

AeroSense: Phase 4 Documentation

Phase Title: Process Automation (Admin)

Objective: To automate AQI monitoring workflows in AeroSense using declarative Salesforce tools, ensuring seamless data handling, real-time alerts, and improved efficiency.

1. Validation Rules

Validation rules ensure data integrity.

Example 1: Prevent Readings Without Sensor

- Object:** Reading__c
- Formula:**

ISBLANK(Sensor__c)

- Error Message:** "A Reading must be linked to a Sensor."

Example 2: AQI Value Range

- Object:** Reading__c
- Formula:**

OR(AQI__c < 0, AQI__c > 500)

- Error Message:** "AQI must be between 0 and 500."
-

SETUP > OBJECT MANAGER				
Reading				
<div>Details</div> <div>Fields & Relationships</div> <div>Page Layouts</div> <div>Lightning Record Pages</div> <div>Buttons, Links, and Actions</div> <div>Compact Layouts</div>	<div>Validation Rules</div> <div>2 Items, Sorted by Rule Name</div> <div>New</div>			
	RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE
	AQI_Valid_Range	AQI	AQI must be between 0 and 500.	✓
	Require_Sensor_Link	Sensor	A Reading must be linked to a Sensor.	✓
	MODIFIED BY			

2. Workflow Rules

Note: Workflow Rules are being phased out in favor of Flows, but for learning:

Example: Sensor Needs Calibration

- **Object:** Sensor__c
- **Criteria:** Trust_Score__c < 50
- **Action:** Send email notification to System Admin.

The screenshot shows the Salesforce Setup interface for configuring a Workflow Rule. The left sidebar contains navigation links: Setup, Home, Object Manager, Process Automation, Workflow Actions (with sub-links for Email Alerts, Field Updates, Outbound Messages, Send Actions, and Tasks), and Workflow Rules. The main content area is titled 'Workflow Rules' and includes a 'Save' button and a 'Cancel' button. The 'Edit Rule' section shows the rule name 'Sensor_Needs_Calibration' and a description field. The 'Evaluation Criteria' section has two radio buttons: 'created' (selected) and 'created, and every time it's edited'. A yellow warning message states: 'You cannot add time-dependent workflow actions with this option.' Below this, there is a section for 'Rule Criteria' with a dropdown menu set to 'criteria are met'. The criteria table has five rows, each with a 'Field' column, an 'Operator' column, and a 'Value' column. The first row is 'Sensor: Trust Score' with the operator 'less than' and the value '50'. The other four rows are empty, each starting with '--None--' in the Field column. The table is followed by 'AND' connectors for each row.

Field	Operator	Value
Sensor: Trust Score	less than	50
--None--	--None--	
--None--	--None--	
--None--	--None--	
--None--	--None--	

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Sensors

Recently Viewed ▾

3 items • Updated a few seconds ago

Search this list...

New Import Change Owner Assign Label

	<input type="checkbox"/> Sensor Name	
1	<input type="checkbox"/> Test Sensor	▾
2	<input type="checkbox"/> Test sensor2	▾
3	<input type="checkbox"/> SEN-0001	▾

3. Process Builder

Note: Process Builder is also being replaced by Flows but still valid in some orgs.

Example: Auto-Create Alert

- **Object:** Reading__c
- **Trigger:** When AQI__c > 200
- **Action:** Create an **Alert__c** record linked to Reading & Sensor.

Sales Home Opportunities ▾ Leads ▾ Tasks ▾ Readings ▾ More ▾

Reading

Reading1

New Contact Edit New Opportunity ▾

Related **Details**

Reading Name
Reading1

Sensor
[Test sensor2](#)

AQI
250

Recorded At

Created By
[Raksha Kalaskar](#) 9/20/2025, 10:44 AM

Last Modified By
[Raksha Kalaskar](#) 9/20/2025, 10:44 AM

Activity

javascript:void(0)

Sales Alert "ALT-0004" was created. More

Alert **ALT-0004** New Contact Edit New Opportunity

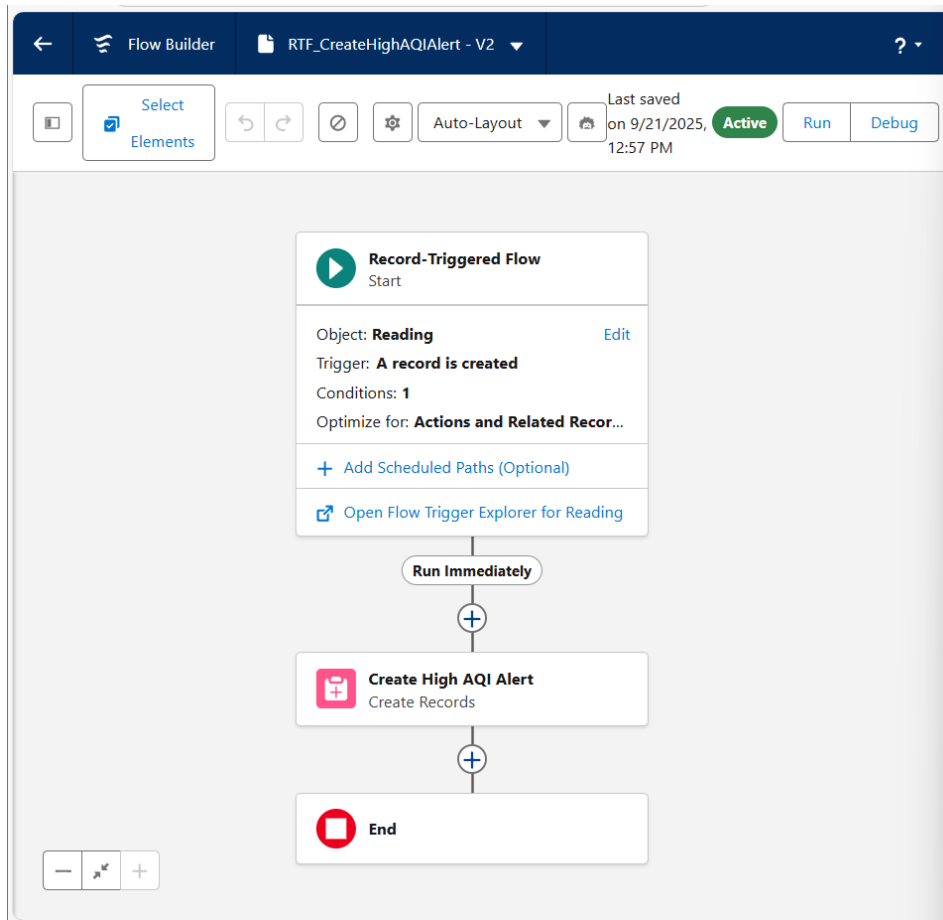
Related **Details**

Alert Name	ALT-0004	Owner	Raksha Kalaskar
Sensor	Test Sensor		
Severity	High		
Message	AQI exceeded 200		
Reading	REading2		
Created On			
Created By	Raksha Kalaskar, 9/20/2025, 10:46 AM	Last Modified By	Raksha Kalaskar, 9/20/2025, 10:46 AM

4. Approval Process

Example: Sensor Calibration Approval

- **Object:** Calibration__c
- **Entry Criteria:** Offset__c > 10
- **Steps:**
 1. Submit record → Goes to System Admin.
 2. Approver reviews offset values.
 3. If approved, Status__c = "Approved".
 4. If rejected, Status__c = "Rejected".



6. Notifications

- **Custom Notifications:** Push notifications in Salesforce app when AQI exceeds threshold.
- **Email Alerts:** Send automated messages for new alerts.
- **Tasks:** Assign tasks to field technicians when calibration is overdue.

Setup

Home

Object Manager

Q email tem

Email

- Classic Email Templates
- Lightning Email Templates

Didn't find what you're looking for?
Try using Global Search.

Custom Notifications

When you create and use custom notifications, the title and body of the custom push notification may be saved to and processed by Google, Microsoft and/or Apple. Salesforce is not responsible for the privacy and security practices of third-party systems or applications like Google Cloud Messaging or Apple Push Notification Service.

Custom Notification Types

New

Send custom notifications using [Flows](#) or [Process Builder](#)

NOTIFICATION NAME	API NAME	NAMESPACE	DESKTOP	MOBILE
enablement_coaching_feedback_ready	enablement_coaching_feedback_ready		✓	
High AQI Alert	High_AQI_Alert		✓	✓

Setup

Home

Object Manager

Q email tem

Email

- Classic Email Templates
- Lightning Email Templates

Didn't find what you're looking for?
Try using Global Search.

Classic Email Templates

Text Email Template

High AQI Email

Preview your email template below.

Email Template Detail

Edit Delete Clone

Email Templates from Salesforce	Unfiled Public Classic Email Templates
Email Template Name	High AQI Email
Template Unique Name	High_AQI_Email
Encoding	Unicode (UTF-8)
Author	Raksha Kalaskar (Change)
Description	
Created By	Raksha Kalaskar , 9/21/2025, 10:36 AM
Available For Use	<input type="checkbox"/>
Last Used Date	
Times Used	
Modified By	Raksha Kalaskar , 9/21/2025, 10:36 AM

Edit Delete Clone

Email Template

Send Test and Verify Merge Fields

Subject

High AQI Alert

Plain Text Preview

An AQI Alert has been triggered.
Sensor: {!Alert__c.Sensor__c}
AQI: {!Alert__c.Message__c}
Severity: {!Alert__c.Severity__c}

Setup

Home

Object Manager

Q Quick Find

Setup Home

Salesforce Go

Service Setup Assistant

Commerce Setup Assistant

Field Service Setup Home (Beta)

Hyperforce Assistant

Release Updates

Salesforce Mobile App

Lightning Usage

Optimizer

Sales Cloud Everywhere

Email Alerts

Email Alert

High AQI – notify monitoring team

[Rules Using This Email Alert \(0\)](#) | [Approval Processes Using This Email Alert \(0\)](#) | [Entitlement Processes Using This Email Alert \(0\)](#)

Email Alert Detail

Edit Delete Clone

Description	Email Template
High AQI – notify monitoring team	High AQI Email
Unique Name	High_AQI_notify_monitoring_team
From Email Address	Current User's email address
Recipients	Group: Executives User: Tom Volunteer User: Alisa Engineer User: Jhon Executive
Additional Emails	
Created By	Raksha Kalaskar , 9/22/2025, 8:32 AM
Modified By	Raksha Kalaskar , 9/22/2025, 8:32 AM

Edit Delete Clone

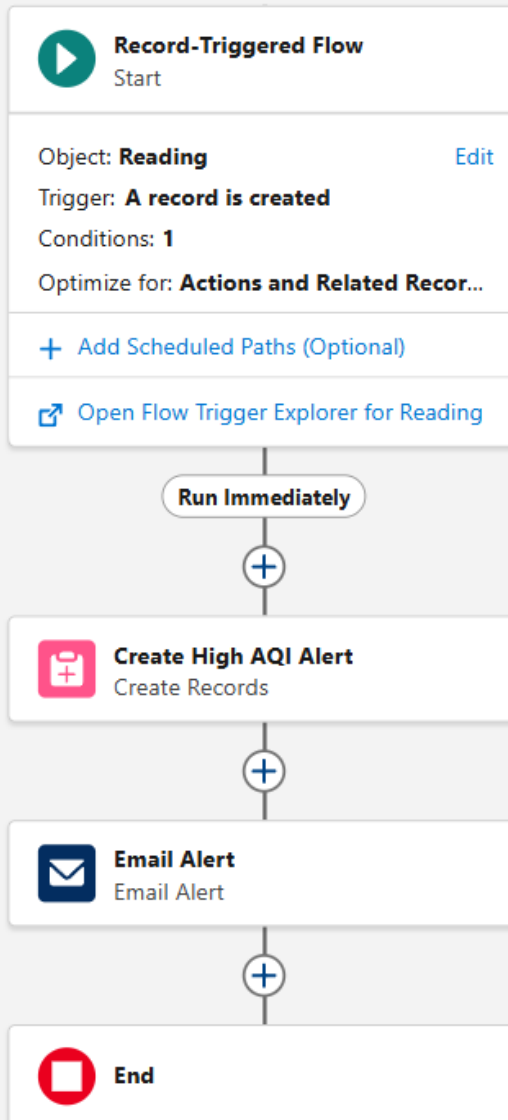
Last saved on 9/22/2025, 09:05 PM

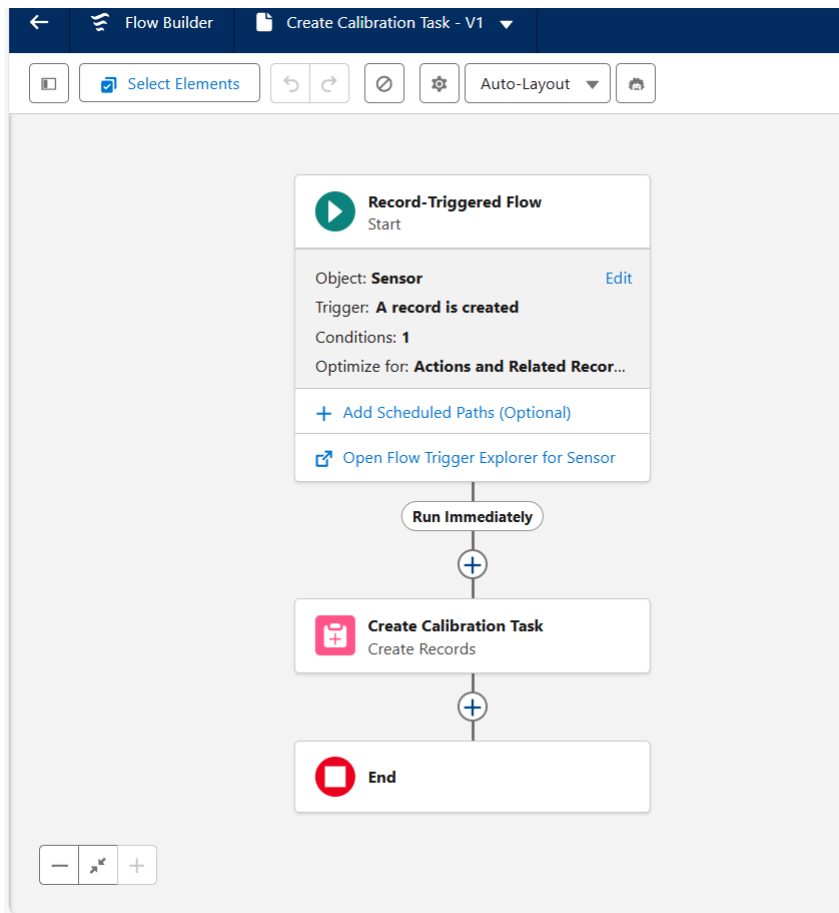
Active

Run

Debug

View Test





7. Example Flow Pseudo-Code (AQI Auto Alert)

```
IF (Reading.AQI__c > 150) {  
  Create Alert__c:  
    Sensor__c = Reading.Sensor__c  
    Reading__c = Reading.Id  
    Severity__c = "High"  
    Message__c = "AQI exceeds safe limit"  
  Send Email to Monitoring Team  
}
```