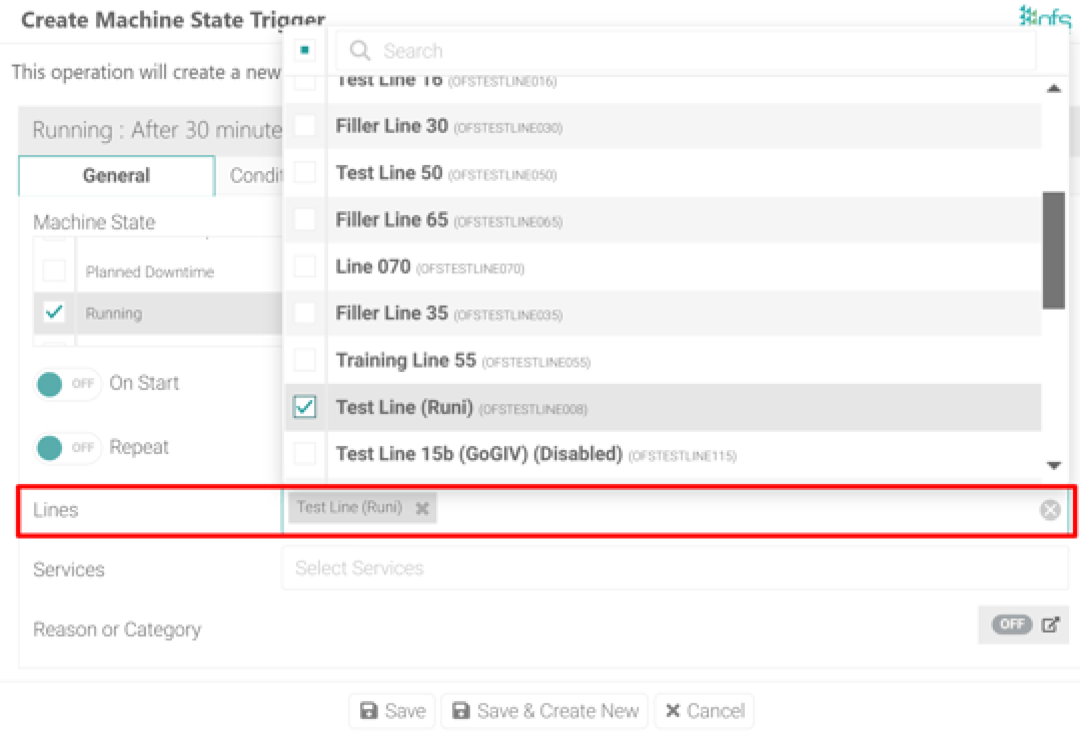
Offset and Repeat Units: minutes

Lines: Select Lines

Services: Select Services

Reason or Category: OFF

Step 6: Select the lines you would like to activate the alert on and save your changes.



Create Machine State Trigger

This operation will create a new

Running : After 30 minute

Machine State

- □ Planned Downtime
- ☑ Running

OFF On Start

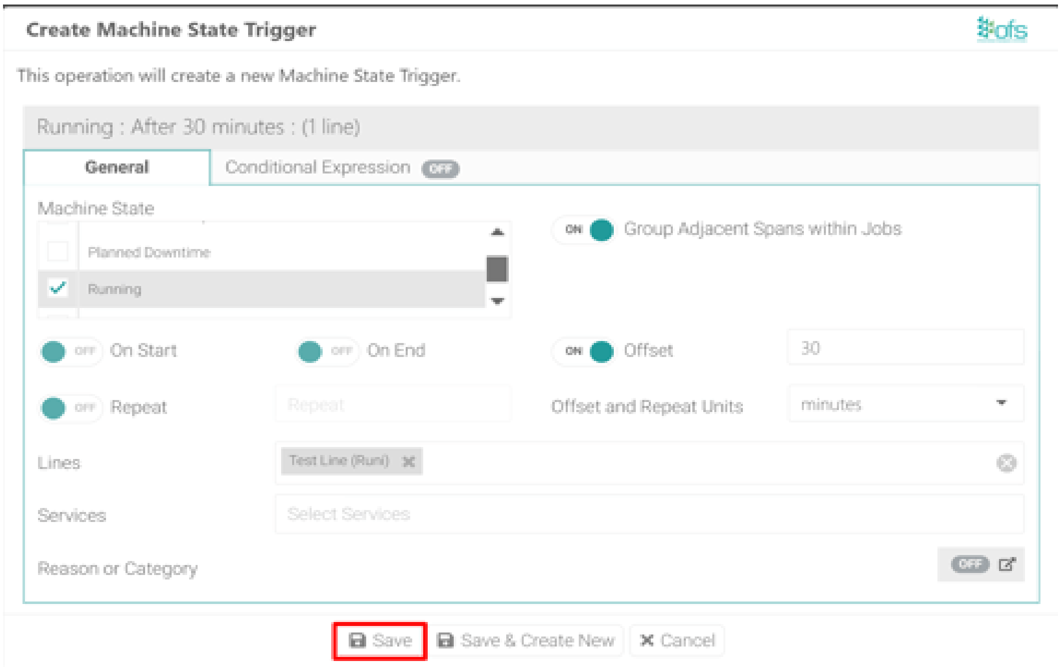
OFF Repeat

- □ Test Line 16 (OFSTESTLINE016)
- □ Filler Line 30 (OFSTESTLINE030)
- □ Test Line 50 (OFSTESTLINE050)
- □ Filler Line 65 (OFSTESTLINE065)
- □ Line 070 (OFSTESTLINE070)
- □ Filler Line 35 (OFSTESTLINE035)
- □ Training Line 55 (OFSTESTLINE055)
- ☑ Test Line (Runi) (OFSTESTLINE008)
- □ Test Line 15b (GoGIV) (Disabled) (OFSTESTLINE115)

Lines: Test Line (Runi)

Services: Select Services

Reason or Category: OFF

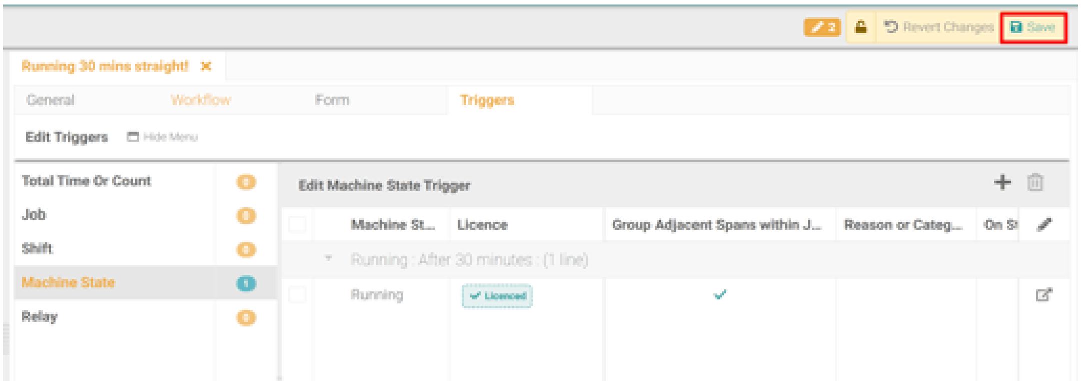


Create Machine State Trigger

This operation will create a new Machine State Trigger.

Running : After 30 minutes : (1 line)

Machine State	□ Planned Downtime ☑ Running
ON Group Adjacent Spans within Jobs	
OFF On Start	
OFF On End	
ON Offset	30
OFF Repeat	Repeat
Offset and Repeat Units	minutes
Lines	Test Line (Runi)
Services	Select Services
Reason or Category	OFF



Running 30 mins straight!

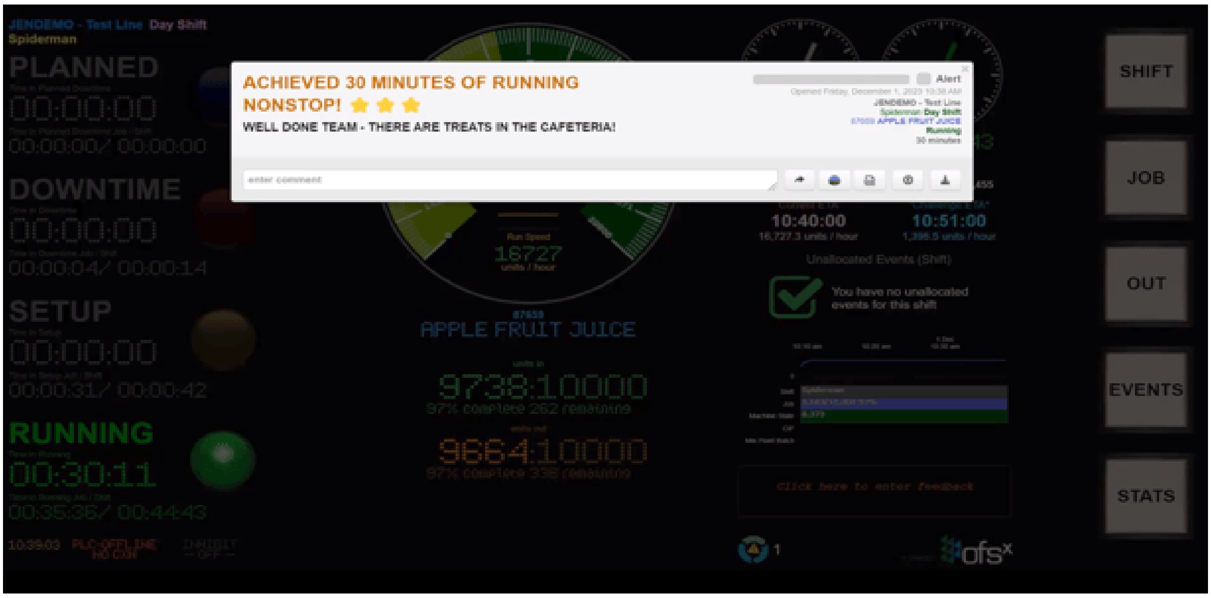
Edit Triggers

Total Time Or Count	0
Job	0
Shift	0
Machine State	1
Relay	0

Edit Machine State Trigger

Machine St...	Licence	Group Adjacent Spans within J...	Reason or Categ...	On St
Running : After 30 minutes : (1 line)				
Running	✓ Licenced	✓		

Step 7: Once your alert is active and you hit your run time target, you should observe a message on the operator screen. If no alerts are appearing, click here to learn how to troubleshoot.



ACHIEVED 30 MINUTES OF RUNNING NONSTOP! ⭐ ⭐ ⭐

WELL DONE TEAM - THERE ARE TREATS IN THE CAFETERIA!

How to validate a label barcode?

This article guides you through matching a multifield barcode that contains different parts of information with details of the product. In this example, we match the first number of a barcode to the job information.

Take this example, there are 2 barcodes; 12345 or 23456 and each digit of the first number matches a Site ID.

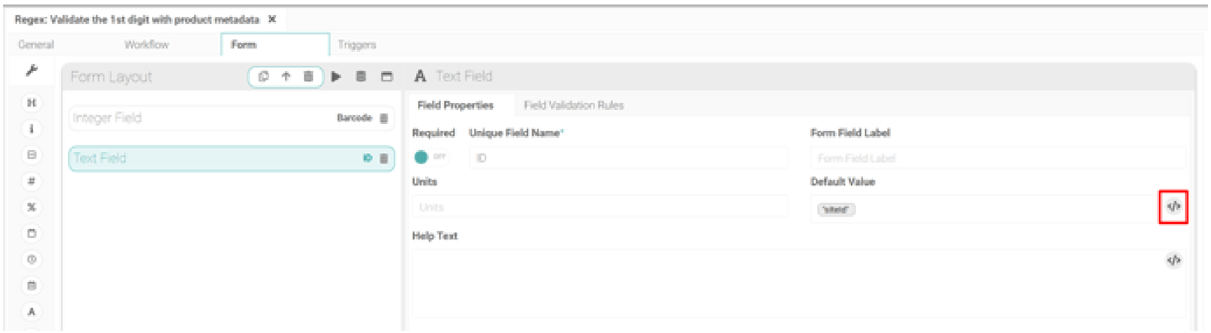
- If the first digit is a 1, the site ID is ABC
- If the first digit is a 2, the Site ID is XYZ.

Here are the steps to creating the validations:

Step 1 - Create two fields in a form; 'Barcode' and 'ID'.

- The barcode digit will be scanned into this field by a user.
- The ID will be pulled automatically from the product list

Step 2 - In the ID field, you can automatically pull data from the product list using the variable icon:



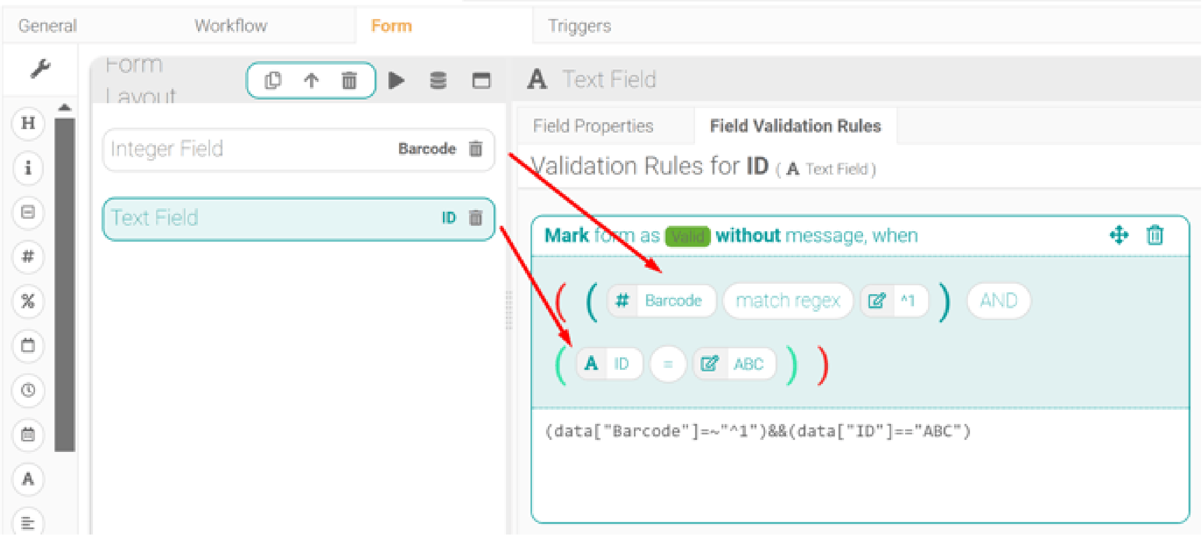
Regex: Validate the 1st digit with product metadata

Unique Field Name*: ID

Step 3 - In the 'ID' validation rules tab, create the following validations:

- (data["Barcode"]=~"^1")&&(data["ID"]=="ABC")

NOTE: the "^1" is referencing the first digit and it must be a 1.



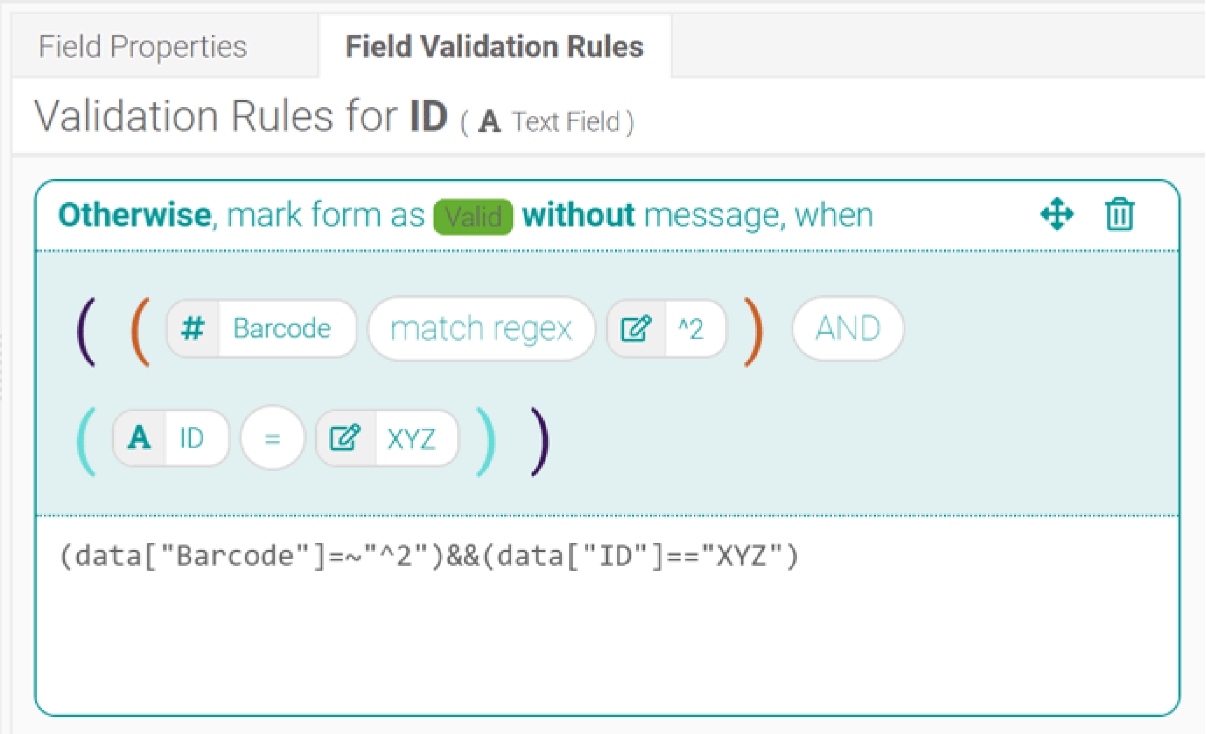
Validation Rules for **ID** (A Text Field)

Mark form as valid without message, when

```
(data["Barcode"]=~"^1")&&(data["ID"]=="ABC")
```

- (data["Barcode"]=~"^2")&&(data["ID"]=="XYZ")

NOTE: the "^2" is referencing the first digit and it must be a 2.



Field Properties | Field Validation Rules

Validation Rules for **ID** (A Text Field)

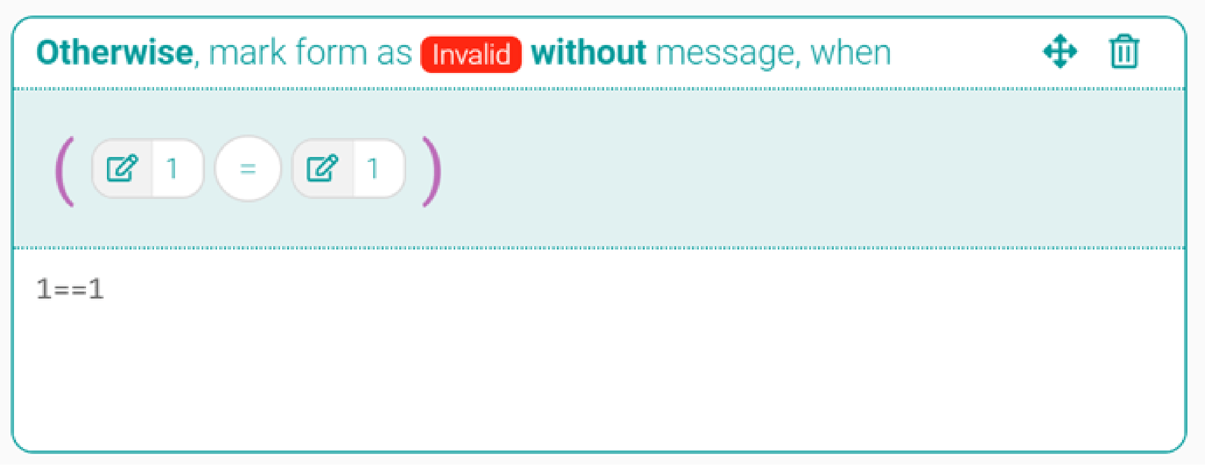
Otherwise, mark form as Valid **without** message, when

((# Barcode match regex ^2) AND (A ID = XYZ))

```
(data["Barcode"]=~"^2")&&(data["ID"]=="XYZ")
```

- `1==1`

When creating an invalid field, we use the expression '1==1' to include everything outside of the valid range.



Otherwise, mark form as Invalid **without** message, when

(1 = 1)

```
1==1
```

How to validate a best-before date?

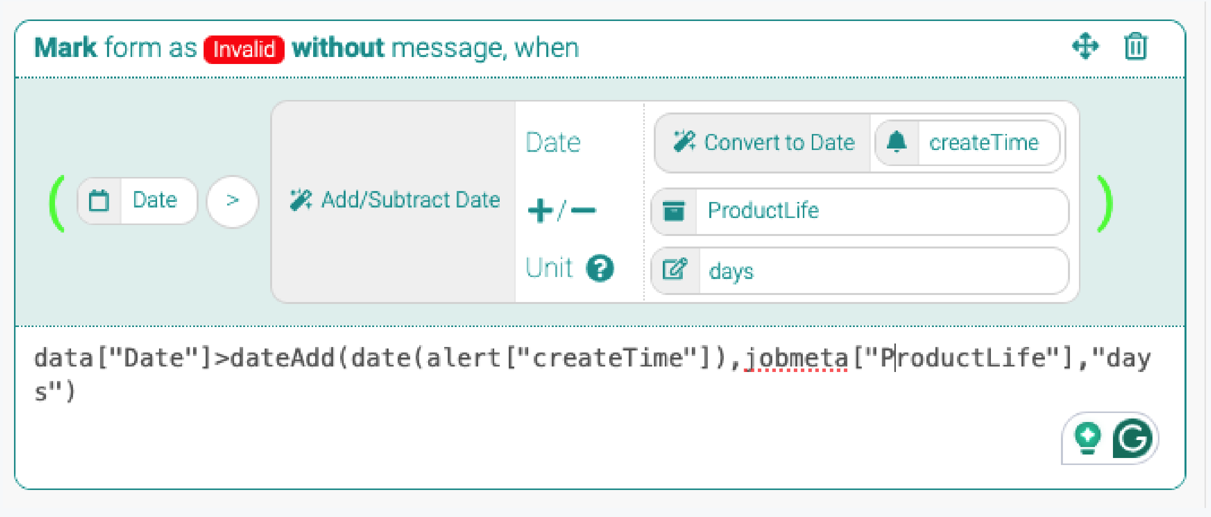
Validating a date code will help operators ensure that date codes are correctly assigned and within specification. This article guides you through validating the date field based on the Product Life in a form.

Validating Date Fields in Fusion Manager

Step 1 - Invalid when the date is no greater than the number of 'x' days. I.e. No greater than Product Life days.

> NOTE: When a form is triggered, a timestamp in seconds is recorded. This is called an epoch timestamp.
> The 'Convert to Date' tool converts epoch timestamp to a date.

```
data["Date"]>dateAdd(date(alert["createTime"]),jobmeta["ProductLife"],"days")
```



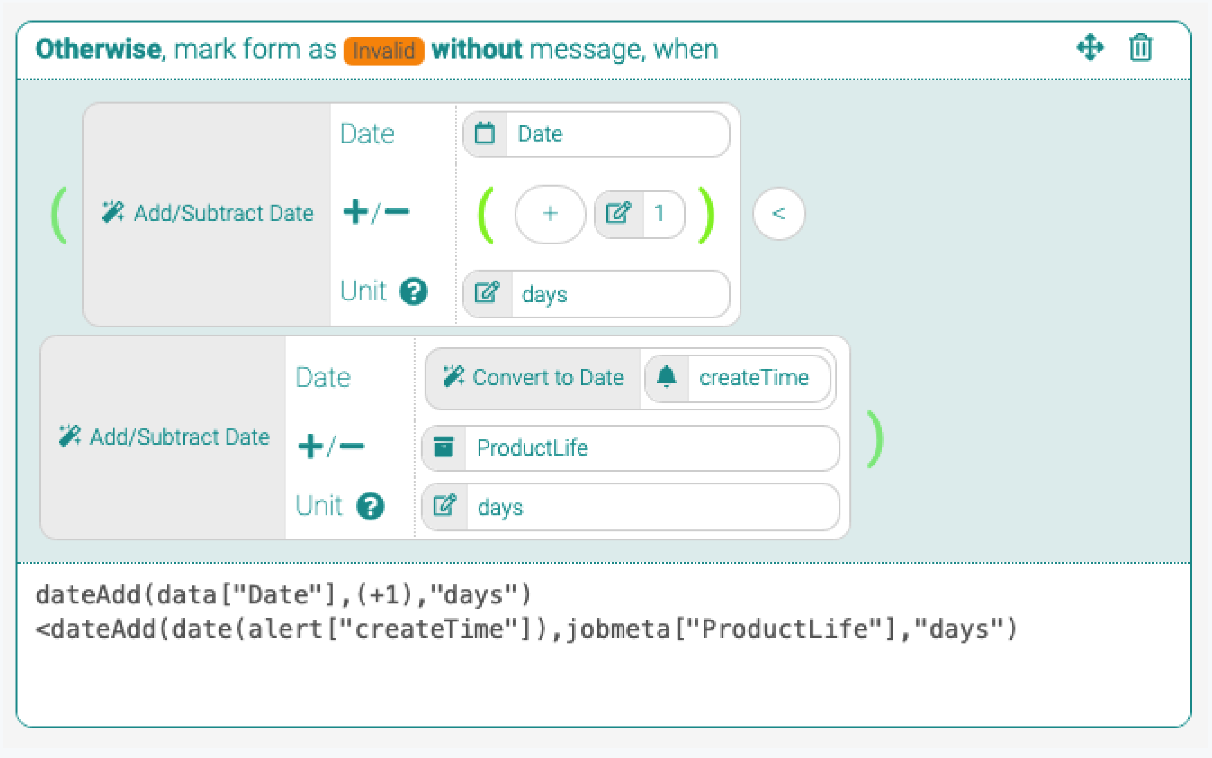
Mark form as Invalid without message, when

```
data["Date"]>dateAdd(date(alert["createTime"]),jobmeta["ProductLife"],"days")
```

Step 2 - Invalid when the date is no less than the number of 'x' days. I.e. no less than Product Life days.

> NOTE: The '+1' takes into account the entire day of which the form was raised as the form will take into account the exact time in seconds rather than the entire day starting from 12am.

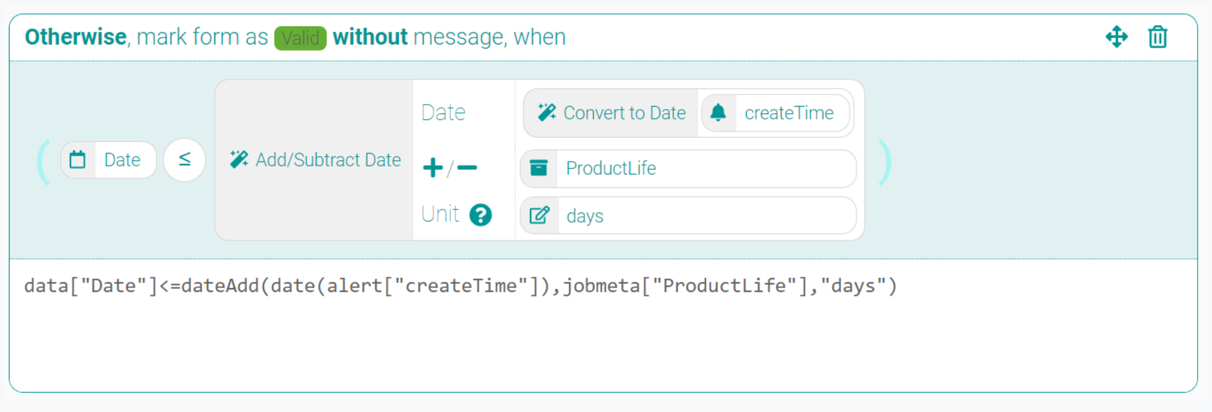
dateAdd(data["Date"],(+1),"days")<dateAdd(date(alert["createTime"]),jobmeta["ProductLife"],"days")



```
dateAdd(data["Date"],(+1),"days")
<dateAdd(date(alert["createTime"]),jobmeta["ProductLife"],"days")
```

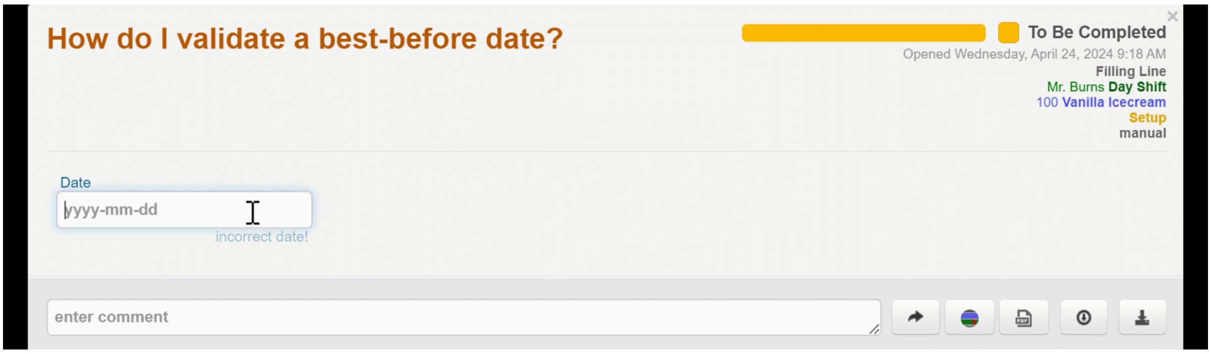
Step 3 - Valid when the entry of the date is equal to our target.

data["Date"]<=dateAdd(date(alert["createTime"]),jobmeta["ProductLife"],"days")



```
data["Date"]<=dateAdd(date(alert["createTime"]),jobmeta["ProductLife"],"days")
```

Here is how it will look for users:



How do I validate a best-before date?

To Be Completed

Opened Wednesday, April 24, 2024 9:18 AM

Filling Line

Mr. Burns Day Shift

100 Vanilla Icecream

Setup

manual

Date: yyyy-mm-dd

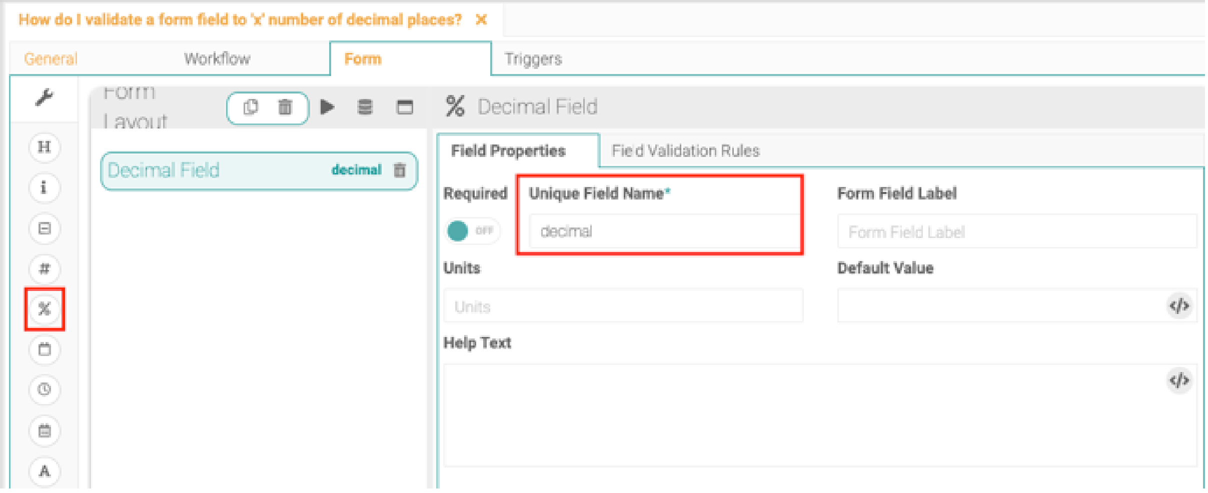
incorrect date!

enter comment

How to validate a form field to 1 decimal place?

In this example, we are validating a decimal field that starts with 2 digits to 1 decimal place. The valid range is 10.1 to 15.4

Step 1 - Drag in a decimal field from the left and enter a Unique Field Name.

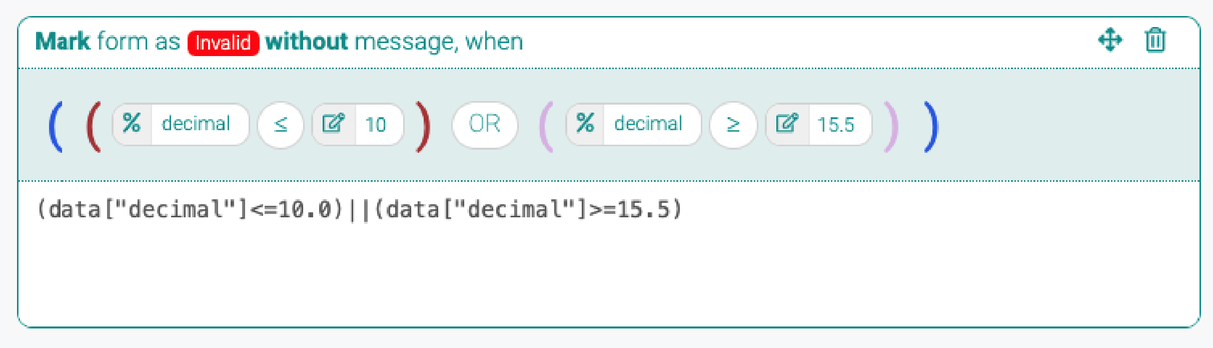


How do I validate a form field to 'x' number of decimal places?

Unique Field Name*: decimal

Step 2 - In the Validations tab, create the invalid range for the in-spec values. E.g. the field is in-spec between 10.9 and 15.5.

```
(data["decimal"]<=10.9)||(data["decimal"]>=15.5)
```



Mark form as Invalid without message, when

((% decimal ≤ 10) OR (% decimal ≥ 15.5))

```
(data["decimal"]<=10.0)||(data["decimal"]>=15.5)
```

Step 3 - Create the validation for 1 decimal place

```
data["decimal"]=~"^\\d\\d\\.[0-9]{1}$"
```

Note:

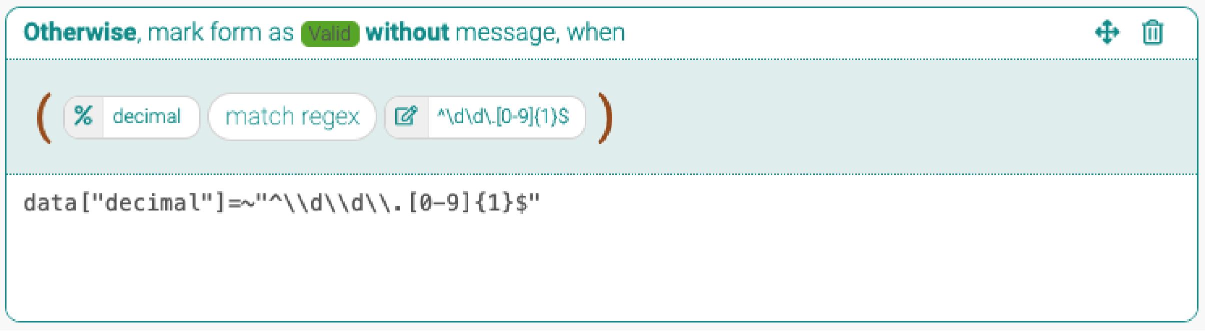
- ^ asserts the start of the string.
- \\d\\d matches exactly two digits.
- \\. matches a literal period (decimal point).
- [0-9]{1} matches exactly one digit after the decimal point.
- $ asserts the end of the string.

Examples of valid strings:

- 12.3
- 45.7

Examples of invalid strings:

- 123.4 (has three digits before the period)
- 12.34 (has two digits after the period)
- 1.5 (has only one digit before the period)



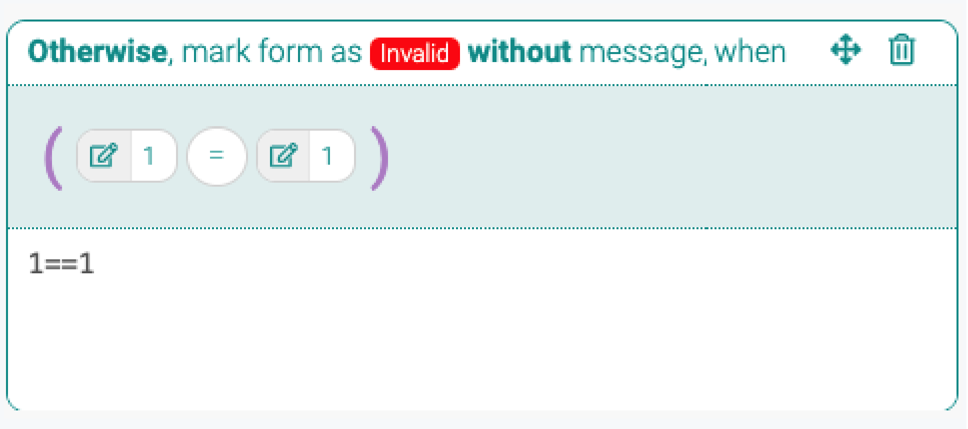
Otherwise, mark form as Valid **without** message, when

(% decimal match regex ^\d\d\.[0-9]{1}$)

```
data["decimal"]=~"^\\d\\d\\.[0-9]{1}$"
```

Step 4 - Invalidate everything outside of the valid range by inputting 1==1.

1==1



Otherwise, mark form as Invalid **without** message, when

(1 = 1)

```
1==1
```

Other examples with decimal places (step 3):

1. Validate values 0.09 to 0.13

data["decimal"]=~"^0\.(09|1[0-2]|13)$"

The regex pattern ^0\.(09|1[0-2]|13)$ validates a string with the following conditions:

- ^ asserts the start of the string.
- 0\. ensures that the string starts with 0. (i.e., the number zero followed by a decimal point).
- (09|1[0-2]|13) matches one of the following:
    - 09: The exact number "09".

    - `1[0-2]`: Matches numbers from "10" to "12" (the `[0-2]` ensures that only 0, 1, or 2 can follow the "1").
    - `13`: The exact number "13".
- `$` asserts the end of the string.

In summary, this pattern is validating numbers that start with "0." followed by one of these specific values: "09", "10", "11", "12", or "13".

Examples of valid strings:

- `0.09`
- `0.10`
- `0.11`
- `0.12`
- `0.13`

Examples of invalid strings:

- `0.08` (not in the allowed range)
- `0.14` (not in the allowed range)
- `1.09` (does not start with "0.")

How to validate and differentiate between 0 and empty in flow?

In OFS Flow validations, OFS will read 0 and empty fields as the same. This article guides you through using regex to differentiate between the two.

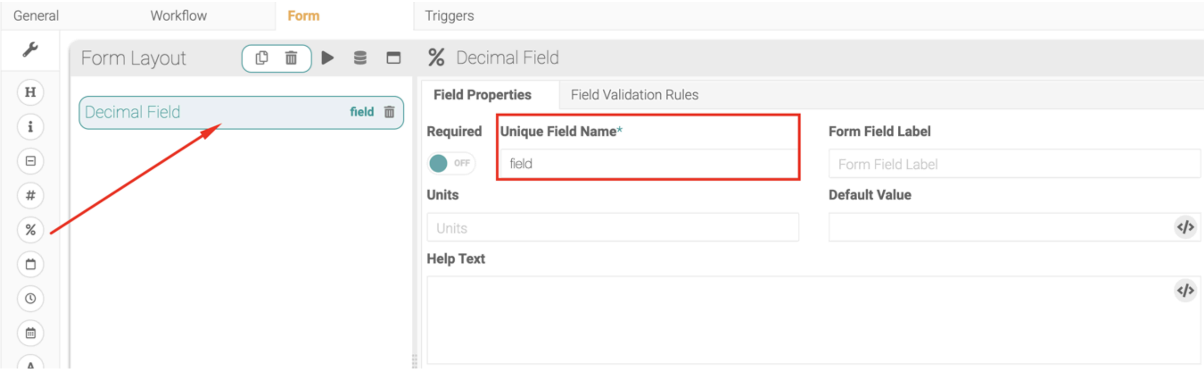
Example 1.

- Valid if the field is = 0
- Error if the field is = empty

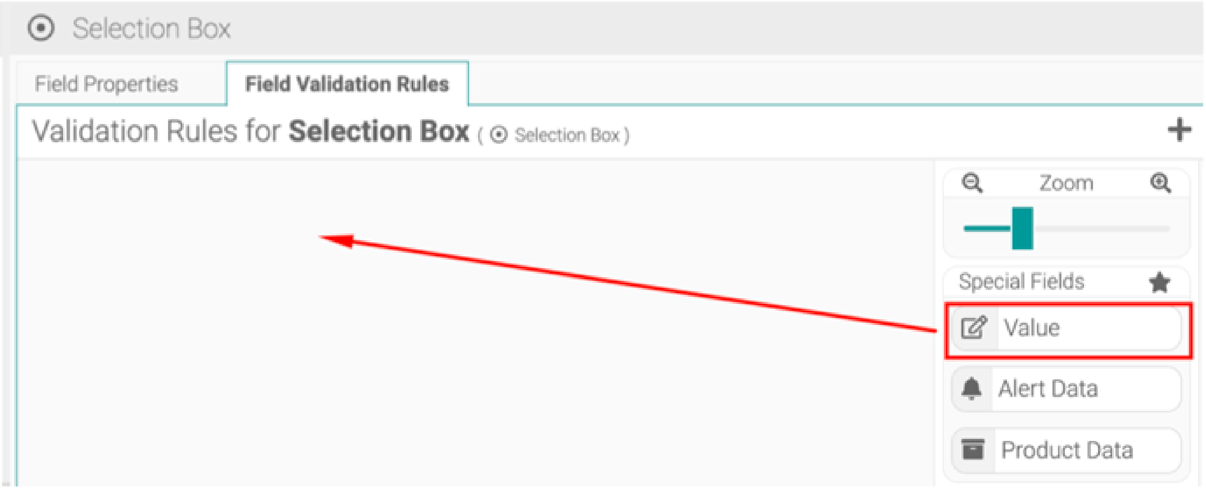
Building the validations

Step 1 - Create the Decimal field

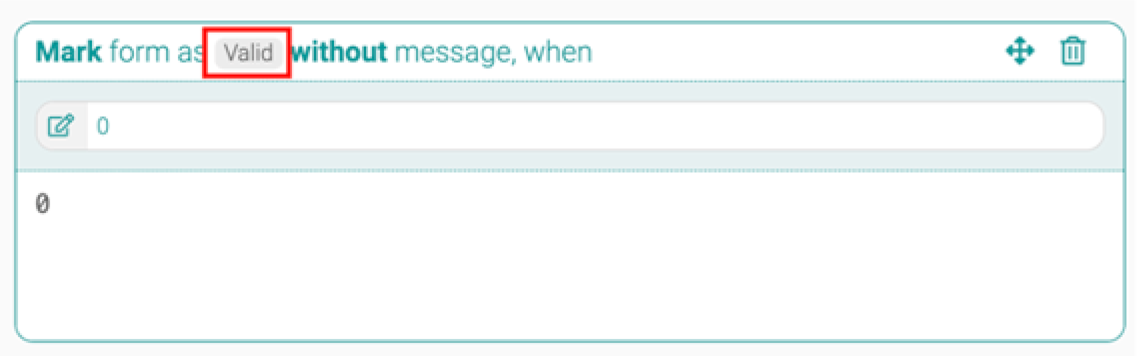
- Drag in the icon from the left
- Enter a Unique Field Name



Step 2 - Click the 'Field Validation Rules' tab and drag in the value field from the right and drop it into the empty space

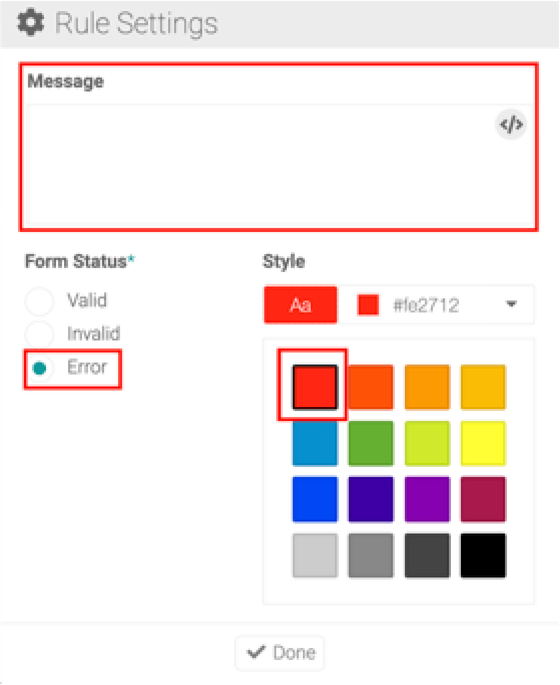


Step 3 - Click on the 'Valid' word



Step 4 - Set up the Form Status, Colour and add a message if needed.

Note: The Error status will not allow the user to submit the form until the field is valid.



Rule Settings

Message

Form Status*

○ Valid

○ Invalid

● Error

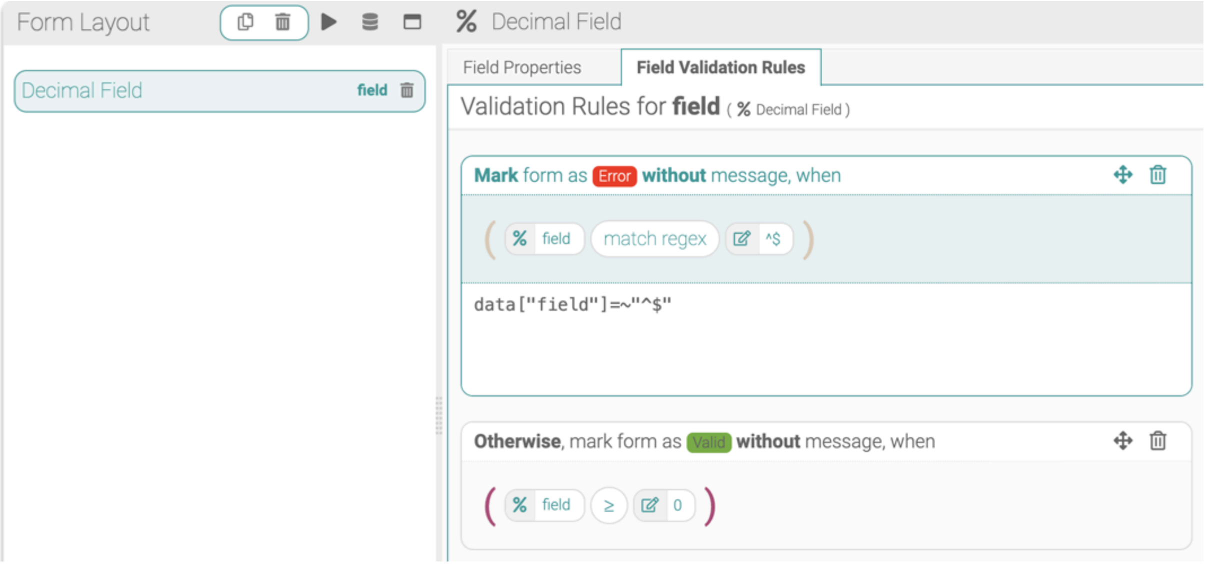
Style

Aa 🟥 #fe2712

Step 5 - Enter the following validation in the bottom blank area

```
data["field"]=~"^$"
```

- Error is the Field is empty



Validation Rules for **field** (% Decimal Field)

Mark form as Error **without** message, when

(% field match regex ^$)

```
data["field"]=~"^$"
```

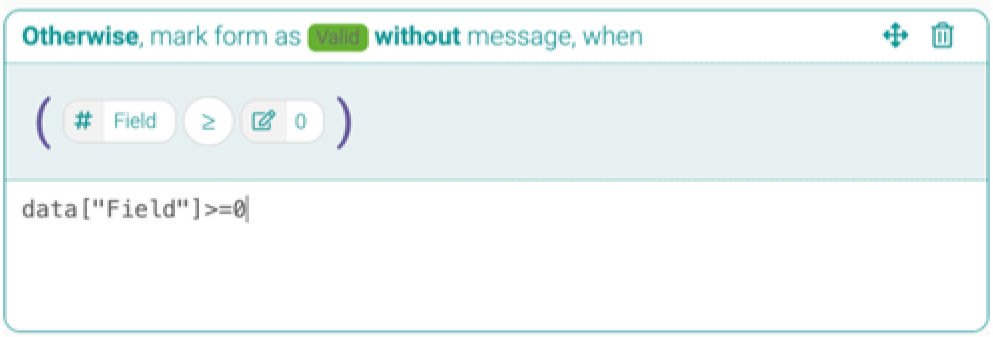
Otherwise, mark form as Valid **without** message, when

(% field ≥ 0)

Step 6 - Create another validation for the valid field and set up the status, colour and message.

data["field"]>=0

- Valid if the field is greater than or equal to 0



Otherwise, mark form as Valid **without** message, when

(# Field ≥ 0)

```
data["Field"]>=0
```

Example 2.

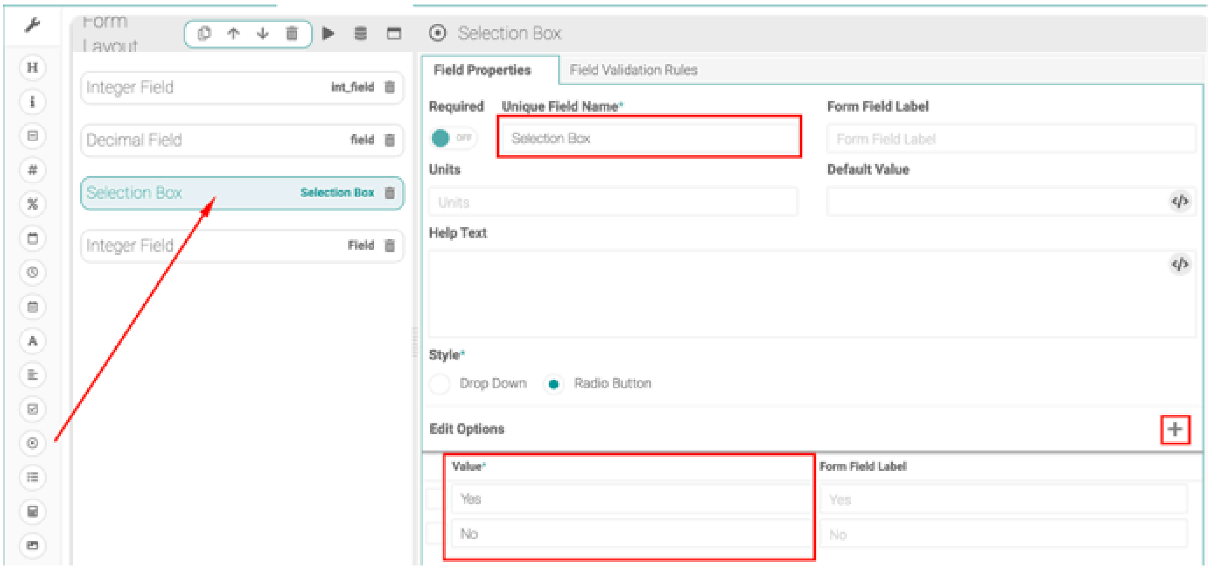
- Selection Box = Yes or No
- Integer Field = numbers or can be empty
- Valid when the Selection Box field is Yes and the field is 0,
- Error when the Selection Box field is Yes and the field is empty

- Valid when the Selection Box is No and empty

Building the validations

Step 1 - Create the Selection Box field

- Drag in the icon from the left
- Enter a Unique Field Name
- Click the '+' button and add the values



Required: OFF

Unique Field Name*: Selection Box

Form Field Label: Form Field Label

Units: Units

Default Value:

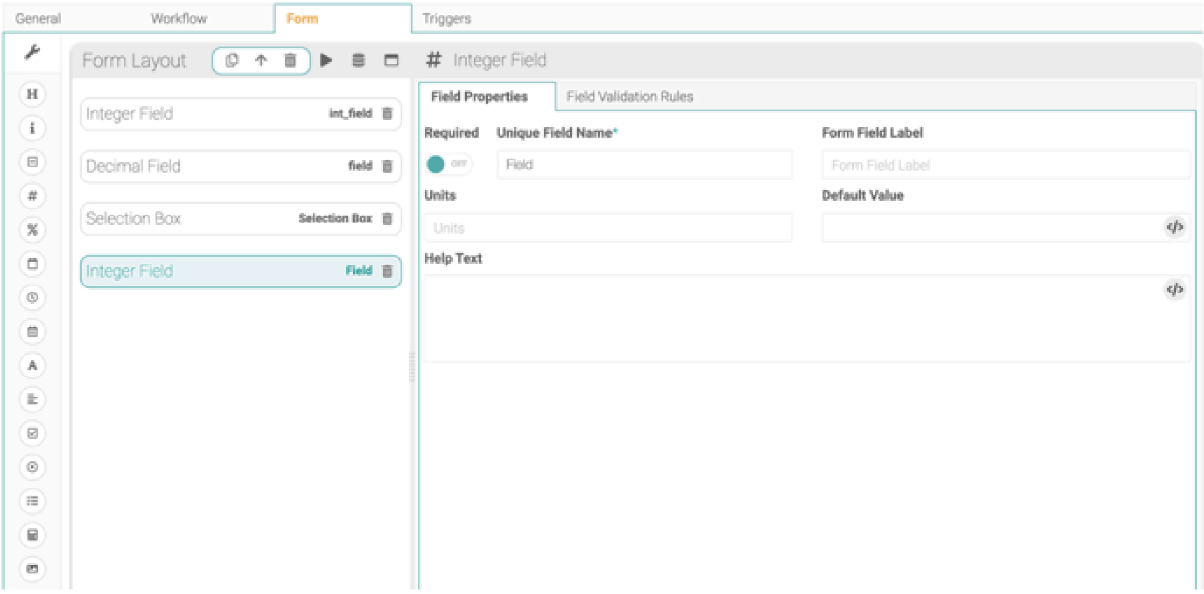
Help Text:

Style*: ○ Drop Down ● Radio Button

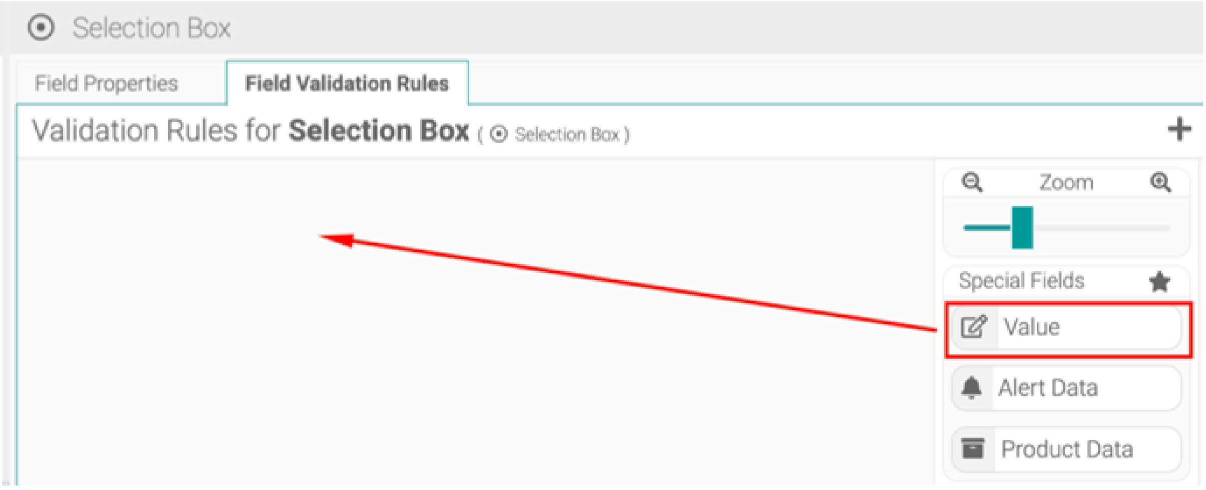
Edit Options +

Value*	Form Field Label
Yes	Yes
No	No

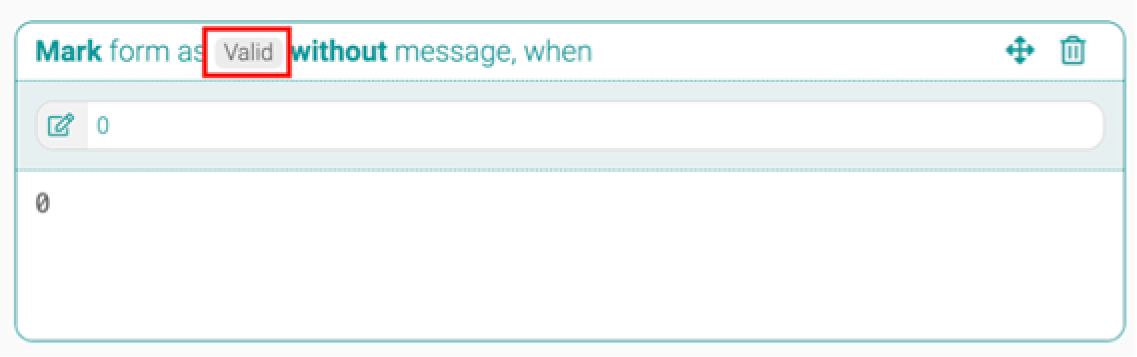
Step 2 - Create the Integer field



Step 3 - Drag in the value field from the right and drop it into the empty space

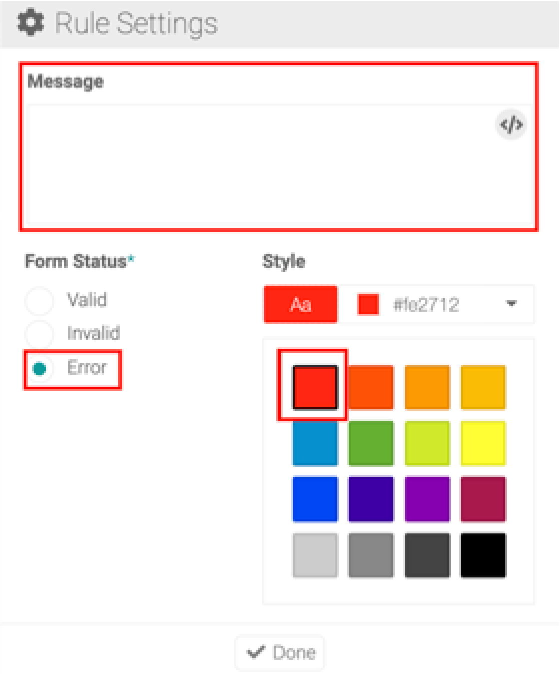


Step 4 - Click on the 'Valid' word



Step 5 - Set up the Form Status, Colour and add a message if needed.

Note: The Error status will not allow the user to submit the form until the field is valid.


Rule Settings

Message

Form Status*

○ Valid
○ Invalid
● Error

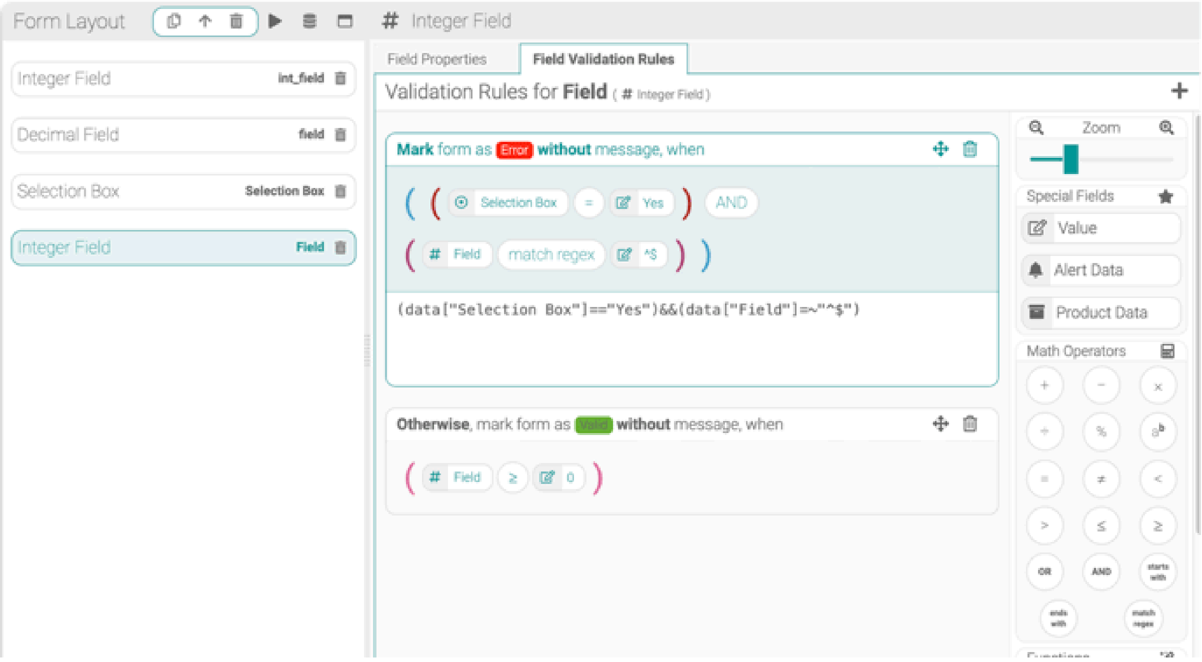
Style

Aa #fe2712

Step 6 - Enter the following validation in the bottom blank area

(data["Selection Box"]=="Yes")&&(data["Field"]=~"^$")

- Error if the Selection Box is Yes and the Field is empty

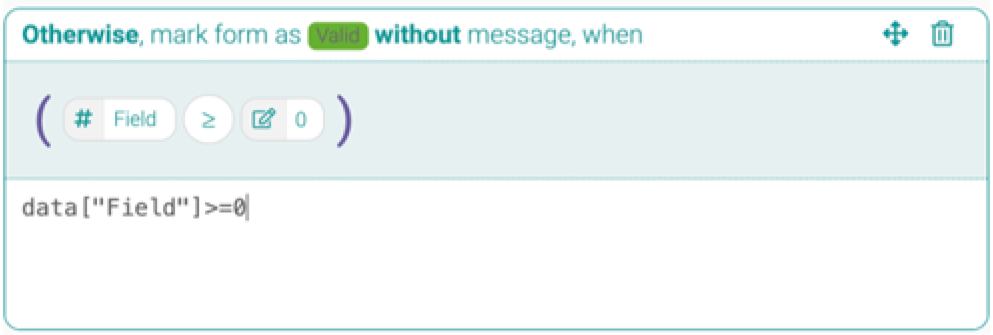


```
(data["Selection Box"]=="Yes")&&(data["Field"]=~"^$")
```

Step 7 - Create another validation for the valid field and set up the status, colour and message.

data["Field"]>=0

- Valid if the field is greater than or equal to 0



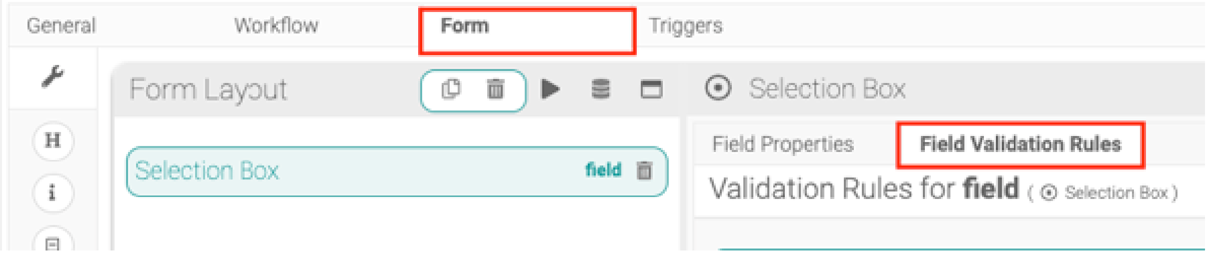
```
data["Field"]>=0
```

How to Create Pass/Fail Validation Rules in Your Flow Form

Validation rules help ensure that submitted form data meets specific conditions. This article explains how to set up pass/fail validation rules that can mark your form as valid, invalid, or show error messages based on field values.

Creating Pass/Fail Validation Rules

1. Select the "Form" tab at the top of the alert
2. Click on the field you want to add validation to (in this example, a "Selection Box")
3. Open the "Field Validation Rules" panel on the right side

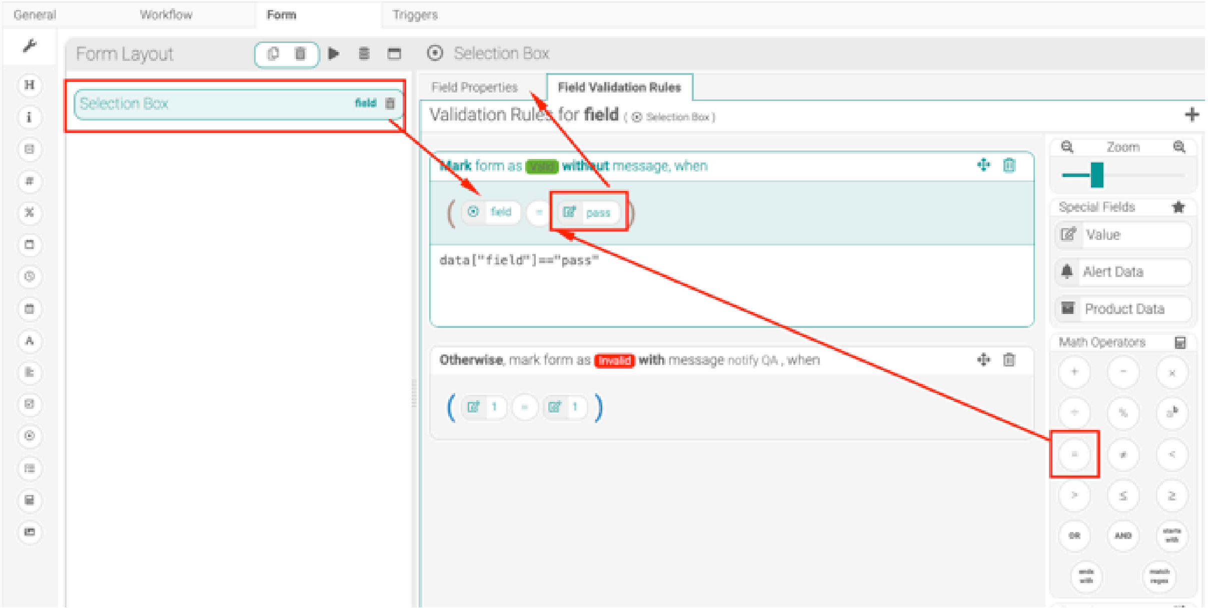


Setting Primary Validation Condition

To set up your first validation rule:

1. In the validation panel, drag the field from the form layout
2. Select the comparison operator (equals "=" in this example)
3. Enter the value from the 'Field Properties' tab that will make the form pass (in this example, "Pass")

This configuration means that when the field equals "Pass", the form will be marked as valid.



Validation Rules for **field** (Selection Box)

Mark form as Valid **without** message, when

(field = pass)

```
data["field"]=="pass"
```

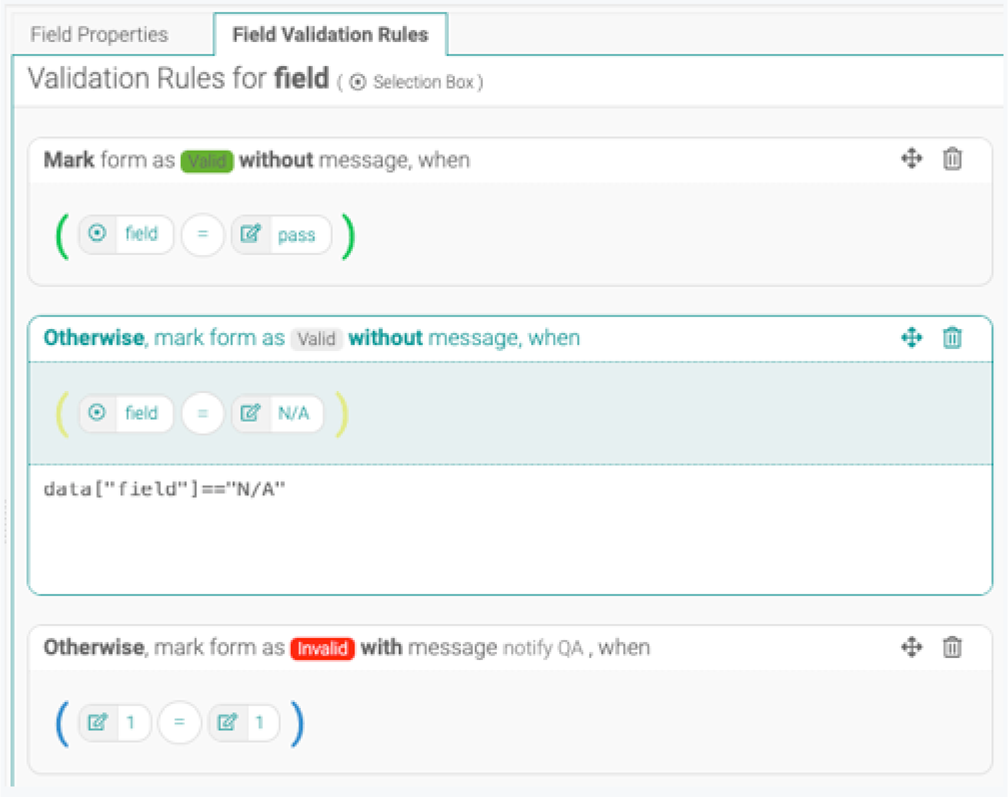
Otherwise, mark form as Invalid **with** message notify QA , when

(1 = 1)

Adding Alternative Valid Conditions

You can add alternative conditions where the form is still valid:

1. Under the "Otherwise, mark form as [Valid] without message, when" section
2. Set up another condition (in the example, when the field equals "N/A")
   `data["field"]=="N/A:`



Field Properties | Field Validation Rules

Validation Rules for **field** (Selection Box)

Mark form as Valid **without** message, when

(field = pass)

Otherwise, mark form as Valid **without** message, when

(field = N/A)

```
data["field"]=="N/A"
```

Otherwise, mark form as Invalid **with** message notify QA , when

(1 = 1)

Setting Error Conditions

For cases where the form should show an error:

1. Find the last section: "Otherwise, mark form as [Invalid] with message"
2. Enter your error message (in this example, "please notify QA")
3. Set the condition that triggers this error (when value "1" equals "1", which acts as a catch-all for any other values)

```
1==1
```

Understanding the Logic Flow

The validation rules are processed in order:

1. If the field equals "Pass", the form is valid
2. Otherwise, if the field equals "N/A", the form is still valid
3. Otherwise, mark as invalid and display the specified message

Testing Your Validation Rules

Before finalising your form:

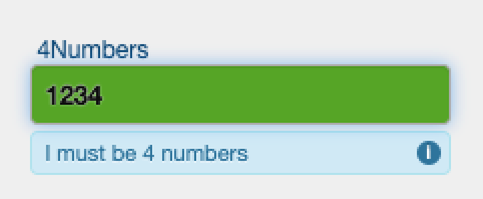
1. Preview your form with the play button
2. Test different input values
3. Verify that the form behaves as expected with each value

How to validate a form field to accept exactly 4 numbers

If you need a form field to accept exactly four numeric digits, this guide walks you through how to configure that using a regular expression (regex) validation rule in Flow.

🔧 What we're validating

We want to mark a form as valid only if the input is exactly 4 digits

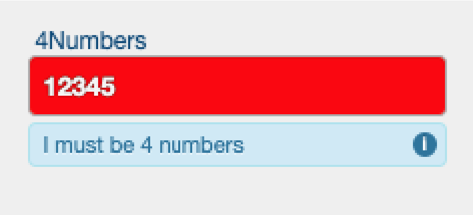


4Numbers

1234

I must be 4 numbers

Any other input should be marked as invalid.



4Numbers

12345

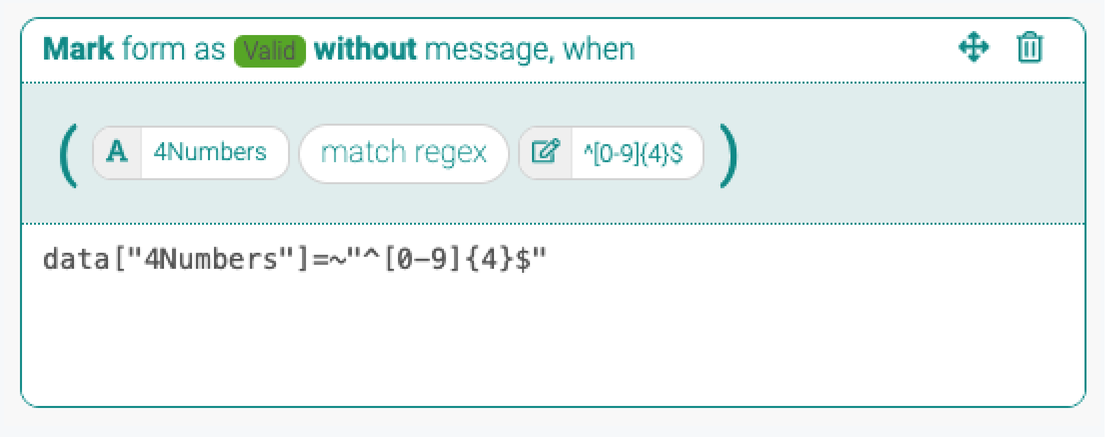
I must be 4 numbers

✅ Validation Rule Setup

Under the Field Validation Rules tab for your field (e.g., `4Numbers`), use the following logic:

Mark form as Valid without message when:

`data["4Numbers"]=~"^[0-9]{4}$"`



```
data["4Numbers"]=~"^[0-9]{4}$"
```

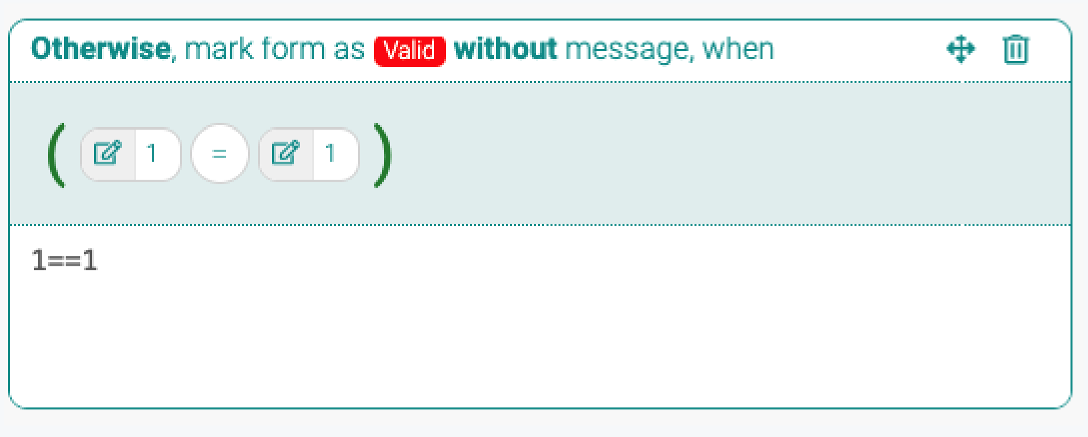
This regex checks that:

- `^` the input starts…
- `[0-9]{4}` …with exactly 4 digits
- `$` …and ends there (no extra characters)

❌ Mark form as Invalid

You can add an “Otherwise” condition to catch anything that doesn’t match and mark it as invalid. For example:

`1 = 1`



```
1==1
```

This always evaluates as true, meaning any unmatched input is invalid by default.

🧪 Test Examples

Input	Valid?
1234	Yes
12	No
abcd	No
12345	No

How to validate a form field for a barcode format like ABCD0312

This guide shows how to create a validation rule that ensures: The first 4 characters are uppercase letters (A–Z) and the last 4 characters are digits (0–9)

Scenario

You have a field called "barcode" in your form, and you want to match it against this structure:

```
AAAA0000

↑   ↑

|   └── Four digits

└──────── Four capital letters
```

For example, the following inputs should be considered valid:

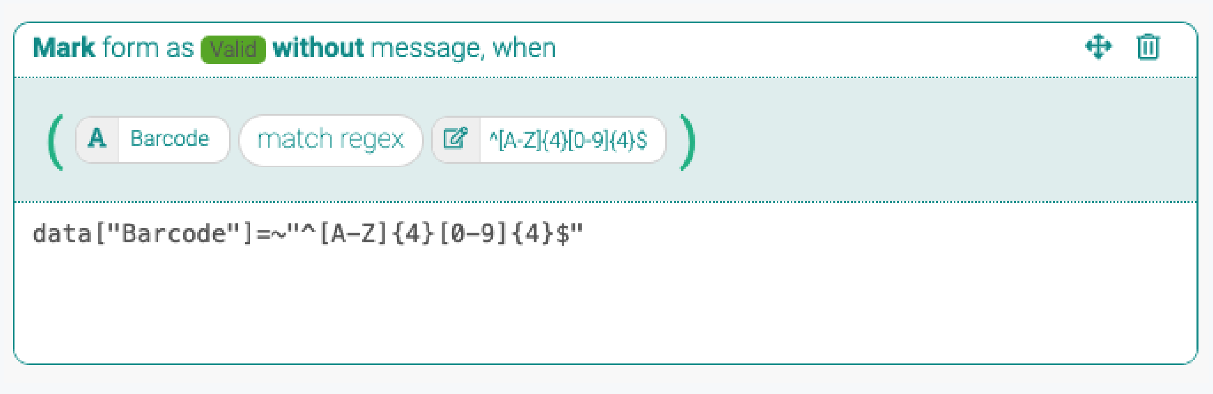
Input	Valid?
ABCD0312	✅ Yes
abcD0312	❌ No
ABCD123	❌ No
A1C20312	❌ No
ABCD03123	❌ No

Rule Configuration

Step 1 - In the barcode field, navigate to the 'Field Validation Rules' tab

Step 2 - "Mark form as Valid without message, when"

`data["Barcode"] =~ "^[A-Z]{4}[0-9]{4}$"`



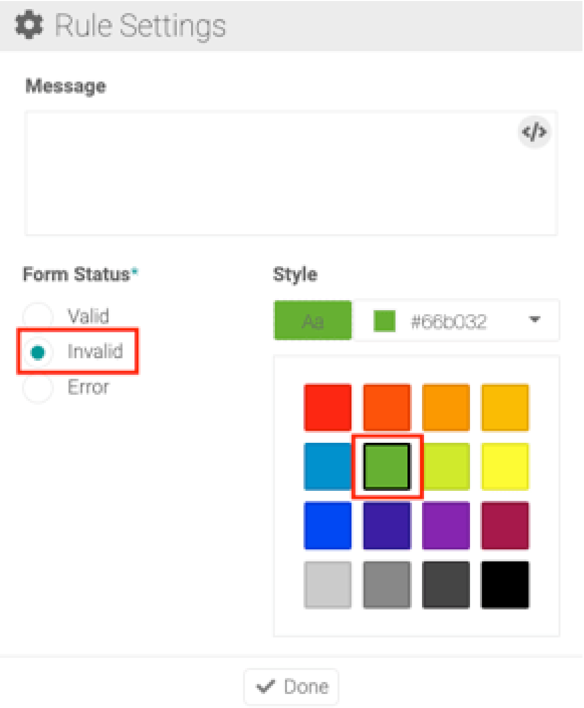
```
data["Barcode"]=~"^[A-Z]{4}[0-9]{4}$"
```

This regex means:

- `^[A-Z]{4}` → Starts with 4 capital letters
- `[0-9]{4}$` → Ends with 4 digits
- `^...$` → Anchors it to exactly 8 characters, no more, no less

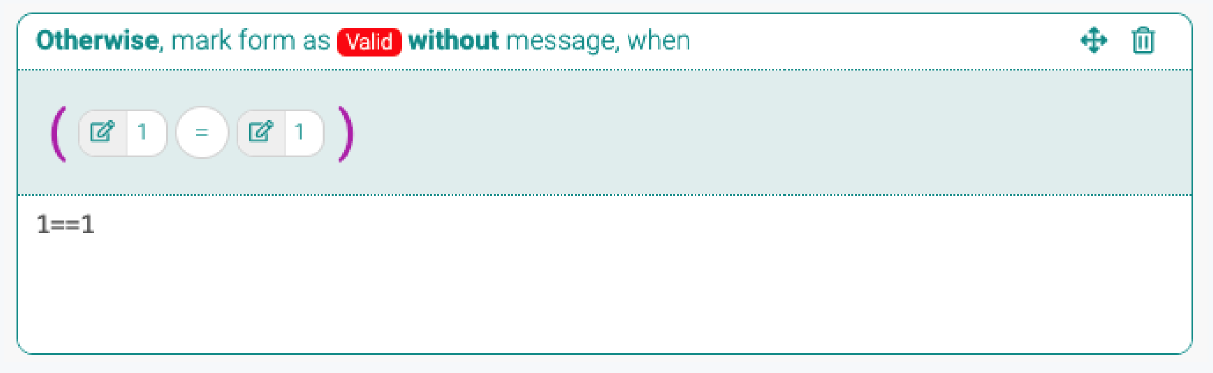
Step 3 - Add a new validation rule with the '+' icon

Step 4 - Click the 'valid' button to change to 'Invalid' and select a colour



Step 5 - "Otherwise, mark form as Invalid without message, when"1

1==1



1==1

This always evaluates as true, meaning any unmatched input is invalid by default.

How to create a case-insensitive barcode matching validation in my form?

This article outlines how to implement a validation rule in OFS-Flow that allows for case-insensitive matching of barcode values. This is particularly useful when barcode data might be entered or scanned with varying capitalisation.

Scenario

You have a field called "barcode" in your form, and you want to validate it against a barcode stored in the job metadata (e.g., `jobmeta["barcode"]`). The validation should pass even if the capitalisation of the entered barcode differs from the stored barcode.

For example, if `jobmeta["barcode"]` is "a123B", the following entered values should be considered valid:

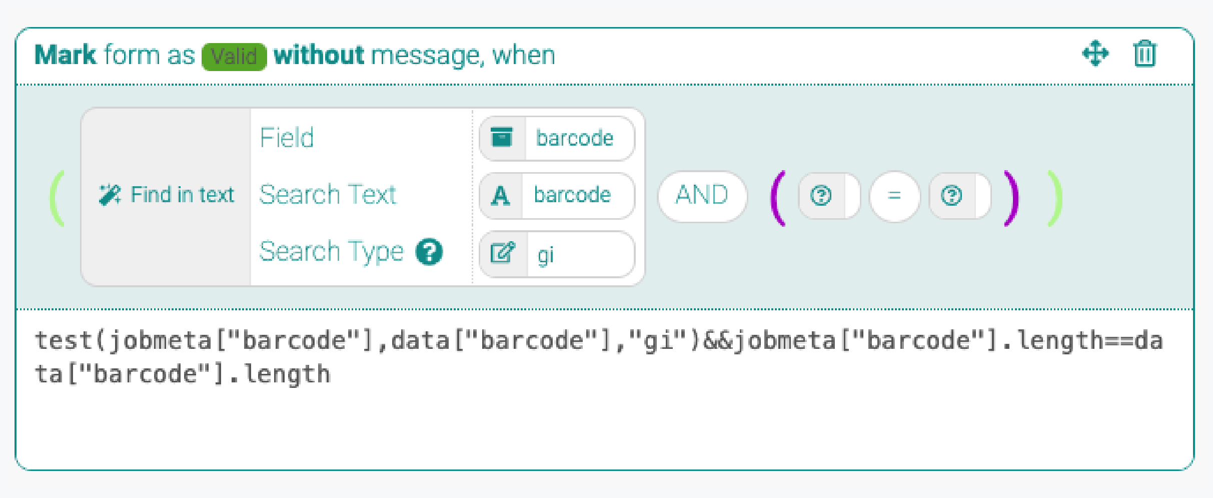
- a123B
- A123B
- a123b
- A123b

Rule Configuration

Step 1 - In the barcode field, navigate to the 'Field Validation Rules' tab

Step 2 - "Mark form as Valid without message, when"

```
test(jobmeta["barcode"], data["barcode"], "gi") && jobmeta["barcode"].length==data["barcode"].length
```



Mark form as Valid **without** message, when

(Find in text

Find in text	Field	barcode
	Search Text	barcode
	Search Type	gi

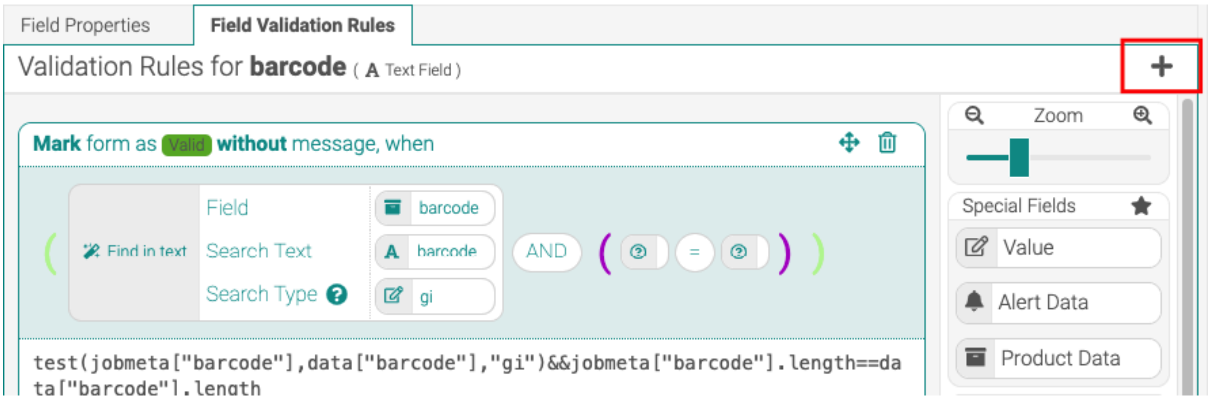
AND (? = ?))

```
test(jobmeta["barcode"],data["barcode"],"gi")&&jobmeta["barcode"].length==da
ta["barcode"].length
```

- Explanation of the formula:
  - test(jobmeta["barcode"], data["barcode"], "gi"): This function attempts to match the data["barcode"] (the value entered in the form) against the jobmeta["barcode"] (the expected barcode from job metadata).
    - The gi flag stands for:
      - g: Global search (finds all matches rather than stopping after the first). While not strictly necessary for a direct match, it's a common flag for flexible regex.
      - i: Case-insensitive search. This is crucial for ignoring capitalization differences.
  - &&: This is a logical AND operator. Both conditions on either side of it must be true for the entire expression to be true.
  - jobmeta["barcode"].length==data["barcode"].length: This ensures that the length of the barcode entered in the form is exactly the same as the expected barcode from the job metadata. This prevents partial matches or

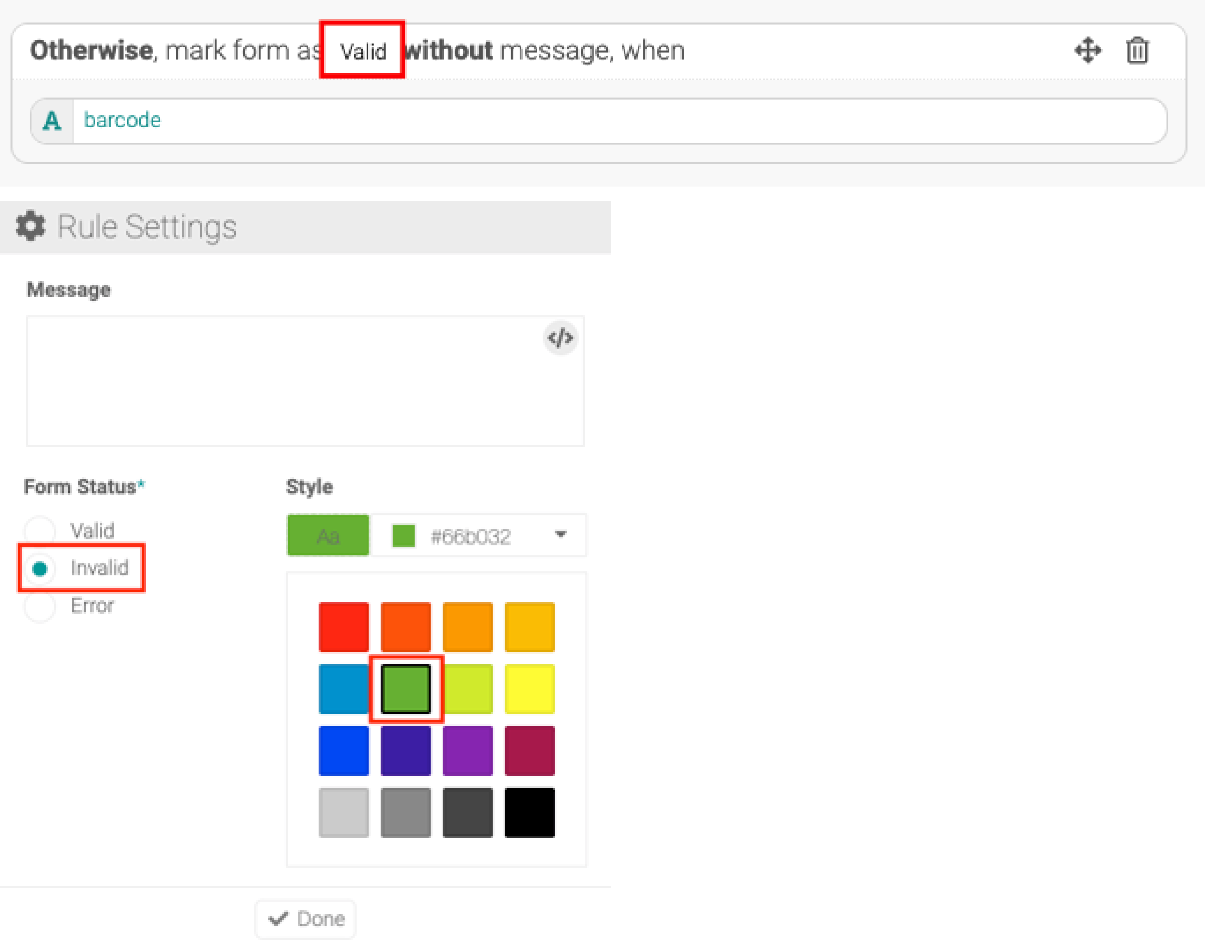
accidental validity if a shorter string happens to be a case-insensitive subset of the expected barcode.

Step 3 - Add a new validation rule with the '+' icon



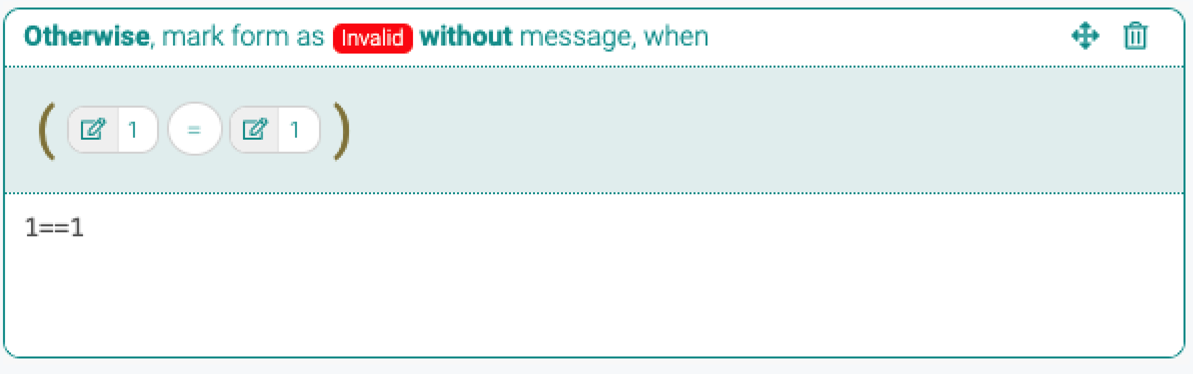
```
test(jobmeta["barcode"],data["barcode"],"gi")&&jobmeta["barcode"].length==da
ta["barcode"].length
```

Step 4 - Click the 'valid' button to change to 'Invalid' and select a colour



Step 5 - "Otherwise, mark form as Invalid without message, when"

```
1==1
```



Otherwise, mark form as Invalid without message, when

(1 = 1)

1==1

This always evaluates as true, meaning any unmatched input is invalid by default.

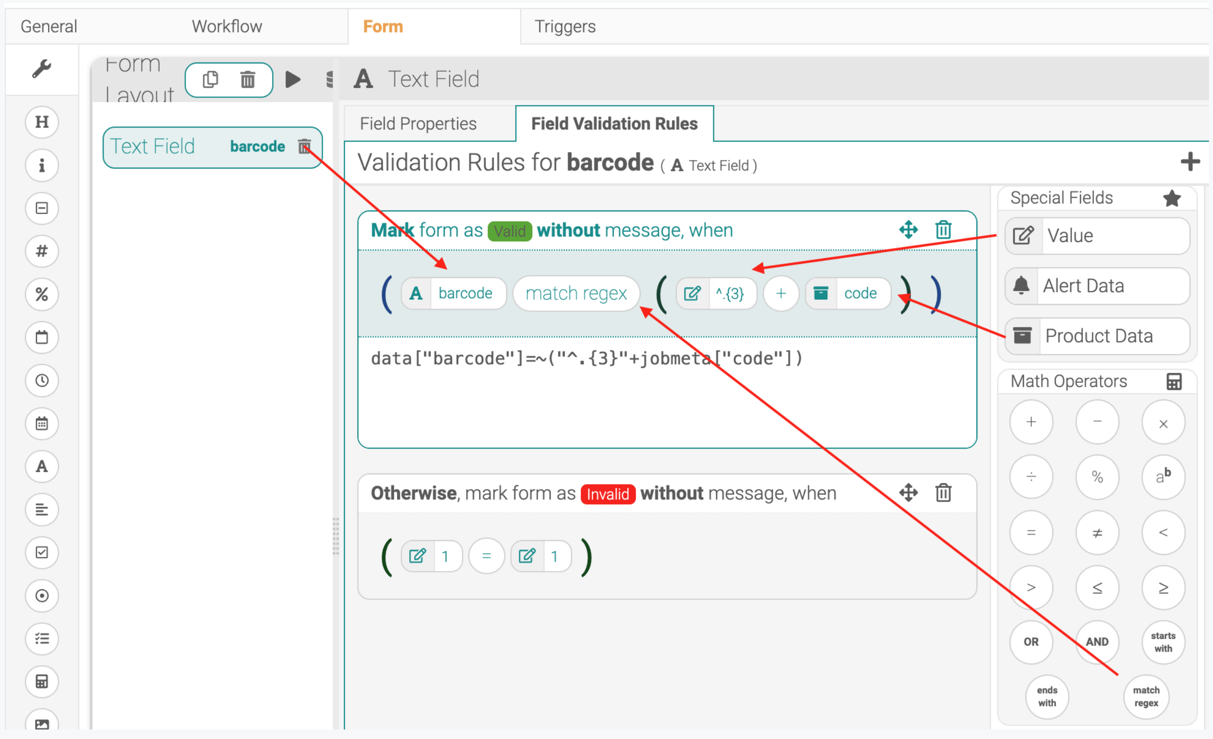
How to validate a specific product metadata code within a barcode

This article takes you through validating a specific code within a barcode. Example: Ignore the first 3 digits, validate the code from the metadata and ignore the rest.

Step 1 - Create the valid field by:

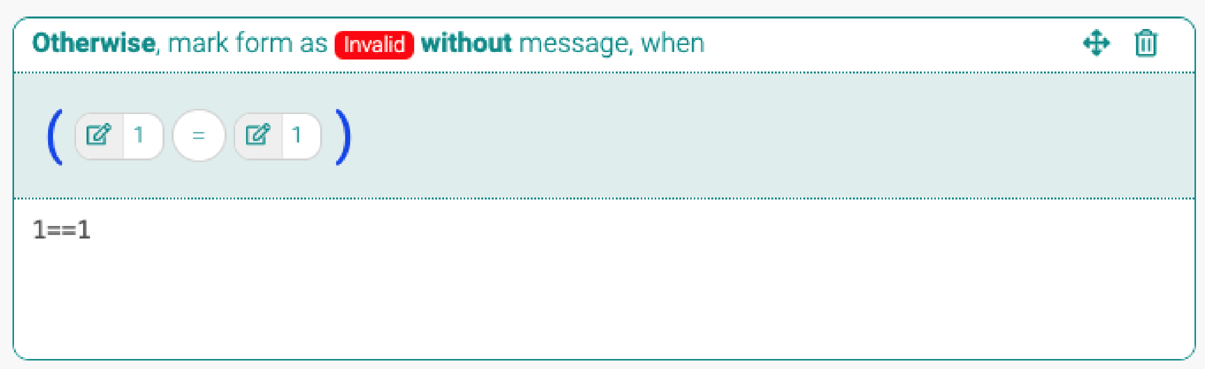
- Drag in the field you are validating
- Drag in the 'match regex' sign from the Math Operators
- Drag in the 'Value' field and enter
  ```
  ^.{3}
  ```
- Drag in the '+' sign from the Math Operators
- Drag in the 'Product Data' from the Special Fields section and select the correct product data. I.e. code.

  ```
  data["barcode"]=~("^.{3}"+jobmeta["code"])
  ```



```
data["barcode"]=~("^.{3}"+jobmeta["code"])
```

Step 2 - Invalidate everything outside of the valid range by using "1==1"

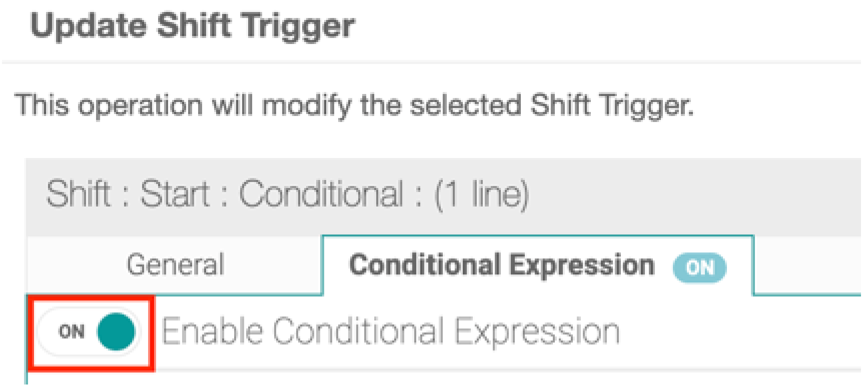


```
1==1
```

How to trigger an alert on a specific shift or crew?

Step 1 - In the alert, go to the trigger you created

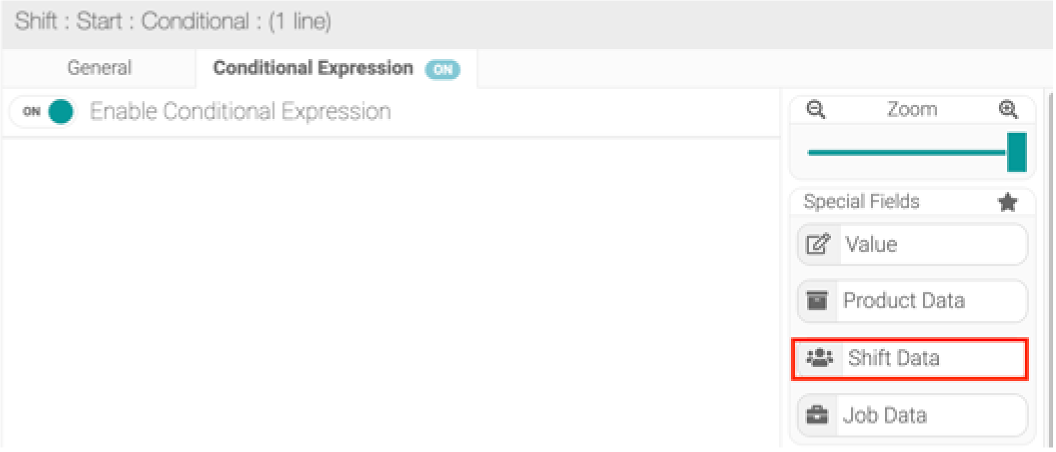
Step 2 - Click the Conditional Expression tab and toggle ON 'Enable Conditional Expression'


Update Shift Trigger

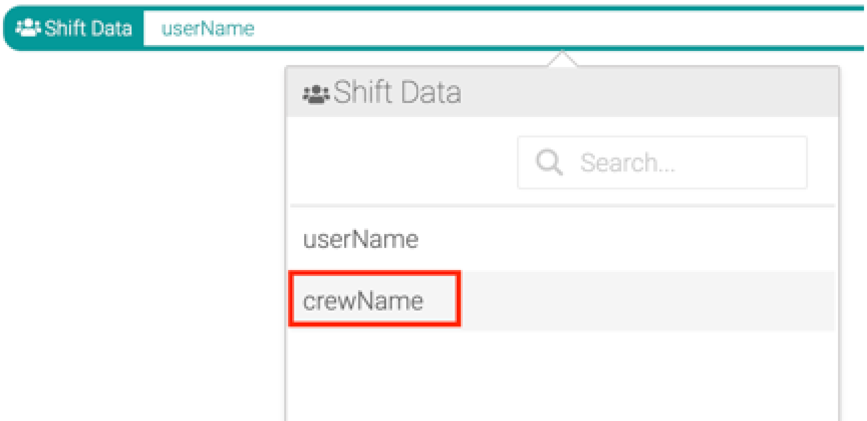
This operation will modify the selected Shift Trigger.

Shift : Start : Conditional : (1 line)

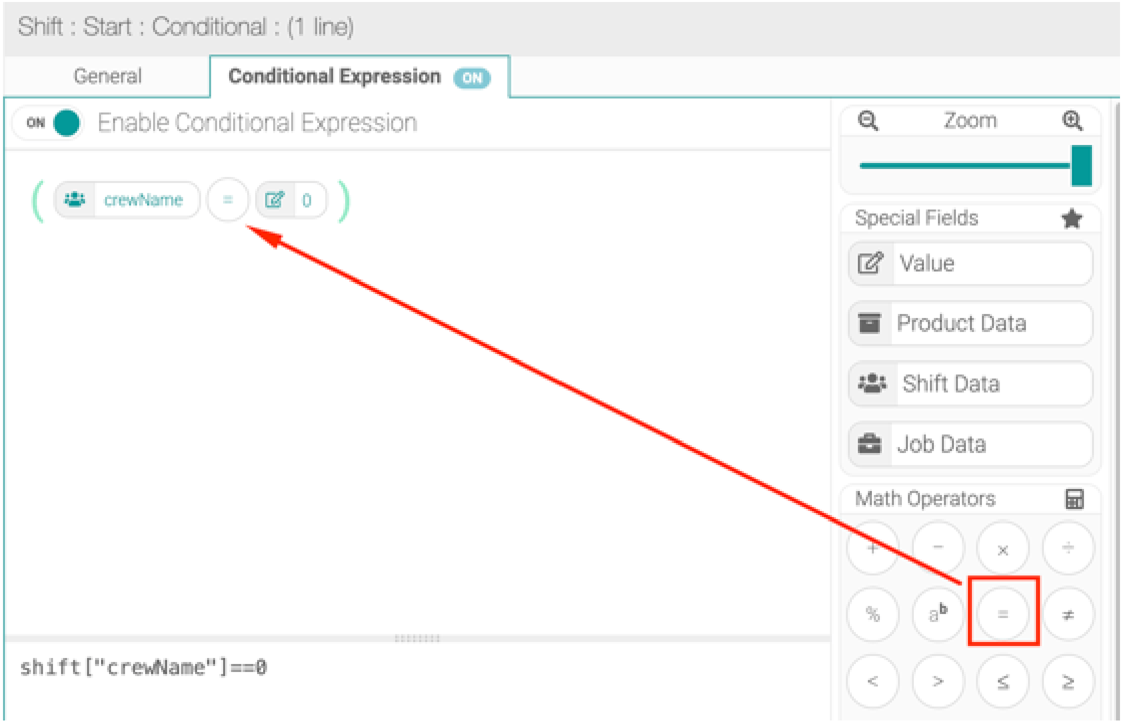
Step 3 - Drag in the 'Shift Data' from the right-hand side


Shift : Start : Conditional : (1 line)

Step 4 - Click Shift Data and select 'crewName' from the drop down

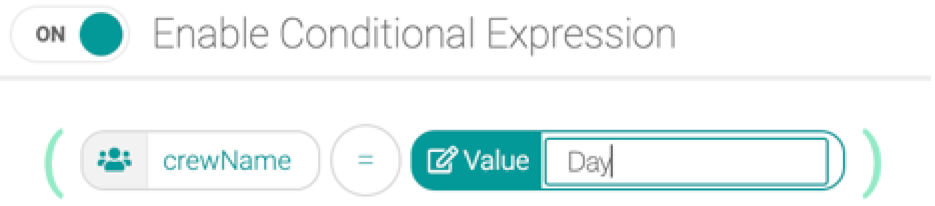


Step 5 - Drag in the = sign from the Math Operators menu



```
shift["crewName"]==0
```

Step 6 - Click the 0 Enter the Crew e.g. Day



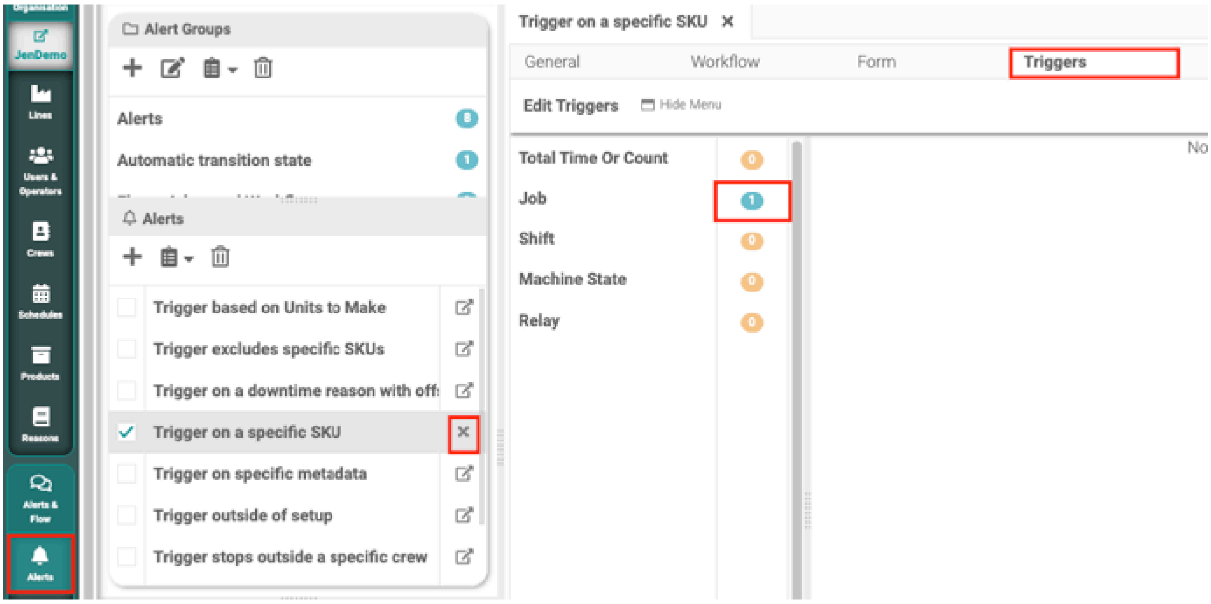
ON Enable Conditional Expression

(crewName = Value Day)

How to trigger an alert on a specific SKU or job description?

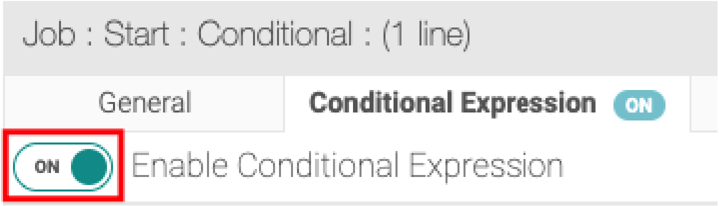
When triggering an alert, you can specific parameters in which a form will fire. This is called Conditional Expressions. This article guides you in specifying when an alert fires based on an SKU or SKU description.

Step 1 - In Fusion Manager, navigate to the Triggers tab with the alert or form and create a new trigger.



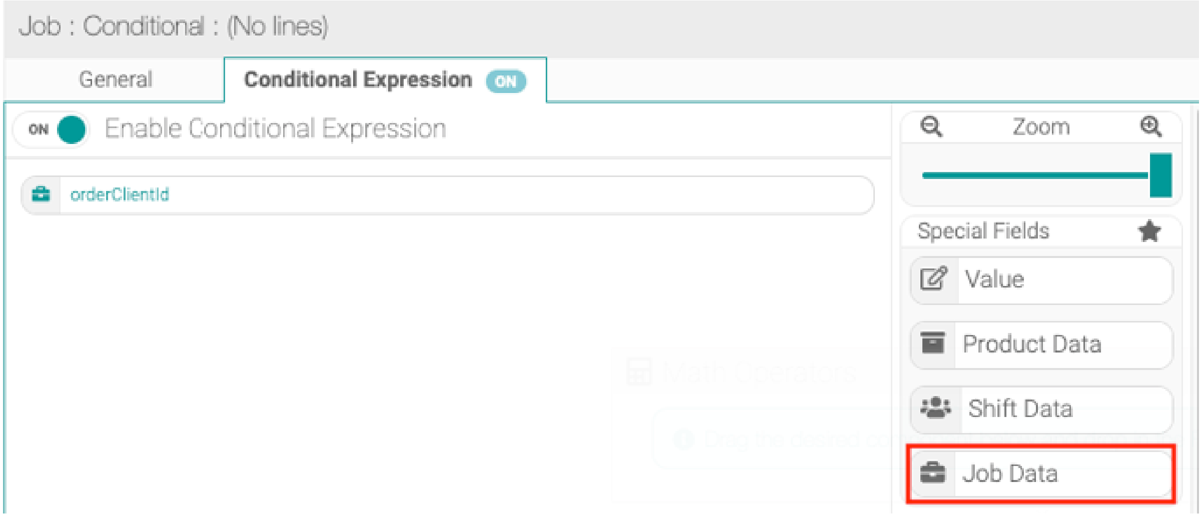
Organisation
JenDemo
Lines
Users & Operators
Crews
Schedules
Products
Reasons
Alerts & Flow
Alerts
Alert Groups
Alerts
Automatic transition state
Alerts
Trigger based on Units to Make
Trigger excludes specific SKUs
Trigger on a downtime reason with off
Trigger on a specific SKU
Trigger on specific metadata
Trigger outside of setup
Trigger stops outside a specific crew
Trigger on a specific SKU ×
General
Workflow
Form
Triggers
Edit Triggers
Hide Menu
Total Time Or Count
0
Job
1
Shift
0
Machine State
0
Relay
0
No

Step 2 - Click the 'Conditional Expression' tab and toggle 'ON'



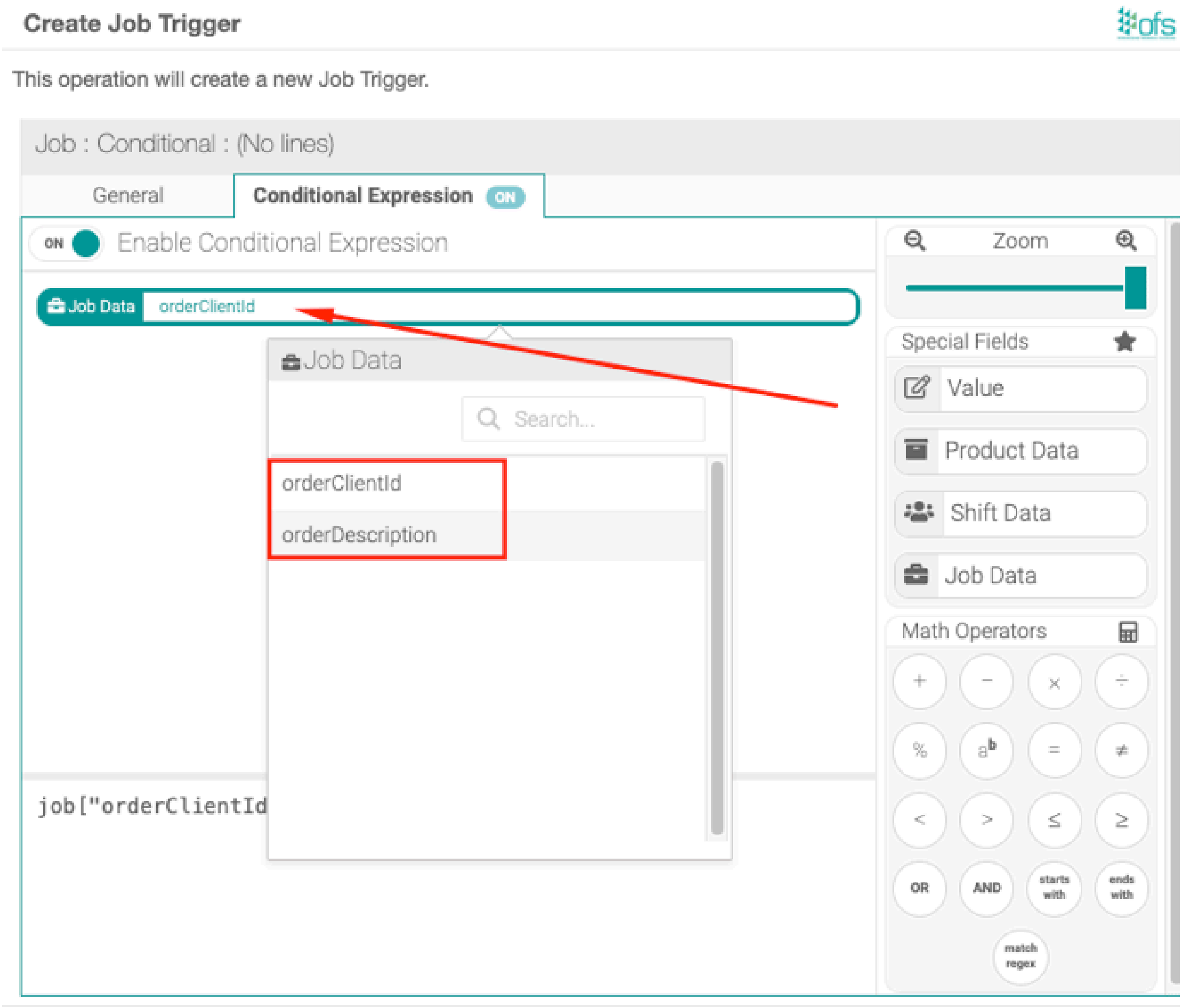
Job : Start : Conditional : (1 line)

Step 3 - Drag in Job Data



Job : Conditional : (No lines)

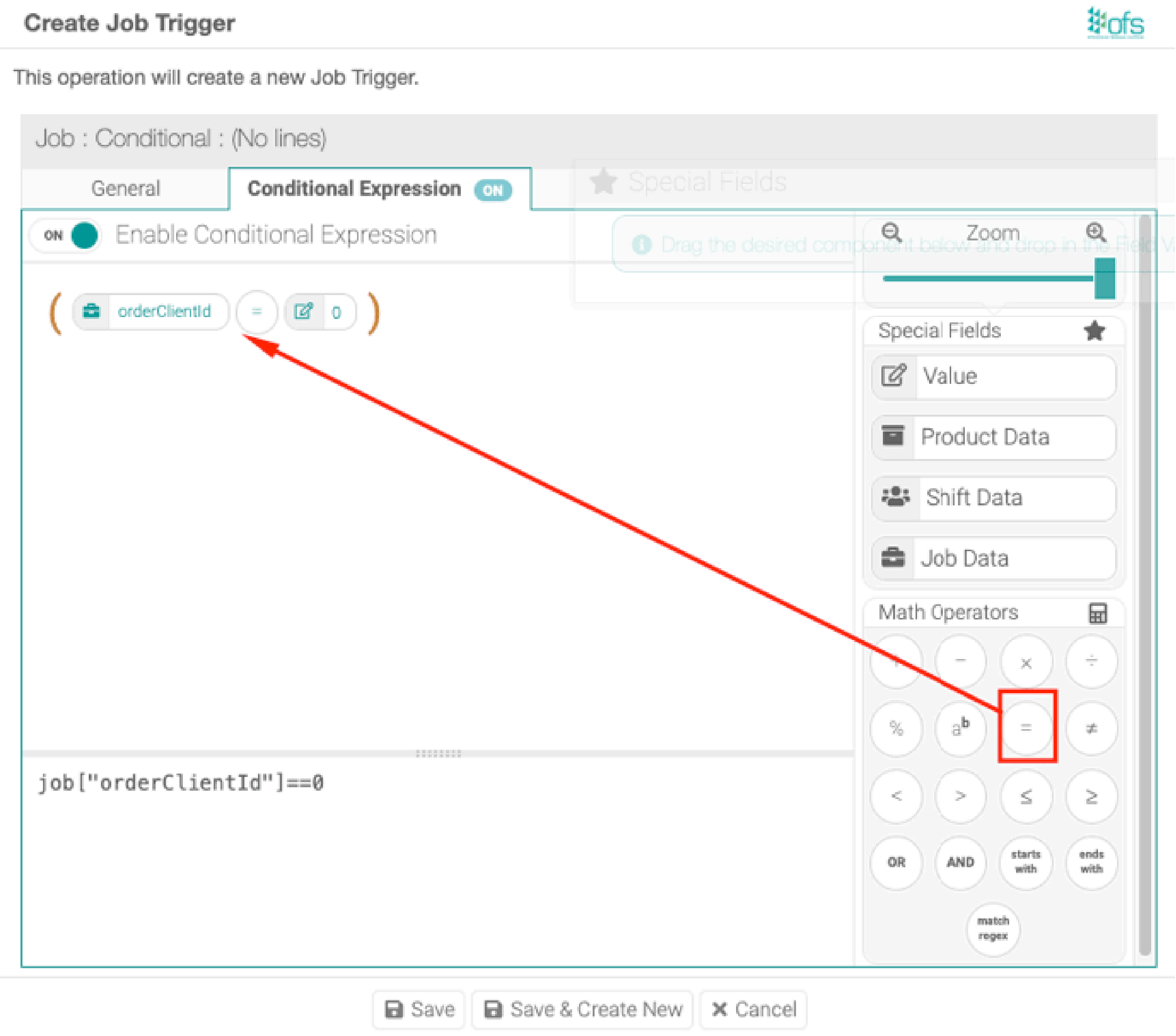
Step 4 - If ID specific e.g. SKU ID, select 'orderClientID'. If description specific e.g. Vanilla Icecream, select 'orderDescription'



```
job["orderClientId
```

In this example, we will create a conditional expression that specifies the SKU ID.

Step 5 - Drag in the '=' sign from the Math Operators


Create Job Trigger

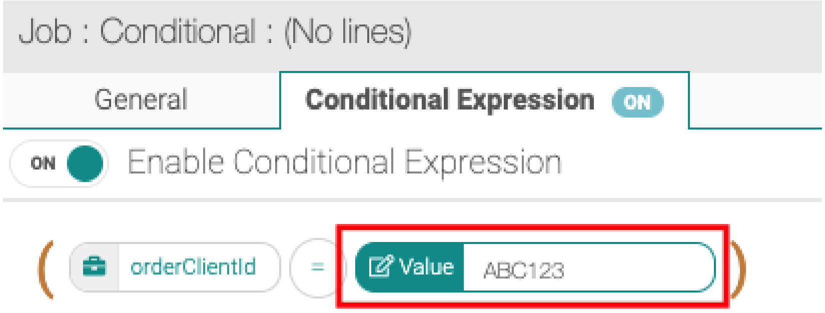
This operation will create a new Job Trigger.

Job : Conditional : (No lines)

```
job["orderClientId"]==0
```

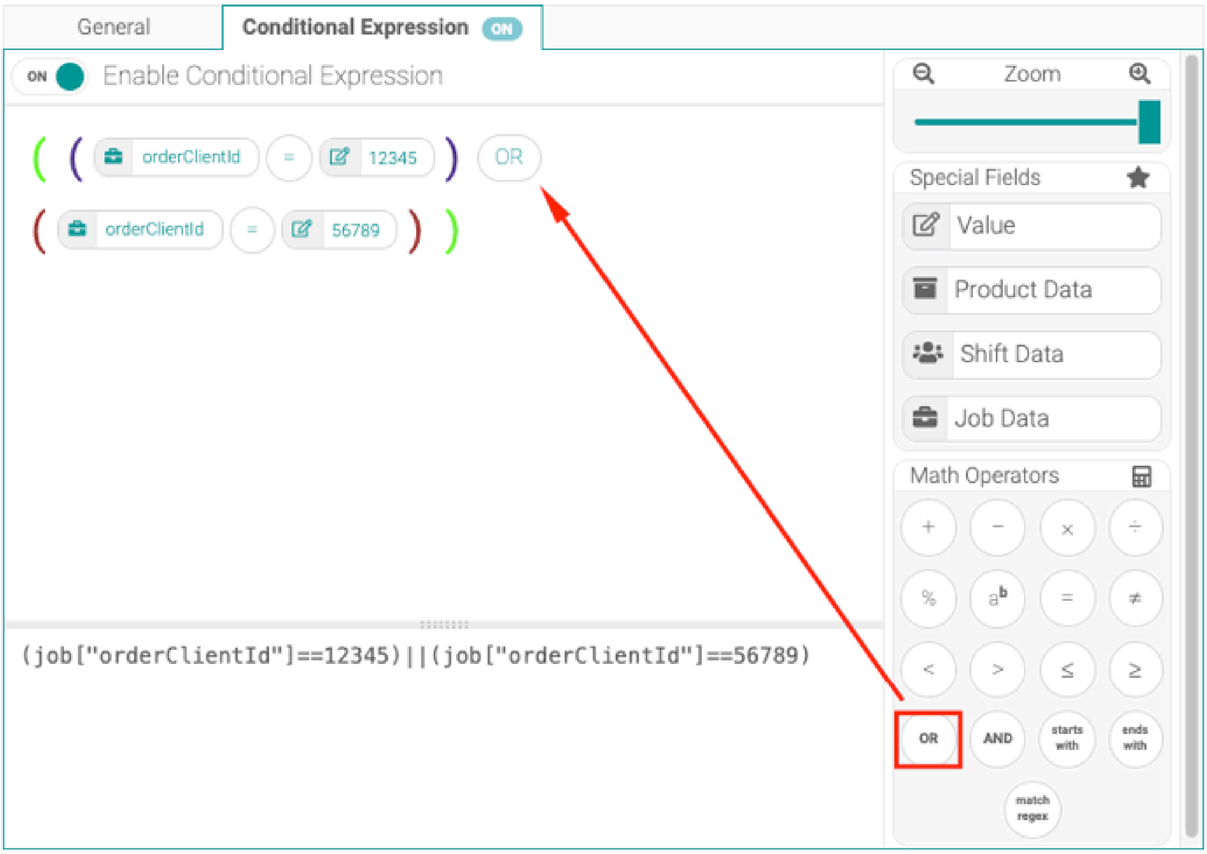
Step 6 - Enter the SKU ID e.g. job["orderClientId"]=="ABC123"

Note: If the SKU has letters, ensure there are " ".


Job : Conditional : (No lines)

General
Conditional Expression ON
ON Enable Conditional Expression
(orderClientId = Value ABC123)

Step 7 - To specify multiple SKUs, use the 'OR' function and repeat Steps 4-6


General
Conditional Expression ON
ON Enable Conditional Expression
((orderClientId = 12345) OR
(orderClientId = 56789))
Zoom
Special Fields
Value
Product Data
Shift Data
Job Data
Math Operators
+ − × ÷
% a^b = ≠
< > ≤ ≥
OR AND starts with ends with
match regex

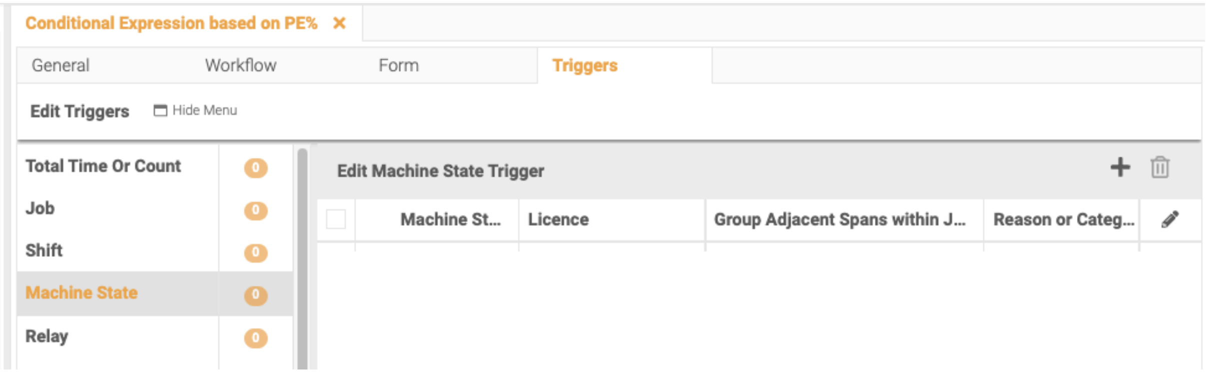
```
(job["orderClientId"]==12345)||(job["orderClientId"]==56789)
```

How to create a conditional expression on PE%?

When creating a trigger in Fusion Manager, you can create a conditional expression so the alert triggers only if the desired performance percentage is satisfied.

Example: Trigger an alert at the start of a job when the PE is greater than 95%.

Step 1 - In the triggers tab, click the Machine State trigger and hit the + button



Conditional Expression based on PE% ✕

General | Workflow | Form | Triggers

Edit Triggers Hide Menu

Total Time Or Count	0
Job	0
Shift	0
Machine State	0
Relay	0

Edit Machine State Trigger

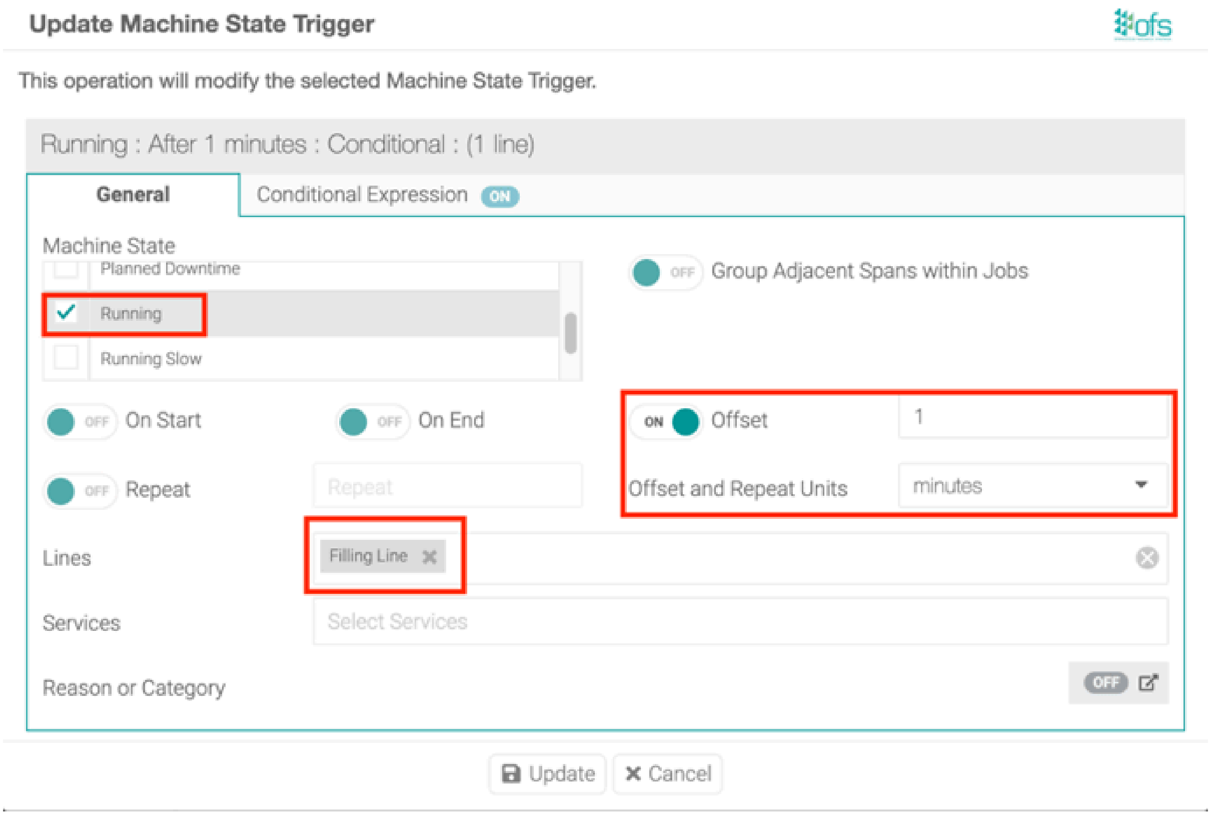
□	Machine St...	Licence	Group Adjacent Spans within J...	Reason or Categ...

Step 2 - Select the 'Running' machine state

Step 3 - Toggle on 'Offset' and enter a unit. I have used 1 minute in this example

NOTE: The offset will give the line time to reach the desired speed.

Step 3 - Select the applicable lines



Update Machine State Trigger

This operation will modify the selected Machine State Trigger.

Running : After 1 minutes : Conditional : (1 line)

General | Conditional Expression ON

Machine State
- □ Planned Downtime
- ☑ Running
- □ Running Slow

OFF Group Adjacent Spans within Jobs

OFF On Start

OFF On End

ON Offset: 1

Offset and Repeat Units: minutes

OFF Repeat: Repeat

Lines: Filling Line ✕

Services: Select Services

Reason or Category: OFF

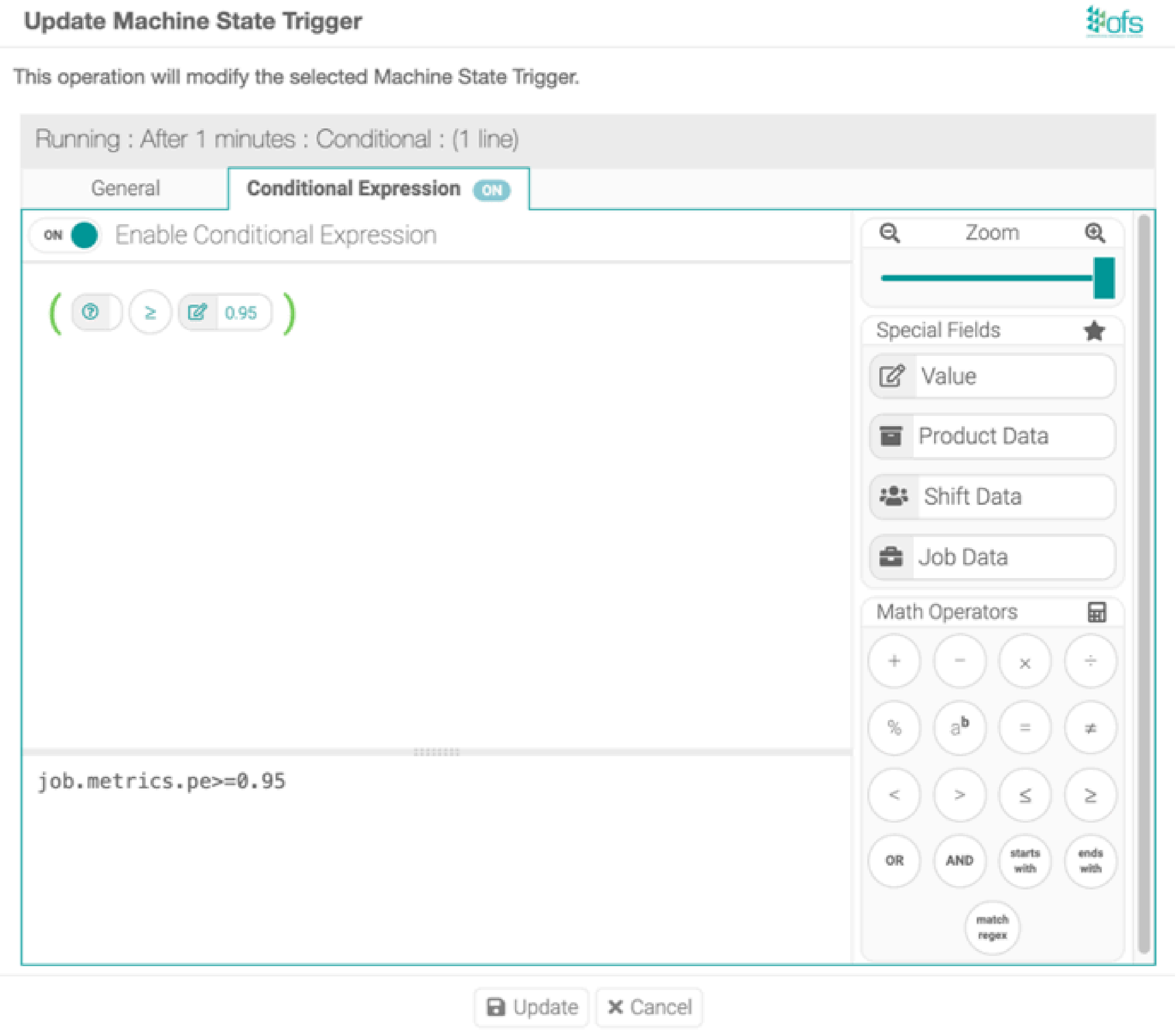
Update | ✕ Cancel

Step 4 - Click the Conditional Expression tab and toggle 'On'

Step 5 - The conditional expression for this is as follows:

```
job.metrics.pe>=0.95
```

- Ensure that the desired percentage is entered as a decimal.



Update Machine State Trigger

This operation will modify the selected Machine State Trigger.

Running : After 1 minutes : Conditional : (1 line)

ON Enable Conditional Expression

```
job.metrics.pe>=0.95
```

How to create a conditional expression for the rated speed

You can create triggers based on unit counts instead of time. In this example, we're using the product's rated speed to simulate an hourly trigger. It checks if the ratedSpeed value stored in job metadata is exactly equal to 1000.

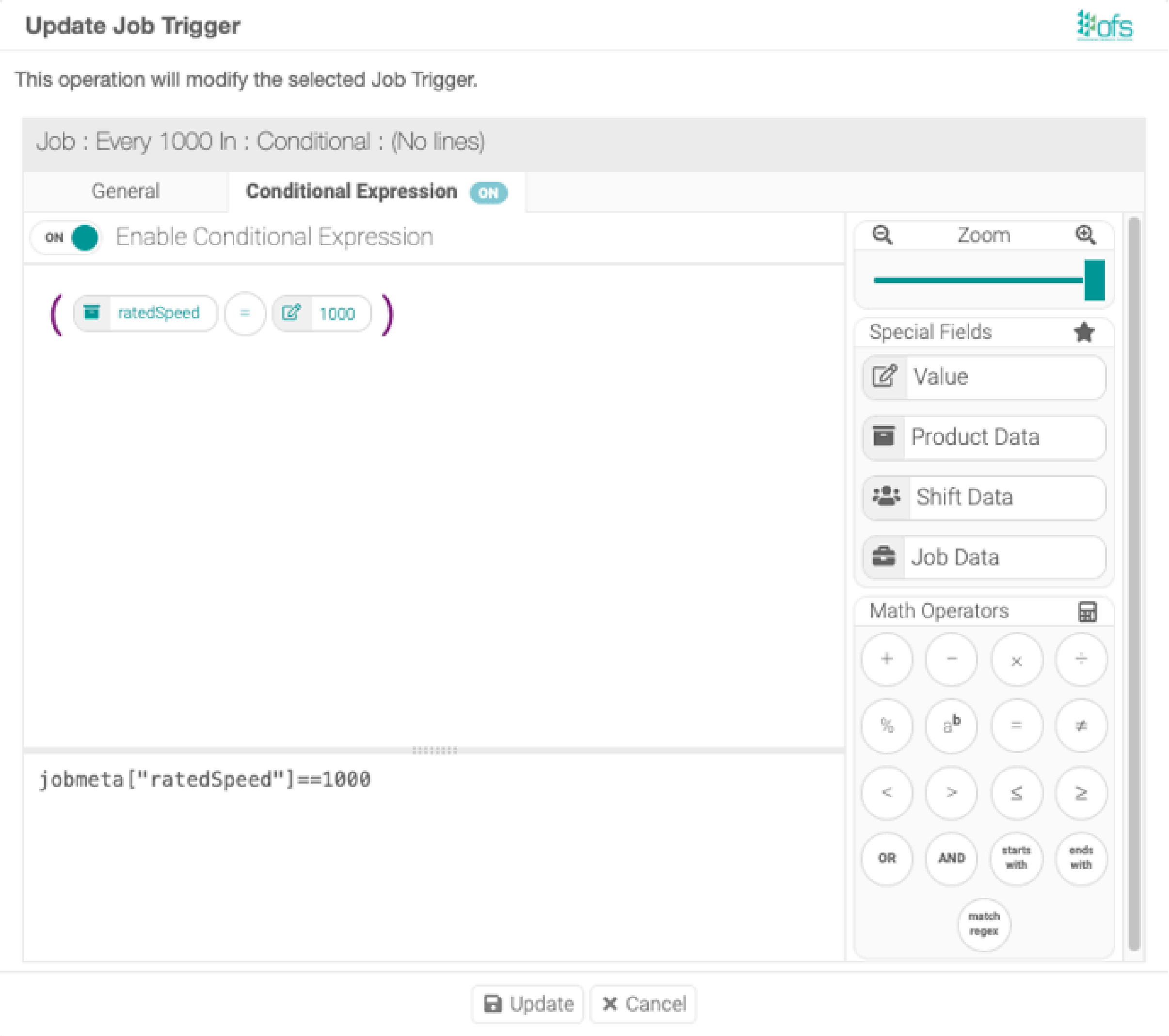
Step 1 - In the triggers tab, click the job trigger and hit the + button

Step 2 - Click the Conditional Expression tab and toggle 'On'

Step 3 - The conditional expression for this is as follows:

```
jobmeta["ratedSpeed"]==1000
```

Note: Replace '1000' with the actual rated speed from your product list.



Update Job Trigger

This operation will modify the selected Job Trigger.

Job : Every 1000 In : Conditional : (No lines)

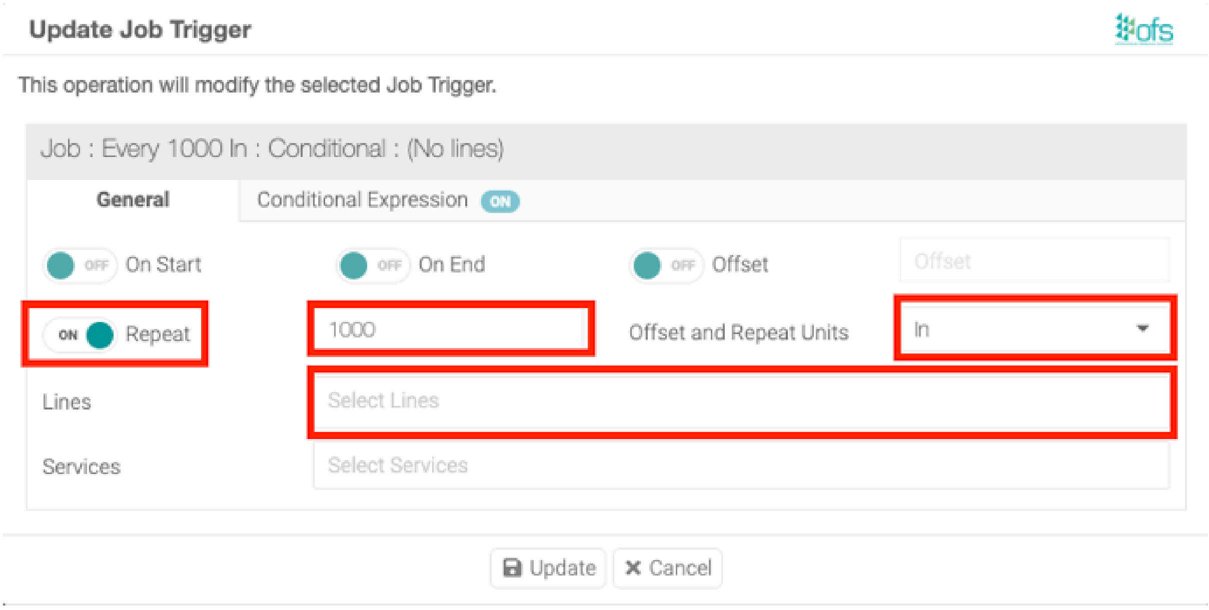
```
jobmeta["ratedSpeed"]==1000
```

Step 4 - In the General tab, toggle on Repeat

Step 5 - Enter the number of units e.g. 1000

Step 6 - Select the Units e.g. In

Step 7 - Select the lines it is applicable to



Update Job Trigger

This operation will modify the selected Job Trigger.

Job : Every 1000 In : Conditional : (No lines)

1000

Offset and Repeat Units: In

Lines: Select Lines

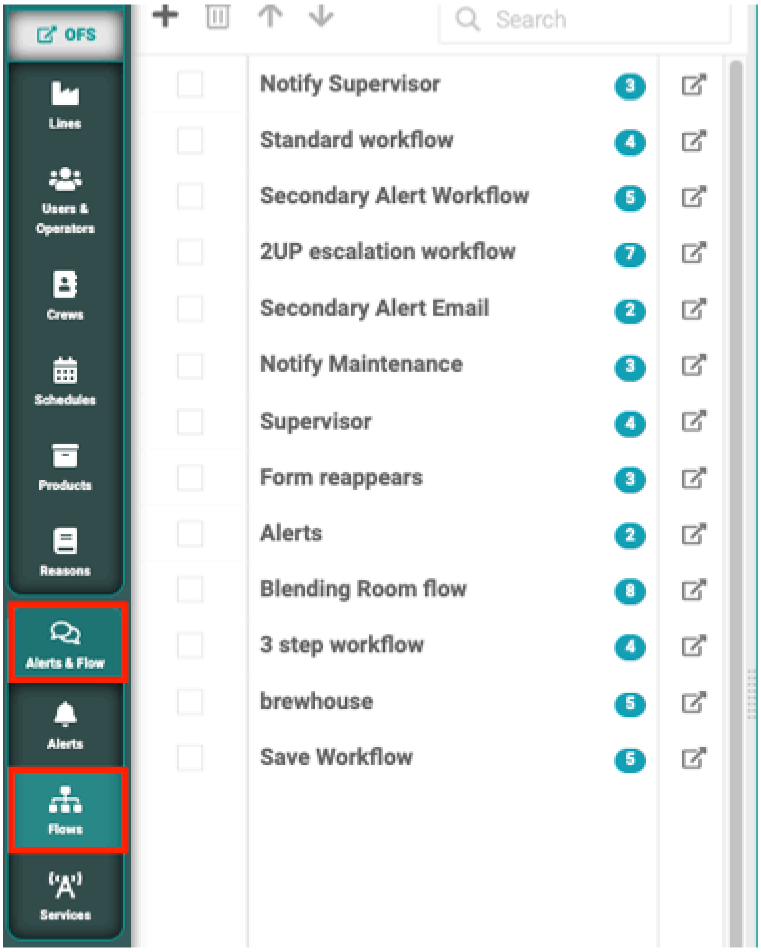
Services: Select Services

Step 8 - Click 'Update' and 'Save'

How to create a save button on your flow form

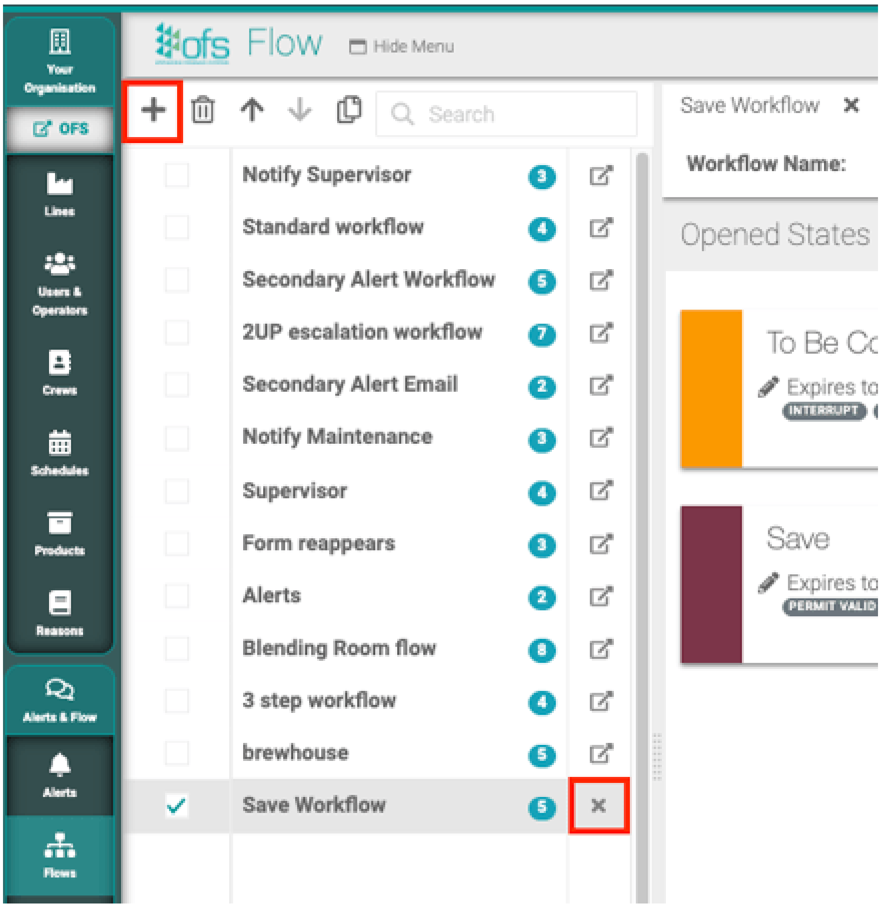
When completing a form on the console, an OFS user may need to save when it is partially completed. This article guides you in creating a save workstate.

Step 1 - Navigate to 'Alerts & Flow' and then the 'Flows' tab



Notify Supervisor	3
Standard workflow	4
Secondary Alert Workflow	5
2UP escalation workflow	7
Secondary Alert Email	2
Notify Maintenance	3
Supervisor	4
Form reappears	3
Alerts	2
Blending Room flow	8
3 step workflow	4
brewhouse	5
Save Workflow	5

Step 2 - Create a new workflow or amend an existing workflow


ofs Flow
Hide Menu
Your Organisation
OFS
Lines
Users & Operators
Crews
Schedules
Products
Reasons
Alerts & Flow
Alerts
Flows
Search

□	Notify Supervisor	3
□	Standard workflow	4
□	Secondary Alert Workflow	5
□	2UP escalation workflow	7
□	Secondary Alert Email	2
□	Notify Maintenance	3
□	Supervisor	4
□	Form reappears	3
□	Alerts	2
□	Blending Room flow	8
□	3 step workflow	4
□	brewhouse	5
✓	Save Workflow	5

Save Workflow ✕

Workflow Name:

Opened States

To Be Co

Expires to

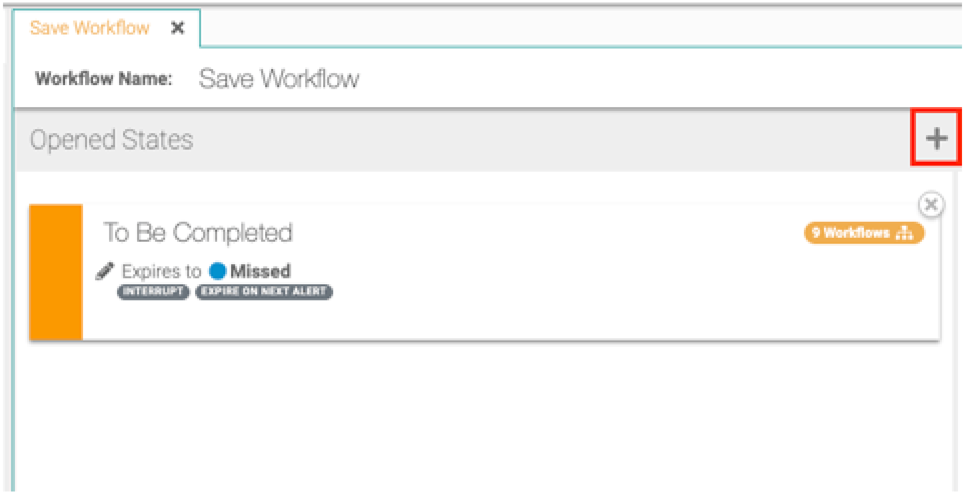
INTERRUPT

Save

Expires to

PERMIT VALID

Step 3 - Create a new 'Open' state named 'Save'


Save Workflow ✕

Workflow Name: Save Workflow

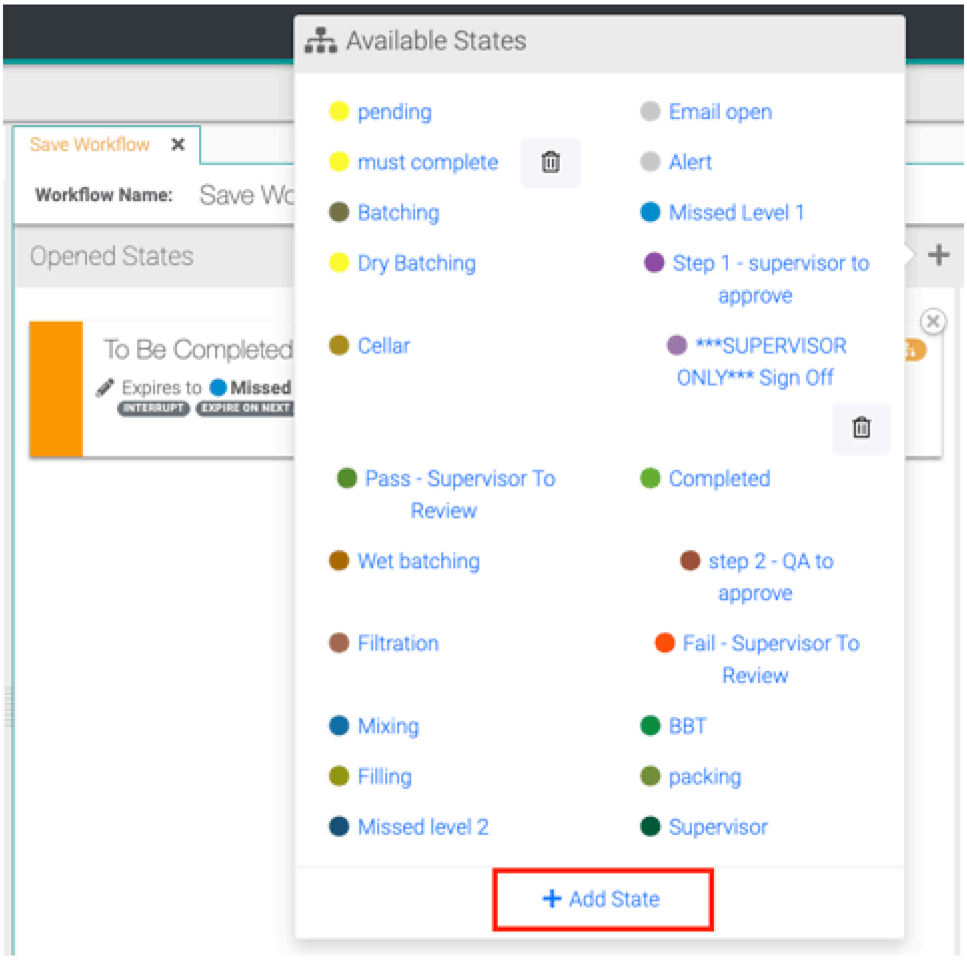
Opened States +

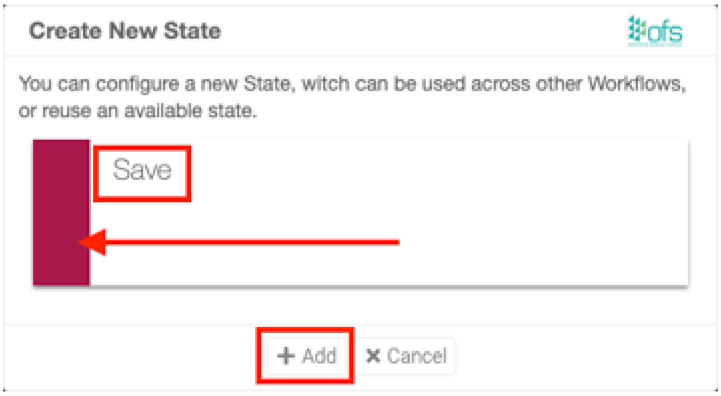
To Be Completed

Expires to Missed

INTERRUPT EXPIRE ON NEXT ALERT

9 Workflows



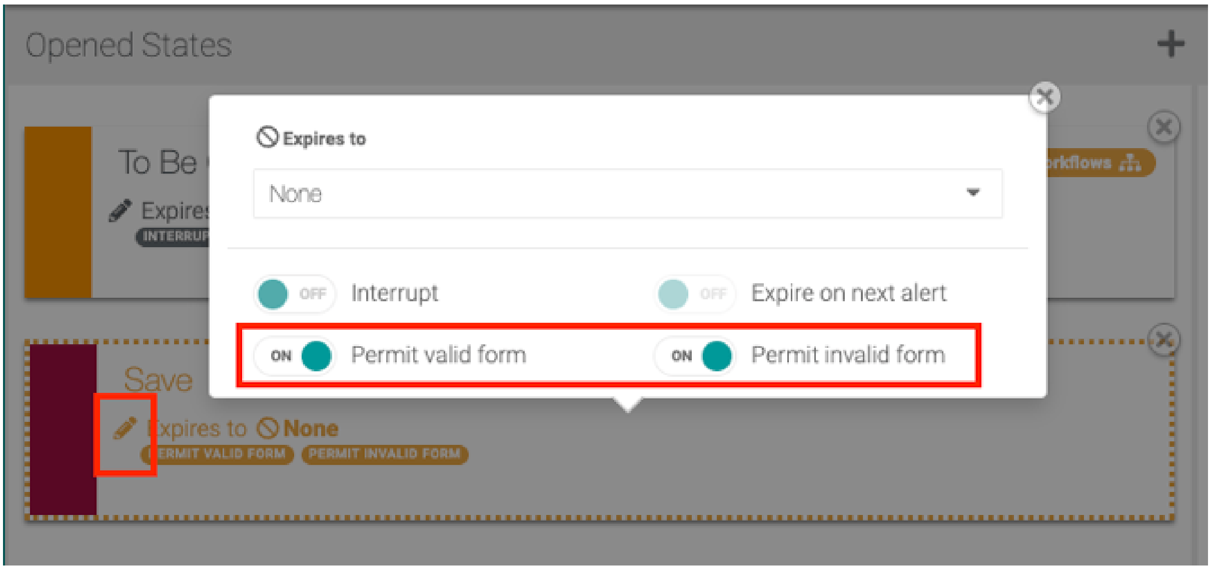


Create New State

You can configure a new State, witch can be used across other Workflows, or reuse an available state.

Step 4 - Click the pencil icon and ensure the 'Permit Valid' and 'Permit Invalid' toggles are <u>on</u>

NOTE: If you need the form the reappear on the console, toggle on 'Interrupt'

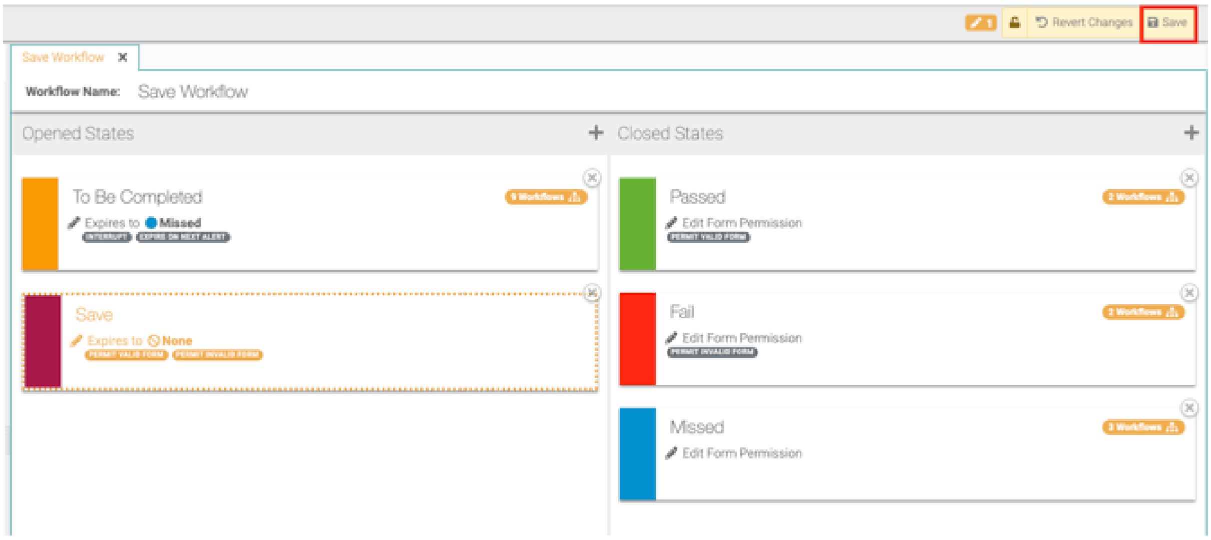


Expires to
None

OFF Interrupt
OFF Expire on next alert
ON Permit valid form
ON Permit invalid form

Expires to None
PERMIT VALID FORM
PERMIT INVALID FORM

Step 5 - Ensure you 'Save' in the top right corner



Workflow Name: Save Workflow

To Be Completed
Expires to Missed
INTERRUPT
EXPIRE ON NEXT ALERT

Save
Expires to None
PERMIT VALID FORM
PERMIT INVALID FORM

Passed
Edit Form Permission
PERMIT VALID FORM
2 Workflows

Fail
Edit Form Permission
PERMIT INVALID FORM
2 Workflows

Missed
Edit Form Permission
3 Workflows

How can we manually raise OFS-Flow forms via API?

Every OFS-Flow subscription includes a powerful API capability which allows you to automate actions like creating new forms.

Within OFS-Flow, there is a capable API which allows users to automate various actions, including the manual, semi-automatic and fully automatic initiation of OFS Flow records.

The OFS Flow alert-raising API is available at:

```
https://{hostname}/serviceengine/alertraise?configUID=...&workcentre=...&time=...
```

Each parameter is described below. To call this API, the user you authenticate with must have the `alertraise` permission. Typically administrators have this permission and any user who can manually raise a Flow Form already has this permission.

Getting Prepared

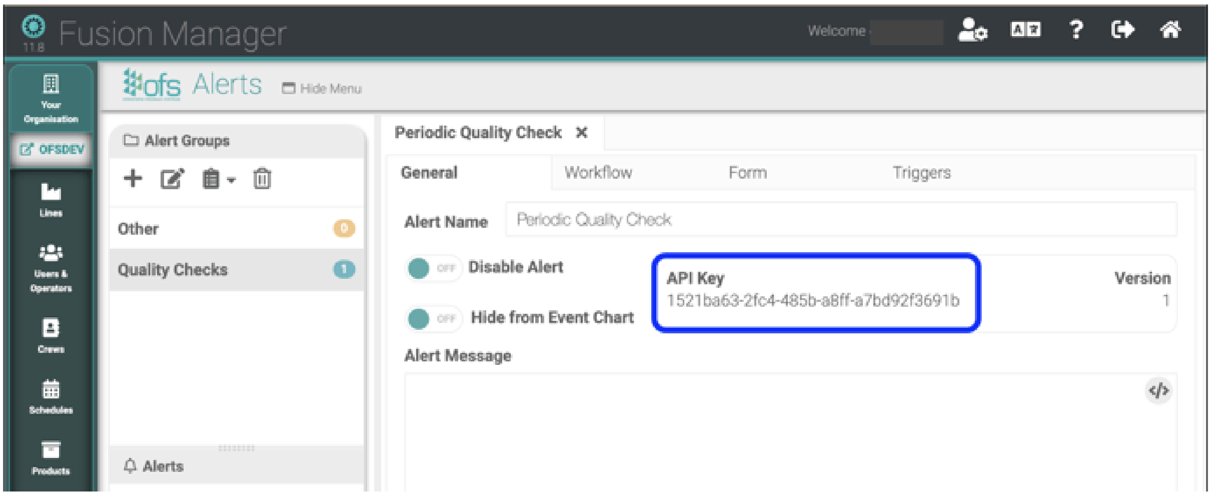
To make an API request to the OFS-Flow software for the creation of a new alert, you will need to know:

- The ConfigUID of the Alert that you wish to raise
- The Workcentre that you want your newly raised Alert to be associated with
- The Time at which you want the alert to be raised

These three parameters are required and each must be formatted specifically according to the rules below in your request, and must be properly URL encoded.

Config UID

The Config UID for any alert can be found, once the alert has been saved, in Fusion-Manager:



Alert Name: Periodic Quality Check

Disable Alert: OFF

Hide from Event Chart: OFF

API Key: 1521ba63-2fc4-485b-a8ff-a7bd92f3691b

Version: 1

Workcentre

For your newly raised alert's workcentre, you have two options:

- If you are licensed for Line Independent Flows and you want to raise this alert in a Line-Independent capacity, the workcentre for your API call will need to be `NOWORKCENTRE001`
- For alerts associated with an OFS Licensed Production Line, set the workcentre to your known value for the line you want to associate. The workcentre for your OFS line is the set of all capitals letters, ending with 3 numbers, between the server address and `/console/` in your OFS Console URL.

Time

Each OFS Flow Alert has a creation time associated with it - those raised by API are no exception. In almost all cases, you will get the best results from setting the time parameter to the current time, however the time must be declared as a Unix Timestamp.

This format is a number of milliseconds since the Unix Epoch. There are public tools to help you calculate this available online - Epoch Converter.

When Alerts are raised at past-now timestamps, they will be transitioned through their defined workflow in line with the defined creation time.

If you send a request with a future timestamp, it will be rejected as the server does not support queuing future alerts via this mechamism at the present time.

Testing your Request

Once you have gathered these parameters, you can combine your prepared parameters with make calls to the alertraise API.

Consider using an API client like Postman, but you can make this call from your Web Browser for testing purposes - just combine the example above with your prepared parameters and pop it into your web browser. Each time you run the API call, a new alert will be created so do be careful testing this out.

Automating Flow Form Creation

By combining this information about the Alert Raising API with an external trigger (e.g. a hook in SAP, a sensor on the factory floor, etc), the possibilities for automation with OFS are endless. The API can be called from anywhere with access to the OFS Server, and can be programmed with your systems to update the workcentre, alert, and time properties according to your needs.