Module 4
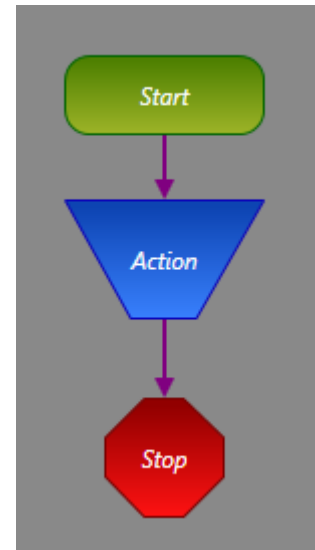
Advanced Features:
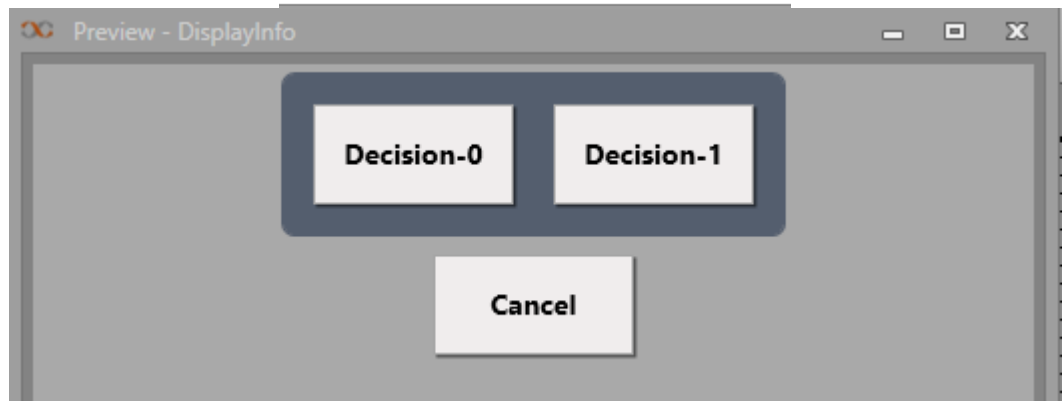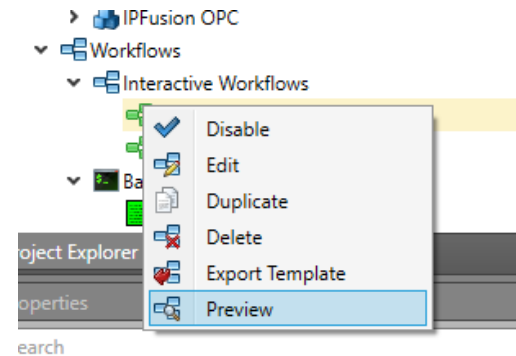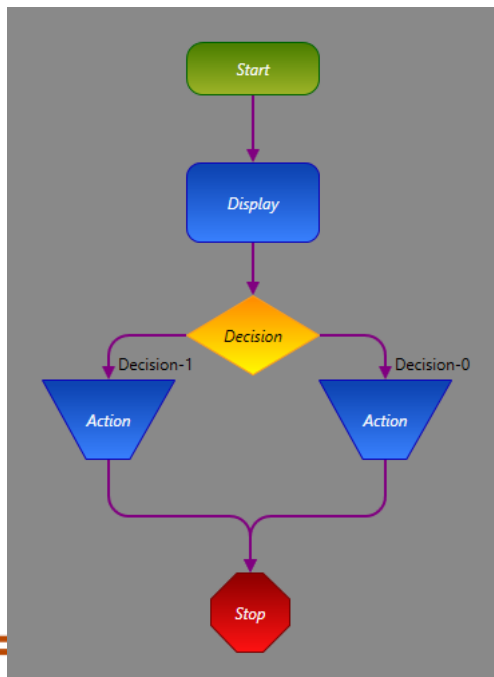Workflows

IPFUSION

Overview

Overview

- Standard Operating Procedure (SOP)
  - Respond and handle situations consistently
- Triggered by events (or conditions)
- Design is similar to Maps (design tab, toolbox, etc)
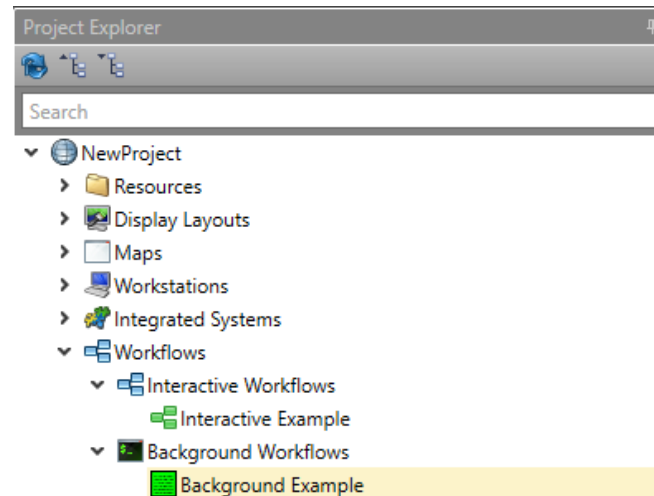
Overview – Interactive Workflows

- Launches in popup or function panel
- Can only be used in graphical Runtime
- Interaction with user (display text, images, files, prompt for choices)
- Can be previewed from right-click menu (workflow must be saved first)

Overview – Background Workflows

- Launches in background

- Performs operation only, no interaction with user

- Single execution / high availability

IPFUSION

Design – Blocks & Connections

- Blocks
  - All functions in a Workflow are performed by blocks

- Connections
  - Connections are followed from Start to Finish in a logical order
  - All connections must be valid, or the Workflow cannot be enabled
  - When the Workflow is invalid, connections are red. When valid, they are purple
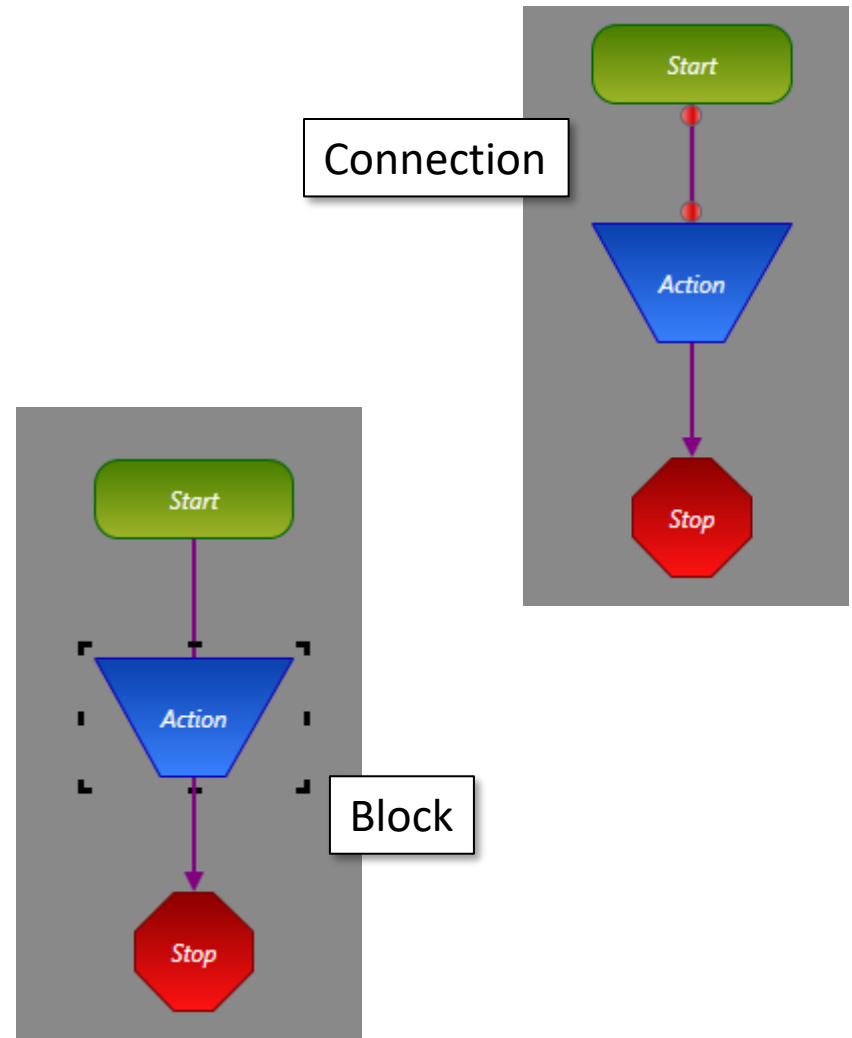

Connection

Block

Design – Blocks & Connections

- Blocks have one entrance point and a set number of exit points, depending on the block type

- Entrance points can accept multiple paths

- Exit points can only go to one path

Two paths to
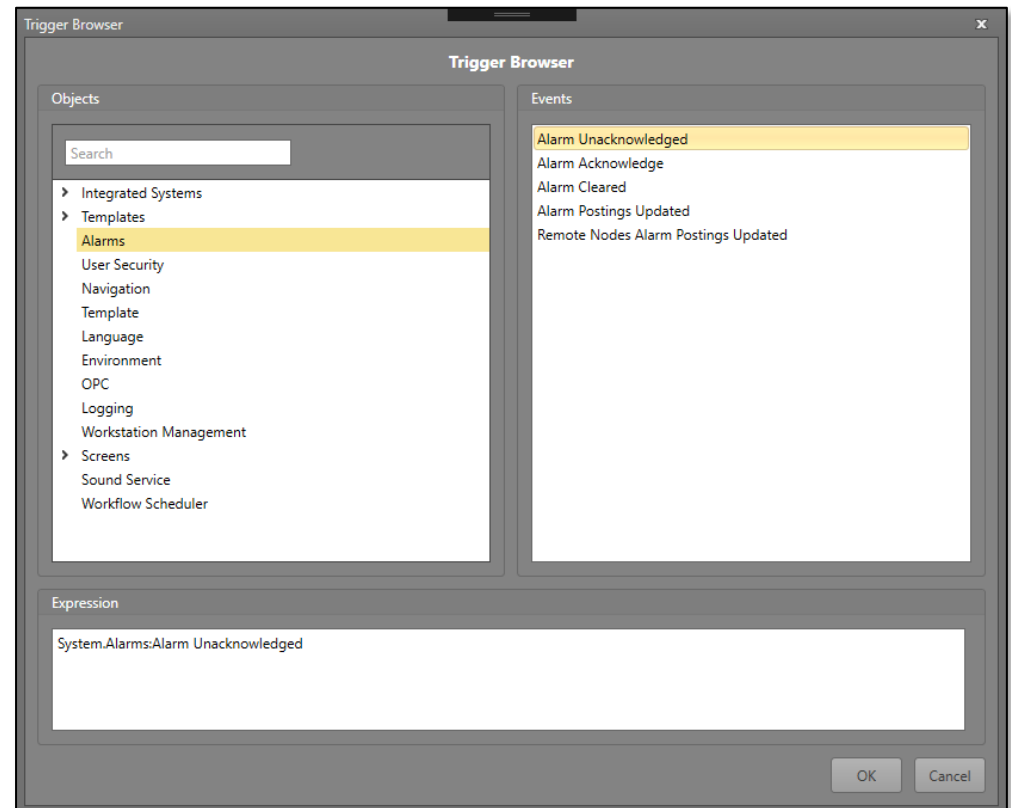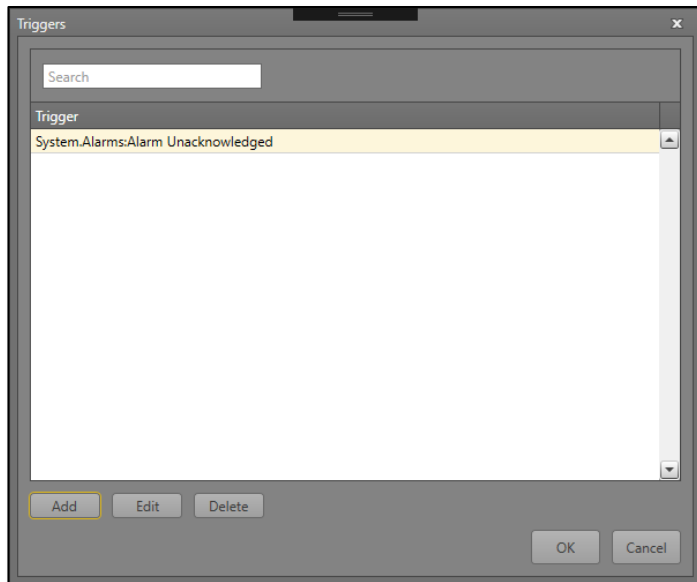one entrance point

IPFUSION
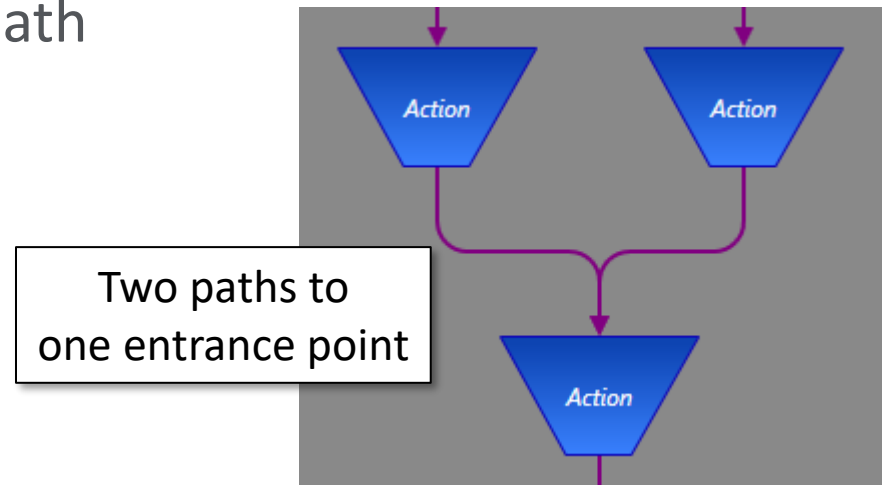
Design – Assigning Workflows

- Selectively assign Workflows to Workstations

- All, none, or specific Workstations

- Can execute on a single Workstation when assigned to multiple
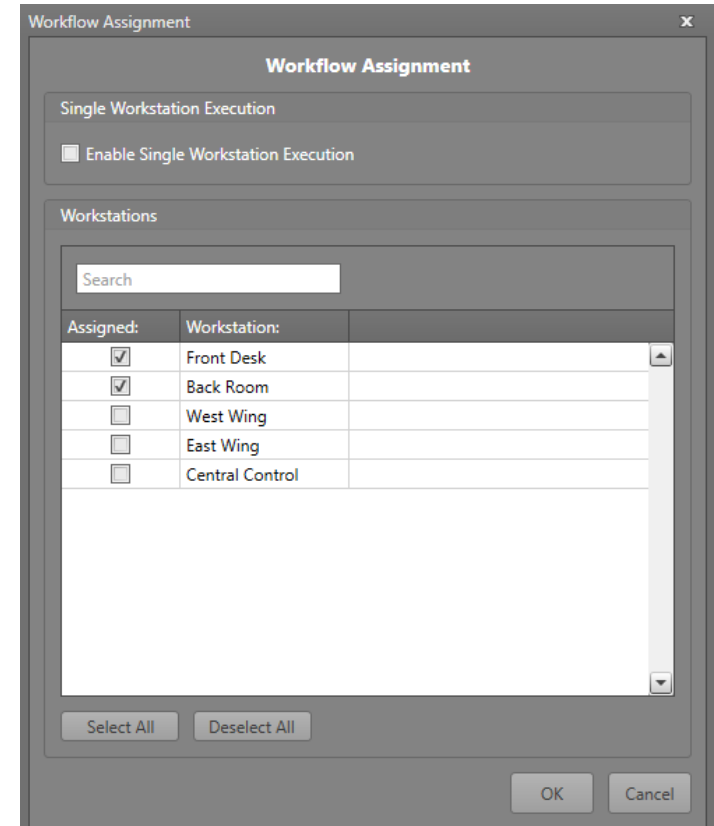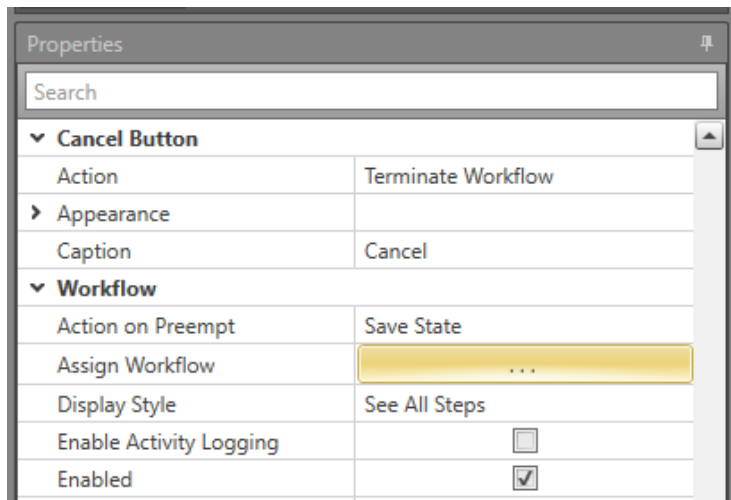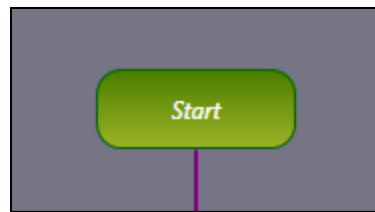
Design – Defining Triggers

- Use Trigger Browser to define which events will trigger the workflow

- Can add multiple triggers

Common Blocks

Common Blocks – Start

- Each Workflow must contain one, and only one, **Start** block
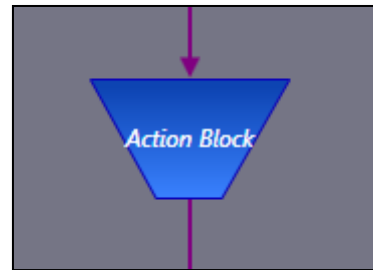- Logical flow begins here when the Workflow is triggered

IPFUSION

Common Blocks – Finish

- Each Workflow must contain at least one **Finish** block
- Logical flow ends here
- Possible to use multiple **Finish** blocks in order to clean up the appearance of the Workflow (larger Workflows can be complicated)
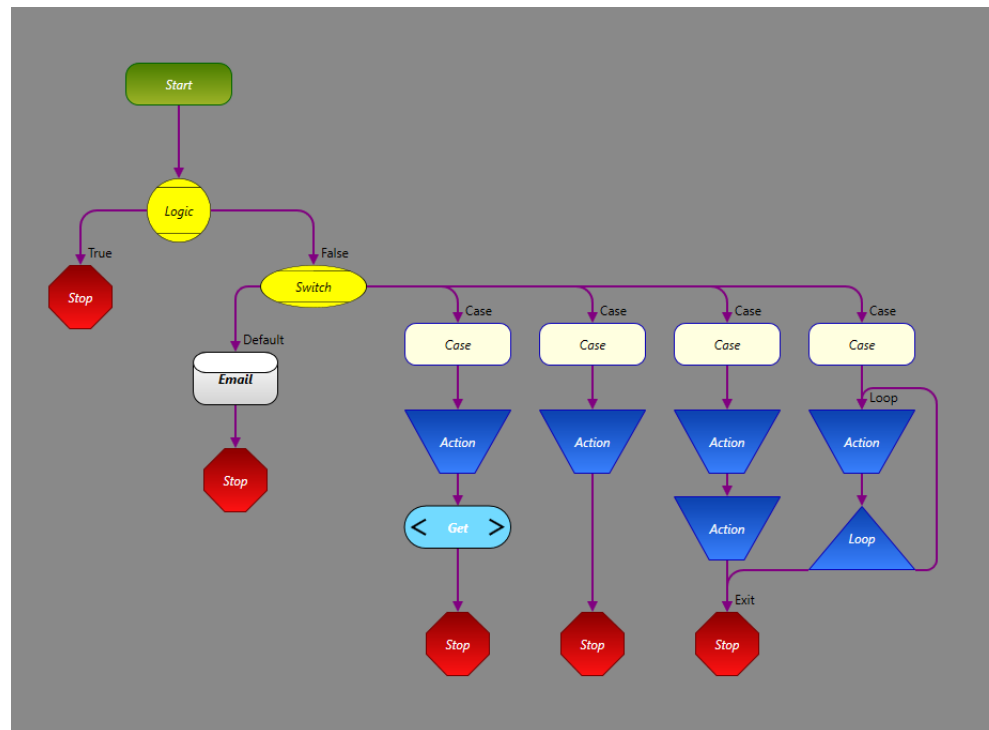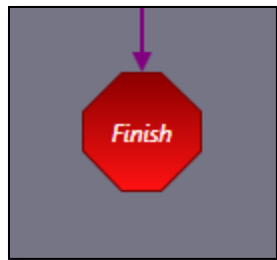
Common Blocks – Action

- Performs an action which is chosen from the **Action Browser**
- Parameters are passed to the action using the **Object Browser**
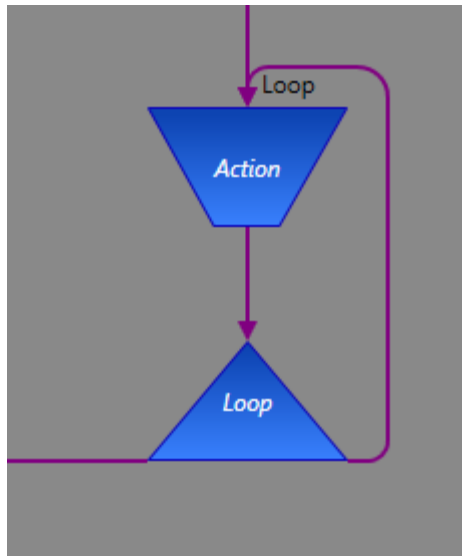

IPFUSION

Common Blocks – Action

Common Blocks – Logic

- Evaluates a logical expression, built with **Logic Editor**
- Chooses left path if true, right path if false
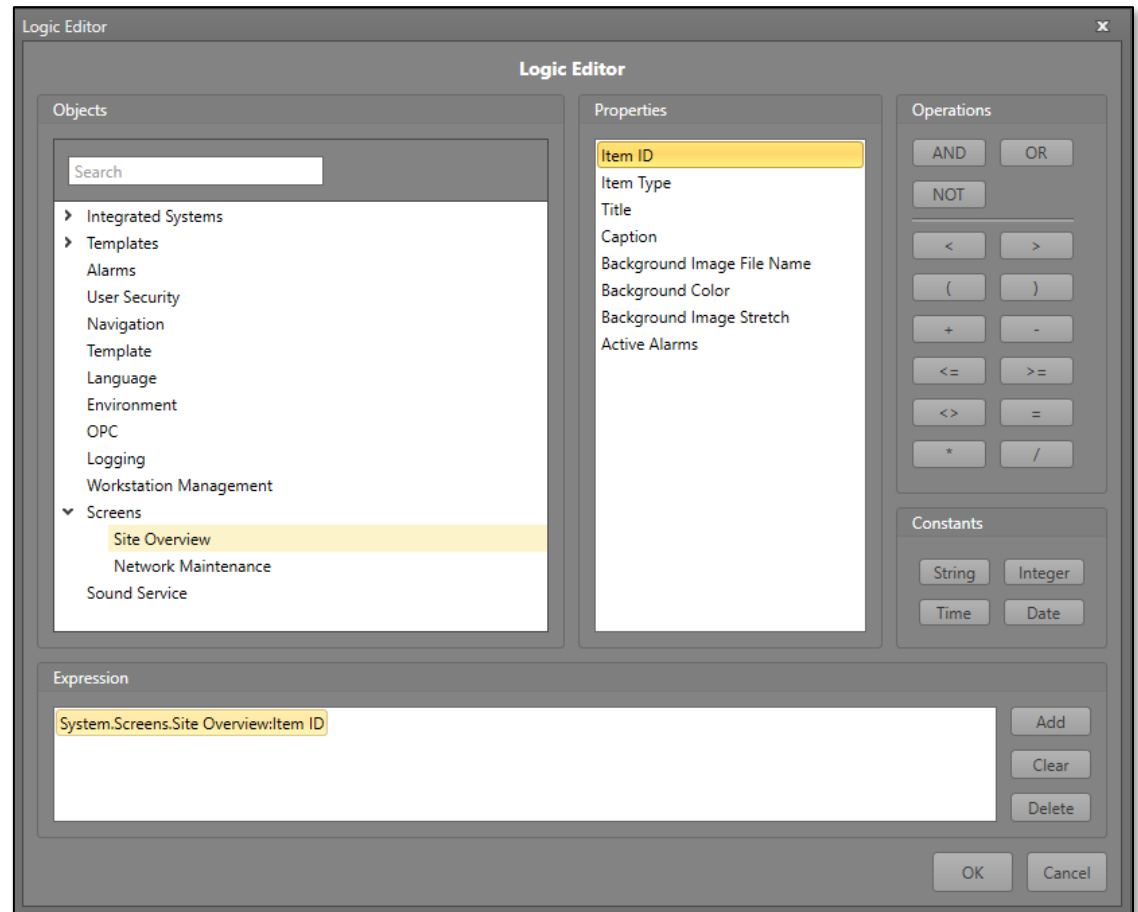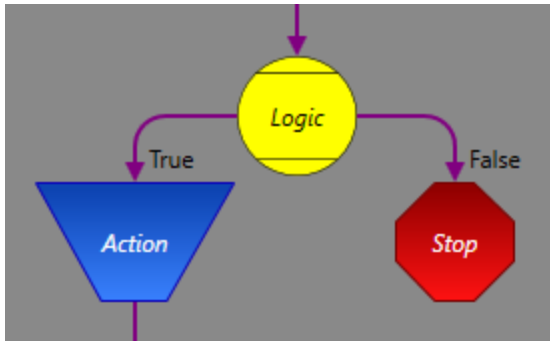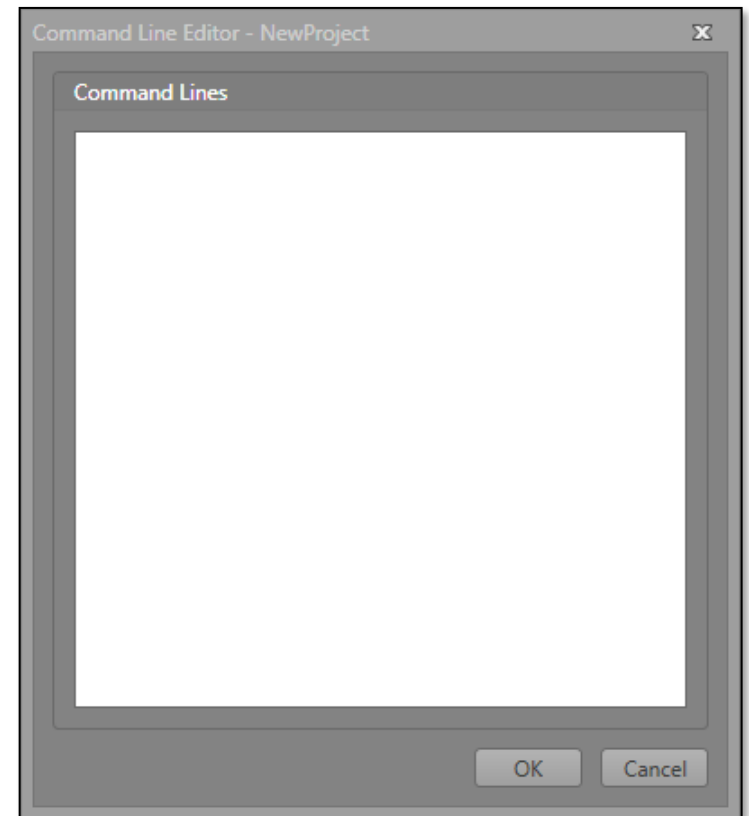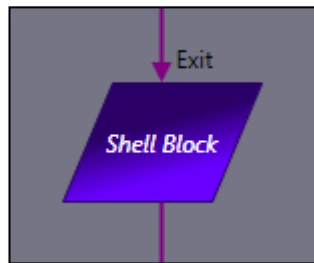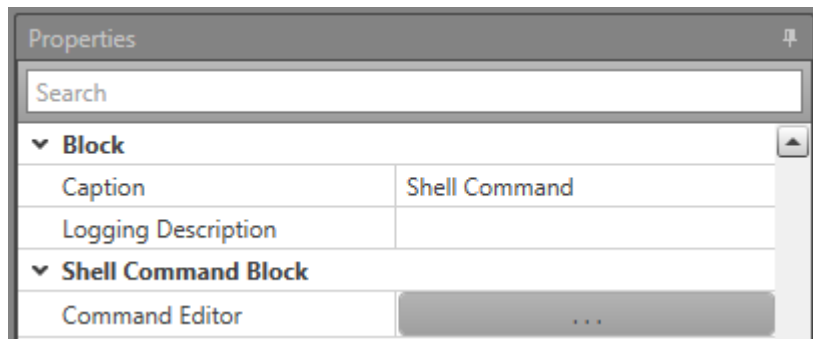
Common Blocks – Counter Loop

- Loops through the same logic until the exit value is reached
- Used to repeat sections of logic a set number of times
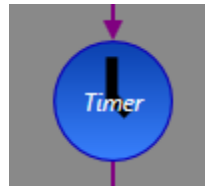- Left path is exit, right path is loop

Common Blocks – Shell

- Executes shell script, defined in **Command Editor**
- Used to interact with Windows environment outside of Runtime (start external application, etc)

Common Blocks – Timer
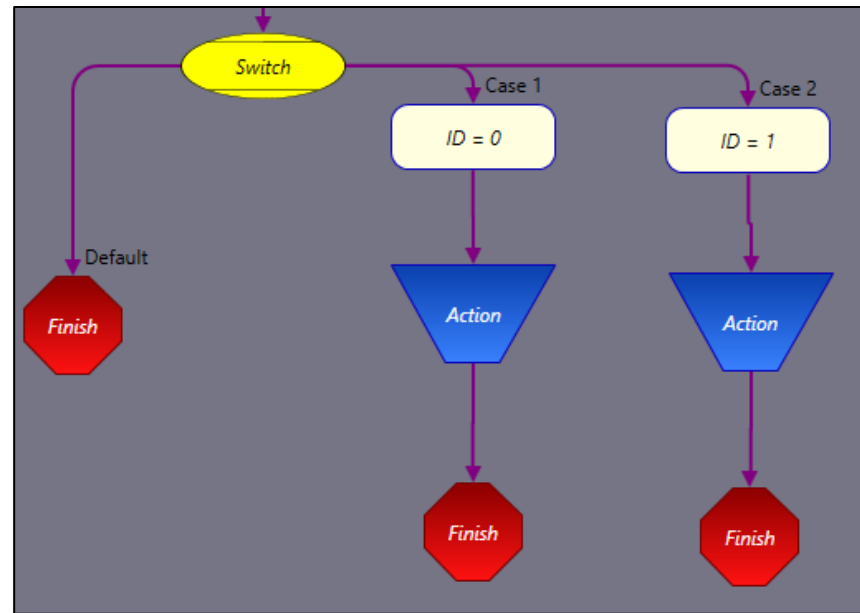
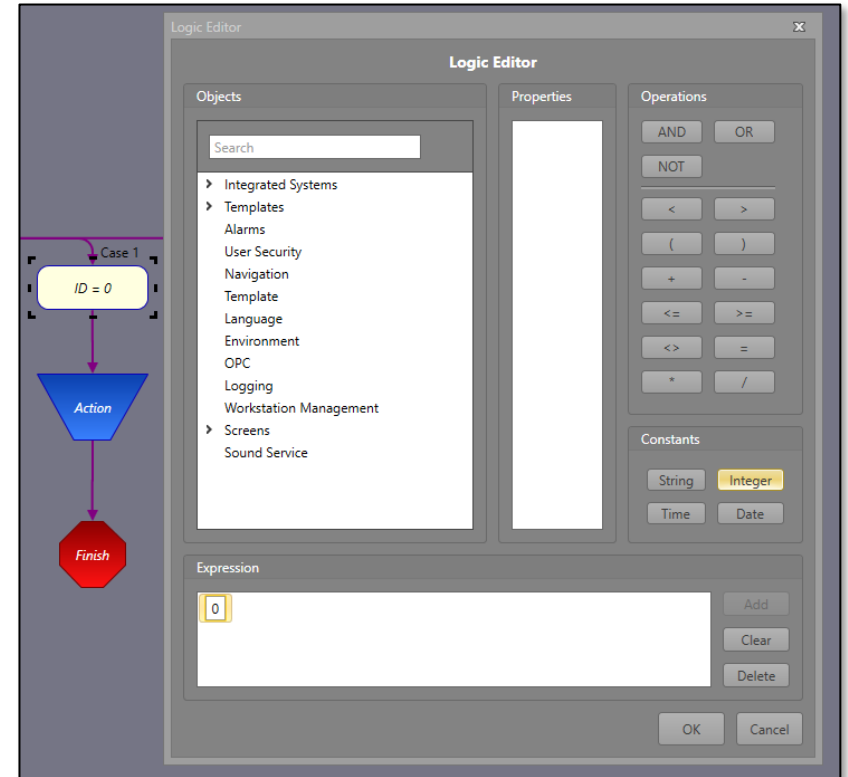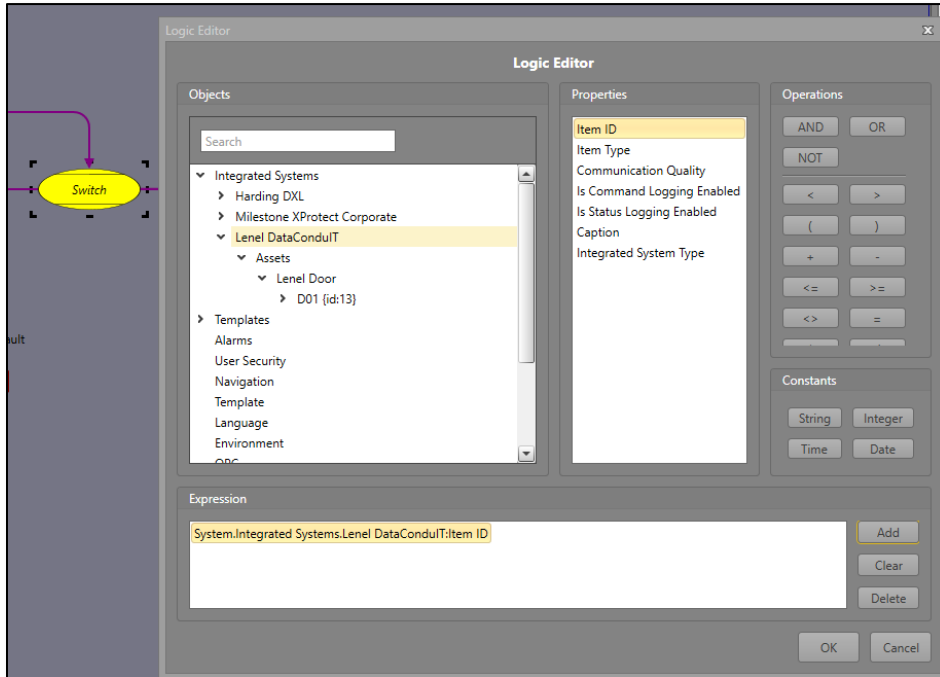- Delays execution of the Workflow by a set number of seconds

Common Blocks – Switch Case

- Execute a sequence of blocks if a logic expression matches one of the specified cases.

- Left section is the default path where no case matches.
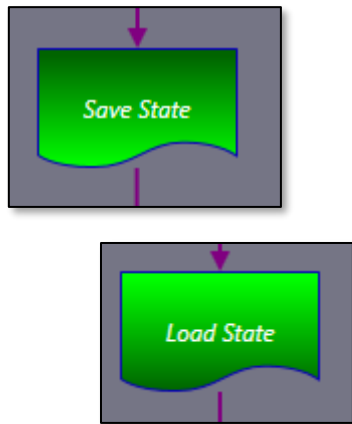
Common Blocks – Switch Case
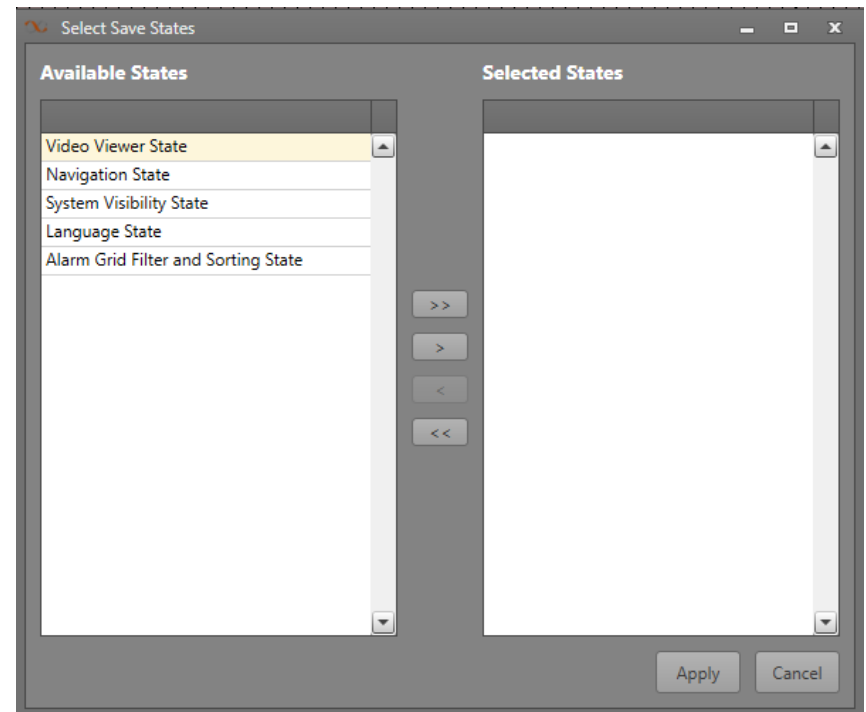
State Blocks

- Save or load specific states of various IPFusion entities.
- The states are saved in a file and users will need to input the filename which the block will use to save as or load from.
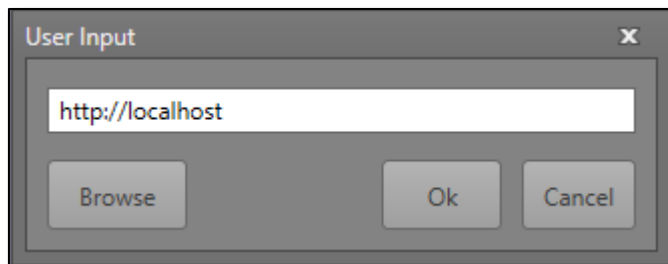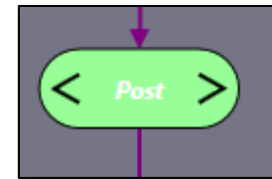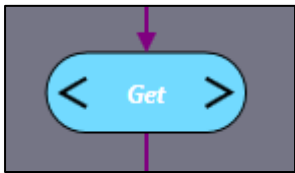
State Blocks

- **Video Viewer State —** Will save or load all the viewer IDs and the camera asset Ids that are playing in them.
- **Navigation State —** Saves or loads all the Map IDs that are currently displayed in the **Map Container.**
- **System Visibility State —** Saves or loads the state (pressed or not) of the **System Visibility** buttons. displayed on each **Map Container**.
- **Language State —** Will save or load the currently used Runtime language.
- **Alarm Grid Filter and Sorting State —** Saves or loads the sorting and filtering applied to **Alarm grids** in Runtime.

Select Save States

Available States

Video Viewer State
Navigation State
System Visibility State
Language State
Alarm Grid Filter and Sorting State

Selected States
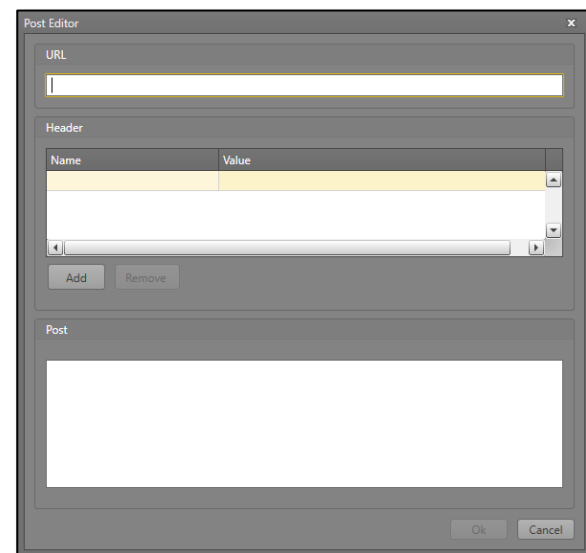
>>
>
<
<<

Apply   Cancel

HTTP Blocks

- A **Get** block is used to perform an HTTP Get request from a specified URI.

- A **Post** block provides facility to do a rest HTTP Post request using configured settings.

Email Block

- Used to send plain text email messages to a recipient.
- Specify the needed information and settings in the **Email Editor**.

Properties

Search

- **Block**

Caption	Email
Logging Description	

- **Email Block**

Email Editor	. . .

Email Editor

Email

To Address:	Email@sample.com
From Address:	Email@sample.com
Subject:	IPFusion Notification
Body:	

Insert Variable

SMTP Server:	SMTP.Sample.com	Port:	587

☑ Enable SSL

Username:	John Doe
Password:	****
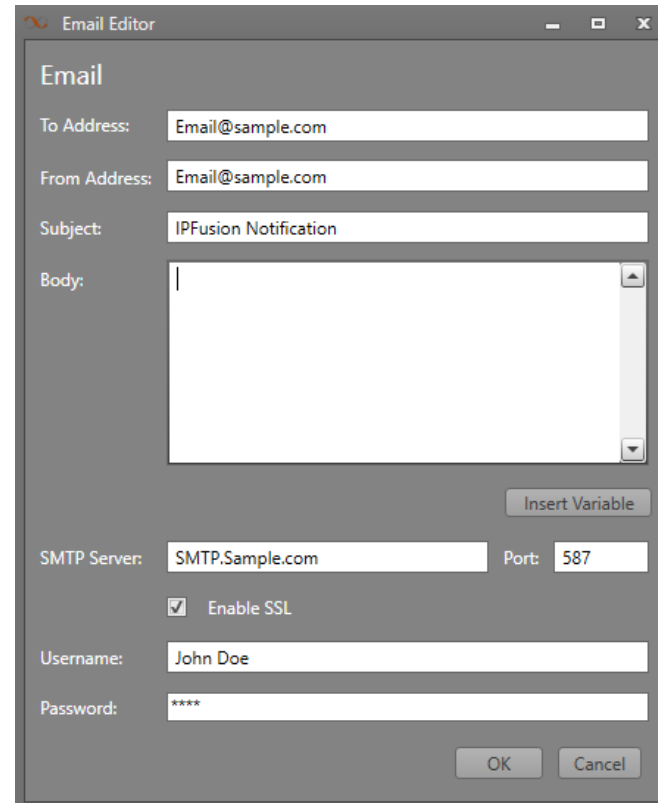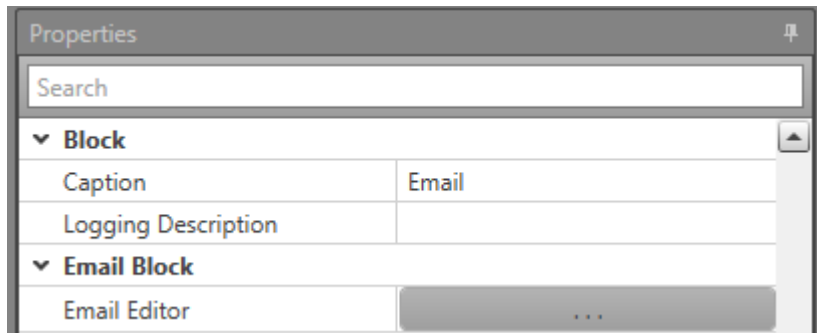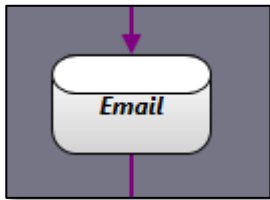
OK   Cancel

Interactive Workflows

Interactive Workflows

- Fully customizable from properties

Interactive – Cancel Button

- **Hidden** – Hides **Cancel Button.**

- **Terminate Workflow** – Closes the Workflow.

- **Deselect Assets and Terminate** – Closes the Workflow and deselects all assets.

- **Font** – Define font used for **Cancel Button** caption.
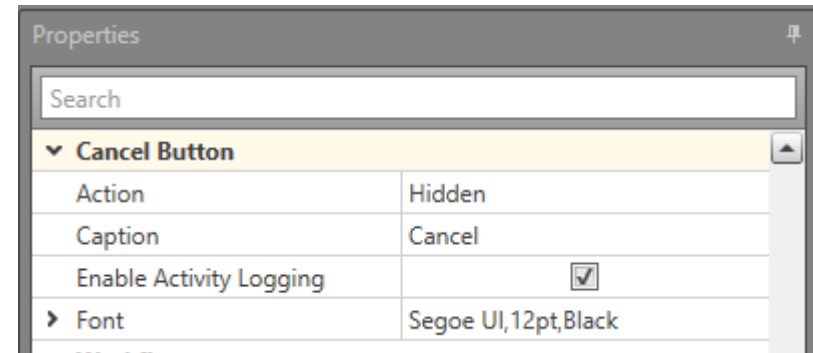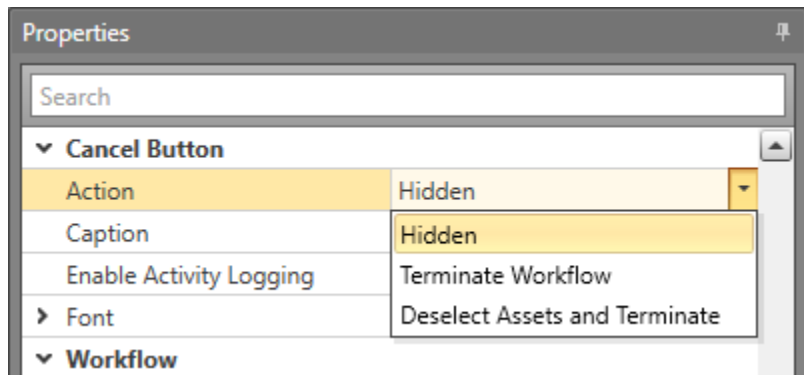
Interactive – Action on Preempt

- **Save State —** When the current operating Workflow is completed and there is a **Save State** Workflow waiting, the highest priority one will run

- **Terminate —** These Workflows can never be in a waiting state. If a higher priority Workflow begins operating, this one will be terminated.
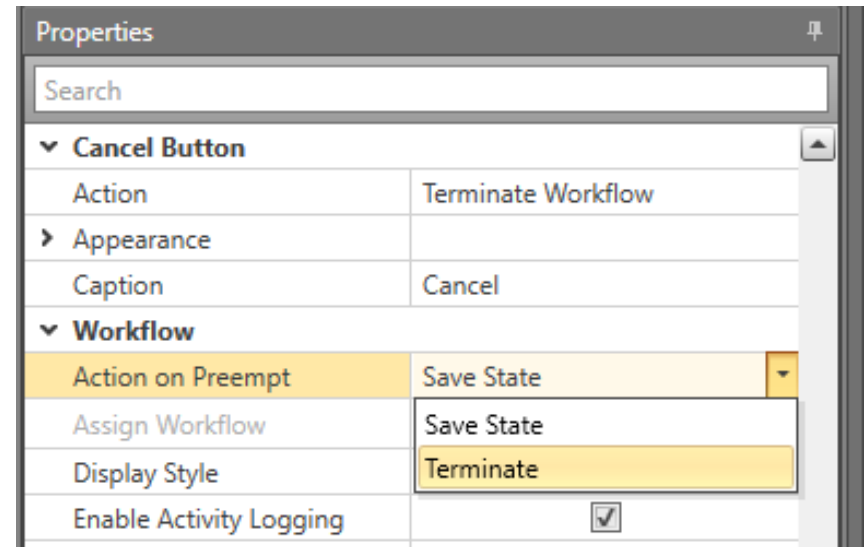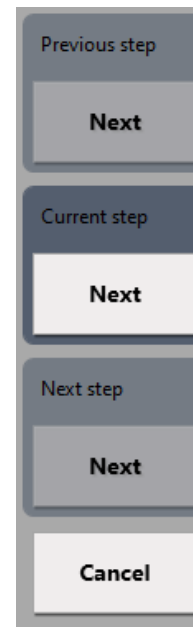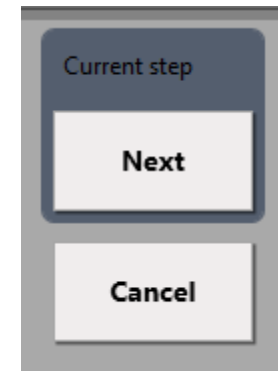
Interactive – Display Style

- **Preview Next Step** – Displays the current and next steps, with current step highlighted.
- **See All Steps** – Displays all steps, with current step highlighted.
- **See Only Current Step** – Displays the current step only.
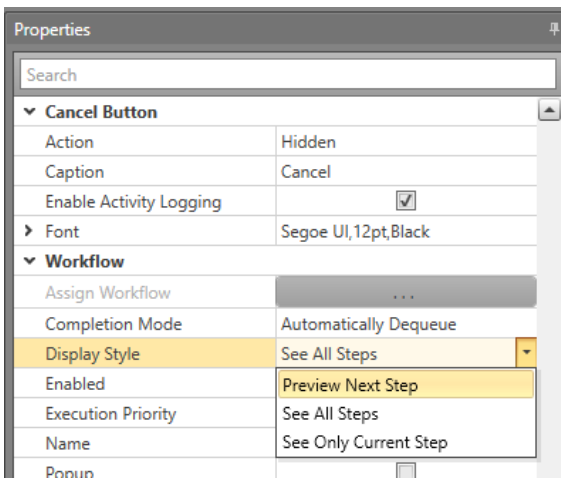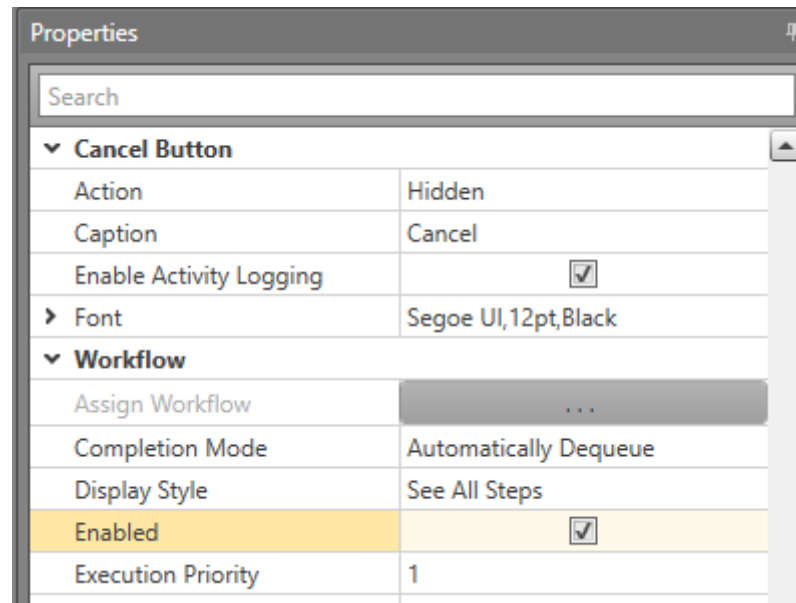

Preview Next

See All

See Current

Interactive – Enabled

- Can only run Workflow when this option is checked, and all logic paths are valid

- Can be unchecked to disable Workflows that are no longer required, or that are not ready for production yet (useful during design phase).

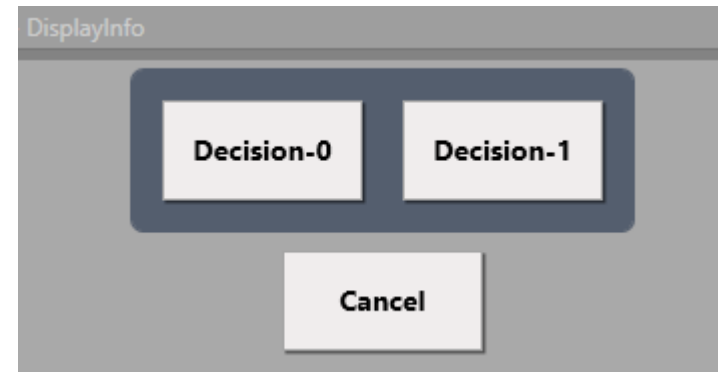| Properties	
Search	
∨ Cancel Button	
Action	Hidden
Caption	Cancel
Enable Activity Logging	☑
› Font	Segoe UI,12pt,Black
∨ Workflow	
Assign Workflow	. . .
Completion Mode	Automatically Dequeue
Display Style	See All Steps
Enabled	☑
Execution Priority	1

IPFUSION

Interactive – Execution Priority

- Only one interactive Workflow can run at a time.
- This property defines which will run first (lower number = higher priority)
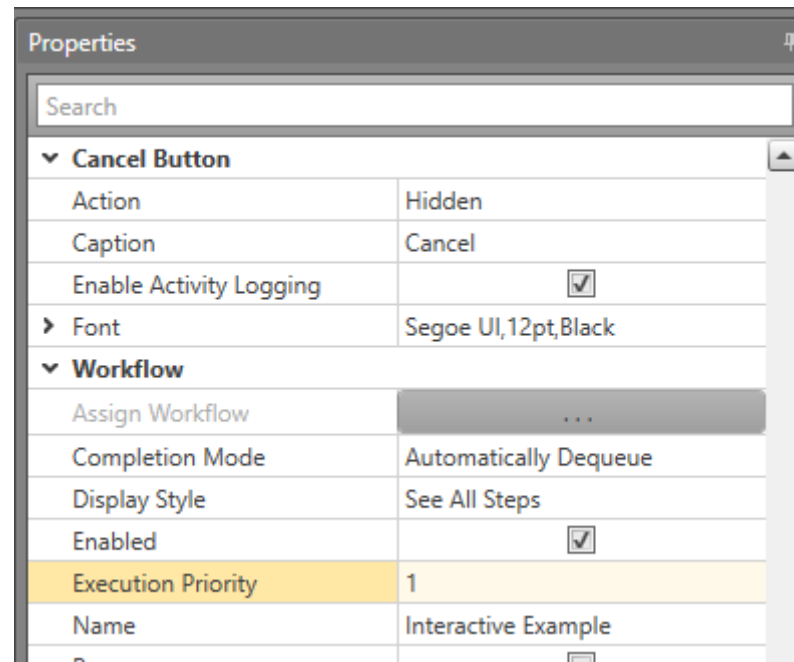
Interactive – Name

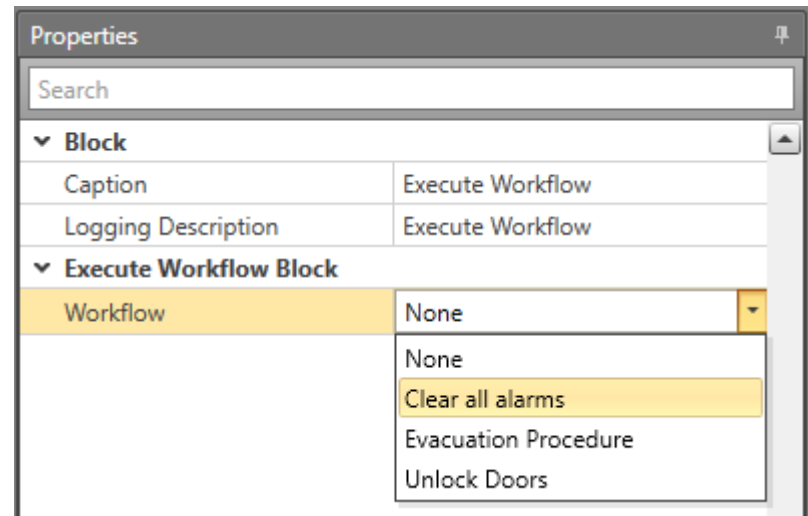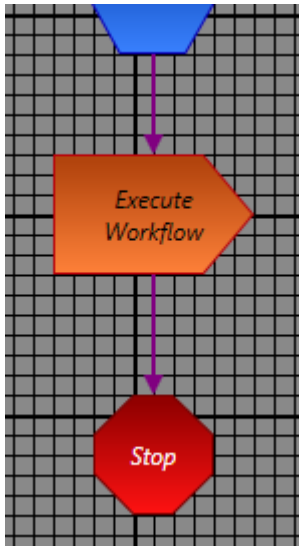- Defines title that shows in the Workflow header in Runtime
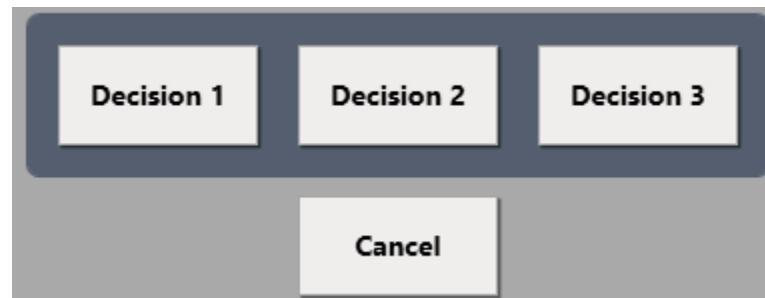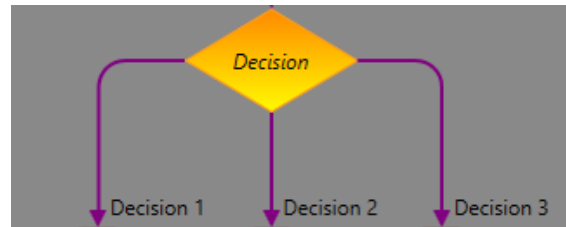
Interactive Blocks

Interactive Blocks – Execute Workflow

- Triggers another Interactive Workflow
  - Configure the Workflow property to specify which one to execute
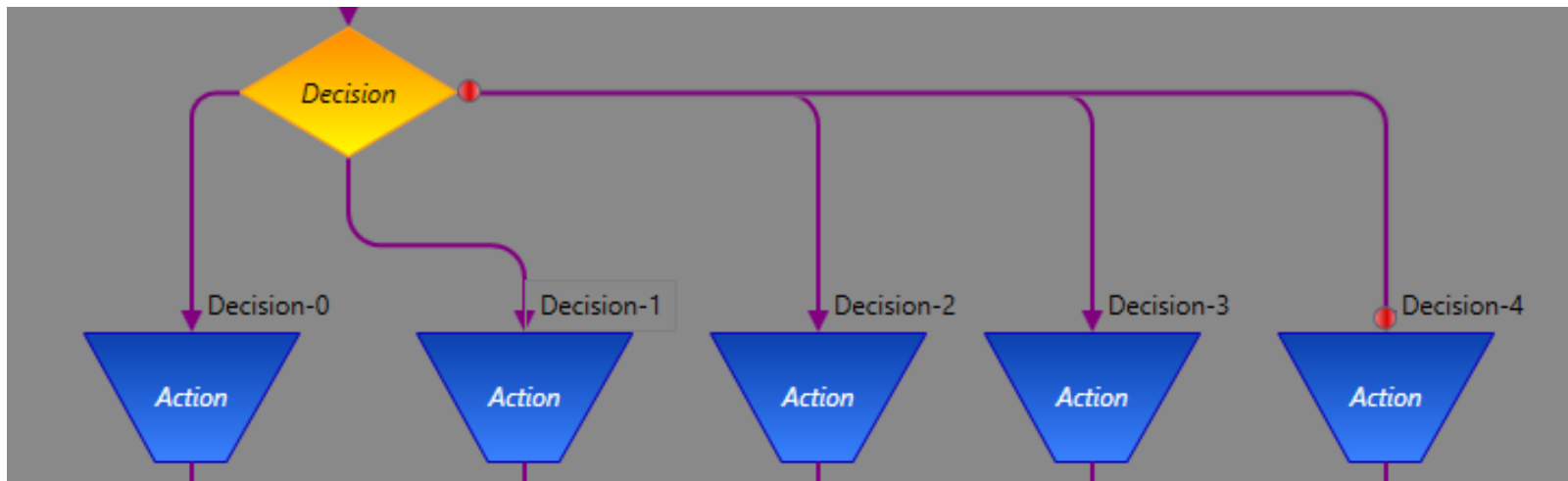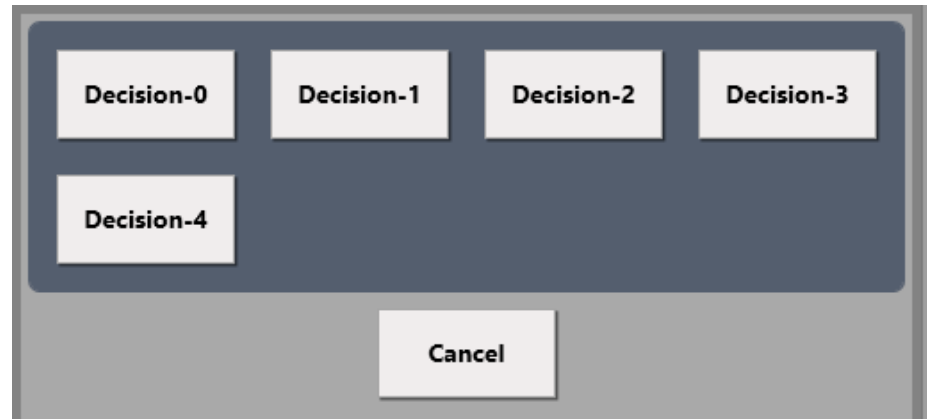- Exit path can only be connected to a stop block

Interactive Blocks – Decision

- Prompts the user for a decision (button press)
- Button text defined by exit paths
- Button order defined by order of path creation
- Button appearance customized in properties

Interactive Blocks – Decision

- Unlimited exit paths can be created

IPFUSION

Interactive Blocks – Display

- Simple text or image display, used to provide information to the user.

- **Runtime Title** – Title displayed in Runtime.

- **Display Text** – Text to display.

- **Advance on Press** – Check to add a button that the user must press to advance to the next block.

- **Image Path** – Choose an image to display along with text.

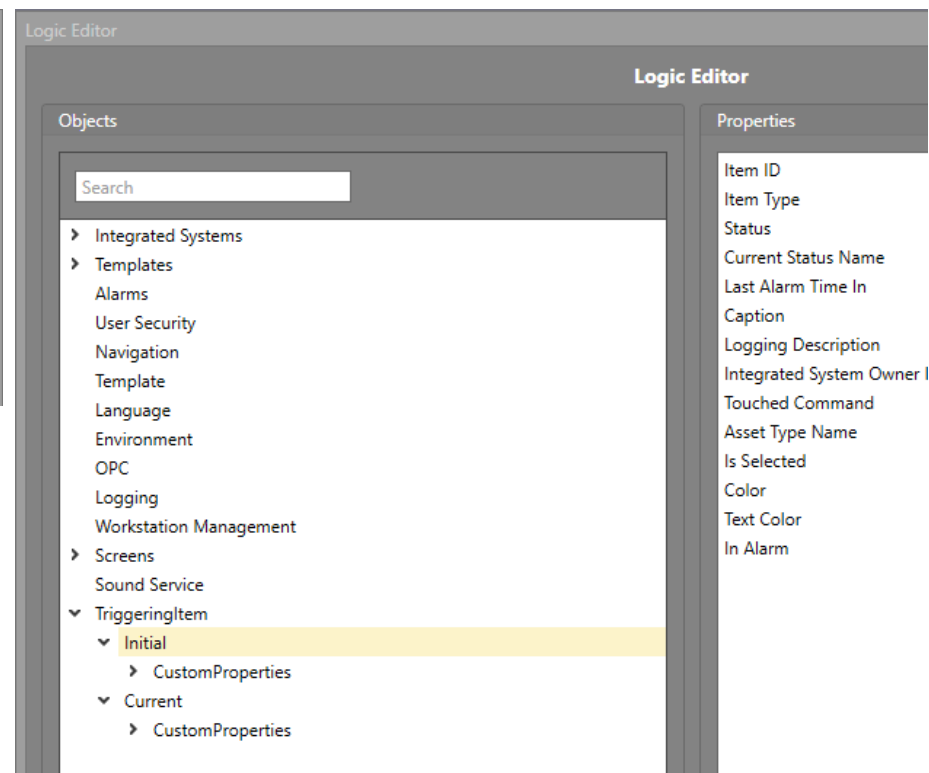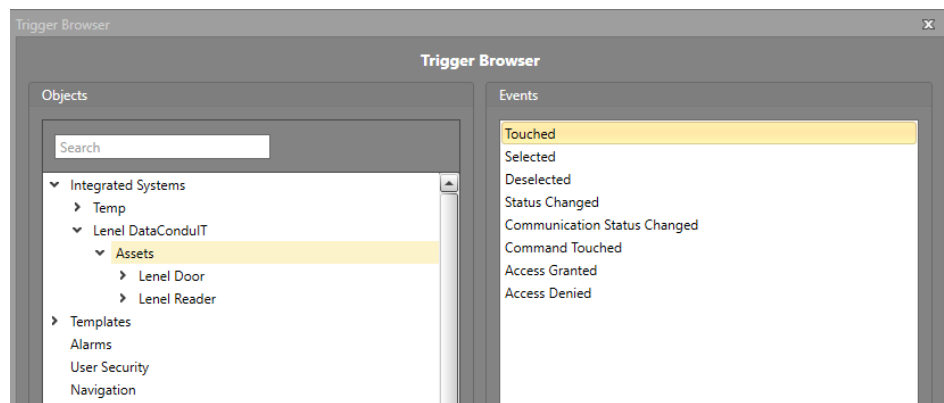- **Display Order** – Choose to display the image (if configured) either above or below the text

Display text

Next

Cancel
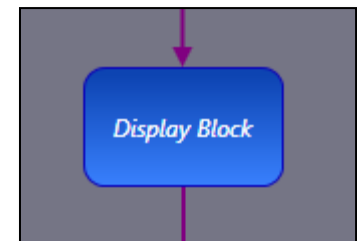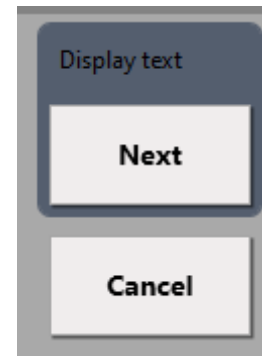
Display Block

Interactive Blocks – File

- Similar to a **Display** block but can display any resource file, not just an image.
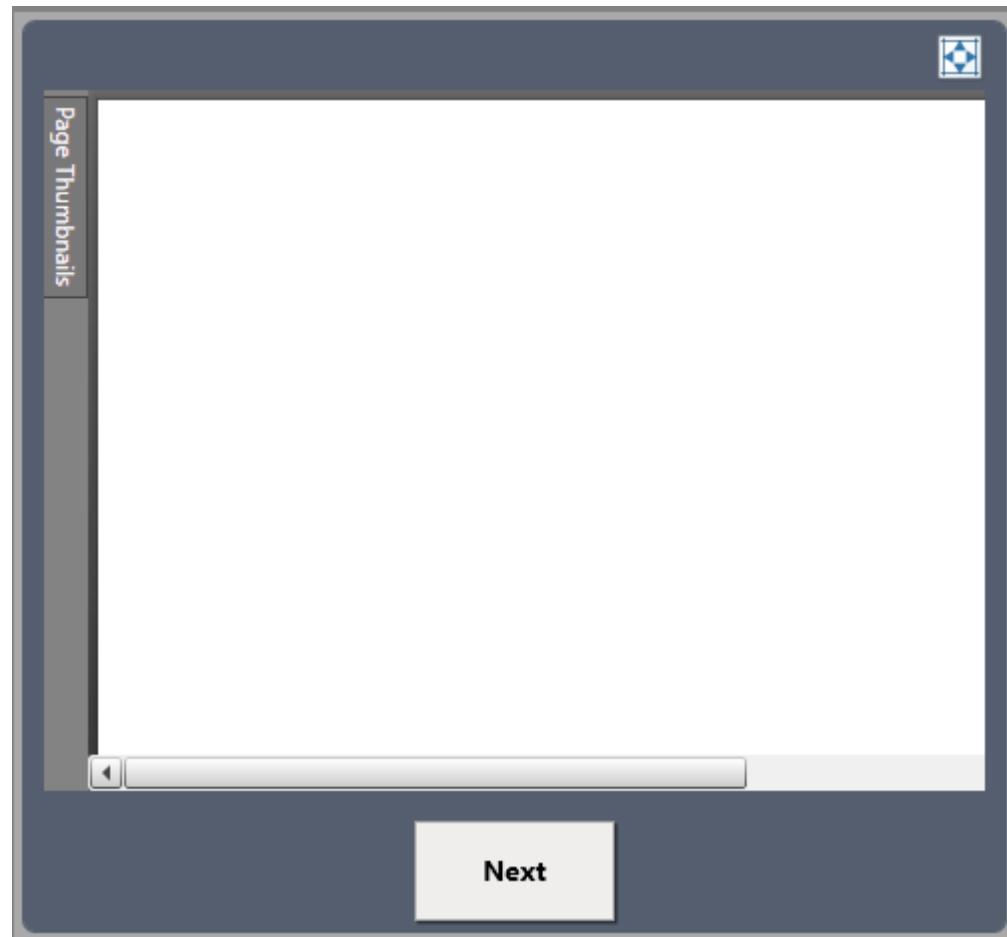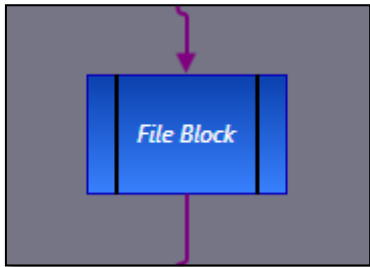
Global Workflows

- Trigger from any of the Assets in an Integrated System
- Apply logic, actions to **Triggering Item**
- Current vs Initial State

Module 4 Complete