Flow Engine Editor User Manual

Overview

Flow Engine is a visual automation tool for Hubitat that allows users to build, manage, and execute automation workflows using a drag-and-drop interface. It supports complex conditions, schedules, variables, device actions, and notifications without the need for scripting. Workflows (called "flows") are made up of interconnected nodes representing logic blocks.

Please Note: Flow Engine is designed for use on the Chrome Browser. All other browsers may work, but some features won't behave correctly or at all.

Getting Started

1. **Open Flow Engine Editor:** Load the HTML file in a web browser hosted from your Hubitat File Manager.
2. **Authenticate:** Enter your Hubitat App ID and Access Token in the top toolbar.
3. **Load Devices:** Click `Load Devices` to import your Hubitat devices into Flow Engine.
4. **Start Building:** Add and connect nodes to construct automations visually.

Interface Breakdown

- **Toolbar:**
- Node Creation (Triggers, Conditions, Actions, etc.)
- Flow Operations (Load, Save, Export, Undo/Redo)
- Display Controls (Background image, Snap to Grid, Brightness slider)
- Alignment and Distribution tools
- **Canvas (Drawflow):**
- Central area where nodes are added, moved, connected.
- Use right-click for node options (e.g., Lock/Unlock, Delete).
- **Editor Panel:**
- Shows editable configuration for selected node.
- Includes device pickers, comparators, values, color pickers, variable selectors.
- **Variable Inspector:**

- Displays current global and flow variables.

- **Log Box:**

- Shows execution logs and errors.

Core Buttons and Their Functionality

- `Load Devices`: Fetch and display all devices from Hubitat.
- `Load Flow`: Load a saved flow from Hubitat file storage.
- `Save Flow`: Save the current flow back to Hubitat with the given flow name.
- `New Flow`: Clears the canvas for a new flow.
- `Undo` / `Redo`: Traverse backward/forward through editing actions.
- `Screenshot Flow`: Capture an image of the current layout.
- `Export Flow`: Export a stripped version of the flow without device bindings.

Creating a Flow

1. **Add Nodes:** Use the buttons in the toolbar to add:
2. Event Triggers
3. Schedule Triggers
4. Device Actions
5. Conditions
6. Logic Gates (AND/OR/NOT)
7. Variable Setters
8. Delays
9. Notifications

10. Repeaters, Comments, etc.

11. **Edit Nodes:**

12. Click on a node to open the configuration editor.
13. Choose devices, attributes, comparators, and values.

14. Use time-based inputs (time of day, sunset/sunrise offsets).

15. **Connect Nodes:**

16. Drag from output port of one node to input of another to define flow.

17. **Test and Save:**

18. Use Test tools (if enabled).

19. Save using `Save Flow`.

Node Types and Examples

- **Event Trigger**
- Triggers flow when a device's attribute changes.
- *Options:* Comparator, Value, Debounce, Click pattern (single/double).
- *Example:* `Kitchen Motion Sensor switch == on`

- **Schedule**

- Time-based trigger. Supports repeat days, exact time, or cron.
- *Options:* Repeat days, time, cron syntax.
- *Example:* `Every Monday at 8:00 AM`

- **Device Action**

- Sends commands to one or multiple devices.
- *Options:* Command (e.g., on, off, setLevel), Value, setColor (with picker).
- *Example:* `Turn off Kitchen Lights`

- **Condition**

- Conditional logic evaluation.
- *Options:* Attribute, Comparator, Value, Show status, Time conditions (sunrise/sunset offset).
- *Example:* `Time of Day == sunset -10`

- **Logic (AND / OR / NOT)**

- Evaluate combined condition paths.
- *Use:* Chain multiple inputs before proceeding.
- *Example:* `If (Motion AND After Sunset)`

- **Delay / Delay Min**

- Insert pause before proceeding.
- *Options:* ms or minutes.
- *Example:* `Delay 3000 ms`

- **Notification**

- Send a speech or push notification.
- *Options:* Notification type, Device, Message.
- *Example:* `Speech: “Garage door is still open!”`

- **Set Variable**

- Set a flow or global variable.

- *Options:* Variable name, Value, Scope (global/flow).

- **Not Matching Var**

- Checks if multiple devices do not match a value and stores results.

- *Example:* `Save list of lights not set to 100%`.

- **Save / Restore Device State**

- Capture current device state, restore later.

- *Use case:* Pause automation and return to previous state.

- **Repeat**

- Repeat child actions a set number of times or indefinitely.

- *Options:* Delay between repeats, Max repeats.

- **Do Nothing**

- Logic placeholder or visual endpoint.

- **Comment**

- Freeform notes, useful for documentation or separation.

Variables

- **Global Variables**
- Stored in `FE_global_vars.json`

- Shared across all flows

- **Flow Variables**

- Created and modified in a specific flow.
- Use `Set Variable` or `Not Matching Var` to update.

- **Inspector View**

- Auto-updates every 1.5 seconds with current variable values.

Flow Editing Tips

- **Multi-select nodes** with `Ctrl+click`
- **Drag and move group** once selected
- **Right-click** a node for options: Lock/Unlock, Delete, Copy, etc.
- **Lock nodes** to prevent accidental edits or moves. Locked nodes show a padlock icon and ignore drag events.
- **Align & Distribute** tools help with neat layout
- **Background image** support for custom canvas look
- **Grid brightness** slider for visibility
- **Snap to grid** toggles node placement alignment

Saving and Loading Flows

- **Save Flow**
- Name the flow using allowed characters (letters, numbers, underscore).
- Hit `Save Flow` to store on Hubitat.
- Saving a flow in the editor immediately updates the flow on Hubitat—no need to open the Hubitat "One" app or perform extra syncing steps.

- Hit `Save Flow` to store on Hubitat.

- **Load Flow**

- Use the dropdown after clicking `Load Flow` to select and import a saved flow.

Sharing Flows

- Use `Export Flow` to remove device bindings and share logic.
- Ideal for templates or community sharing.
- Device re-selection is required when importing shared flows.

End of Manual