

Flowforge UI – system low-code do budowy interfejsów API

Tryb ciemny

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Agenda

- Wstęp: potrzeba biznesowa, cel, analiza rozwiązań
- Wymagania: funkcjonalne i niefunkcjonalne
- Technologie i narzędzia
- Projekt systemu: model danych, klasy, use case, UML
- Wnioski i dalszy rozwój
- Widoki główne (Workflows)
- Akcje na workflow (More → Versions/Rename/Import)
- Konfiguracja bloków (If, Switch, Calculation, HTTP itp.)
- Edytor workflow (canvas, palette, variables)
- Run drawer (open, result)
- Widoki główne (Executions)
- Detale wykonania (Execution details)
- Widoki główne (Scheduler)
- Harmonogram (create/edit)
- Widoki główne (Blocks)

Wstęp

- Potrzeba biznesowa: szybkie budowanie i uruchamianie przepływów API bez kodu back-end.
- Dlaczego: skrócenie time-to-market integracji oraz ujednolicenie operacji danych.
- Do czego ma służyć: orkiestracja bloków (HTTP, parser, transformacje, warunki) w jednolitym edytorze.
- Analiza podobnych rozwiązań: n8n, Zapier, Node-RED – różnicujemy się lekkim UI i kontrolą on-prem.

Wymagania

Funkcjonalne

- Tworzenie, wersjonowanie i import/eksport workflowów.
- Edycja bloków (If, Switch, HTTP, Parser, Calculation, itp.) na canvasie.
- Uruchamianie i podgląd wyników (Run drawer, Execution details).
- Planowanie zadań (Scheduler: create/edit/run now).

Niefunkcjonalne

- Responsywne UI (jasny/ciemny motyw).
- Szybki czas renderu i stabilność canvasu.

Technologie i narzędzia

- Języki: TypeScript (frontend), C#/.NET (API), SQL (SQLite dev).
- Biblioteki: React, React Flow, Vite, Playwright, NUnit, EF Core.
- Narzędzia: VS Code / Rider, latexmk (slidedeck), jq/rg (dev), Git.

Projekt systemu

- Schemat bazy: tabele Workflow, Version, Block, Execution, Schedule (SQLite dev, migrowalne do produkcyjnej bazy).
- Schemat klas: DTO + modele EF Core; pary interfejs/implementacja dla serwisów i repozytoriów.
- Use case: tworzenie/edykcja workflow, uruchomienie, schedulowanie, analiza przebiegu.
- UML (wysoki poziom): edytor (UI) → API (Controllers) → Services/Repositories → DB.

Wnioski

- Zrealizowano pełen zestaw widoków: edytor, akcje workflow, run drawer, execution details, scheduler.
- Kluczowe problemy: precyzyjne pozycjonowanie bloków na canvasie, spójność light/dark, czas ładowania przed screenshotem.
- Co się nie udało/plan: dołożenie realnej autoryzacji, rozbudowa monitoringu runtime, optymalizacja dla bardzo dużych diagramów.

Workflows

The screenshot shows the Flowforge Workflow Studio interface in dark mode. The top navigation bar includes the Flowforge logo and the title "Workflow projects". Below the header, a sub-header reads "Manage projects before wiring blocks and connections in ReactFlow." A sidebar on the left lists "Workflows", "Blocks", "Executions", and "Scheduler". The main content area is divided into three sections: "Create new workflow", "Import / Export", and "Existing workflows".

- Create new workflow:** A form with a placeholder "Workflow name" (e.g. Customer onboarding) and a "Create" button.
- Import / Export:** A section for managing workflow JSON files, with "IMPORT WORKFLOW JSON" and "EXPORT" options.
- Existing workflows:** A list of existing projects:
 - Demo Flow**: ID 1, with "Open" and "More" buttons.
 - Data Sync**: ID 2, with "Open" and "More" buttons.

At the bottom left, a status message says "Connected to local API proxy API".

Lista projektów workflow – tryb ciemny

Workflow actions – More

The screenshot shows the Flowforge Workflow Studio interface. On the left, there's a sidebar with navigation links: Workflows, Blocks, Executions, and Scheduler. The main area is titled "Workflow projects" and has a subtitle "Manage projects before wiring blocks and connections in React Flow". It includes sections for "Create new workflow", "Import / Export", and "Existing workflows". The "Existing workflows" section lists two items: "Demo Flow" (ID: 1) and "Data Sync" (ID: 2). For each workflow, there are "Open", "More", "Export", "Versions", "Rename", and "Delete" buttons. A tooltip for the "More" button indicates it provides additional actions. At the bottom left, it says "Connected to local API" and "proxy API".

Menu akcji "More" (ciemny)

Workflow actions – Versions

The screenshot shows the Flowforge Workflow Studio interface. At the top, there's a navigation bar with icons for Home, Projects, Workflows, Blocks, Executions, and Scheduler. The main title is "Workflow projects" with a subtitle "Manage projects before wiring blocks and connections in React Flow". A message at the top right says "2 total GRUD ready". Below the title, there's a "Create new workflow" button and a "Use a short, descriptive name" input field. The main area is titled "Versions (workflow #1)" with a sub-instruction "Migawki zapisywane automatycznie przy zapisie workflow". It includes filters "Pokaż tylko aktywne" and "Sortuj wg daty: najnowsze". The list of versions is as follows:

Versja	Datum	Akcje
v5	11/4/2026, 11:00 AM	Przywróć Usuń
v4	11/1/2026, 9:30 AM	Przywróć Usuń
v3	12/20/2025, 12:00 PM	Przywróć Usuń
v2	12/10/2025, 11:00 AM	Przywróć Usuń
v1	12/1/2025, 9:00 AM	Przywróć Usuń Open More

At the bottom left, it says "Connected to local API proxy API". On the right, there are two cards: "WORKFLOW Data Sync" with "IO: 2" and "Open More" buttons, and "BLOCKS" with "Import one as a new project" and "Import all" buttons.

Lista wersji workflow (ciemny)

Workflow actions – Rename

The screenshot shows the Flowforge Workflow Studio interface. On the left, there's a sidebar with a logo and navigation links: Workflows, Blocks, Executions, and Scheduler. The main area is titled "Workflow projects" and has a subtitle "Manage projects before wiring blocks and connections in React Flow". It displays two workflow projects: "Demo Flow" and "Data Sync". The "Demo Flow" project has an ID of 2 and includes a "Save" button and a "Cancel" button. The "Data Sync" project has an ID of 2 and includes an "Open" button and a "More" button. At the bottom left, it says "Connected to local API" and "proxy API". At the top right, it shows "2 total" and "CRUD ready".

Formularz zmiany nazwy (ciemny)

Workflow actions – Import

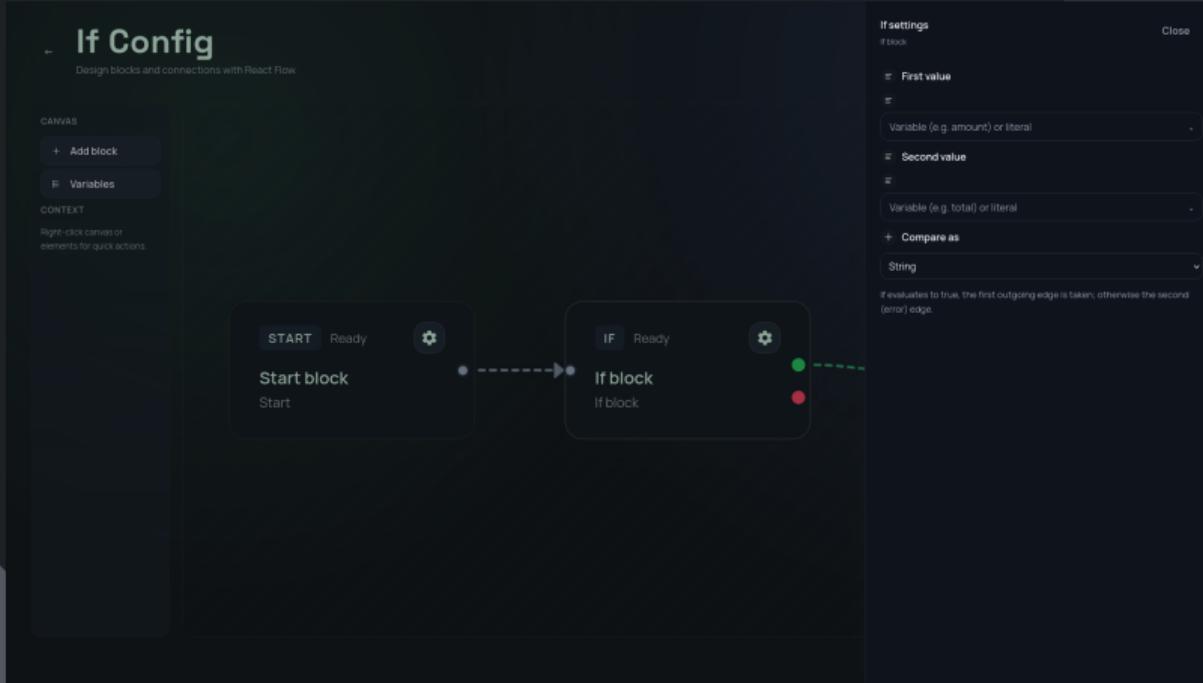
The screenshot shows the Flowforge Workflow Studio interface. On the left, there's a sidebar with navigation links: Workflows, Blocks, Executions, and Scheduler. The main area is titled "Workflow projects" and contains three sections: "Create new workflow", "Import / Export", and "Existing workflows".

- Create new workflow:** A form to enter a "Workflow name" (e.g. Customer onboarding) with a "Create" button.
- Import / Export:** A section for importing and exporting workflows. It includes an "IMPORT WORKFLOW JSON" button (Select a .json file to create a new workflow) and an "EXPORT" button (Use the Export button next to a workflow below). Below these buttons, it says "Imported as 'Imported Flow Dark' (id:20)".
- Existing workflows:** A list of imported workflows:
 - Imported Flow Dark** (ID: 20): An entry with "Open" and "More" buttons.
 - Demo Flow Updated** (ID: 1): An entry with "Open" and "More" buttons.
 - Data Sync** (ID: 2): An entry with "Open" and "More" buttons.

At the bottom left of the main area, it says "Connected to local API proxy ip:1".

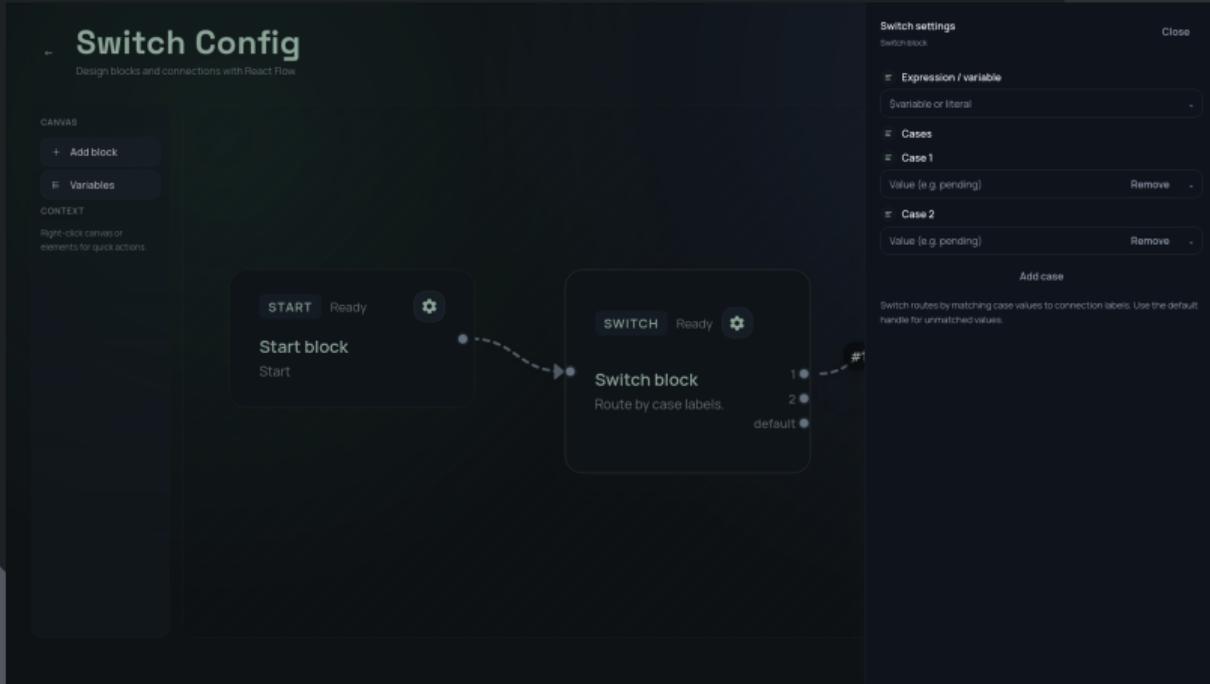
Import workflow z pliku (ciemny)

If block



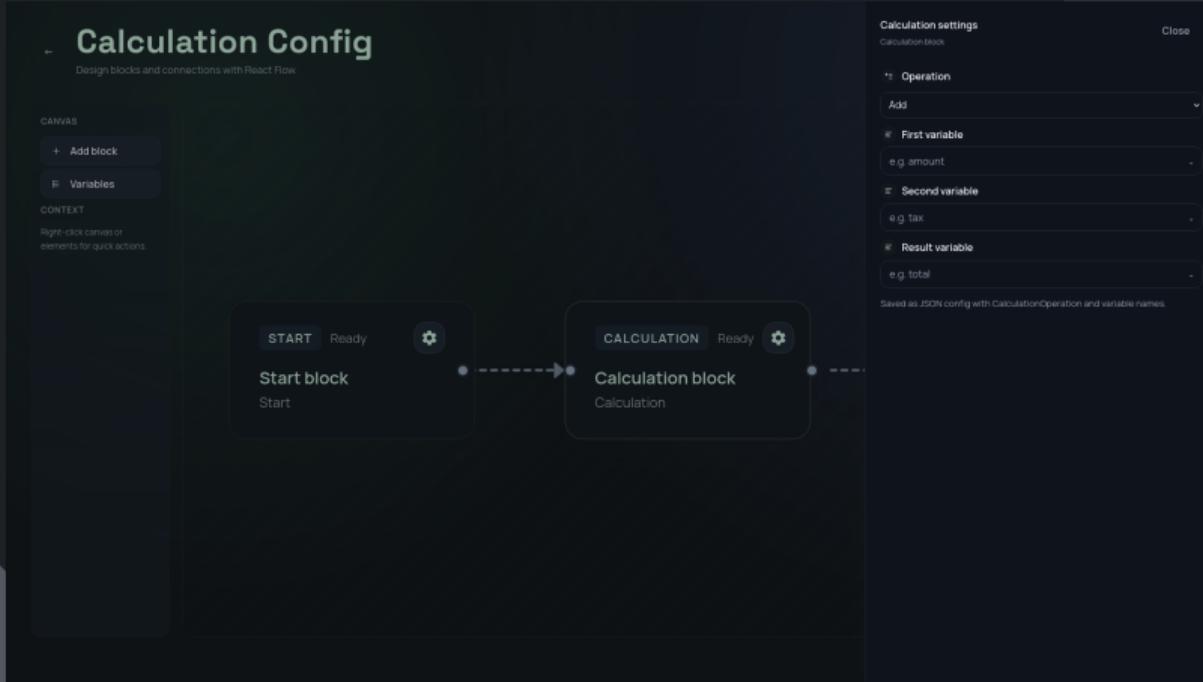
Konfiguracja bloku If – tryb ciemny

Switch block



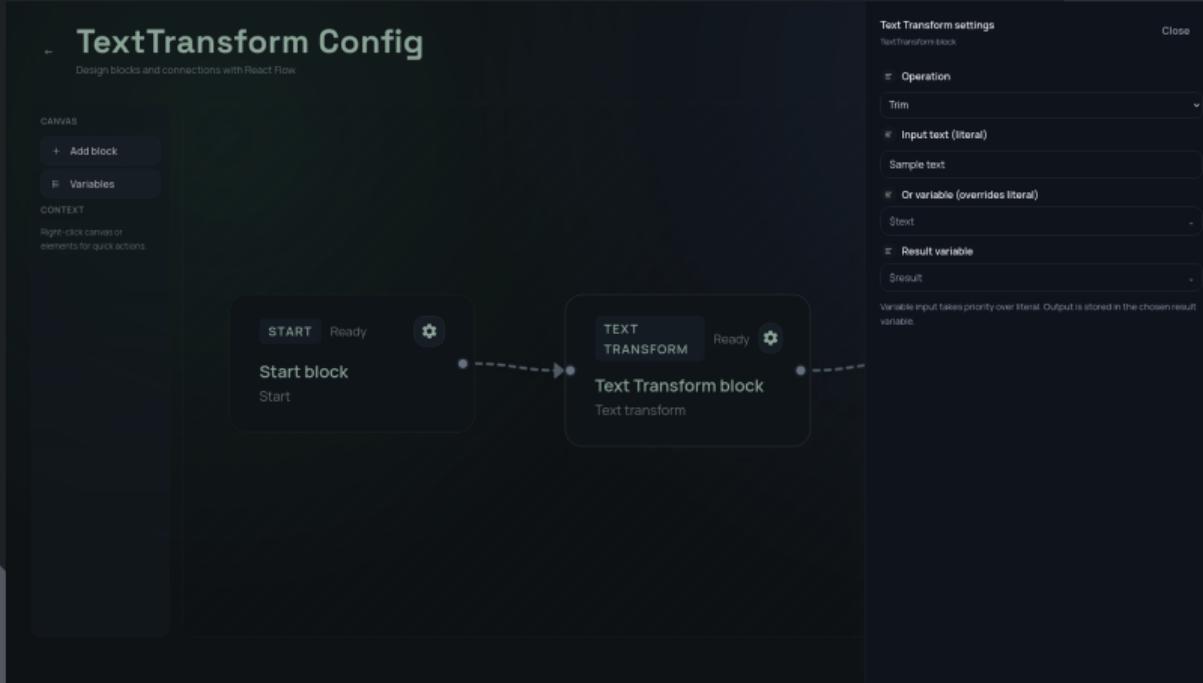
Konfiguracja bloku Switch – tryb ciemny

Calculation block



Konfiguracja bloku Calculation – tryb ciemny

Text Transform block



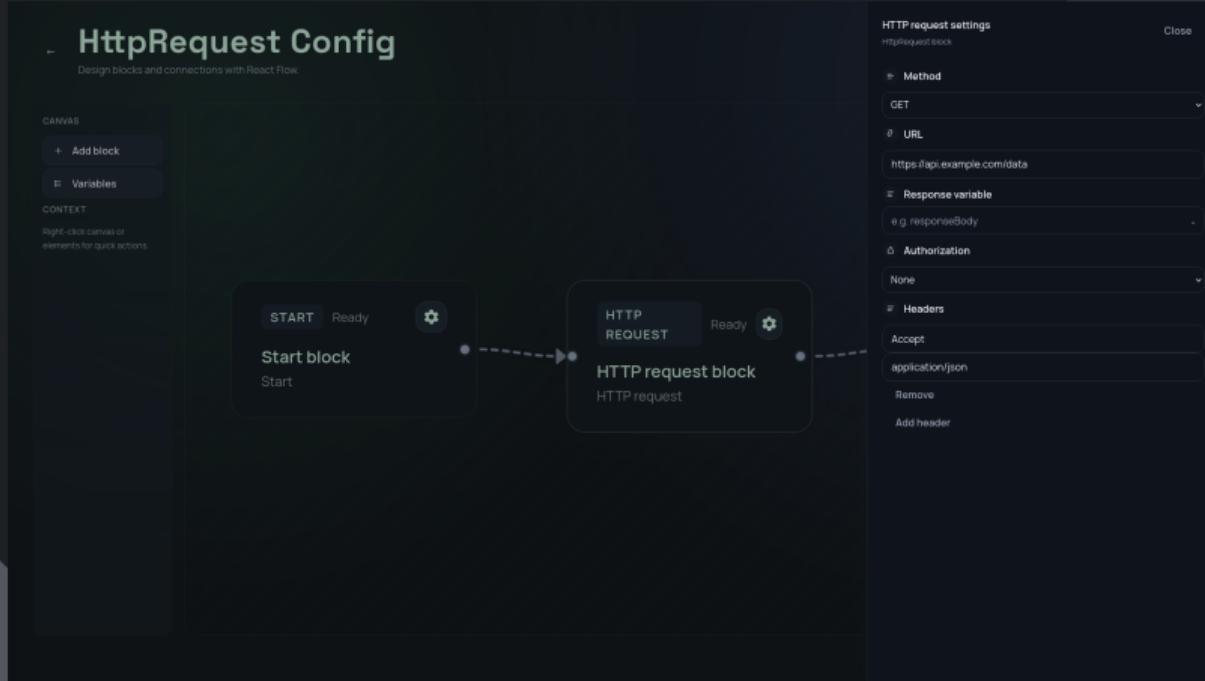
Konfiguracja bloku Text Transform – tryb ciemny

Text Replace block



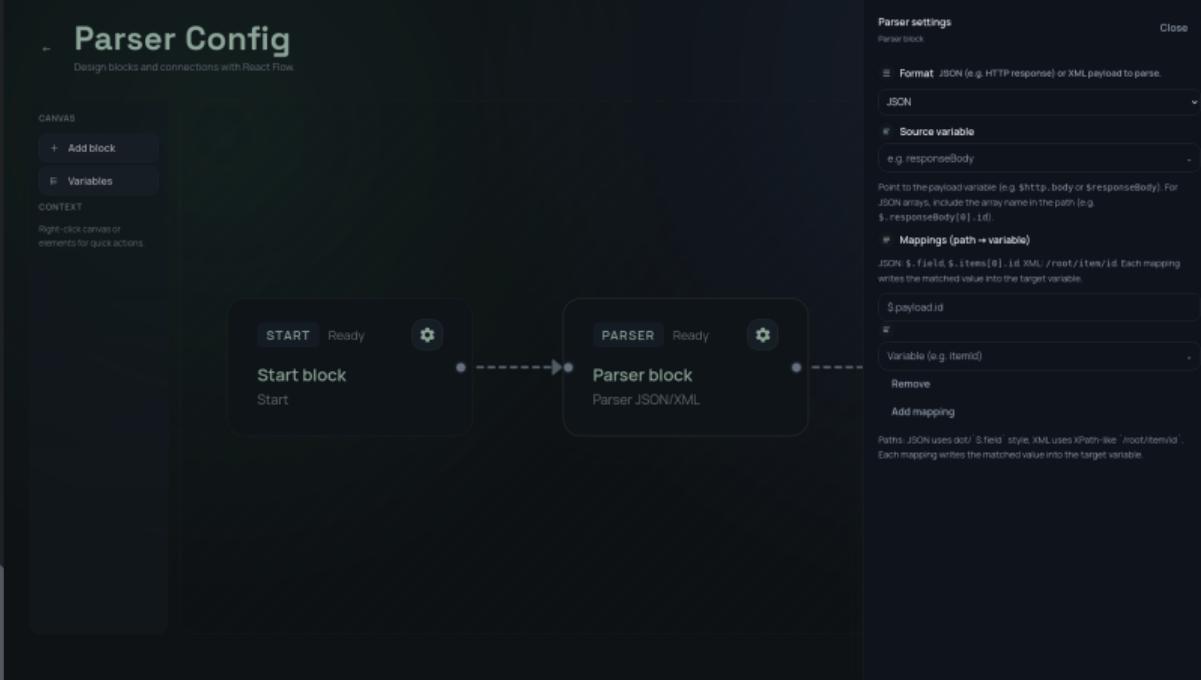
Konfiguracja bloku Text Replace – tryb ciemny

HTTP request block



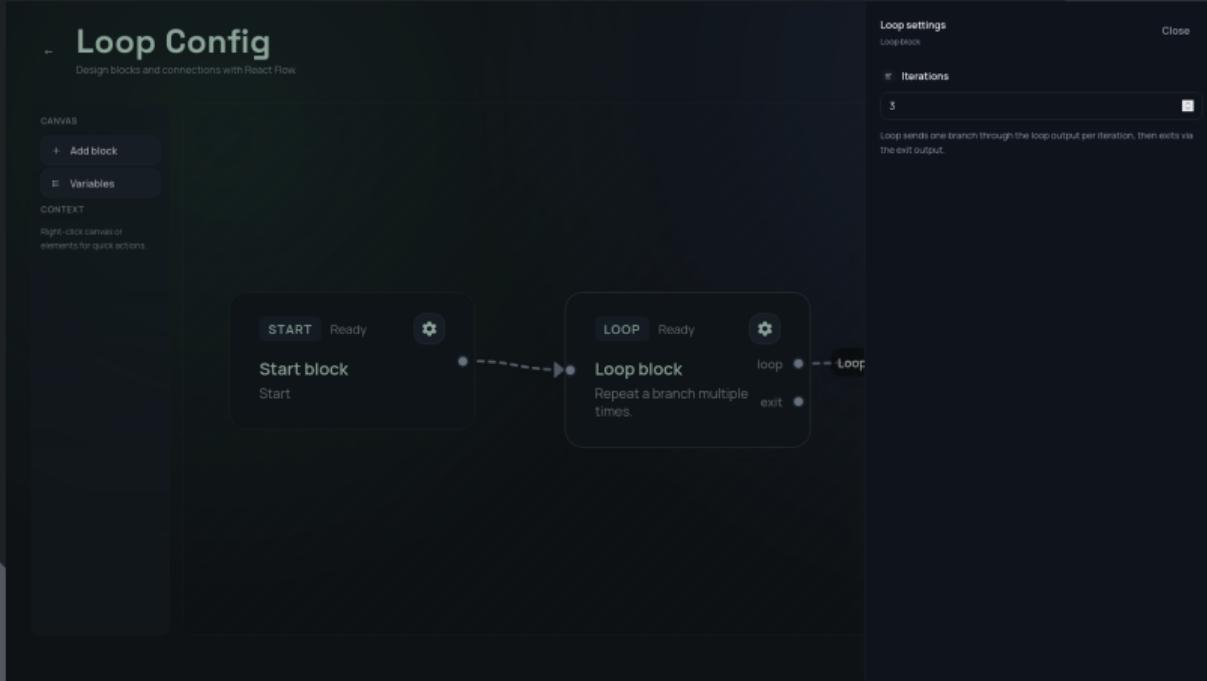
Konfiguracja bloku HTTP request – tryb ciemny

Parser block



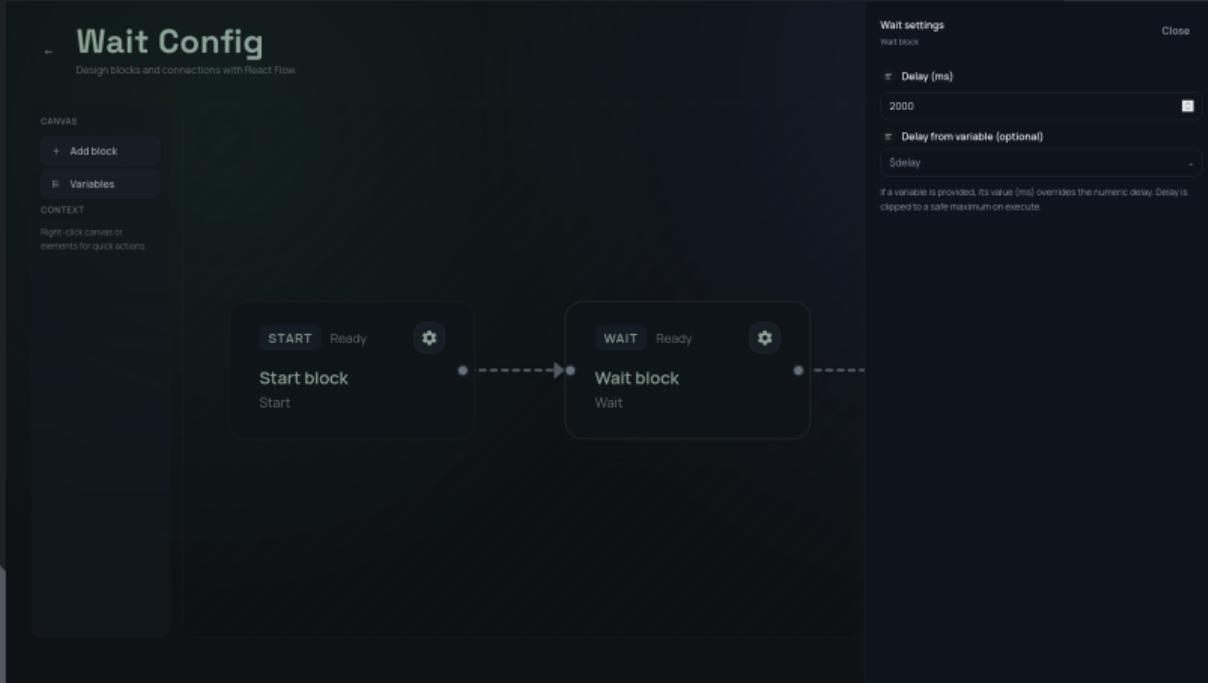
Konfiguracja bloku Parser – tryb ciemny

Loop block



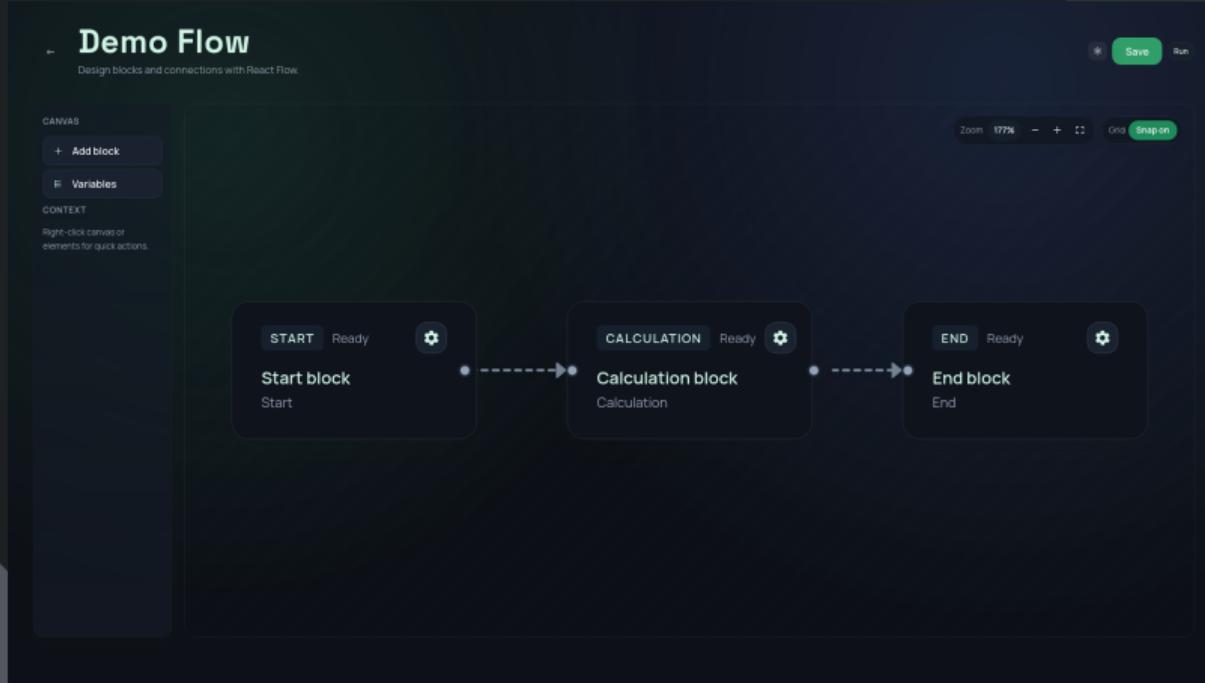
Konfiguracja bloku Loop – tryb ciemny

Wait block



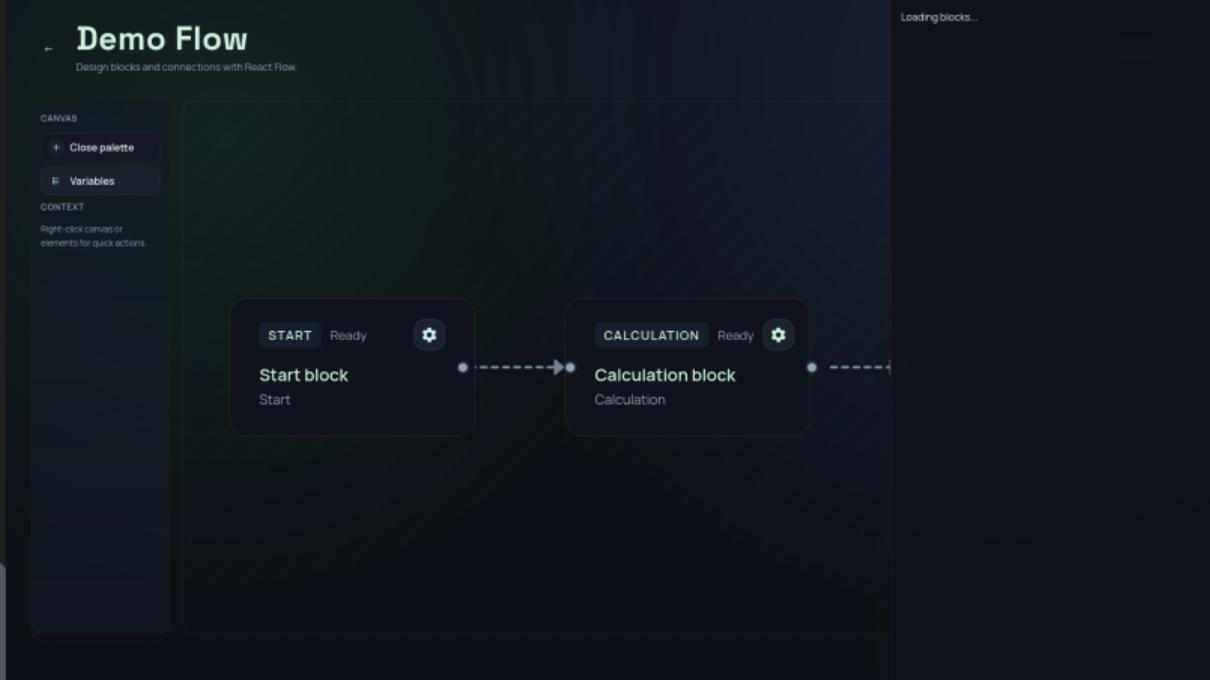
Konfiguracja bloku Wait – tryb ciemny

Workflow editor



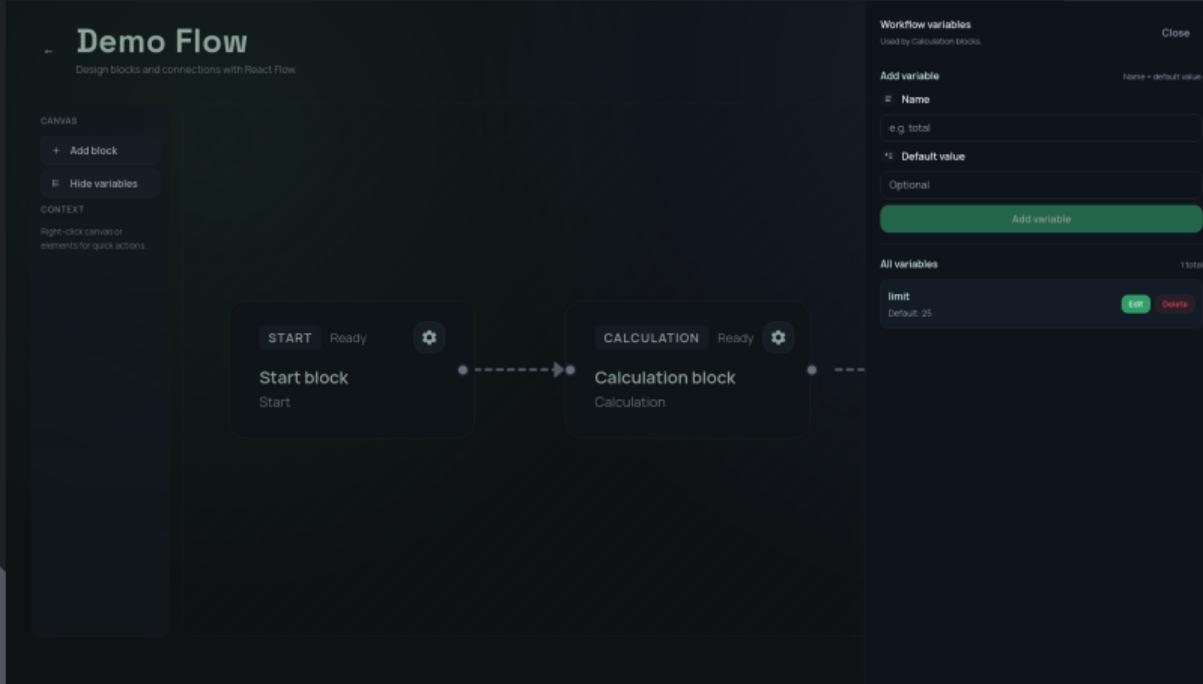
Początkowy widok edytora – tryb ciemny

Palette



Paleta dodawania bloków – tryb ciemny

Variables



Lista zmiennych (ciemny)

Variables – edycja

Demo Flow

Design blocks and connections with React Flow

CANVAS

- + Add block
- Hide variables

CONTEXT

Right-click canvas or elements for quick actions.

```
graph LR; Start[Start block] --> Calculation[Calculation block]
```

Workflow variables
Used by Calculation block.

Add variable

Name: e.g. total

Default value: Optional

Add variable

All variables

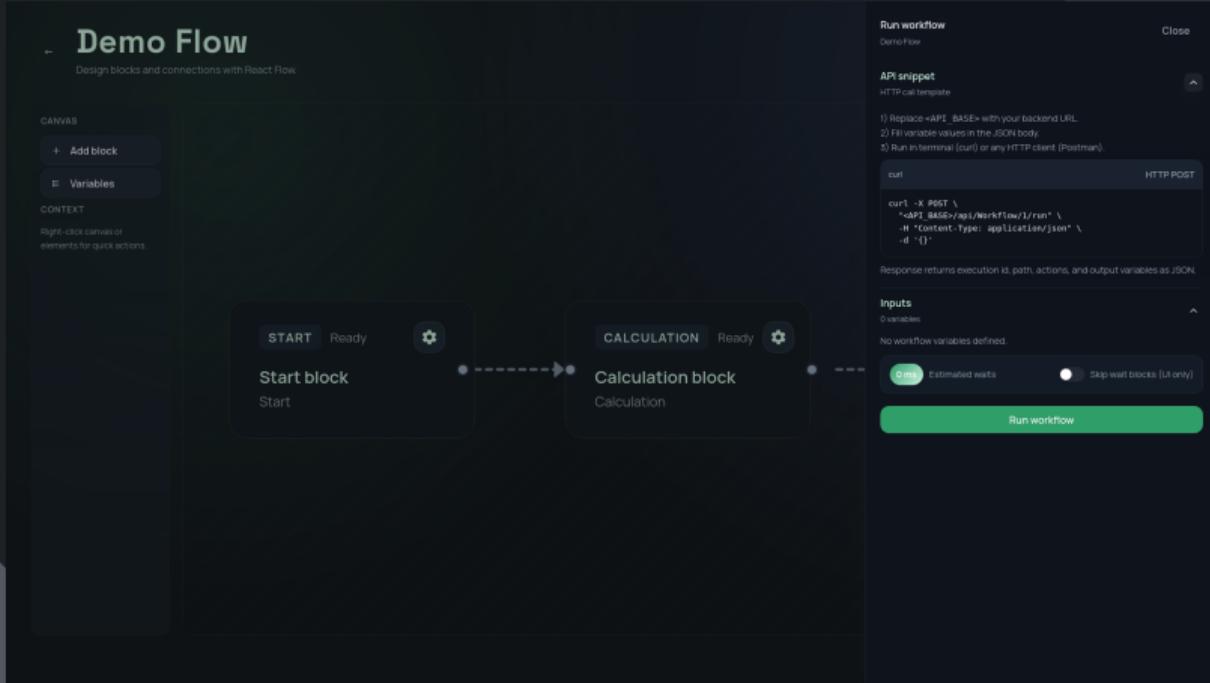
Name: tempVarDark

Default value: 456

Save Cancel

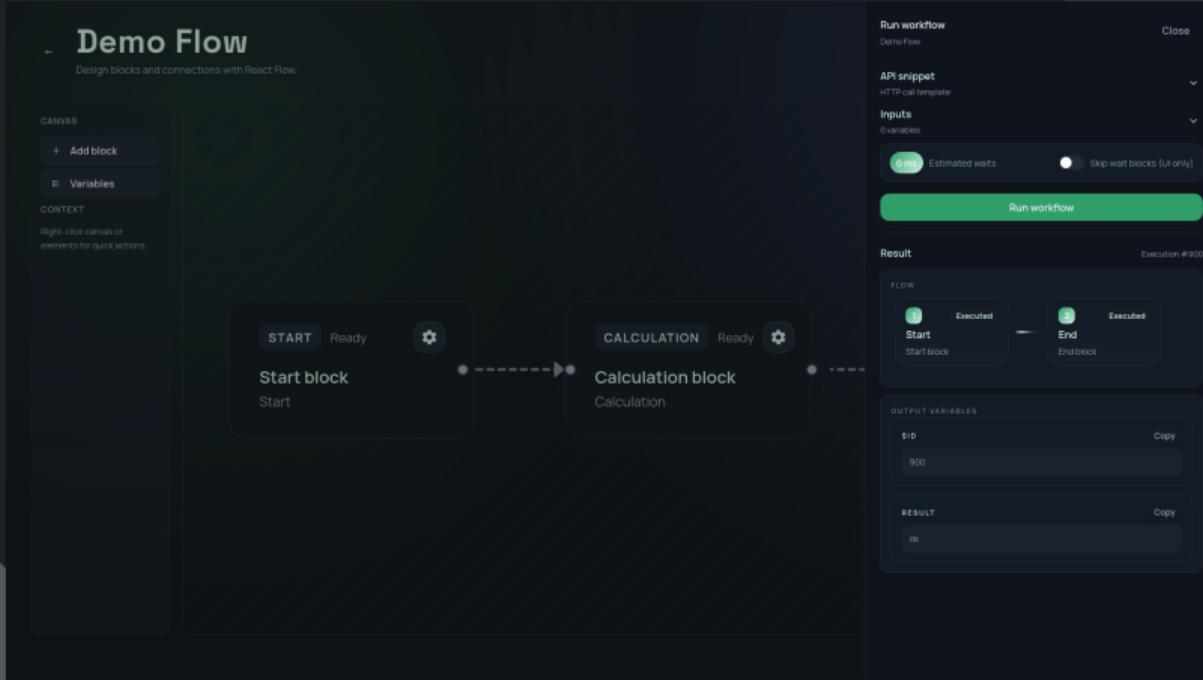
Edycja zmiennej (ciemny)

Run – panel danych



Panel Run z rozwiniętymi danymi wejściowymi i snippetem API

Run – wynik uruchomienia



Panel Run po wykonaniu workflow – widoczne wyniki i logi

Executions

The screenshot shows the Flowforge Workflow Studio interface in dark mode. The left sidebar includes links for Workflows, Blocks, Executions (which is the active tab), and Scheduler. The main area is titled "Executions" and describes it as "Recent workflow runs and timestamps". It features a "Execution history" section with search and filter options, showing two recent executions: "Text transform" (executed 2/5/2026, 7:09:48 PM) and "Data sync" (executed 12/15/2025, 5:15:00 PM). Both entries have "View details" and "Open workflow" buttons.

Connected to local API proxy API

2 total History

Executions

Recent workflow runs and timestamps.

Execution history

Search by workflow name or id... Workflow All workflows

Executed between mm / dd / yyyy to mm / dd / yyyy Sort Newest first

Last 24h Last 7 days Last 30 days

Showing 2 Reset filters

Prev Page 1 of 1 Next Rows 10

Text transform
Executed 2/5/2026, 7:09:48 PM **View details** Open workflow

Data sync
Executed 12/15/2025, 5:15:00 PM **View details** Open workflow

Historia wykonania skryptów – tryb ciemny

Execution details

The screenshot shows the 'Execution #36' page in the Flowforgo interface. The top navigation bar includes 'Flowforgo', 'Workflow studio', 'Workflows', 'Blocks', 'Executions', and 'Scheduler'. The main content area has tabs for 'Overview', 'Inputs', 'Results', 'Path', and 'Actions'.

- Overview:** Shows the execution ID 'Execution #36', date '2/15/2020, 7:08:40 PM', and path length '3'. It also displays 'Workflow and run metadata'.
- Inputs:** A JSON object: { "a": "1", "b": "2", "result": "" }.
- Results:** An array [1, 2] and a variable #FORMAT set to 'text/html'.
- Path:** A flowchart showing the execution path from 'Start block' to 'Text Transform' (with label 'TextTransform lower -> result') to 'End block'.
- Actions:** Logs for 'Start block', 'TextTransform lower -> result', and 'End block'.

At the bottom left, it says 'Generated by flowforgo 0.1.0'.

Pełne szczegóły przebiegu – tryb ciemny

Scheduler

The screenshot shows the Flowforge Workflow Studio interface with a dark theme. On the left, a sidebar lists 'Workflows', 'Blocks', 'Executions', and 'Scheduler' (which is currently selected). At the top center, the title 'Scheduler' is displayed with the subtitle 'Planowanie automatycznych uruchomień workflowów'. Below this, there's a section titled 'Nowy harmonogram' (New schedule) with the sub-instruction 'Wybierz workflow i ustaw czas startu oraz interwał'. This section contains fields for 'Nazwa' (Name), 'Workflow' (choose from dropdown), 'Typ' (Type: Interval), 'Interval (min)' (set to 60), 'start (UTC)' (set to mm / dd / yyyy, - : - : -), 'Opis' (Description: np. codziennie o 2:00), and an 'Aktywny' (Active) toggle switch which is turned on. A green 'Dodać' (Add) button is located at the bottom right of this form. Below this, there's a section titled 'Harmonogramy' (Schedules) with the subtitle 'Lista zaplanowanych uruchomień'. It shows a single scheduled entry: 'Daily sync' (Workflow #1), with 'Harmonogram' set to 'Daily', 'Uruchom teraz' (Run now) and 'Edytuj' (Edit) buttons, and a red 'Usun' (Delete) button.

Lista zaplanowanych zadań – tryb ciemny

Scheduler action – create

The screenshot shows the Flowforge Scheduler interface in dark mode. On the left, a sidebar menu includes 'Workflow Studio' (selected), 'Workflows', 'Blocks', 'Executions', and 'Scheduler'. The main area is titled 'Scheduler' with the subtitle 'Planowanie automatycznych uruchomień workflowów'. A sub-section titled 'Nowy harmonogram' (New cron job) is displayed, with the placeholder 'Wybierz workflow i ustaw czas startu oraz interwał.' (Select workflow and set start time and interval). The form fields are as follows:

Nazwa	Workflow	Workflow
np. Nightly ETL	Demo Flow	
Typ	Interval	Interval [min]
	65	
Start [UTC]	Opis	
mm / dd / yyyy, -- --	np. codziennie o 2:00	
Akttywny	<input checked="" type="checkbox"/>	

A green 'Dodać' (Add) button is located at the bottom right of the form. Below this, a section titled 'Harmonogramy' (Cron jobs) lists two existing entries:

Harmonogram	Interval	Uruchom teraz	Edytuj	Usun
Nightly build	45 min			
Worker #1				
Następnie: --				
Ostatnio: --				
Daily sync	Daily			
Workflow #1				
Następnie: --				
Ostatnio: --				

At the bottom left of the main area, there is a note 'Connected to local API' and a 'proxy api' button.

Tworzenie wpisu schedulera – tryb ciemny

Scheduler action – edit

The screenshot shows the Scheduler application interface in dark mode. At the top, there's a navigation bar with tabs: Workflows, Blocks, Executions, and Scheduler. The Scheduler tab is active. Below the navigation is a modal window titled "Scheduler". Inside the modal, there's a sub-modal titled "Harmonogram" (Cron Job). The "Harmonogram" modal contains the following fields:

- Name: Daily-type-build
- Workflow: Demo Flow
- Type: Interval (min)
- Interval: 100
- Start (UTC): 2024-01-01T00:00:00Z
- End (UTC): 2024-12-31T23:59:59Z
- Always:
- Buttons: "Delete" (green) and "Save" (green)

Below the "Harmonogram" modal, there's a summary card for the cron job:

Harmonogram	Daily	Workflow	Demo Flow
Workflow	Daily-type-build	Start date	2024-01-01T00:00:00Z
Actions	Details	Edit	Delete

Edycja istniejącego wpisu – tryb ciemny

Blocks

The screenshot shows the 'System blocks' page within the Flowforge interface. The top navigation bar includes 'Workflows', 'Blocks', 'Executions', and 'Scheduler'. On the left, there's a sidebar with 'Available blocks' and 'Custom blocks' sections, along with a note about connecting to local API proxy. The main content area is titled 'System blocks' and displays a list of available blocks, each with a name, description, and 'System' status indicator. The blocks listed are:

- Start block
- End block
- Calculation (Calculation block)
- HTTP request (HTTP request block)
- Parser (JSON/XML, ...)
- If (Conditional block)
- Switch (Switch-based block)
- Loop (Loop block)
- Wait (Wait)
- Text transform (Text transform)
- Text replace (Text replace)

The bottom section, 'Custom blocks', indicates that the 'Editor is coming next.'

Widok bloków systemowych – tryb ciemny