Getting Started with Automations

What is Automations?

Automations is an exciting feature of FME Server 2019+! With Automations, you can quickly and easily create workflows that run on a schedule or whenever an event happens. Saving time has never been easier, as the Automations interface allows even users unfamiliar with scripting or web integrations to specify what they want done and when, and then monitor that it is indeed happening.

We think you'll enjoy harnessing all the power of Notifications (and then some!) in a simple drag-and-drop interface like the one you know and love from FME Workbench. Author sequential or parallel workflows to occur in response to a triggering event, or on a schedule. Automations also provides centralized logging and management of all your automated workflows.

This article provides a brief introduction to the purpose and interface of Automations, with links to Automation examples and tutorials on their creation and management.

What can you create with Automations?

Examples of Automations are included in the **Automating Enterprise Workflows with FME Server webinar recording**. As this webinar was created with an FME 2019 beta version, please expect that terminology and user interface may differ in your installation.

Automations Examples

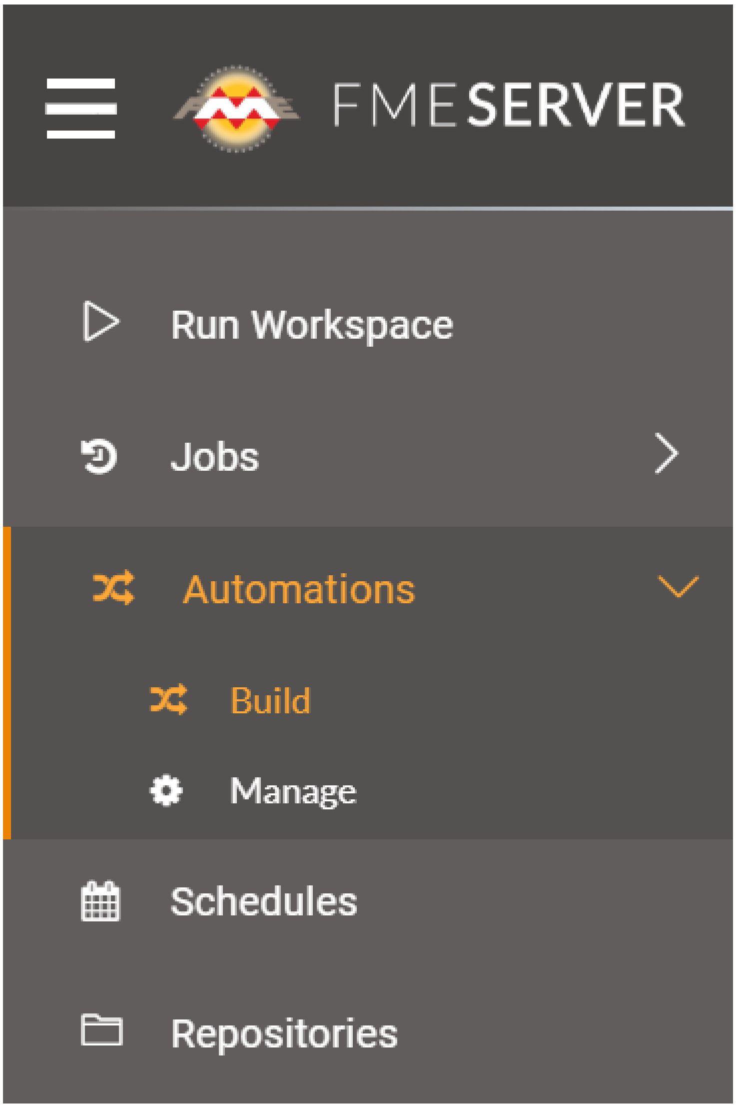
- **Run a workspace on a schedule**
- **Run a workspace when new data arrives to a directory**
- **Run a workspace in response to an incoming email**
- **Send email from Automations**
- **Upload data to cloud storage or get notified when new data arrives**
  - **Dropbox**
  - **Amazon S3**
  - **Microsoft Azure Event Grid**
- **Run a number of workspaces in parallel or series (job orchestration)**

Accessing Automations

Access Automations by logging into the FME Server web interface. If you don't see the Automations menu item (pictured below), check your version of FME Server (it should be 2019.0+, displayed at the very bottom of the web interface) or ask your FME Server Administrator for access to Automations.

Server administrators can download the [Official Release](#) here (FME Server 2019 is expected to be released early April), or check out the latest FME Server [Beta](#) for bleeding-edge functionality!

The Automations menu has links to Build Automations or Manage the ones you've already created.



How to build an Automation?

Your Automations can consist of the following components:

Triggers. A Trigger listens for and receives messages from an external client or from within FME Server. Every automation begins with a Trigger.

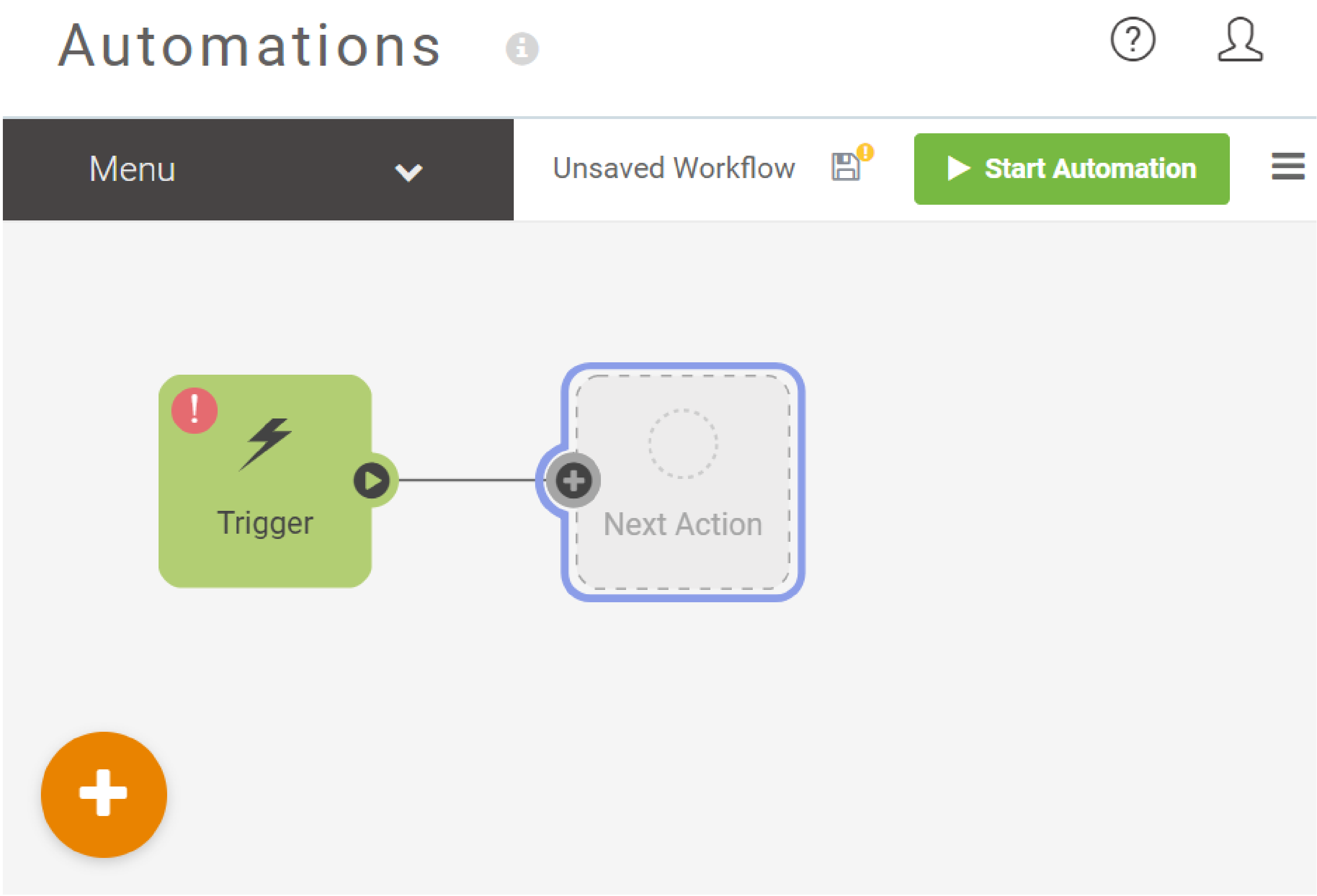
 **Actions.** Process messages from a trigger with an FME workspace or other tool hosted on the Server.

 **External Actions.** Sends a message to an external client or another process in FME Server. What happens afterward is no longer part of this Automation.

For a full description of triggers and actions available, please visit the Automations documentation.

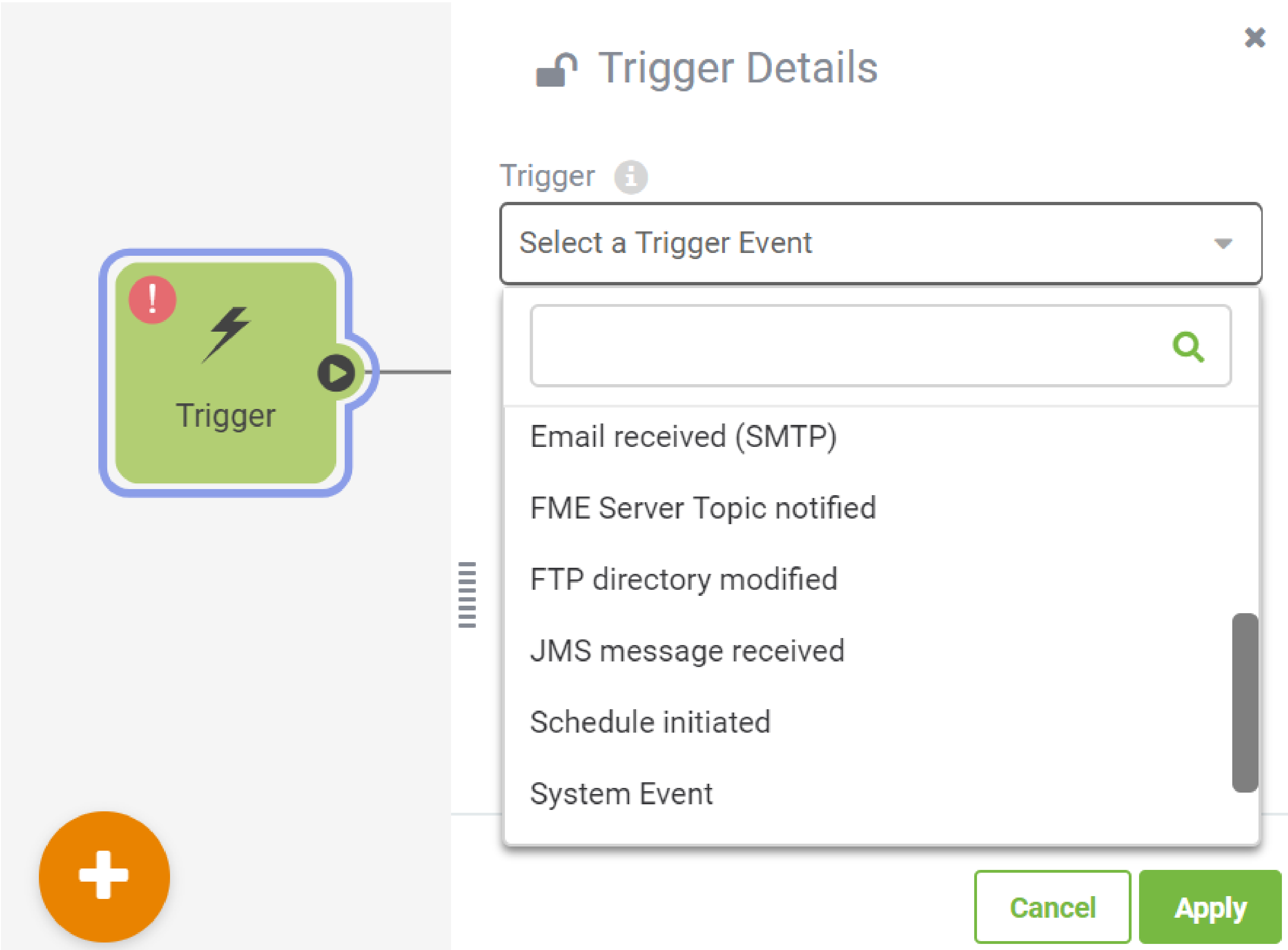
Assemble and configure your Automation

When you create a new Automation, you'll begin in Guided Mode, which prompts you to add your next Action:



The red exclamation mark is visible on Triggers and Actions that have not yet been configured.

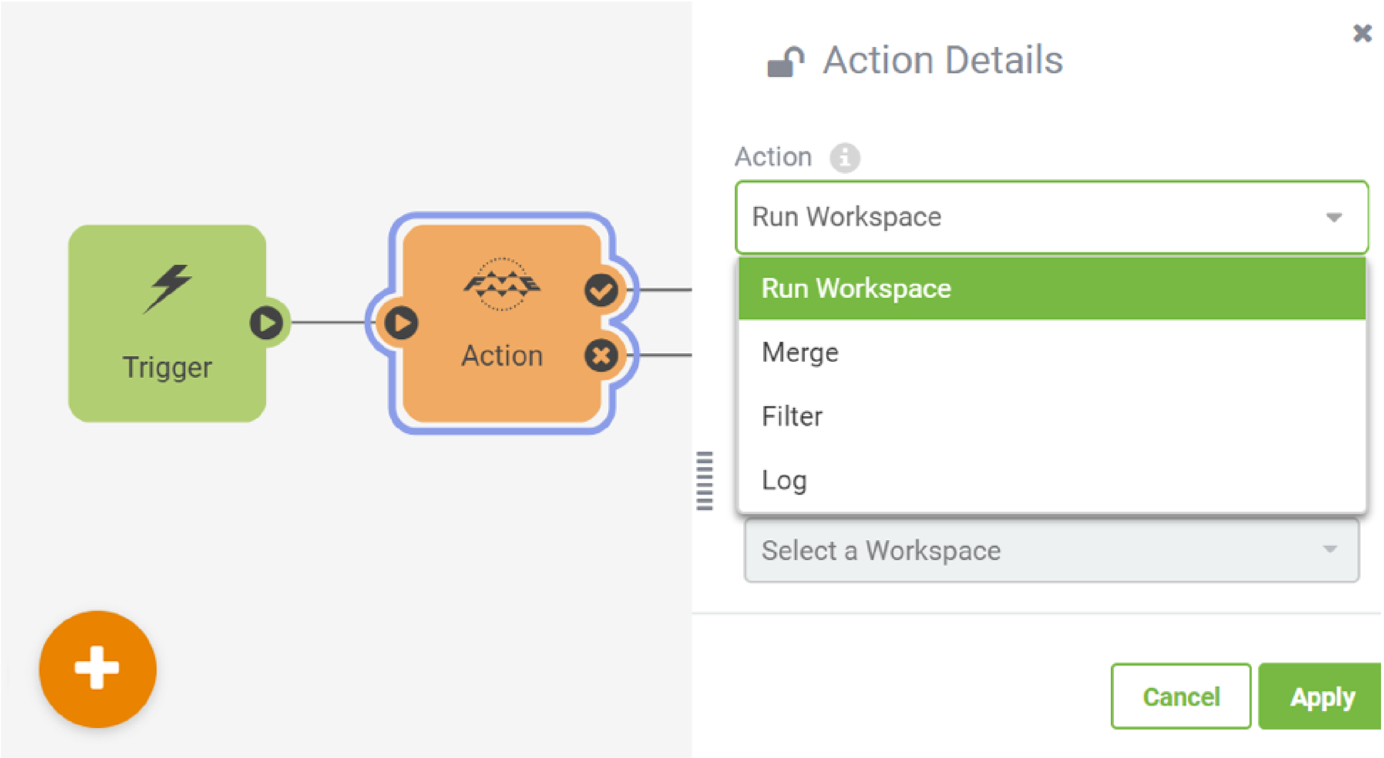
Double-click the  Trigger node to configure it.



First, you will need to choose what type of event will trigger your Automation workflow. Once you've chosen a Trigger from the drop-down, configuration parameters will appear.

Once you have configured your Trigger, double click the silhouetted Next Action that is connected to the Trigger.

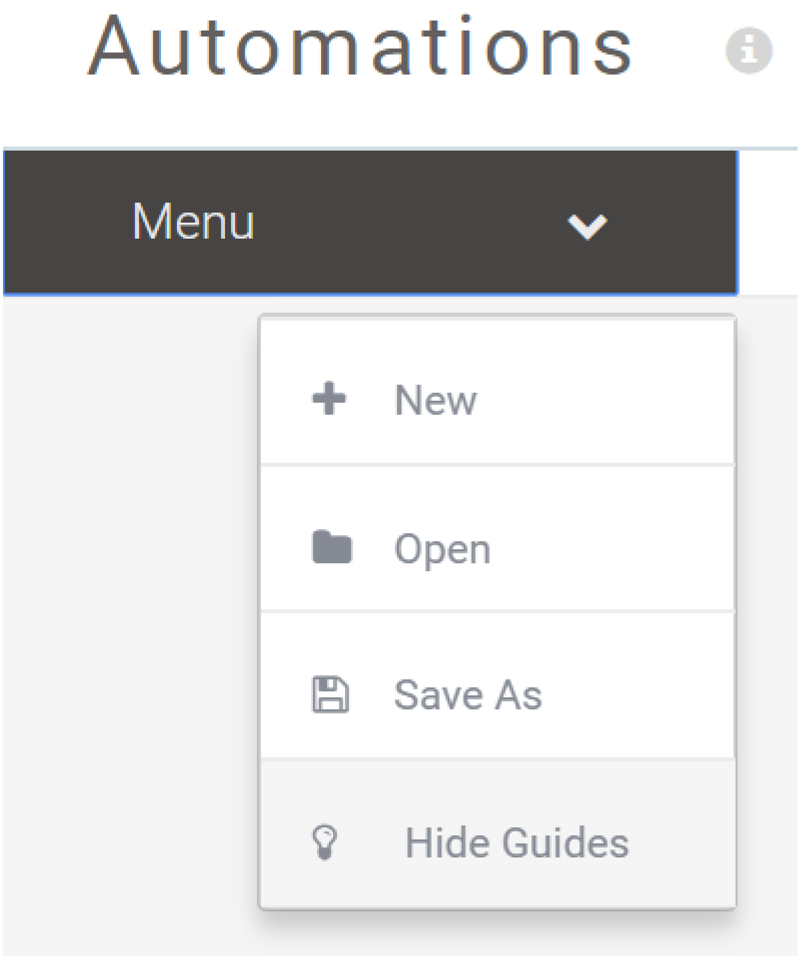
This will allow you to specify what should happen once the Automation is triggered. Picking from the Actions list will continue the Automation with options on success or failure; the External Actions list will send output to another process, ending that branch of your Automation.



Above: generic Automation Action options. With a fully configured trigger upstream, options for both Actions and External Actions will be available.

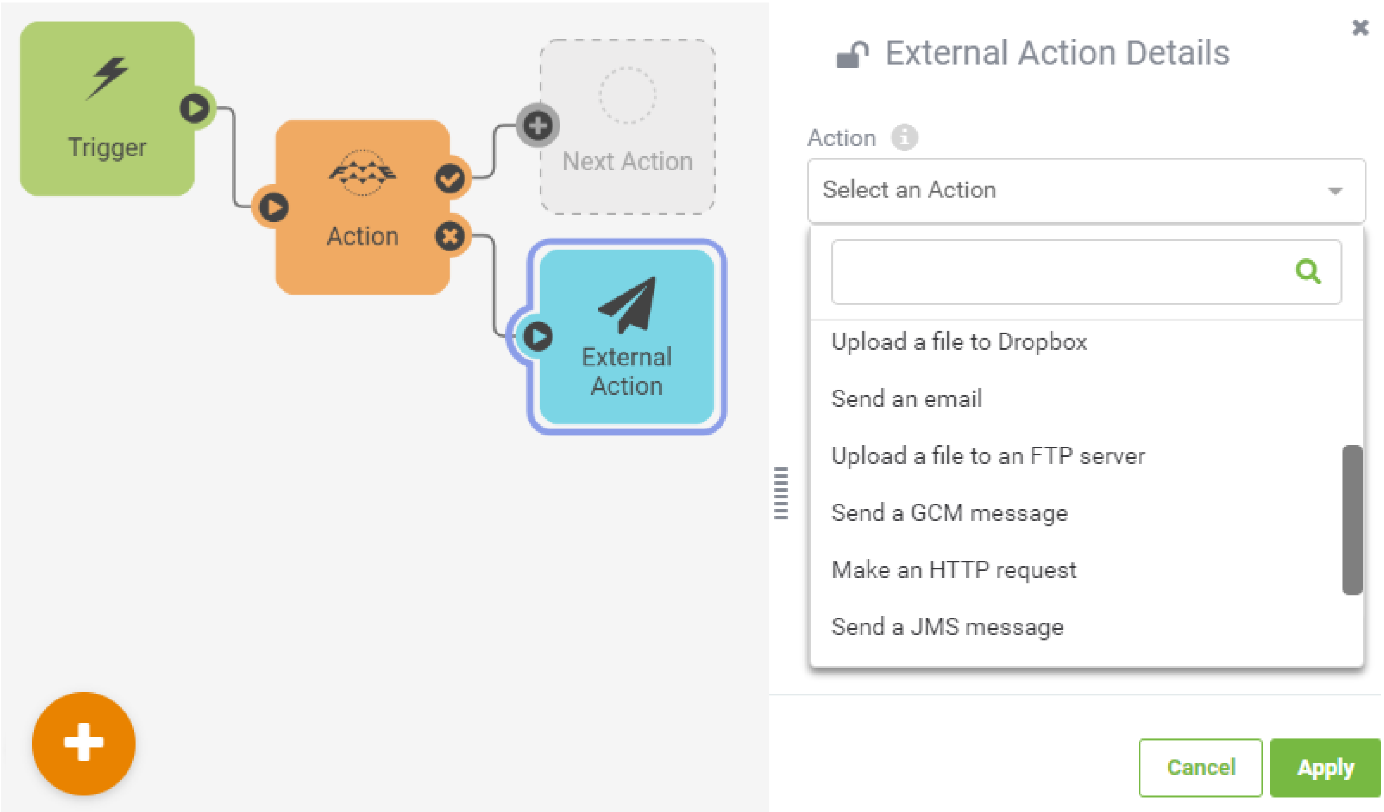
You may also add nodes to your Automation by clicking and dragging their icons from the

toolbar in the lower left out onto the canvas. If you find you prefer to add nodes manually rather than through the visual prompts, select “Hide Guides” in the Automations menu.



Actions have two output ports: one for success and one for failure. You can set different destinations for each output port, so that, for example, a successful action triggers another workspace to run and a failure emails some responsible party for troubleshooting. External Actions have no output ports, because they notify processes outside the current workflow.

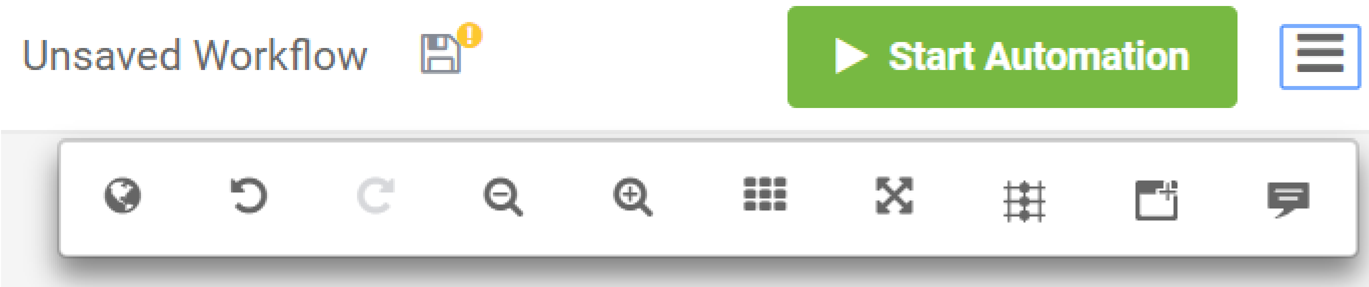
Below: generic workflow to send a notification if an Action is not successfully completed, or perform more actions if it is.



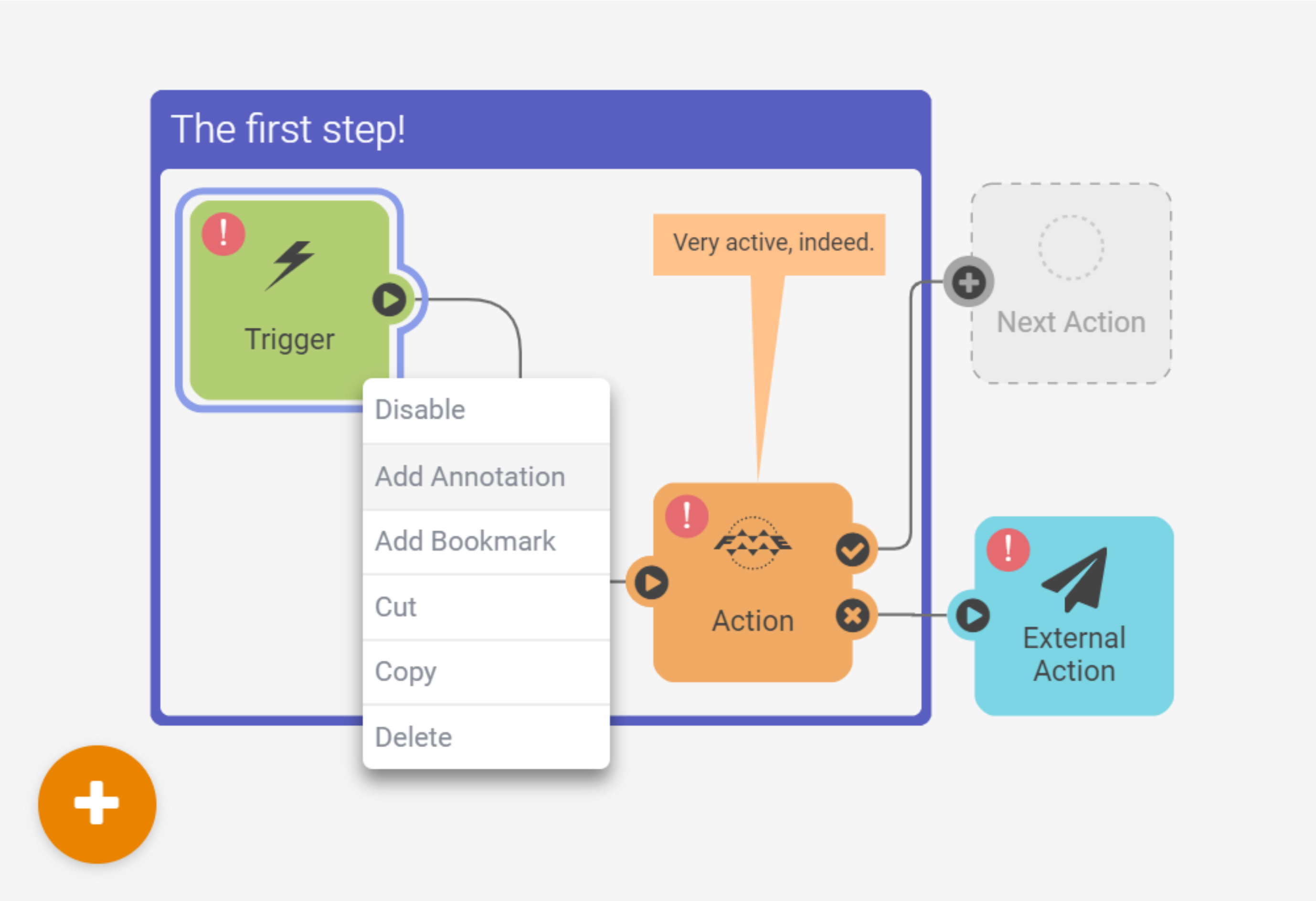
Organize and run your Automation

Save and test what you've built through the top left menu, or by clicking the save icon above the canvas. Each time you save your Automation, you'll be prompted to add or remove descriptive tags, which you can use to filter your growing collection of Automations.

Tools for zooming/panning around the canvas and organizing or annotating your Automation are available through the hamburger menu in the upper right:



Right-click on nodes to add annotation or create bookmarks that separate major components of your workflow.

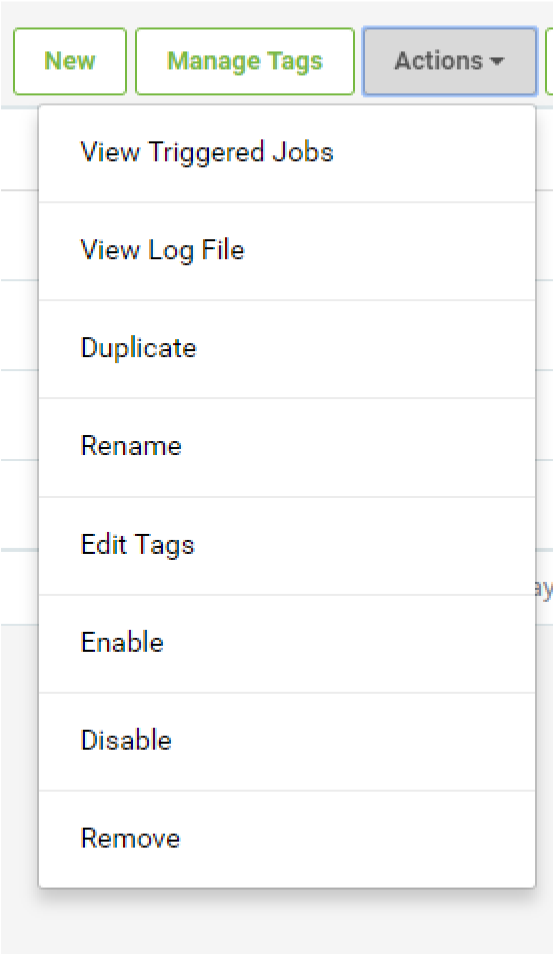


Once you have your Automation set up and documented, run it by clicking the “Start Automation” button at the top right. You will be prompted to save any recent changes. While your Automation is running, you may not make any modifications to it. To stop the Automation so that it can be modified or removed, simply click the same button, which now says “Stop Automation”.

How to manage Automations?

Once you have saved Automation(s) on your FME Server, click on Automations > Manage in the left side FME Server menu to view a list of your saved Automations. You can check which are currently enabled or see at a glance if there are any errors that may require your attention. At the top of the screen is a filter bar where you can opt to view only those Automations with a specific tag.

Select an Automation, and the Actions button will become available, allowing you to start or stop the Automation, view its log file or triggered jobs, duplicate it to build a similar workflow, or even remove it.



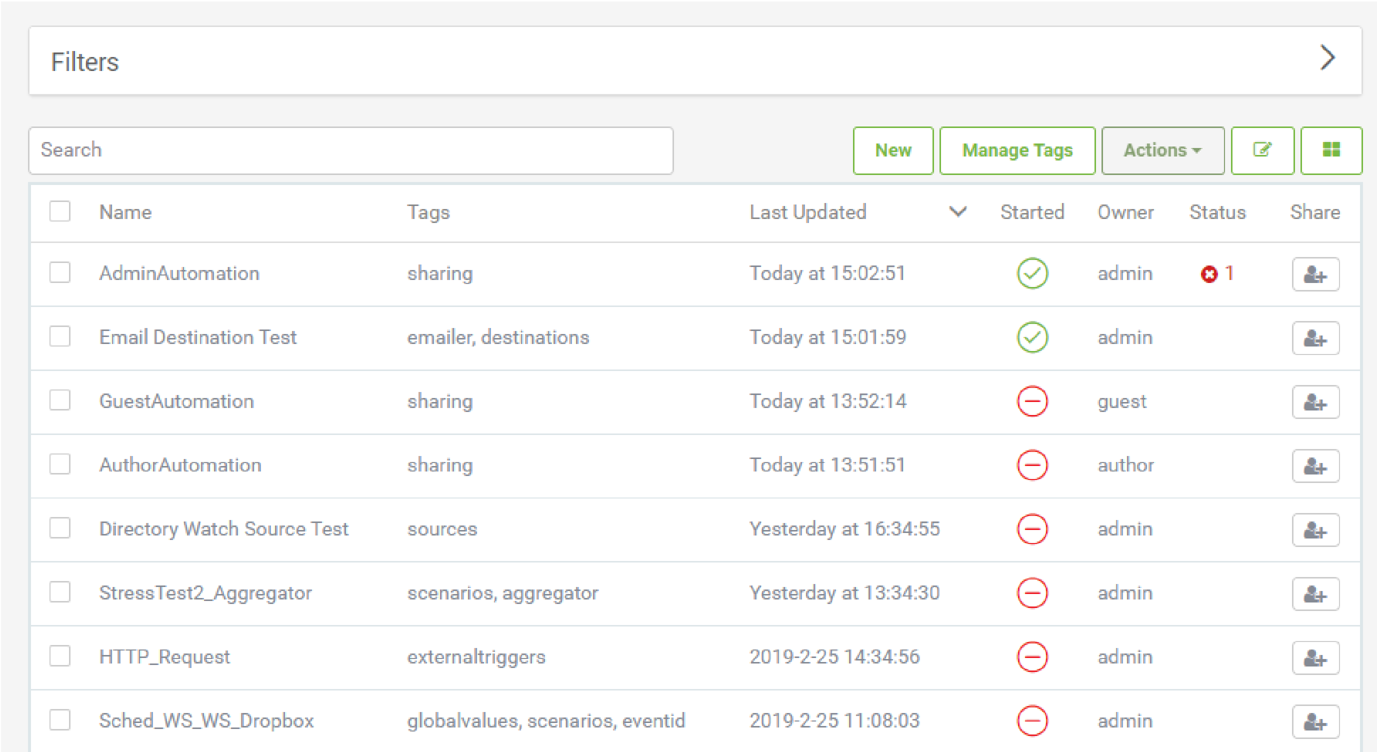
Troubleshooting Automations

Viewing Triggered Jobs

Under Automations > Manage, in the Actions menu (pictured above), selecting 'View Triggered Jobs' will show a list of all jobs triggered by the Automation you have currently selected. Here you will see the job start and finish time, its current status, and other useful parameters. You may also filter the list of jobs on the Jobs > Completed page to see all jobs with source type “Automations”. This will help you keep track of what workspaces are being ran by your Automations.

Log files

Each Automation has one log file (also accessible from the Actions menu) which collects information so you can easily track errors/warnings. Logs can be exported or cleared for easy sharing, archiving, or added clarity. If a log contains any warnings, this will be easily visible from the manage page. When changes are made to an Automation to address warnings or change workflow, you may want to archive the log and clear it to make it easier to track current issues.



Above: The Manage Automations page. Note the two running Automations, one of which has a single warning. "View log file" from the Actions menu would supply further information.

Where to go for more?

- Automating Enterprise Workflows with FME Server recorded webinar
- We welcome your thoughts and suggestions to make Automations even better! Please share them on our Ideas Forum.