Action Chain Editor

Action Chain Editor is a visual editor for composing a **View**'s event logic on a per-trigger basis. You can also directly edit the **OnEntry / OnExit action arrays associated with a View** from the list view and diagram area of this editor. OnEntry / OnExit are handled as sequential action arrays, so you edit them in a dedicated display mode. For details, see OnEntry / OnExit Editing Mode. Starting from user input or system events, you can define transitions between Views, play animations, and build complex event-driven behaviors—visually and intuitively—as Action Chain diagrams composed of **Trigger**, **Action**, and **Condition** nodes.

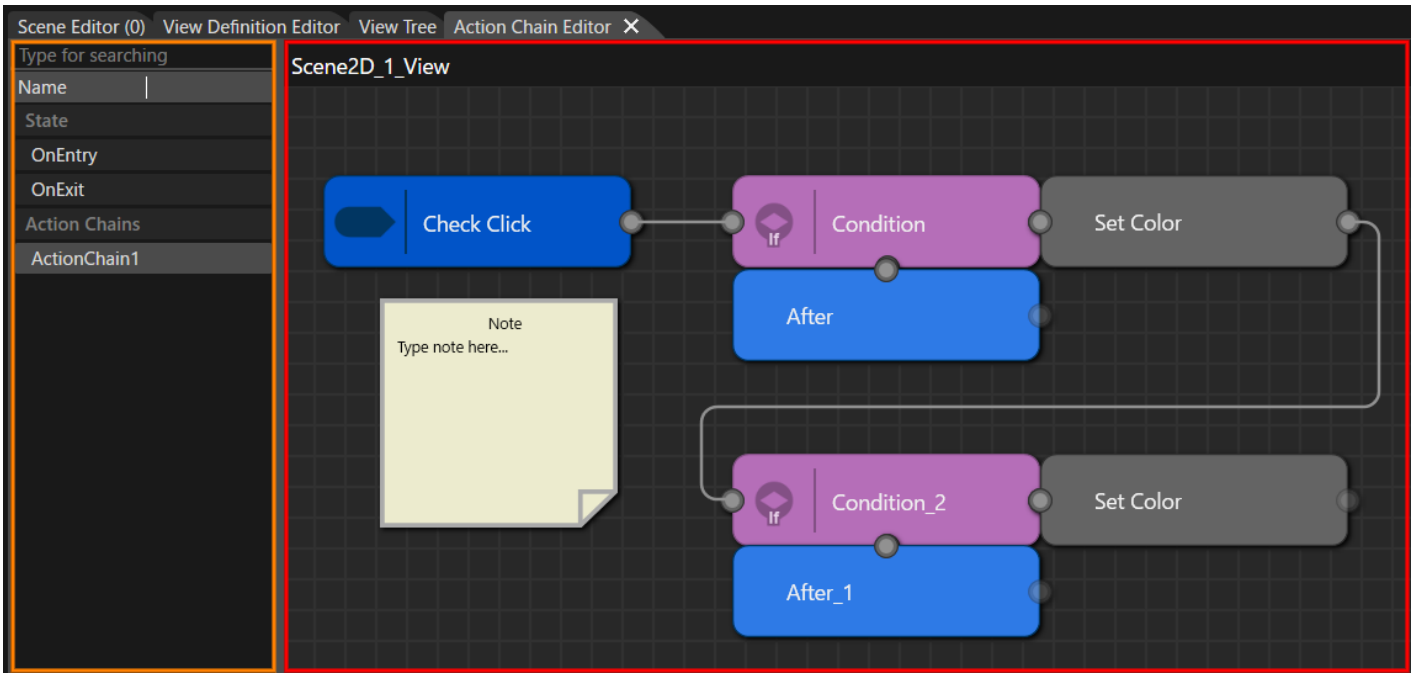
> Operations on the **Action Chain Editor** panel are available only after you have created a **View** in the **View Tree**.
> In the Action Chain Editor, a Condition node references the Condition Output created in the **Condition Editor**. You must define a Condition Block—and within it the Condition Output that represents the evaluation result—beforehand.

Action Chain Editor panel UI

Panel layout

The Action Chain Editor consists primarily of the following two panes.

> By default, the **Action Chain Editor** panel is hidden. To display it, choose **View > View Editor > Action Chain Editor** from the menu bar.



UI items	Description
Left pane (orange frame in the figure above)	Manages the State (OnEntry / OnExit) of the selected View and multiple Action Chain diagrams in a hierarchical structure. The display has a two-layer structure: the two items OnEntry / OnExit under the State section, and the regular Action Chain diagrams listed under the ActionChains section. You can perform operations such as create, open, rename, and delete.
Right pane (red frame in the figure above)	The workspace for editing the selected **Action Chain** diagram. Place and connect **Trigger**, **Action**, and **Condition** nodes to define the processing flow.

Left pane

The left pane displays Action Chain diagrams and the following two sections associated with the selected View in a hierarchical structure.

- State section: Two fixed items for editing the View's OnEntry / OnExit action arrays.
- ActionChains section: The list of regular Action Chain diagrams created per trigger.

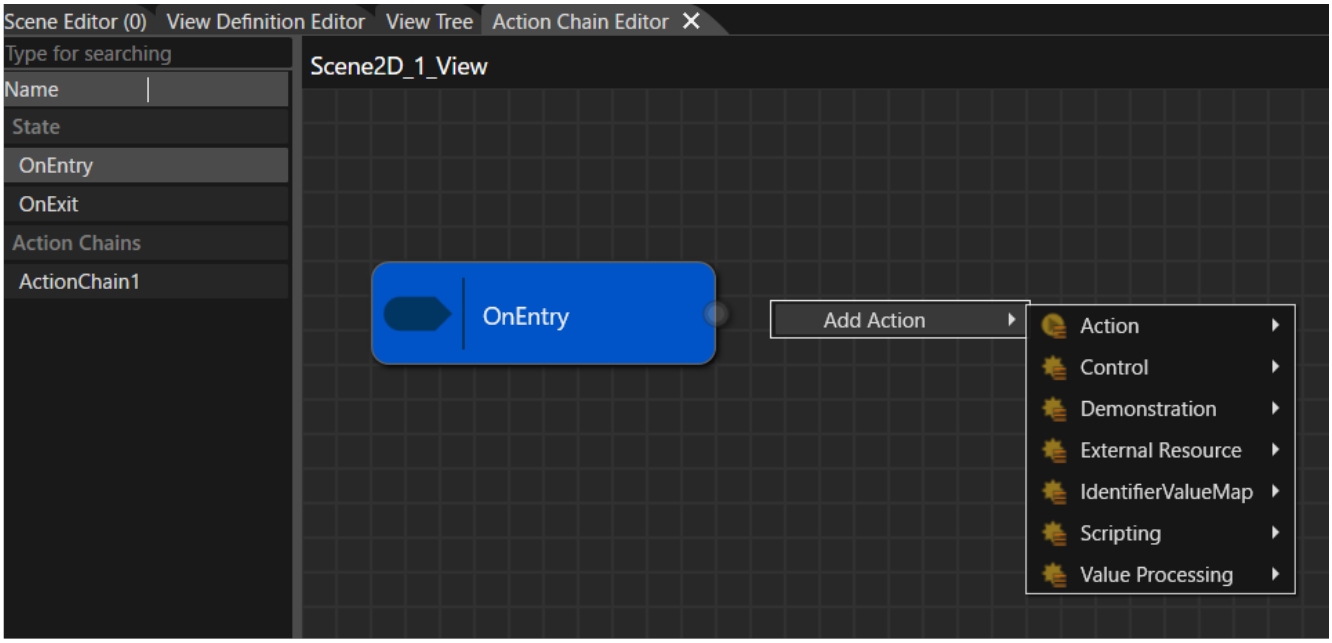
Menu	Description
New Diagram	Creates a new Action Chain diagram. Use it under the ActionChains section (disabled when the OnEntry / OnExit item is selected).
Open	Opens the item selected in the left pane (an ActionChain diagram or OnEntry / OnExit) in the right pane.
Rename	Renames the diagram selected in the left pane. Available only under the ActionChains section (OnEntry / OnExit are fixed items and cannot be renamed).
Delete	Deletes the diagram selected in the left pane. Available only under the ActionChains section (OnEntry / OnExit are fixed items and cannot be deleted).

OnEntry / OnExit Editing Mode

When you select OnEntry or OnExit in the left pane of the Action Chain Editor, the right pane switches to OnEntry / OnExit Editing Mode and displays a dedicated pseudo-block.

- The diagram area in the right pane displays the OnEntry or OnExit pseudo-block as the start of the sequence.
- You can add actions from the Add Action context menu on the right side of the pseudo-block to build a sequential action array.
- Added or removed actions are synchronized bidirectionally with the target View's OnEntry property or OnExit property.
- Unlike regular Action Chains, adding or editing Trigger / Condition / Else nodes is restricted in this mode.

The actions registered in OnEntry / OnExit are executed in registration order at the moment the target View becomes active (OnEntry) or becomes inactive (OnExit).



Right pane

On the right pane of the Action Chain diagram, you can place and connect the following nodes from the context menu. The properties of each node placed on the diagram can be edited in the Properties panel.

Menu	Description
Add Trigger	Select a trigger node that serves as the entry point of the Action Chain. Use this menu to select the **Condition behavior** or **Behavior Building Block** (including Condition behaviors) that you want to use as the trigger. You can also create it by dragging and dropping a Condition behavior from the toolbox.

Menu	Description
Add Action	Places a node that represents the action to execute. Select the **Action behavior** (for example, switching Views or playing an animation) or a **Behavior Building Block** (including Action behaviors) that you want to use. You can also create it by dragging and dropping an Action behavior from the toolbox.
Add Condition	Select the **ConditionOutput** created in the **Condition Editor**, or a **Behavior Building Block** (including Condition behaviors). Branches the subsequent flow (true/false) based on the evaluation result. • If no ConditionOutputs are defined in the *Condition Editor*, this menu is not shown. • ConditionOutputs that are not configured correctly are not listed in this menu
Add After	Defines processing that must run afterwards regardless of whether the condition evaluated to true or false. Use this to express post-processing or common flows.
Add Else	Used together with **Add Condition** menu to construct an if/else if/else logic structure.
Add Note	Places a free-text Note block on the diagram. An independent block for design intent, annotations, TODOs, and similar notes that cannot be connected to other nodes. For details, see Note Block.
Copy	Shown when a node is selected on the right pane. Copies the selected node.
Paste	Shown after performing Copy or Cut. Places a duplicate of the copied/cut node onto the diagram.
Cut	Shown when a node is selected on the right pane. Cuts the selected node.
Delete	Shown when a node is selected on the right pane. Deletes the selected node.

Basic operations

Create a new diagram

To create a new Action Chain diagram, first select the target View in the **View Tree** panel.

1. In **View Tree**, select the View you want to define an Action Chain for.
2. Open the **Action Chain Editor** using either of the following:
   - Double-click the target View
   - Right-click the target View and choose **Open Action Chain Editor**.
3. In the **left pane** of the Action Chain Editor, open the context menu and select **New Diagram**.
   - A new Action Chain is created under the **ActionChains** section.
   - Rename the diagram as needed.

> State > OnEntry / OnExit in the left pane are fixed items, and New Diagram applies only to items under the ActionChains section. For details on editing actions in OnEntry / OnExit, see OnEntry / OnExit Editing Mode.

Note Block

You can place a free-text Note block on the Action Chain diagram. A Note block is an independent block for writing design intent, annotations, TODOs, review comments, and similar notes on the diagram.

- In the right pane, select Add Note from the context menu to place a Note block on the diagram.
- You can write any text in a Note block. The initial text is `Note / Type note here…`.
- A Note block cannot be connected to other nodes.
- To remove an unnecessary Note block, select it and then select Delete from the context menu.

Keyboard and Mouse Gestures

You can use keyboard and mouse gestures to edit nodes in the Action Chain Editor.

Arrow Keys (arrow keys alone)	Moves the selected node by small increments.
Shift + Arrow Keys	Moves the selected node in grid units.
Shift + Drag	Performs a straight-line constrained move along the horizontal or vertical axis.
Ctrl + Drag	Duplicates the node while moving it (copy + move).
Alt + Drag	Performs a free move with grid snap disabled.

> These gestures also work in the Condition Editor.

Place a Trigger node

In an Action Chain diagram, start by placing a **Trigger** node that specifies “when to run.” The trigger hands off execution to the subsequent **Condition** group.

Place it on the right pane in either of the following ways:

- Right-click the right pane and choose **Add Trigger**, then select the trigger behavior to use from the list.
- Drag the desired trigger behavior from the **toolbox** onto the right pane.

Place ConditionOutput and Action nodes

A **ConditionOutput** (defined within a Condition Block) and an Action together represent one “if line.”

> A **ConditionOutput** node must be created beforehand in the **Condition Editor**.

- On the **right pane**, open the context menu and choose **Add Condition** to place a ConditionOutput node.
  - This node references a ConditionOutput created in the **Condition Editor**.
- For processing that should run when the ConditionOutput evaluates to **true**, choose **Add Action** to place an **Action** node.
  - Placing an Action node immediately to the **right** of a ConditionOutput has the following meaning:
    `Condition_1 + Action_1 → if (Condition_1) { Action_1(); }`
- Placing another ConditionOutput **vertically below** an existing ConditionOutput creates an **if / else if / else** block that is evaluated **top to bottom** (see the next section, “if/else if/else logic”).

if/else if/else logic

In an Action Chain diagram, you express `if / else if / else` by how you arrange **ConditionOutputs** and **Actions**.

- **Single row (side by side)**
  - Placing a **ConditionOutput** on the left and an **Action** on the right represents `if (Condition_X) { Action_X(); }` (see Case 2 below).
- **Stacked conditions in the same column**
  - From top to bottom, the rows are evaluated as `if` → `else if` → `else` (see Case 3).
  - Rows that include a **ConditionOutput** correspond to `if`/`else if`, and a row that has only an **Action** corresponds to `else` (see Case 6).
- **Nested if**
  - Connecting from an **Action** node to another **ConditionOutput** node creates a nested `if`, which evaluates an additional condition after that Action (see Cases 2 and Case 7).

Using After nodes

An **After** node is used to gather the “exits” of multiple branches into one.

- If you connect lines from multiple **Condition** rows to the same **After** node, all of those branches merge at that After.
  - Any **Action** placed to the right of an **After** node will always run next, regardless of which path was taken.

- If you insert an **After** node and then start a new **Condition** group, you can build a structure that “executes multiple independent `if` blocks in sequence under the same trigger” (see Cases 4 and 5 below).
- Even if an **After** node is present, processing ends there unless you connect an outgoing line. Therefore, placing an After node is not mandatory; however, adding one helps to:
  - Clearly mark the end of a branching block, and
  - Make it easier to add common post-processing later.

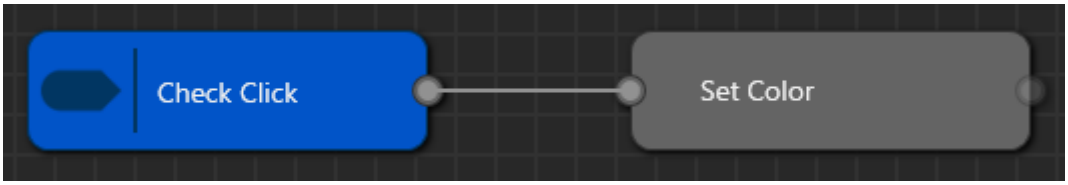
Action Chain Configuration Examples

This section shows how node arrangements on the **Action Chain** diagram (right pane) correspond to example **if** statements.

Case 1: Basic single-condition **if**

The simplest Action Chain: one condition and one action.

- A trigger (**Check Click**) detects the event; if the condition evaluates to **true**, a single action (**Set Color**) runs.




```
if (Check Click)
{
    Set Color();
}
```

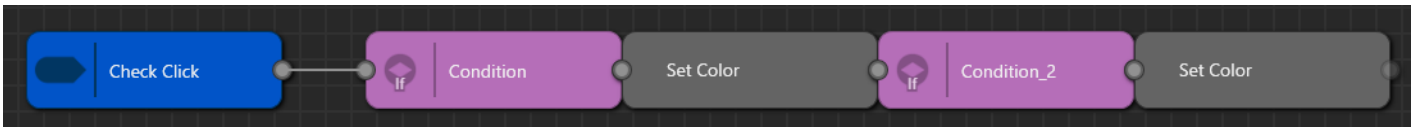
Case 2: Nested **if** (side-by-side layout)

This configuration shows how to represent a nested `if` that evaluates another condition within the branch of an existing condition.

Arrange the nodes in a single row as: **Trigger -> Condition -> Action (Set Color) -> Condition_2 -> Action (Set Color)**.

- First, if **Condition** is true, run **Set Color**.
- Then evaluate **Condition_2**; if it is true, also run **Set Color**.

With this **horizontal (side-by-side) layout**, you can express “an `if` inside an `if`” as a nested conditional that is evaluated after the preceding **Action**.




```
if (Check Click)
{
    if (Condition)
    {
        Set Color();

        if (Condition_2)
        {
            Set Color();
        }
    }
}
```

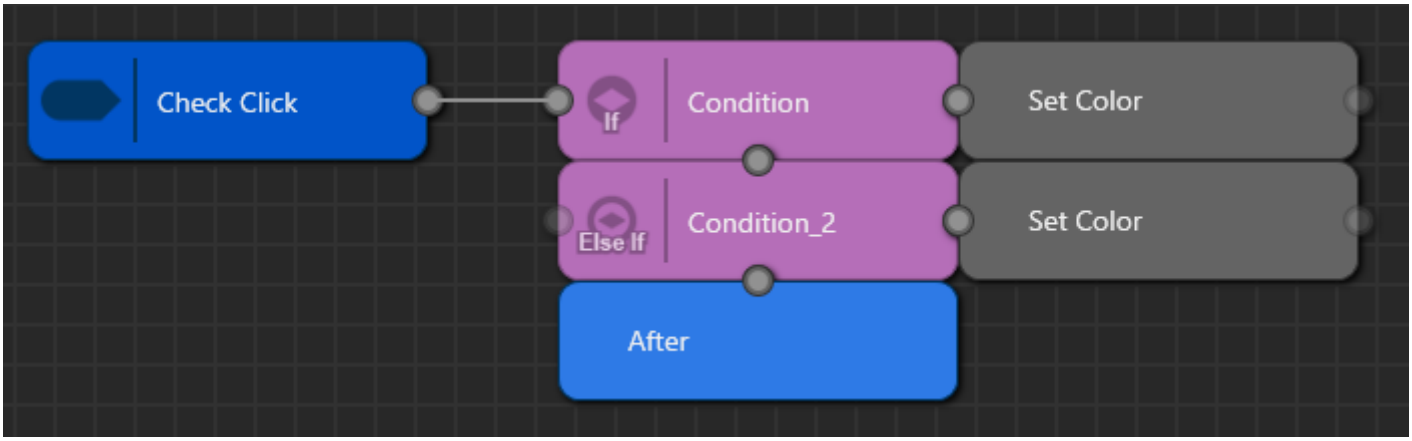
Case 3: Exclusive branching (if / else if)

This configuration shows how to evaluate multiple conditions for the same event **exclusively** (`if / else if`) so that **only one** action runs.

Place two rows—**Condition** and **Condition_2**—stacked vertically **one column to the right of the Trigger**, and place their corresponding Actions (**Set Color** / **Set Color**) to the right of each row. This represents:

- Upper row: `if (Condition) { SetColor(); }`
- Lower row: `else if (Condition_2) { SetColor(); }`

To make the branch's **common exit** explicit, place a single **After** node at the end of the block formed by **Condition** and **Condition_2**. The After node denotes "the exit for this `if`/`else if` group," and all subsequent processing should connect to the **right** of the After node. With this layout, it is visually clear that **regardless of which condition is met**, the flow ultimately **merges** into the same continuation.



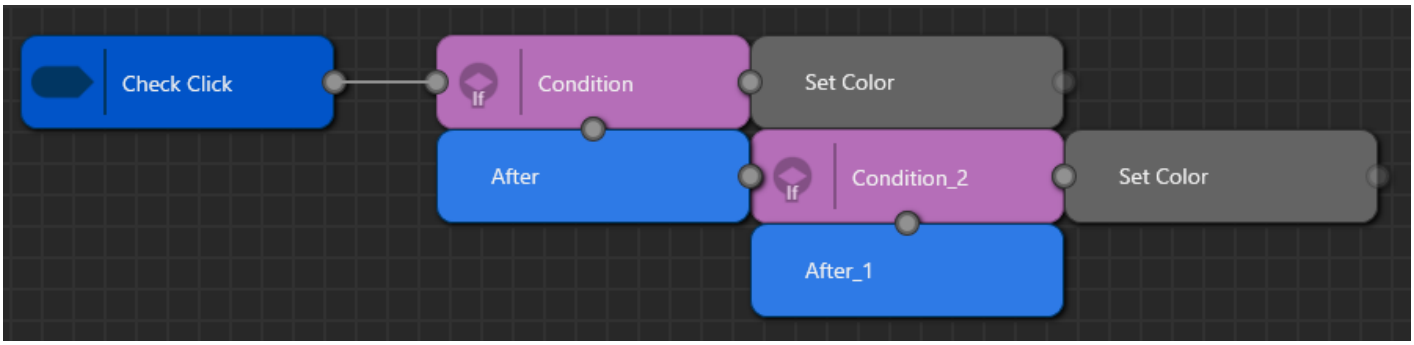
```
if (Check Click)
{
    if (Condition)
    {
        Set Color();
    }
    else if (Condition_2)
    {
        Set Color();
    }
}
```

Case 4: Two independent **if** blocks under the same Trigger

This configuration evaluates two Conditions **independently and in sequence** within a single Trigger.

- The **After** placed beneath the `Condition + Set Color` row is a mandatory exit: the flow passes through it **whether** `Condition` **is true or false**, and then proceeds to `Condition_2` .
  - As a result, `Condition_2` is **always** evaluated, regardless of the outcome of `Condition`.
- The **After_1** placed beneath the `Condition_2 + Set Color` row marks the **end** of the entire chain.

By contrast with **Case 3**, where stacking ConditionOutputs in the same column and using a **single After** yields **exclusive branching** (i.e., the next Condition is checked **only if** the previous one was false), **Case 4** inserts an intermediate **After** between the rows so that **both** `if` **blocks are evaluated** in order.




```
if (Check Click)
{
    if (Condition)
    {
        Set Color();
```

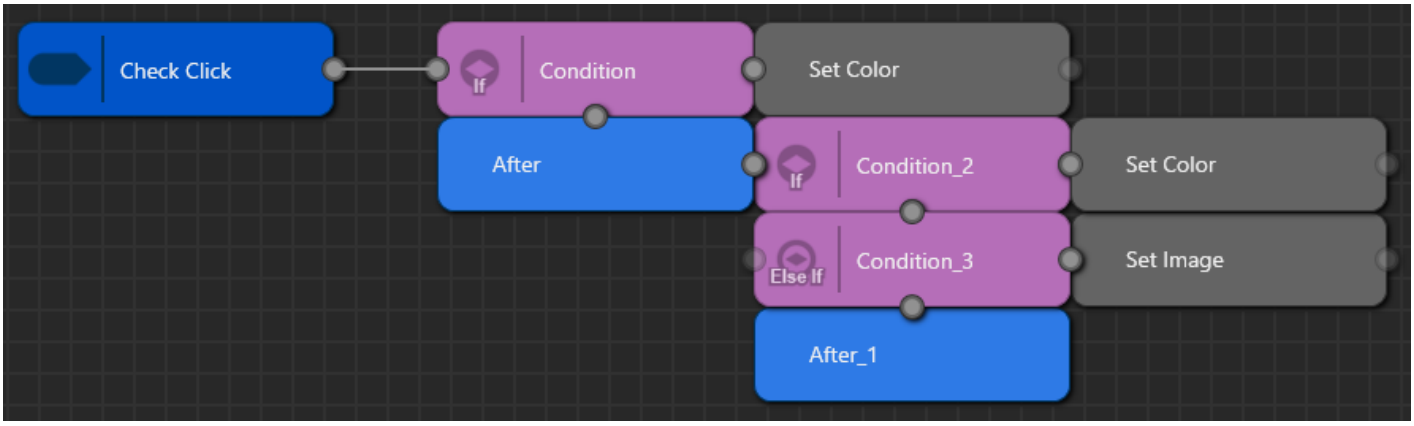
```
    }
    if (Condition_2)
    {
        Set Color();
    }
}
```

Case 5: Independent **if** + subsequent **if/else if** group

This configuration combines a single standalone `if` followed by an `if / else if` branching group under the same Trigger.

- **Row 1** (`Condition + Set Color`) corresponds to:
  `if (Condition) { SetColor(); }`
  - The **After** directly beneath Row 1 is a mandatory exit. The flow passes through it **whether** `Condition` **is true or false**, and then proceeds to the group formed by **Condition_2** and **Condition_3**.
- **Rows 2 and 3** (`Condition_2 + Set Color`, `Condition_3 + Set Image`) represent:
  `if (Condition_2) { SetColor(); } else if (Condition_3) { SetImage(); }`
  - When **Condition_2** is true, **only** `SetColor()` runs; **only when it is false** is **Condition_3** evaluated.
- The **After_1** beneath these two rows is the **common exit** for the `if / else if` group.

Compared with **Case 4**, where both **Condition_1** and **Condition_2** were independent `if` blocks, **Case 5** has an **independent** `if` for **Condition_1**, followed by an `if / else if` **group** formed by **Condition_2** and **Condition_3**.




```
if (Check Click)
{
    if (Condition)
    {
        Set Color();
    }
    if (Condition_2)
```

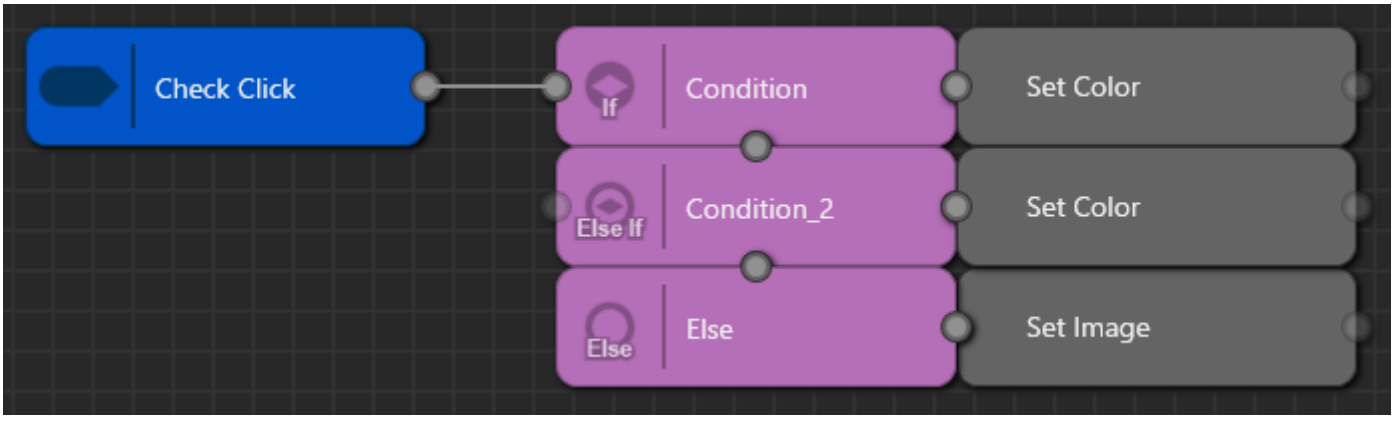
```
    {
        Set Color();
    }
    else if (Condition_3)
    {
        Set Image();
    }
}
```

Case 6: Three-way branching (if / else if / else)

This configuration shows a classic **exclusive** branch with three paths under a single Trigger.

- **Row 1: “Condition + Set Color”**
  Corresponds to `if (Condition) { SetColor(); }`.
  Set Color runs only when **Condition** is true.
- **Row 2: “Condition_2 + Set Color”**
  Corresponds to `else if (Condition_2) { SetColor(); }`.
  Set Color runs only when **Condition** is false **and Condition_2** is true.
- **Row 3: “Else + Set Image”**
  Corresponds to `else { SetImage(); }`.
  Set Text runs only when both **Condition** and **Condition_2** are false.

The key point is that **exactly one** Action runs: evaluation proceeds **top to bottom** and executes the Action on the **first** row whose condition matches.




```
if (Check Click)
{
    if (Condition)
    {
        Set Color();
    }
    else if (Condition_2)
```

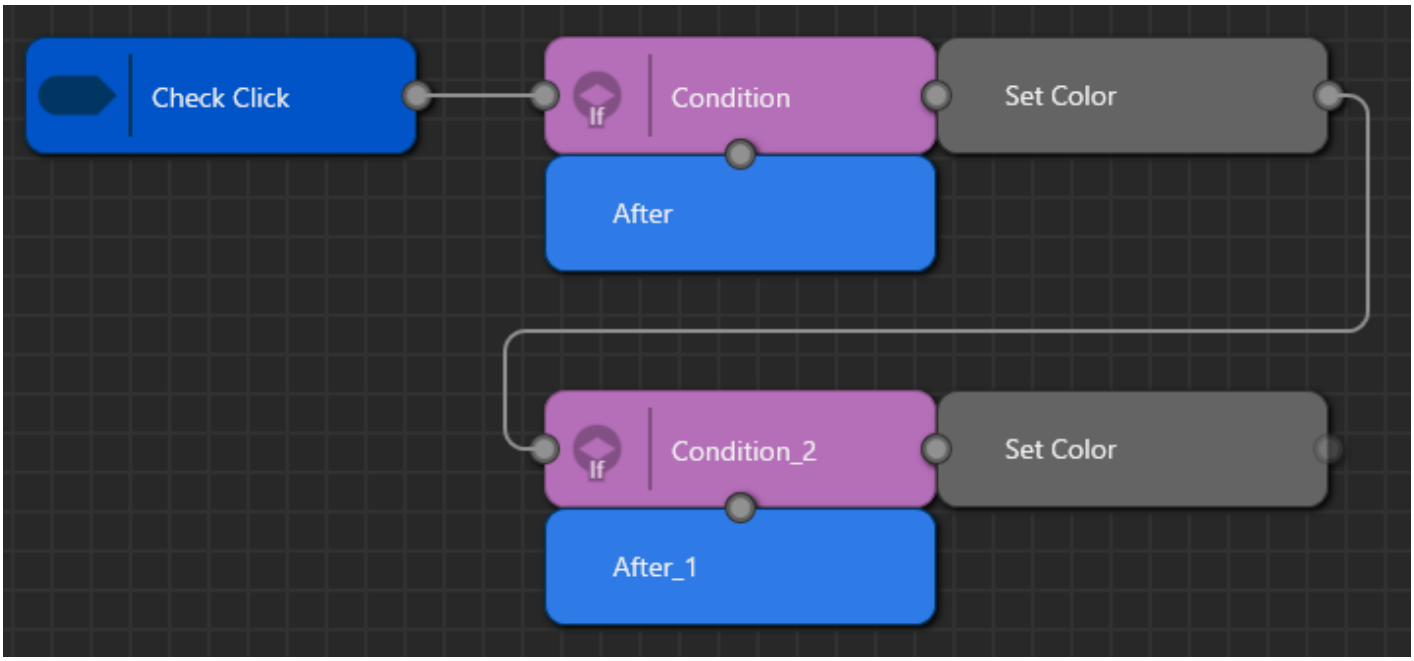
```
    {
        Set Color();
    }
    else
    {
        Set Image();
    }
}
```

Case 7: Nested `if` (After-based layout)

This configuration represents a nested `if` where one **ConditionOutput** is evaluated only inside the branch of another.

- The flow goes from the Trigger **Check Click** to **Condition**—this is the outer `if (CheckClick)`.
- The row **“Condition + Set Color”** corresponds to `if (Condition) { SetColor(); … }`.
- Because there is a connector from **Set Color** down to **Condition_2**, **Condition_2** is evaluated **only when** **`Condition`** **is true**. If `Condition` is false, the flow does **not** proceed to `Condition_2`.
- The lower row **“Condition_2 + Set Color”** corresponds to `if (Condition_2) { SetColor(); }`. Thus, **only when both** `Condition` **and** `Condition_2` are true do `SetColor()` and then `SetColor()` run in sequence.
- **After** and **After_1** serve as visual **exits/merge points** for the **Condition** block and the **Condition_2** block, respectively.

In contrast to **Case 4**, where two ConditionOutputs are treated as **two independent** **`if`****s** that are both evaluated, **Case 7** places **Condition_2** entirely **inside Condition**, forming a classic **nested** **`if`** structure.




```
if (Check Click)
{
    if (Condition)
    {
        Set Color();

        if (Condition_2)
        {
            Set Color();
        }
    }
}
```

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