

Zebra
DevCon 2023



Fetchcore APIs, Workflows and IoT Integration

Agustín Sevilla
Software Engineer,
Robotics Automation



Background





Fetchcore Overview

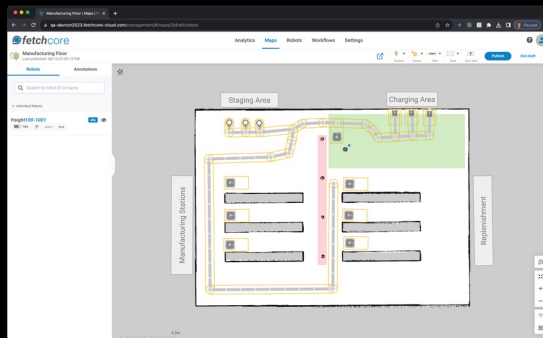


Robot Fleet Management

Basic elements

Where

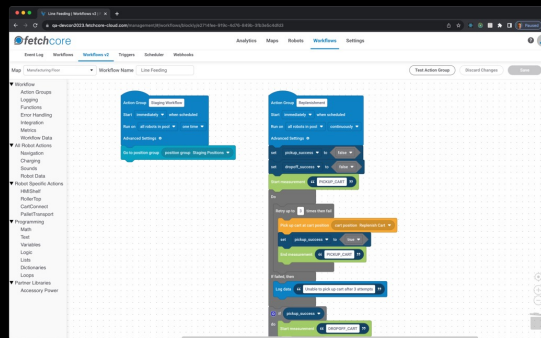
Maps



What

Robots

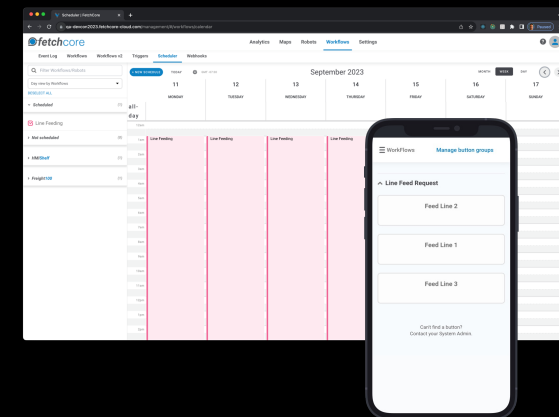
Workflows



When

Schedules

Triggers



FetchCore APIs, workflows and IoT integration

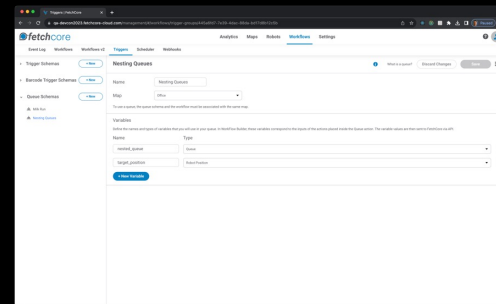
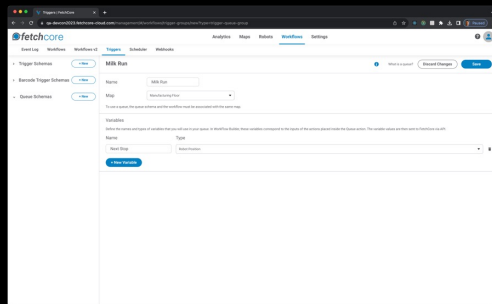
Webhooks

- Webhooks allow integrators to communicate with a 3rd party server over HTTP(S) POST requests from a workflow
- Webhooks can send a user defined JSON payload
- Webhooks can be configured with a bearer token
- Webhooks can be fire and forget, or we can asynchronously await a JSON response
- JSON response can be used as input into workflow

FetchCore APIs, workflows and IoT integration

Trigger Queues

- Trigger Schema
 - Defines a single payload
 - Can be used to "trigger" a scheduled action group
 - May be used in the middle of a workflow
- Trigger Queue Schema
 - Defines queue of multiple payloads
 - Once started, a robot will stay in a queue until it is closed
 - Cannot be used to trigger scheduled work
 - Must be used in the context of a workflow
 - Queue IDs defined on the fly
 - Can be nested



FetchCore APIs, workflows and IoT integration

SICK TDC Gateway

- IoT Gateway Device
 - Allows integration of sensors and industrial controls into workflows
 - Trigger workflows
 - Wireless or Wired connection
 - DIO input/output

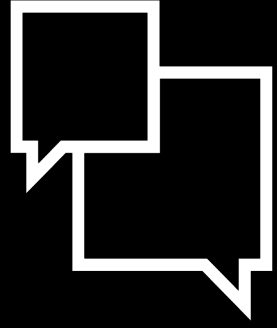
The screenshot displays the FetchCore management interface for a SICK TDC Gateway device. The interface includes a navigation menu with options like Analytics, Maps, Robots, Devices, Workflows, and Settings. The main content area shows the device configuration for 'SICK tdc-1827-0003'. It includes a description field, a map location, and a table of connected pins. Below this is a pin assignment diagram showing various digital I/O pins (DIO_A through DIO_F) and their current states (LOW or HIGH). At the bottom, there is a table for Digital I/O Pins.

Pin ID	Direction	Description	Equipment	Test	Current State
DIO_A	Output		QE Blue Conveyor (QE Conveyor)	Set Pin Low Set Pin High	LOW
DIO_B	Input				LOW



Let's get to the demo!





Questions



Zebra DevCon 2023



Thank You

ZEBRA and the stylized Zebra head are trademarks of Zebra Technologies Corp., registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners.
©2023 Zebra Technologies Corp. and/or its affiliates. All rights reserved.