

Alerts and Tasks

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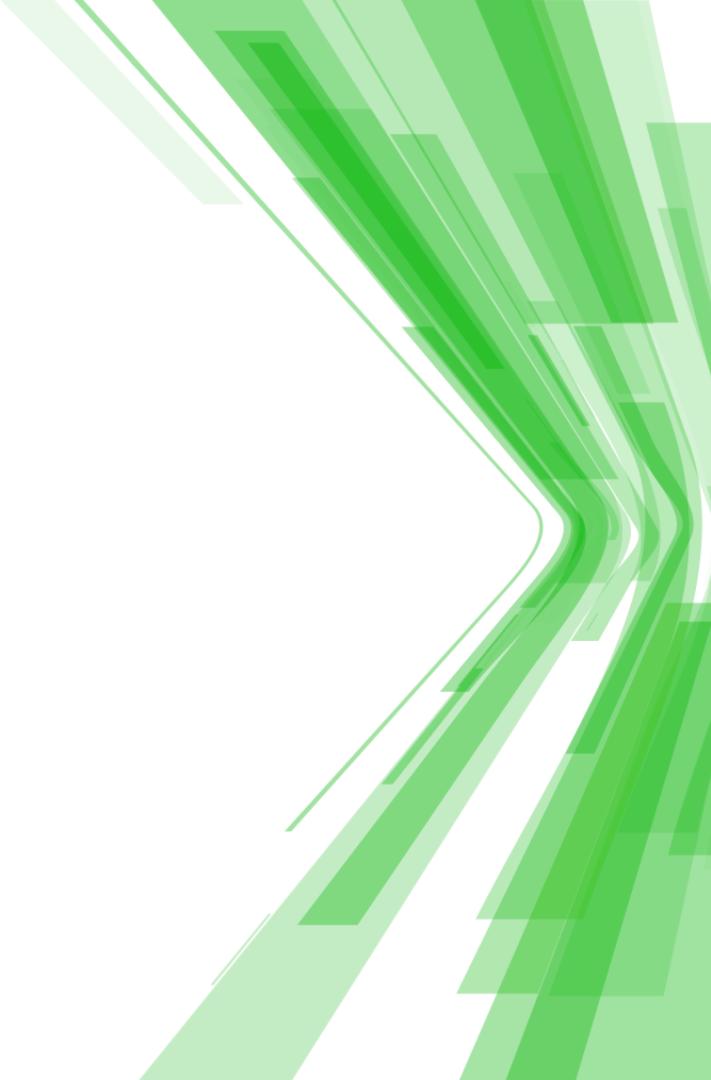
Founder & Partner @ Quantia Consulting

Marco Balduini

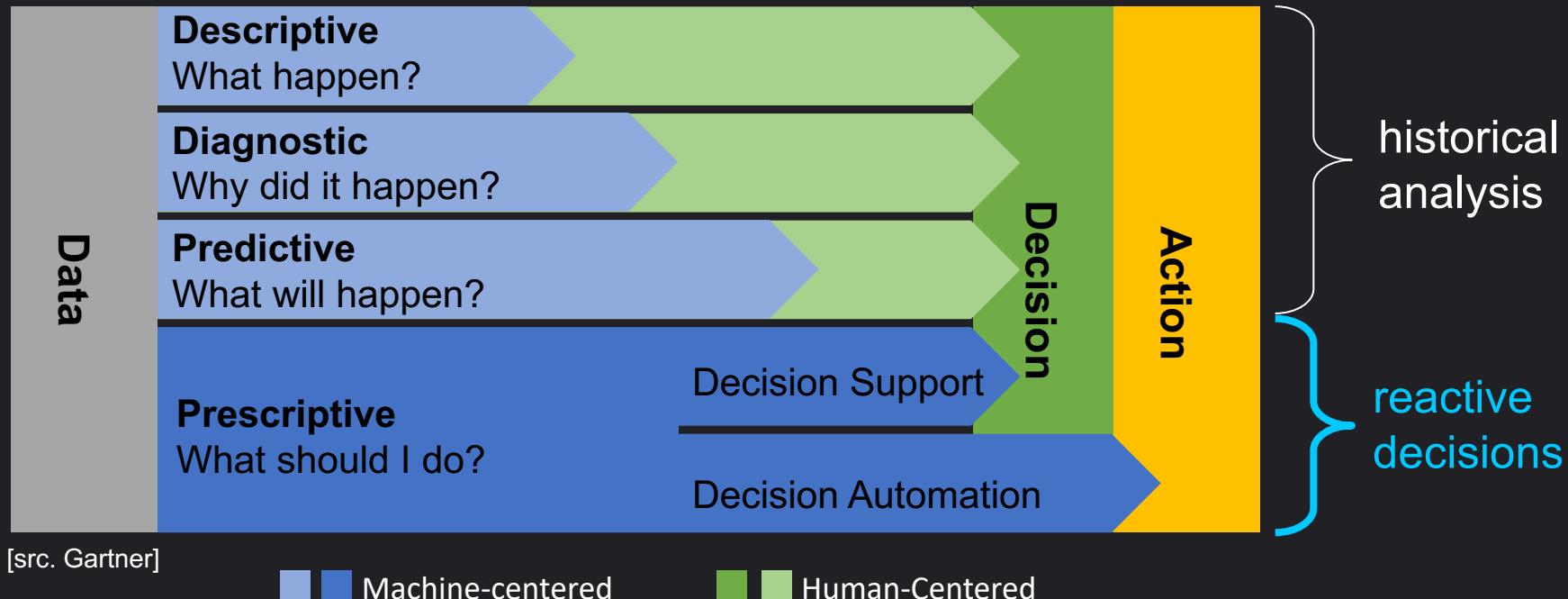
Founder & CEO @ Quantia Consulting



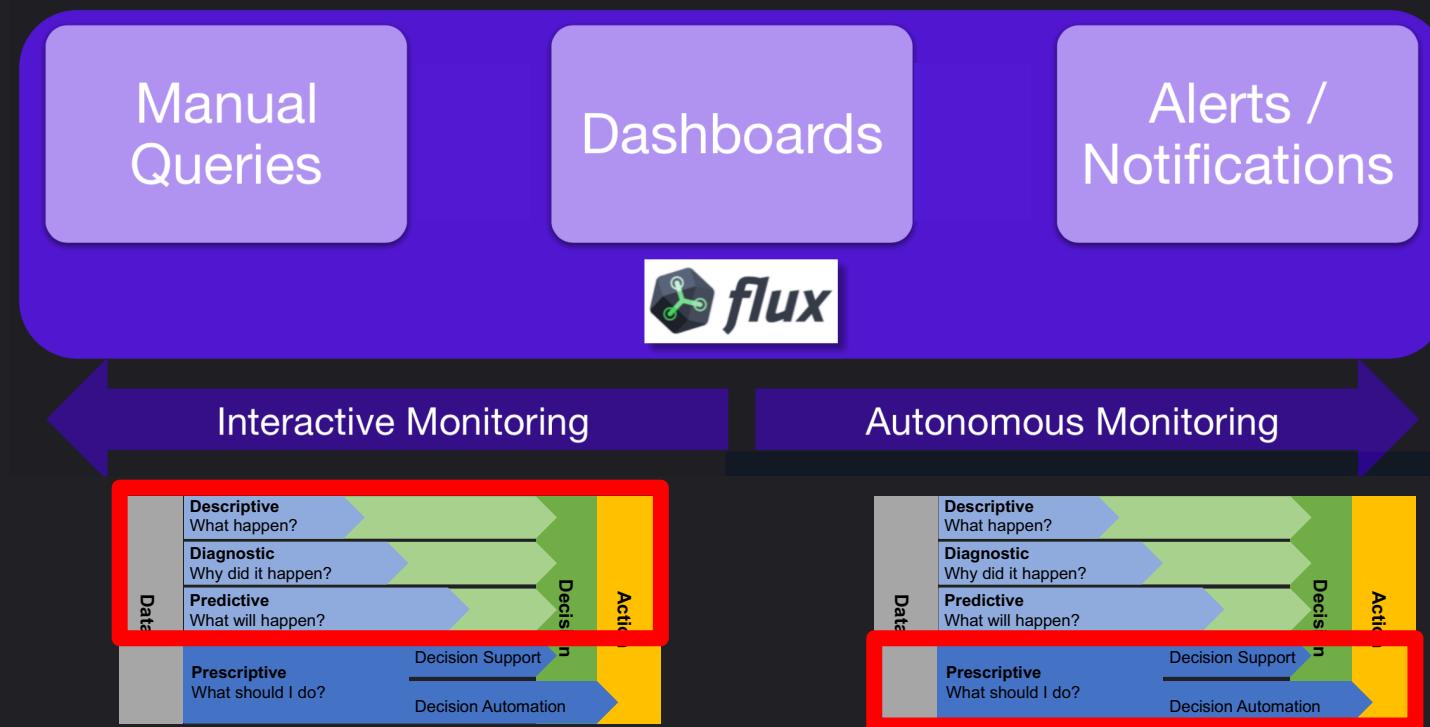
Alerts



Data-driven decision



Interactive vs. Autonomous Monitoring



Alerts

Types of Alerts

- Threshold
- Deadman

Alerts are defined as

- a base query
- threshold criteria
- condition mapping
- notifications

The image shows three side-by-side panels from a monitoring interface:

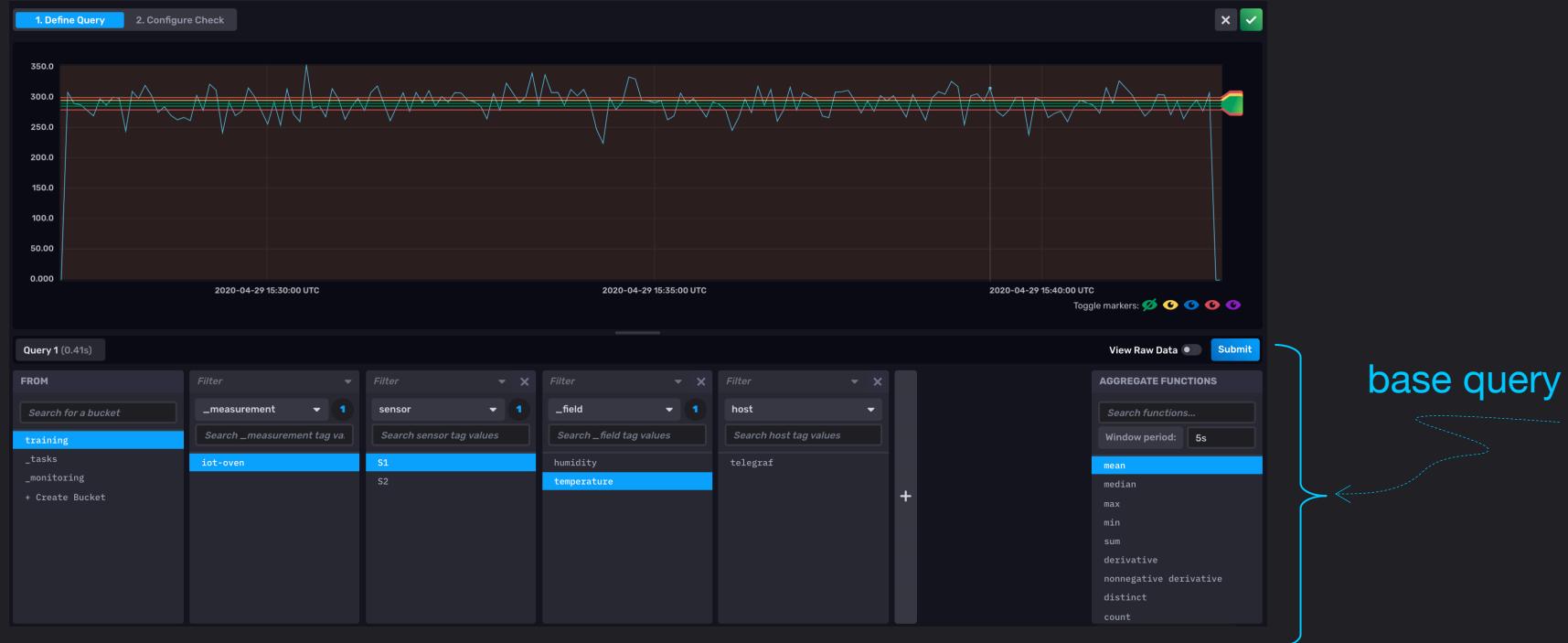
- Checks**: Shows a single check named "Cooking Base Area Temp". It has a blue status indicator, no description, was last completed at 2020-04-29T15:36:00Z, and was last updated 17 minutes ago. There is a "+ Add a label" button.
- Notification Endpoints**: Shows a single endpoint named "CBAT-slack". It has a grey status indicator, is associated with the check "Cooking Base Area Temp EP", was last updated a few seconds ago, and has a "+ Add a label" button.
- Notification Rules**: Shows a single rule named "Cooking Base Area Not Rules". It has a grey status indicator, no description, was last completed at 2020-04-29T15:36:00Z, and was last updated a few seconds ago. There is a "+ Add a label" button.

Alerts UI

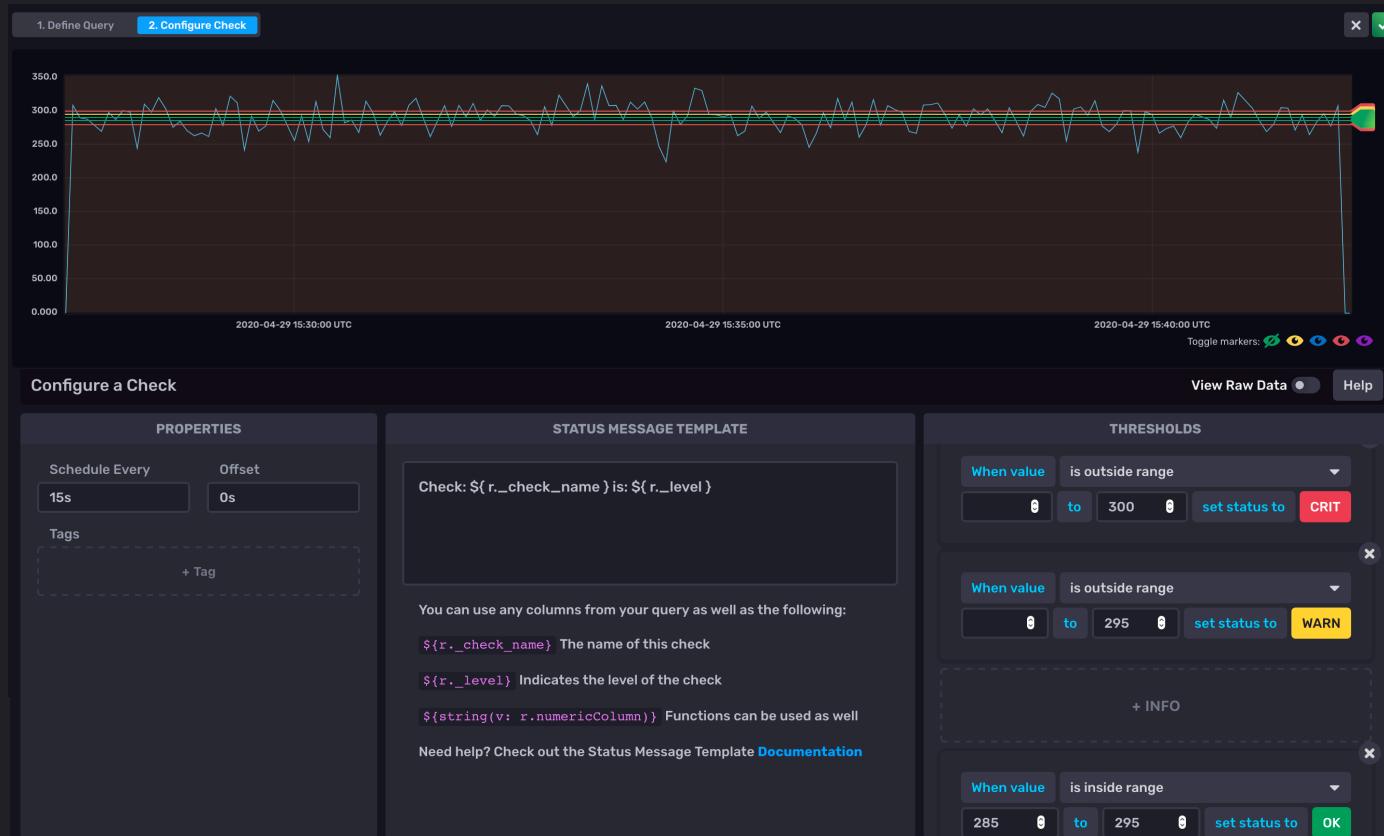
The screenshot displays the Alerts UI interface with three main panels:

- Checks**: A panel for managing checks. It includes a search bar labeled "Filter Checks...", a "Create" button, and a list item titled "Cooking Base Area Temp". The item has a status indicator (blue circle), a "No description" note, a green checkmark icon with the text "Last completed at 2020-04-30T08:37:15Z", and a timestamp "Last updated 15 hours ago". There is also a "+ Add a label" button.
- Notification Endpoints**: A panel for managing notification endpoints. It includes a search bar labeled "Filter Notification Endpoints...", a "Create" button, and a list item titled "CBAT-slack". The item has a status indicator (grey circle), a title "Cooking Base Aerea Temp EP", a timestamp "Last updated 17 hours ago", and a "+ Add a label" button.
- Notification Rules**: A panel for managing notification rules. It includes a search bar labeled "Filter Notification Rules...", a "Create" button, and a list item titled "Cooking Base Aerea Not Rules". The item has a status indicator (grey circle), a "No description" note, a green checkmark icon with the text "Last completed at 2020-04-29T15:36:00Z", and a timestamp "Last updated 17 hours ago". There is also a "+ Add a label" button.

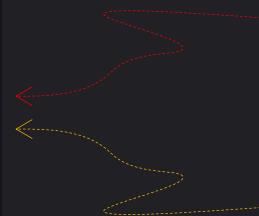
Alerts UI – check view – query pane



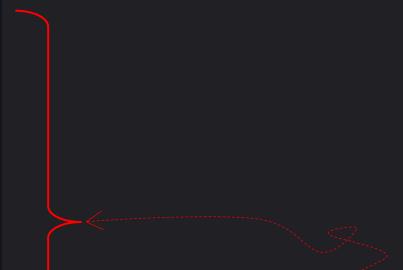
Alerts UI – check view – check pane



critic condition
threshold



warn condition
threshold



threshold criteria
condition mapping

Notifications

Possibility to define

- Notification endpoints on a Slack channel
- Notification rules
 - When
 - What

The screenshot displays three panels of a monitoring application:

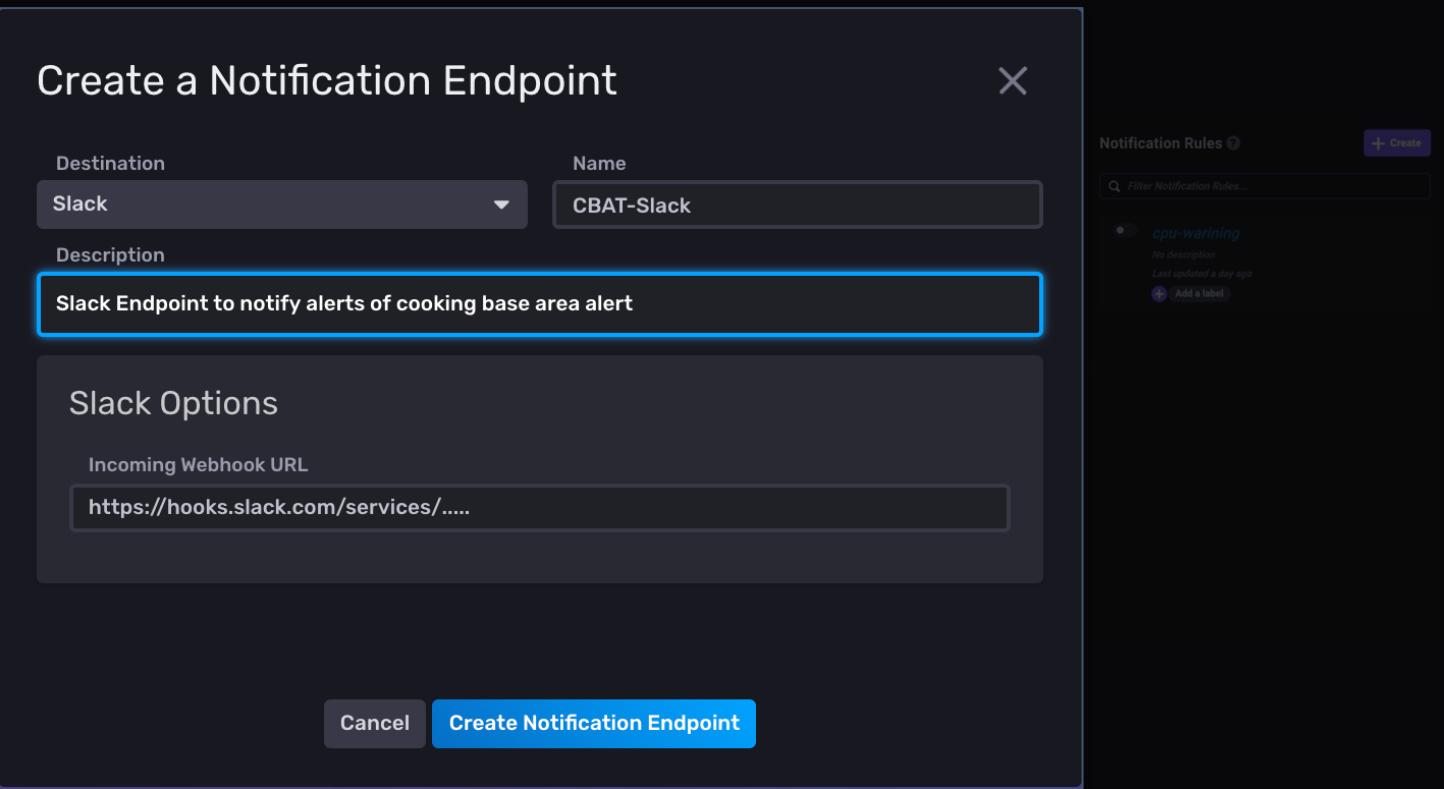
- Checks**: Shows a single entry for "Cooking Base Area Temp" which is active (blue button), has no description, was last completed at 2020-04-30T08:37:15Z, and was last updated 15 hours ago. It includes a "+ Add a label" button.
- Notification Endpoints**: Shows a single entry for "CBAT-slack" which is inactive (grey button), is associated with "Cooking Base Aerea Temp EP", was last updated 17 hours ago, and includes a "+ Add a label" button.
- Notification Rules**: Shows a single entry for "Cooking Base Aerea Not Rules" which is inactive (grey button), has no description, was last completed at 2020-04-29T15:36:00Z, and was last updated 17 hours ago. It includes a "+ Add a label" button.

Notification

Possibility to

- Notifications endpoint via a Slack channel

- Notifications
 - Where
 - What



Notifications

Possibility to do:

- Notification endpoints can be defined in a Slack channel

- Notification configuration
 - When
 - What

Edit this Notification Rule

About

Name: Cooking Base Aerea Not Rules
Schedule Every: 15s Offset: 0s

Conditions

When status is equal to CRIT

+ Tag Filter

Message

Notification Endpoint: CBAT-slack
Message Template:
Notification Rule: \${r.notification_rule_name} triggered by check: \${r.check_name}: \${r.message}

Save Changes

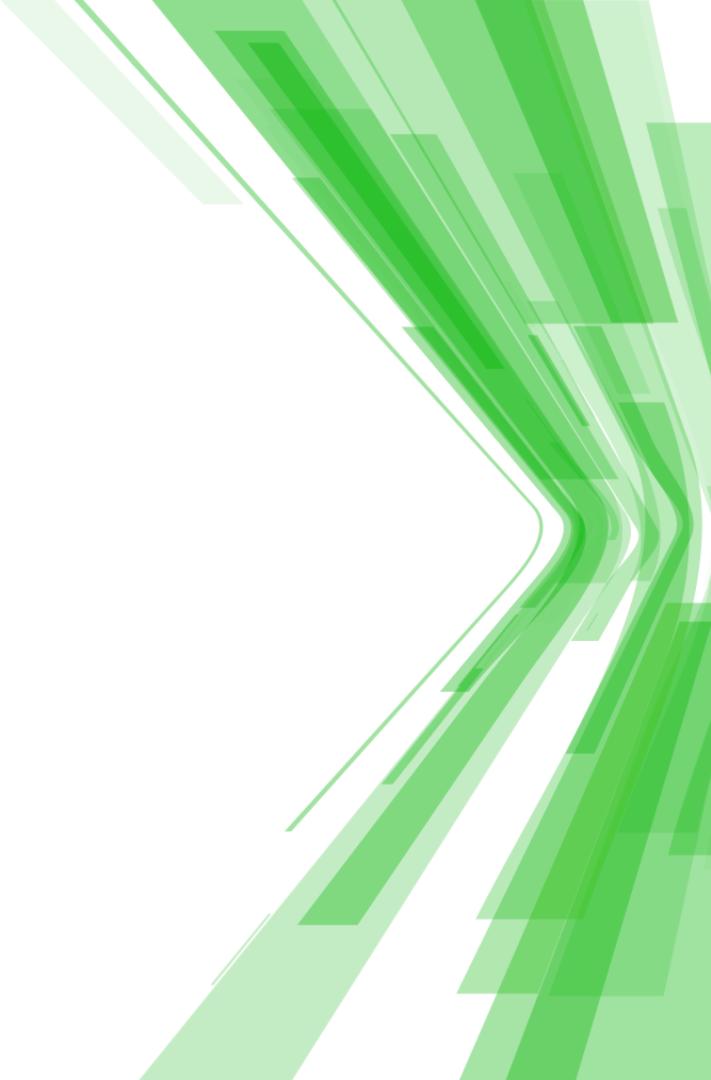
Notification Rules + Create

cpu-warning

No description
Last updated a day ago

Add a label

Tasks



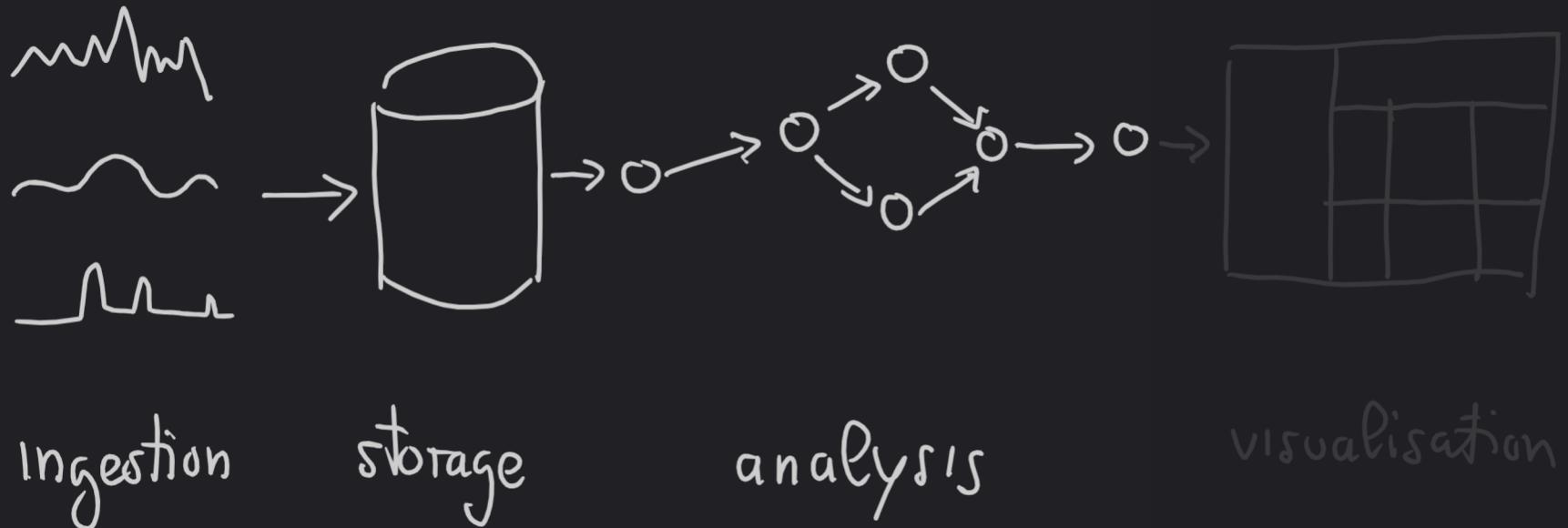
Tasks

- The power of Flux for continuous processing and analysis

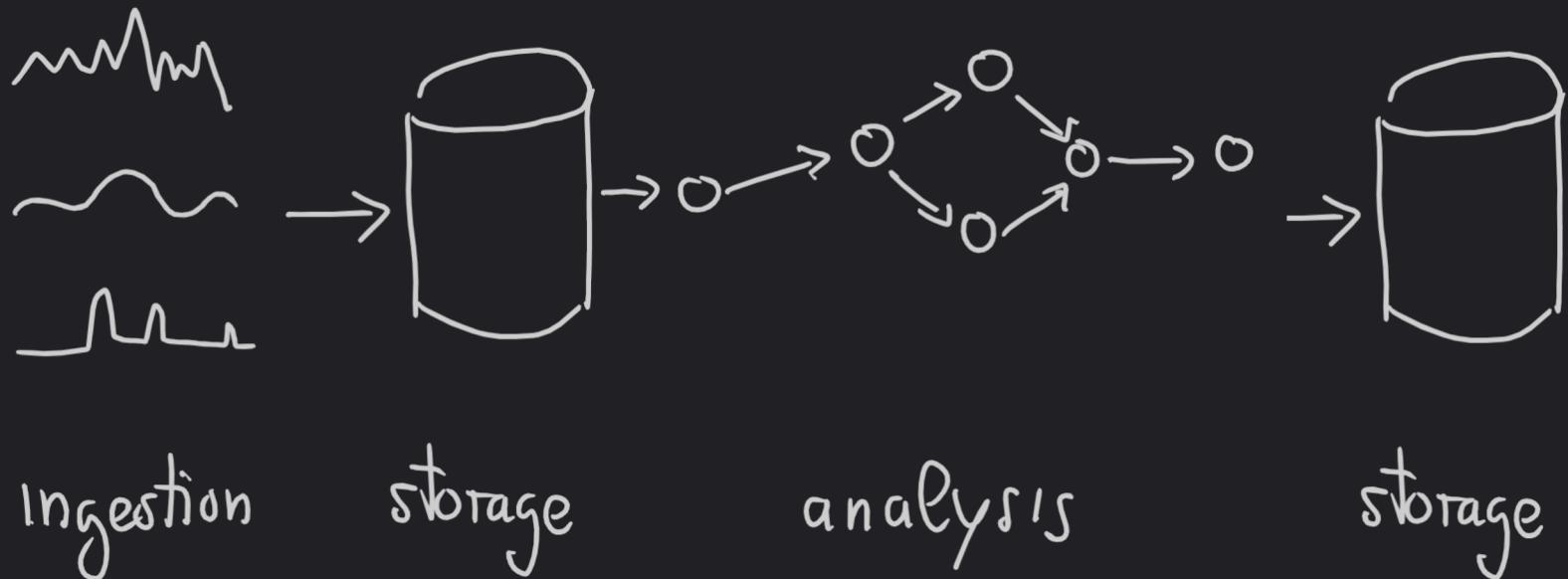
The screenshot shows the Flux application interface with a dark theme. On the left is a vertical sidebar with icons for Data, Explore, Boards, Tasks (which is selected and highlighted with a blue border), and Notifications. The main area is titled "Tasks". It features a search bar ("Filter tasks...") and a sorting dropdown ("Sort by Name (A → Z)"). A "Show Inactive" toggle switch is turned on, and a "Create Task" button is visible. Two task cards are listed:

- Record the temperature dispersion in the base-cocking area**
Status: Active | Last completed at 2020-06-08T15:01:00Z | Scheduled to run every 1m
Actions: Add a label
- Record the temperature dispersion in the base-cocking area**
Status: Active | Last completed at 2020-06-08T15:01:00Z | Scheduled to run every 1m
Actions: Add a label

Recall the Data Lifecycle of this morning



Tasks continuously write back to the storage the results of the analysis



Writing into a bucket using `to()`

- Syntax

`to(bucket: <<name>>, org:<<organization>>)`

- Example

```
from(bucket:"foo")  
|> ...  
|> to(bucket: "bar", org:"some@quantiaconsulting.com")
```

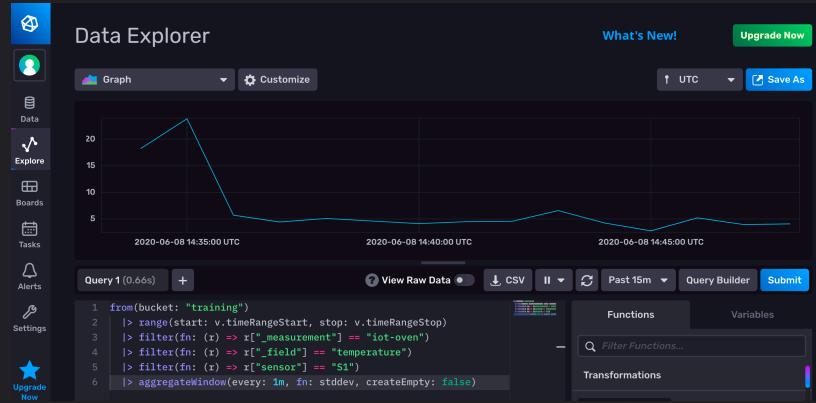
Tasks are Written in the Flux Language

- No need to learn a separate language to write Tasks
- No need to use separate tools for debugging Tasks
- Tasks define all options within the script for portability
- Options include
 - Name
 - Run Interval
 - every
 - CRON syntax
- Tasks are self contained and can be imported / exported

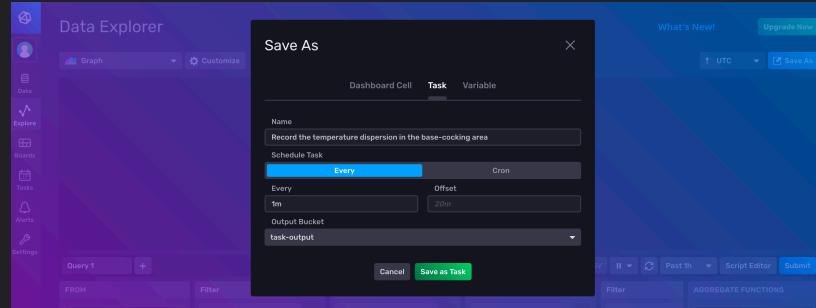
```
option task = {  
    name: "CPU User Usage Total 1h",  
    every: 1h,  
}
```

Best practice

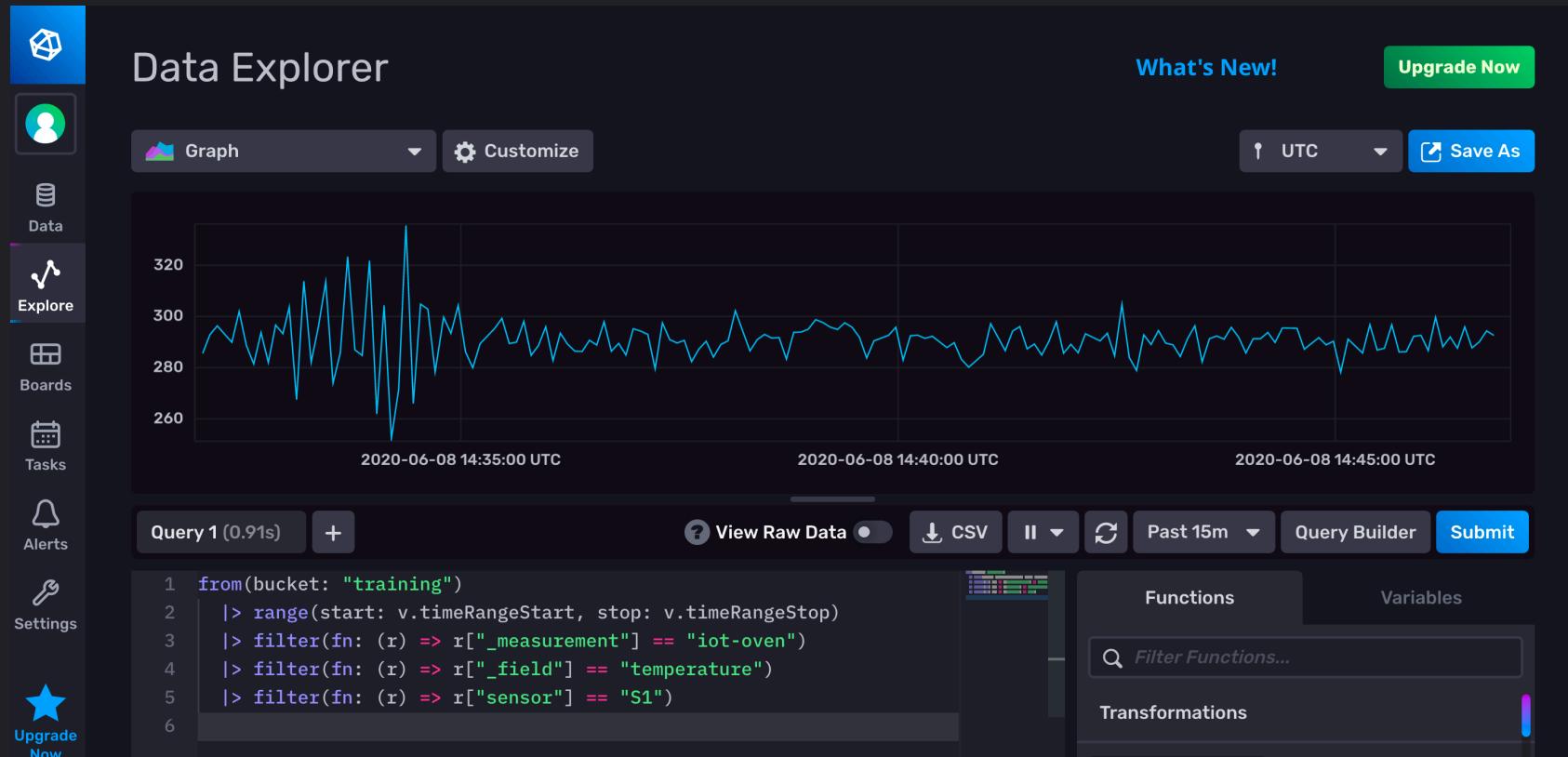
- Prepare the query in the Data Explorer



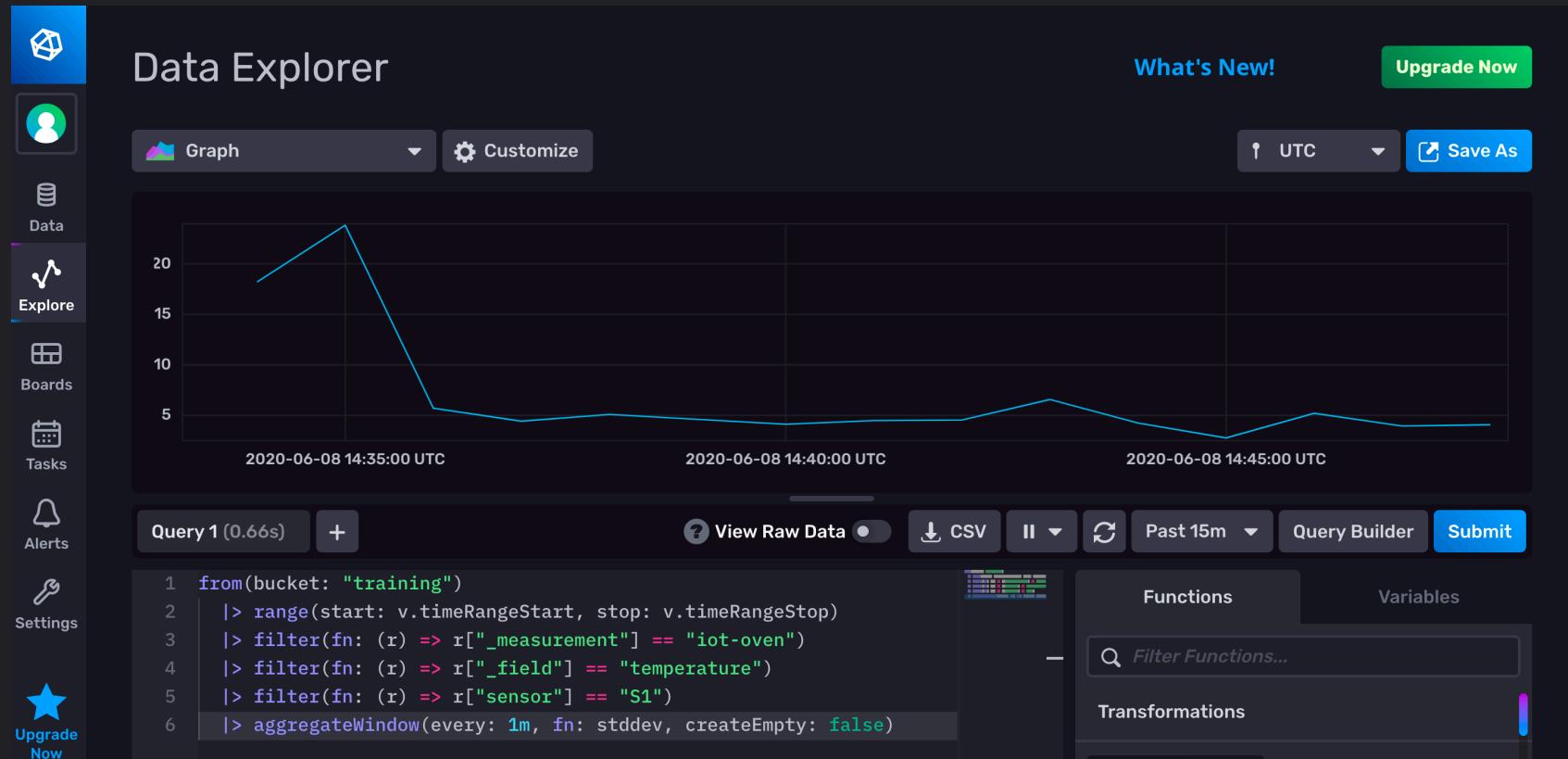
- Save it as a Task



Practical example: record the temperature dispersion



Practical example: record the temperature dispersion



Practical example: record the temperature dispersion

The screenshot shows the Grafana Data Explorer interface. On the left, there is a sidebar with icons for Home, Graph, Customize, Data, Explore, Boards, Tasks, Alerts, and Settings. The main area is titled "Data Explorer" and contains a "Graph" section with a query editor. The query editor has a "FROM" clause with fields "measurement", "field", "sensor", and "host". Below the query editor are "Filter" and "Search for a bucket" fields.

A modal dialog titled "Save As" is open in the center. It has tabs for "Dashboard Cell", "Task" (which is selected), and "Variable".

The "Name" field contains the value "Record the temperature dispersion in the base-cooking area".

The "Schedule Task" section includes a dropdown set to "Every" and a "Cron" field. Under "Every", the value is "1m" and under "Offset", it is "20m".

The "Output Bucket" field is set to "task-output".

At the bottom of the dialog are "Cancel" and "Save as Task" buttons.



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