

# Tutorial: Getting Started with FME Server

## Introduction

Welcome to FME Server! This tutorial will give you hands-on experience with the basics of FME Server. It is comprised of 4 parts:

- Take a Tour of the Web Interface (current article)
- [Publish a Workspace to FME Server and Run It](#)
- [Create Self-Serve Access to Data with FME Server](#)
- [Schedule a Workspace to Run with FME Server](#)

*In part 1 of this tutorial, you'll learn what FME Server is, tour the Web User Interface, and run a sample workspace. Please note that this video was created with FME Server 2019.0, the interface may vary in other versions of FME.*

## Prerequisites

If you'd like to follow along with your own FME Server, here are the prerequisites:

### a) FME Server must be installed

Visit our website for a [Free 60 Day Trial of FME Server](#)

### b) FME Server must be licensed

See [FME Server Licensing Walk-Through](#) if you have not yet licensed FME Server.

### c) FME Desktop must be installed and licensed

Visit our website for a [Free Trial of FME Desktop](#)

### d) Sample workspaces and data

Click [here](#) to download the data for this tutorial

## 1. Take a Tour of the FME Server Web Interface

### a) Open Web Interface

You can open the Web User Interface in a couple of different ways:

- Type in <http://localhost> as a URL in a browser window
- Type in your hostname/fmeserver as the URL in a browser window (the hostname was specified during the installation)

- Access it from the Windows Start menu. Find FME Server in the Programs list and click on Web User Interface

## b) Log In

For the purpose of this tutorial, log in with the default author/author username/password that gets set up with the installation. If you changed the username and password during installation, log in with that username. Otherwise use the default:

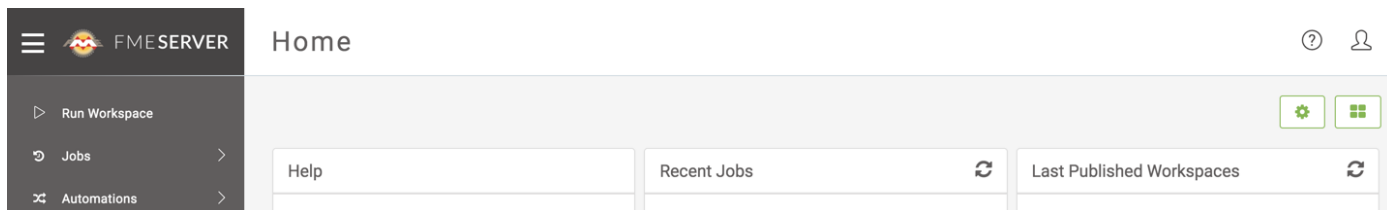
*username = author*

*password = author*

Notice as well there are helpful links below the login fields, including to another beginner tutorial, the [Quickstart tour](#).

## c) Take a Tour

In the main view are panels showing Help with links to various topics, Recent Jobs, Recent Projects, Favorite Workspaces, and Last Published Workspaces. Most of these panels are empty because this is a fresh installation.



On the left hand side is a panel with the web interface menu of FME Server.

- Clicking FME Server will always bring you back to this home page.
- The first grouping, which includes Run Workspace, allows a user to select and manage jobs and resources available to that user.
- If you are logged in as an administrator, under the Admin grouping are a number of options for configuring FME Server.

The top right corner contains a Help button for links to documentation and articles, including resources for developers. Next to that is the User Settings button.

Lastly, at the very bottom left you can find information about the build and version of your FME Server. If you don't see this, mouse over the grey menu panel on the left-hand side and scroll down.

# 2. Run a Sample Workspace

Run one of the sample workspaces from the web interface:

## a) Click on the Run Workspace button.

This is where we can select a workspace already published to FME Server and run it.

## b) Choose the Repository the workspace is in

You can think of a repository as a folder in which to store related items. FME Server comes with three repositories pre-installed: Dashboards (which contains several workspaces that run daily by default to track server performance), Tools and Samples. We are just interested in the Samples repository, so select

it.

### c) Choose which Workspace to Run

The Workspace drop down lists the workspaces within the Samples repository. Select austinApartments.fmw.

### d) Select the Service with which to run the workspace

We'll discuss services some more when we publish and register our own workspace in [part 3](#). For now, select the Data Streaming service.

### e) Click on Run (bottom right)

When the job is ready the button will turn green, after the workspace is executed by FME the result, a kmz file in this case, will be downloaded through the browser. Feel free to view the downloaded data by opening it in [Google Earth](#) or [FME Data Inspector](#).

## Run Workspace

?

★

👤

Samples/austinApartments

Repository

Samples

FME Server Samples Repository

Workspace

austinApartments.fmw

★ 🏠

Service

Select a Service

Data Download

Data Streaming

Job Submitter

KML Network Link

Advanced

+

↺

Run

*Run workspace dialog*

## Continue to Next Article:

[Publish a Workspace to FME Server and Run It](#)

## Additional Resources:

[Accessing the Web User Interface](#)

[Running and Configuring a Workspace](#)

# Publish a Workspace to FME Server and Run It

## Introduction

In [part 1](#) of this tutorial, you ran a workspace that was already provided with FME Server. This time, you will publish your own workspace to FME Server and run it, following these steps:

- Review and run workspace in FME Workbench
- Publish the workspace to FME Server
- Run the workspace from the FME Server Web User Interface
- Show the Results page

*In part 2 of this tutorial, you'll learn how to publish an FME Workspace to FME Server and run it from the FME Server web user interface. Please note that this video was created with FME Server 2019.0, the interface may vary in other versions of FME.*

## Downloads

[CommunityMapping.fmw](#)

## 1. Review Workspace

a) Open the workspace template attached to this article (CommunityMapping.fmw) in FME Workbench.

It's a straightforward workspace, taking community mapping data from a file geodatabase and writing it to the Generic format. The Generic Writer is very flexible and allows for the user to decide which format to write to when the workspace runs. Currently, it's been setup to write to Esri Shapefile. Confirm that by taking a look at the Output Format parameter in the Navigator window, or with Prompt for User Parameters selected by running the workspace.

b) Run the workspace to make sure it works.

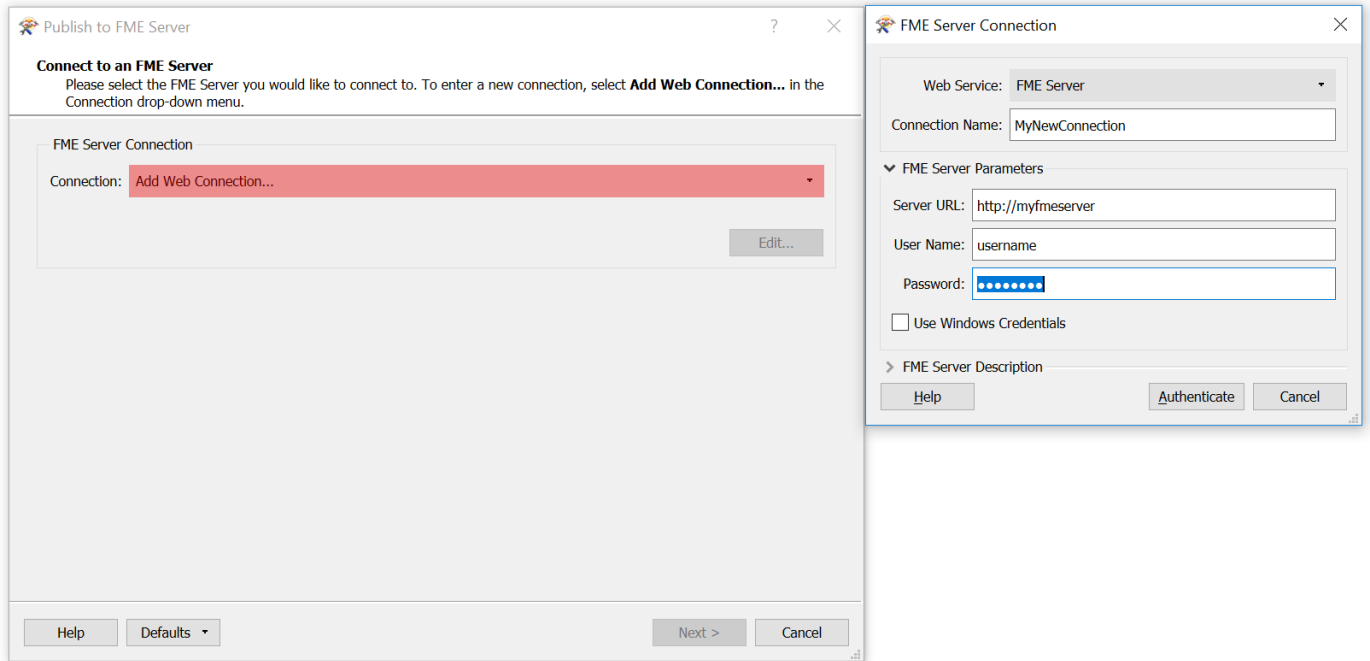
## 2. Publish Workspace to FME Server

a) In Workbench, go to File > Publish to FME Server...

b) Connect to your FME Server.

Under Connection choose "Add Web Connection".

Enter your Connection Name, Server URL, username & password and then select Authenticate.




**c) Select a repository and workspace name.**

Next to Repository Name, click on the New button to create a new repository. Enter Server Tutorial for the name, and a description "FME Server Tutorial". Rename the workspace to CommunityMapping.fmw.

**d) Upload Data Files**

Click on the Select Files button.


 Publish to FME Server ? X

**Publish Workspace**  
Select a repository and name for your Workspace on FME Server. If you want to update an existing Workspace, select it from the list.

Repository Name:  New...

Workspace Name:

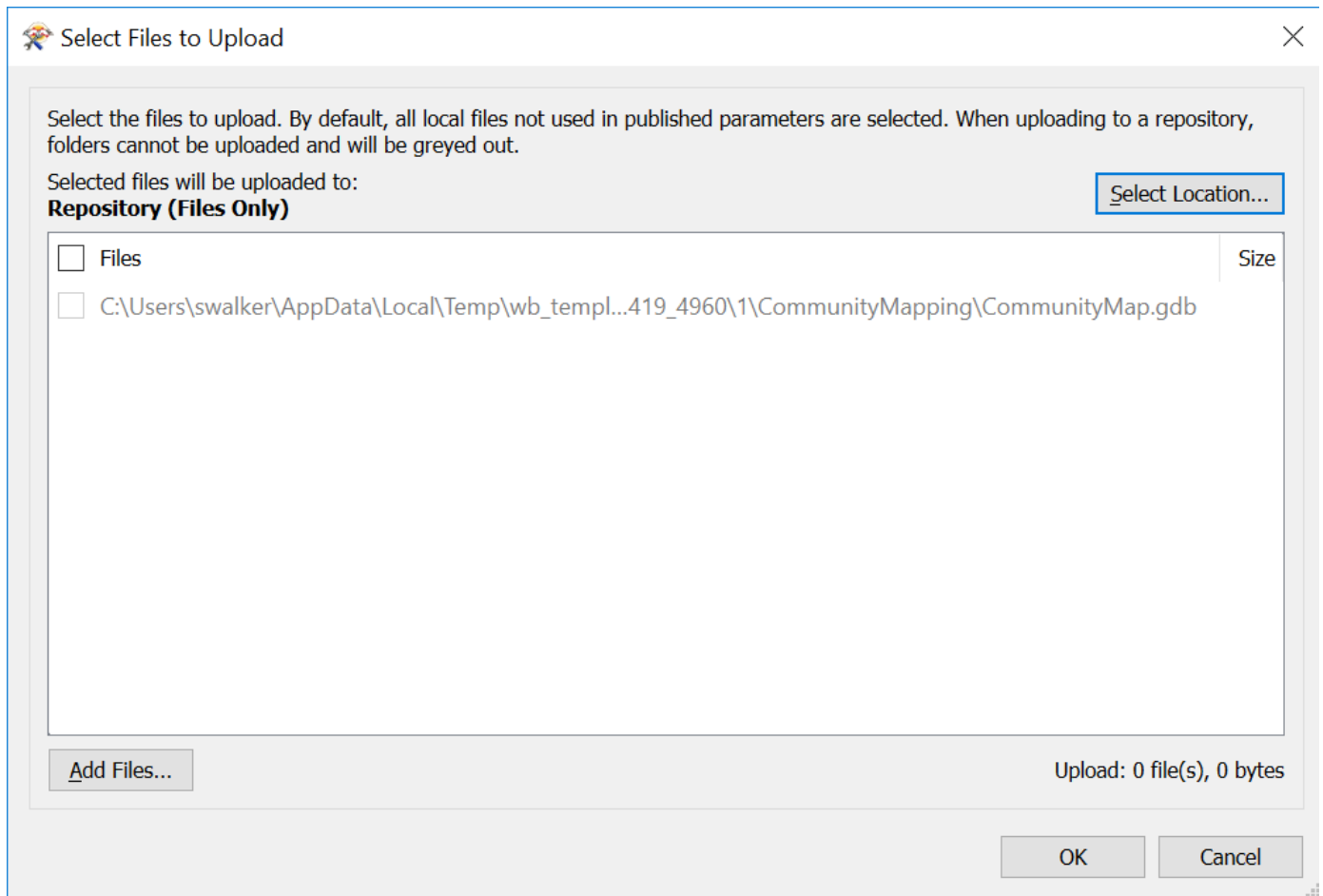
Existing Workspace List:

 Workspace

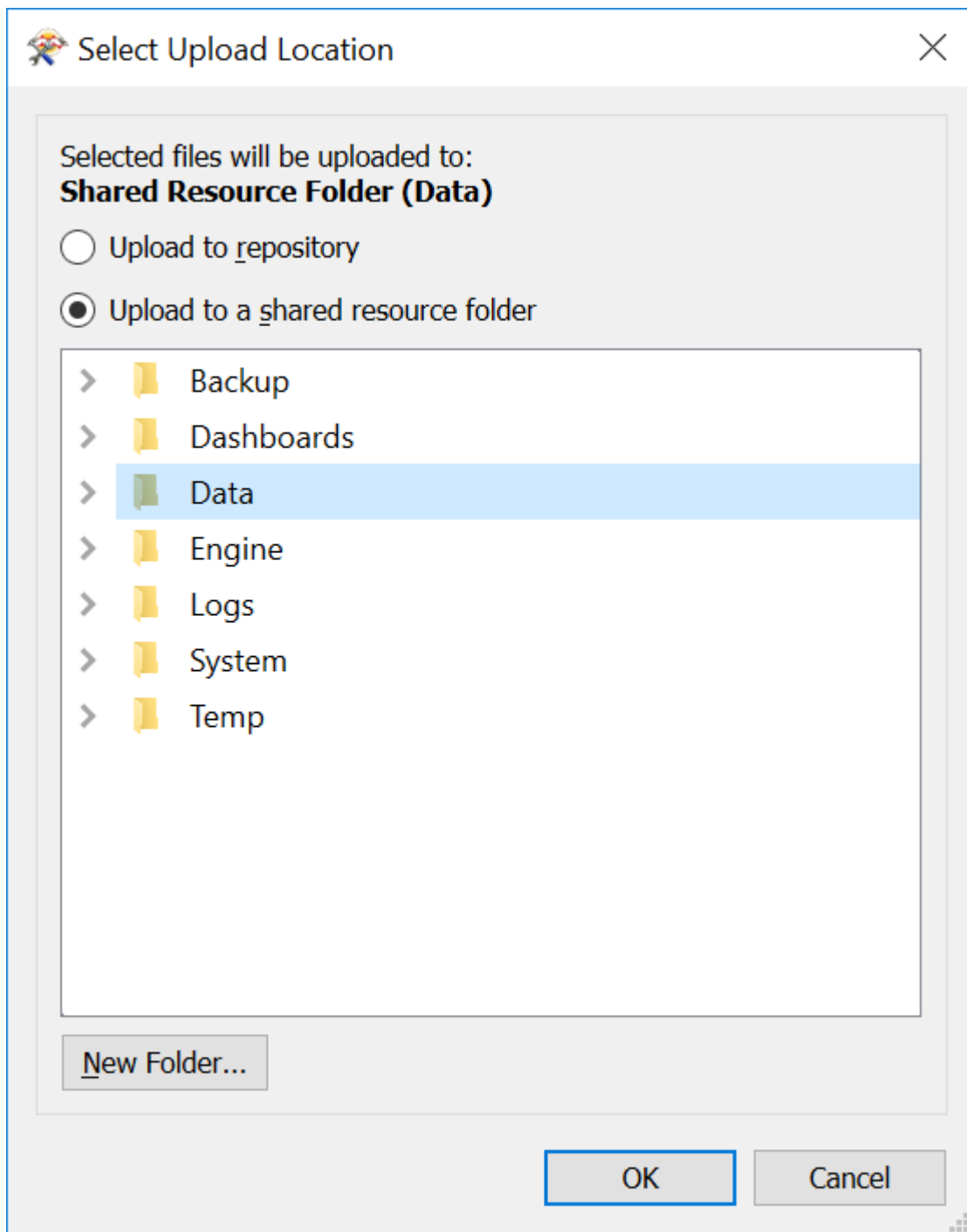
☐ Upload data files Select Files...

Help < Back Next > Cancel

Click on the Select Location button.



Click the “Upload to a shared resource folder” radio button and then select the Data folder and hit OK.



Select the checkbox for communitymap.gdb, then OK.

Ensure "Upload data files" is checked and then click Continue.

**e) Register the workspace the Data Download service.**

Check the Data Download Service (you can leave the Job Submitter checked).

The services return results in slightly different forms:

- The Data Download Service returns results as a downloadable zip file
- The Data Streaming Service returns results as a data stream
- The Job Submitter Service accepts and runs workspace job requests
- The KML Network Link returns a KML Network Link that can be used in Google Earth



- The Notification Service allows for event-driven messaging

Click Publish. The log file should confirm the workspace was successfully published.

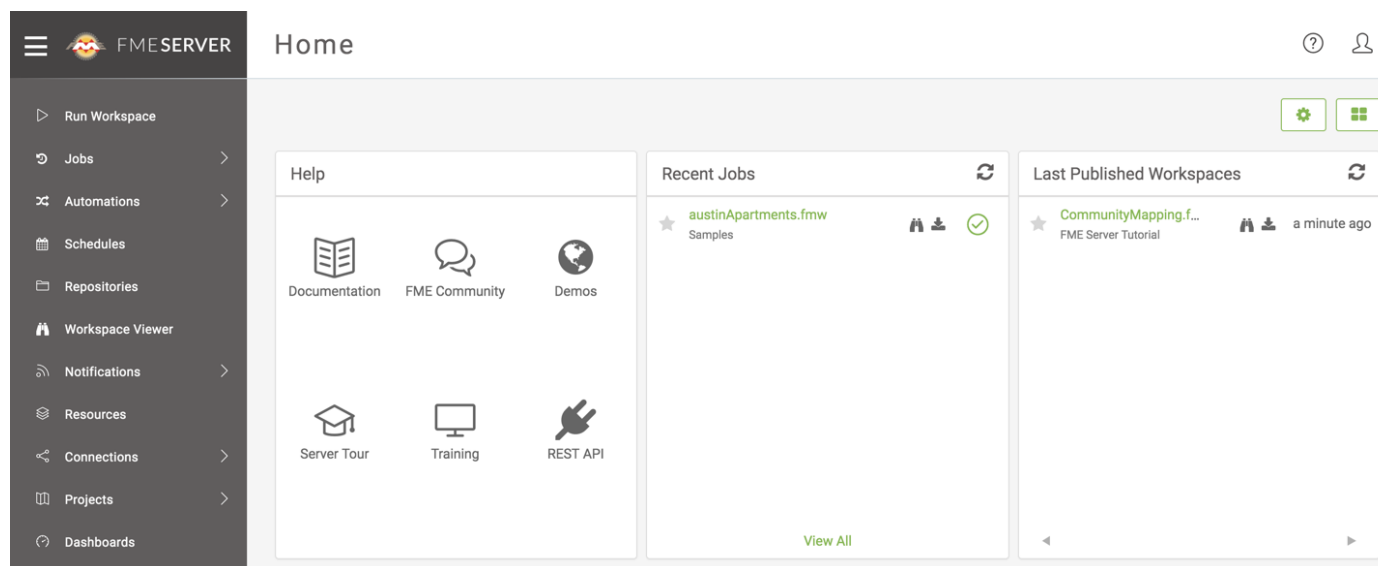
## 3. Run Workspace from FME Server Web Interface

**a) Open the FME Server Web User Interface.**

Log in with the author/author username/password.

The workspace appears in the “Last Published Workspaces” section.

**b) Click Run Workspace, and fill in the details on the Run Workspace page, or select workspace from Latest Published Workspaces.**



Select the repository we just created: Server Tutorial.




The Workspace field below will automatically be populated with the CommunityMapping.fmw workspace because it is the only one in the repository.

The Service drop-down shows the 2 services we registered this workspace with. Pick Data Download.

**c) Click on Run**

Select the Run button to run the workspace.

## Server Tutorial/CommunityMapping

Repository Workspace   Service Email results to 

Advanced

+ ↺

Run

## 4. Results Page

There should be a successful translation with some summary information and a data download URL.

a) Click on the URL to download the zip file.

Open up the zip file to confirm there are a number of Esri Shapefiles that result from the translation.

Run Workspace &gt; Job #1607

  CommunityMapping.fmw

CommunityMapping

**COMPLETED**

Translation Successful

View

JOB ID 1607

FEATURES WRITTEN 350

**DATA DOWNLOAD URL** [https://fmewt2019-safe-software.fmecloud.com:443/fmedatadownload/results/F706A\\_1554747643486\\_6872.zip](https://fmewt2019-safe-software.fmecloud.com:443/fmedatadownload/results/F706A_1554747643486_6872.zip)

## Continue to Next Article:

## Additional Resources:

[Publishing to FME Server](#)

[Register Services](#)

[FME Server Troubleshooting Guide](#)

## Create Self-Serve Access to Data with FME Server

### Introduction

In [part 2](#), you learned how to publish a workspace to FME Server and run it from the Web User Interface. Now, in part 3, you will modify that workspace so it allows for “self-serve” data access. To accomplish this, perform the following:

- Create published parameters in FME Workbench to:
  - Allow users to pick the layers they want to download
  - Allow users to pick which output format they want
- Publish the workspace to FME Server
- Run workspace from Web User Interface (to see how published parameters are reflected in the Web User Interface)

*In part 3 of this tutorial, you'll learn how to enable an FME Workspace for self-serve data access so anyone can download your data. This involves creating published parameters in FME Workbench, publishing the workspace to FME Server, and running the workspace from the Web User Interface. Please note that this video was created with FME Server 2019.0, the interface may vary in other versions of FME.*

### Downloads

[CommunityMapping.fmw](#)

## 1. Create Published Parameters

#### a) Open workspace

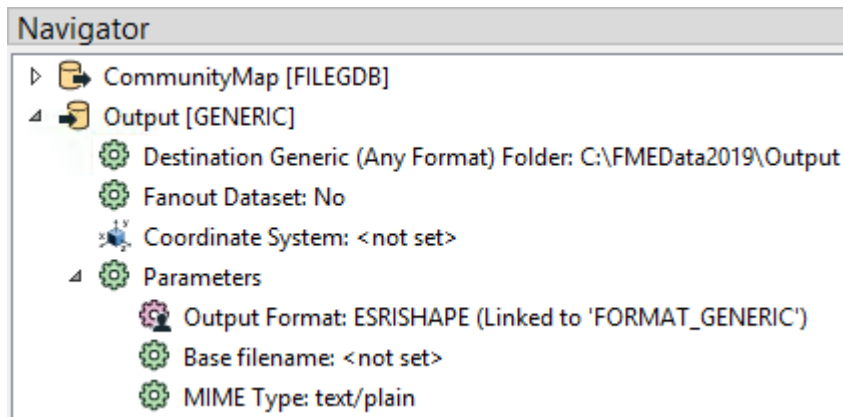
Open the workspace from [part 2](#) in FME Workbench. Alternatively, open the template attached to this article (CommunityMapping.fmw) in FME Workbench.

On the Generic Writer, the default writer format is set to Esri Shapefile. But, the goal is for the user to select the format of their choice, from a small list, at run time. This is accomplished with published parameters.

Parameters in FME control how FME operates. They exist in many places, such as readers, writers, and transformers.

## b) Take a closer look at one of the parameters for the Generic Writer: Output Format

In the Navigator window, expand the GENERIC Writer by clicking the arrow to the left of it. Double click the Output Format parameter, this shows that it's been set up so the user can select from any format in the formats gallery.



But that's not what we want. The goal is to present the user with a list of 4 common formats. So, we will create a new user parameter, and define it accordingly...

## c) In the Navigator find the User Parameters, right-click, and select Create User Parameter

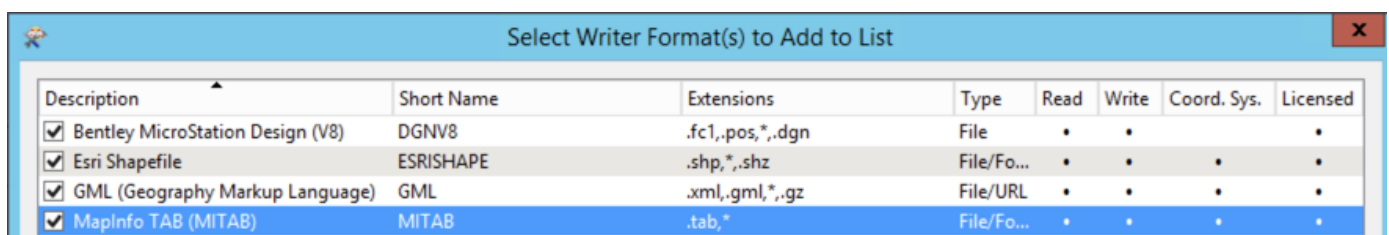
For Type, select Choice with Alias.

For Name, enter Output\_Format.

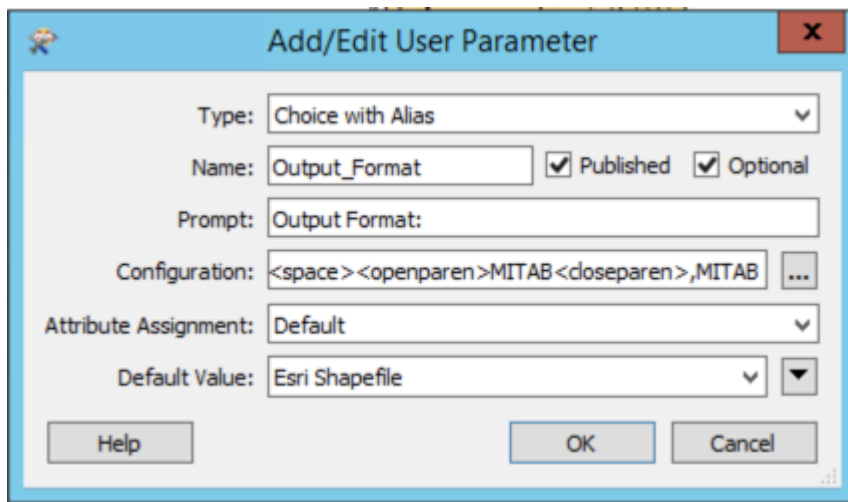
For Prompt, enter Output Format:

Click the button next to Configuration. We're going to import the formats we want.

Click on Import, then Writer Formats. Search and select Esri Shapefile, GML, Bentley Microstation Design V8, and MapInfo TAB (MITAB). Click OK, and OK again.

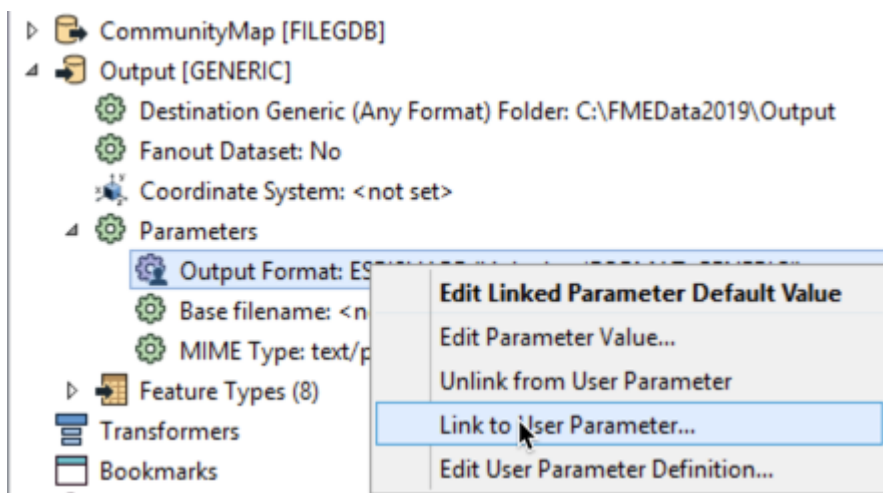


Select Esri Shapefile for the default value. Note that Published is checked by default - when a user parameter is published, a user is prompted for a value when the workspace runs. Your dialog should look like this:



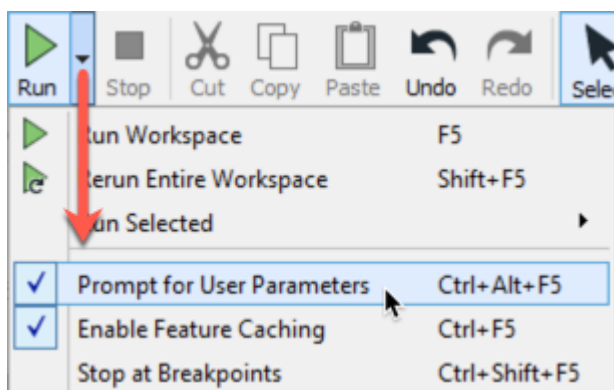
#### d) Link Published Parameter to Output Format Parameter

Our new Output\_Format parameter appears under User Parameters, Published Parameters, but we still have to link it to the Generic Writer's Output Format parameter. Locate the Output [GENERIC] Writer, and expand it with the arrow to view the Parameters, the first one being Output Format. Right-click on Output Format, select Link to User Parameter, then select the new Output\_Format parameter we just created.



#### e) Run the workspace

If you run the workspace immediately it will use the default value and output Esri Shapefile. However, if you select Prompt for User Parameters then click Run, you will be prompted to choose the output format. Notice only those 4 formats are presented now in the drop-down list. Pick GML. The workspace runs successfully.



## f) Publish Features Types to Read Parameter

Set up the workspace so the user gets to choose which layers they want to request! It's actually quite simple.

In the Navigator, expand the CommunityMap [FILEGDB] File Geodatabase Reader > Parameters > and double click Features to Read. This parameter lets the user decide which feature types to process when the workspace runs. Close the dialogue.

Right-click on Feature Types to Read parameter and select Create User Parameter. Go with the defaults for the definition, and click OK. Confirm the new parameter appears under Published Parameters.

## g) Run Workspace with Prompt and Run

Make sure that from the Run menu that Prompt for User Parameters is checked, otherwise, this workspace will run with default values.

Run the workspace again.

Notice that this time there are 2 parameters to set. For more information on published parameters, check out [this chapter](#) of the Server training.

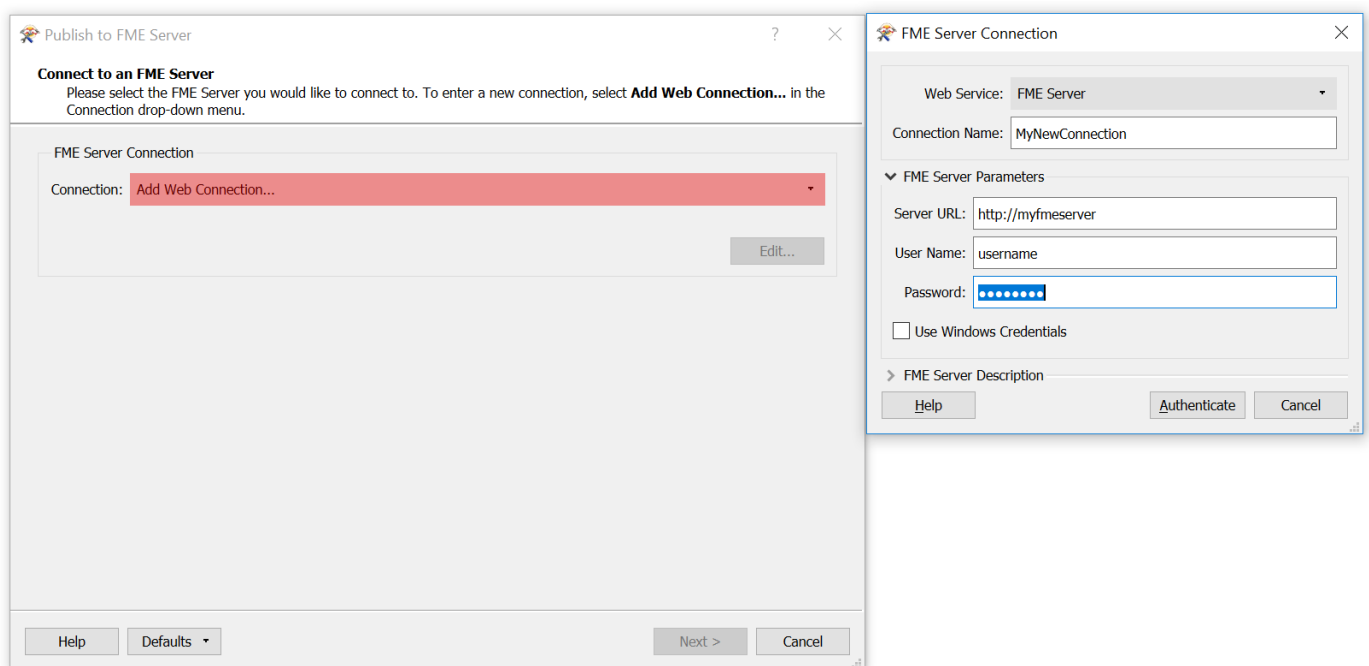
# 2. Publish Workspace to FME Server

a) In Workbench, go to File > Publish to FME Server, or select the Publish to FME Server tool.

b) Connect to your FME Server

If you are setting it up for the first time, under Connection choose "Add Web Connection".

Enter your Connection Name, Server URL, username & password and authenticate.



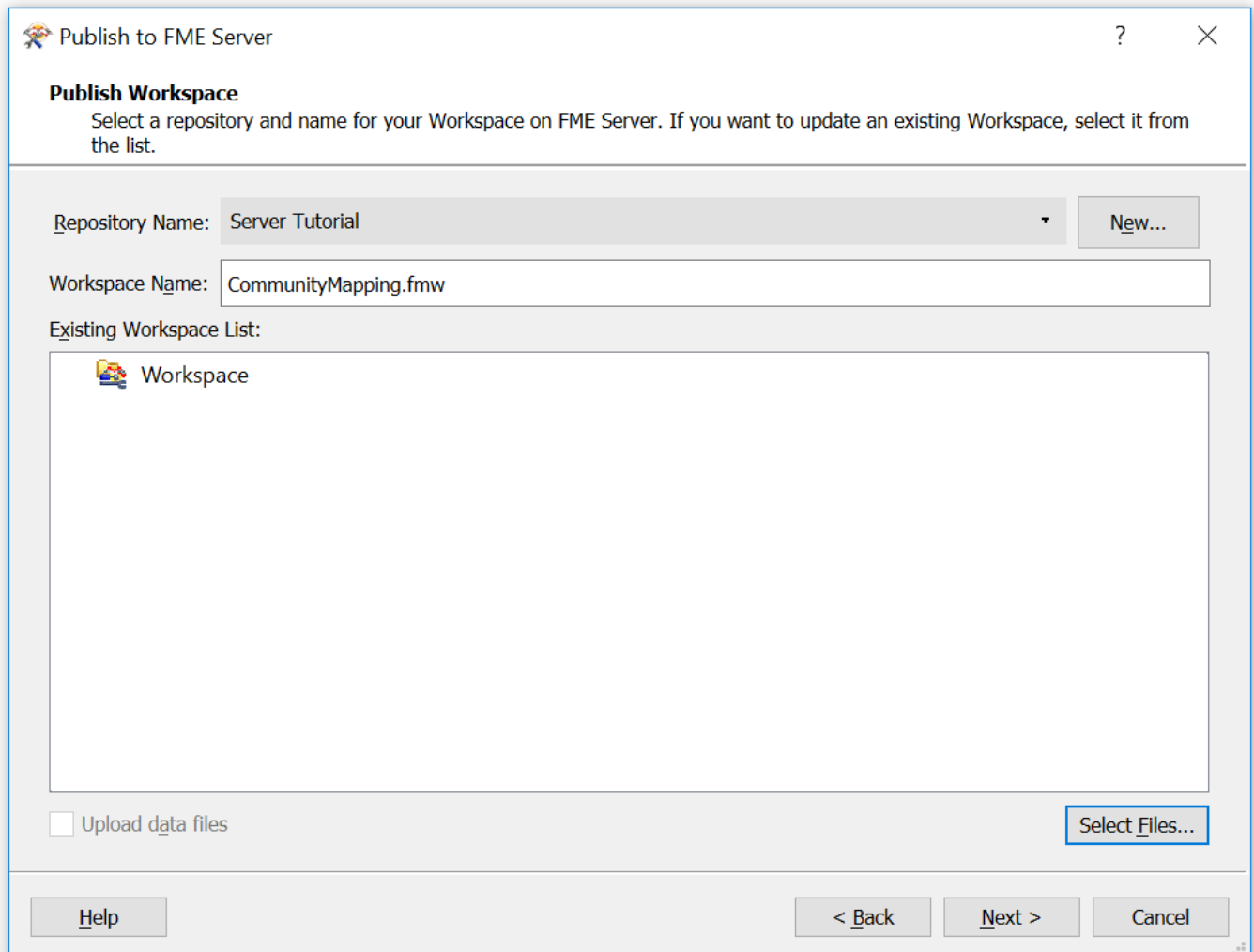
c) Select a repository and workspace name.

Select the Server Tutorial Repository. If you haven't yet created the repository, click on the New button to

create a new repository. Enter Server Tutorial for the name, and FME Server Tutorial for the description. Rename the workspace to CommunityMapping.fmw.

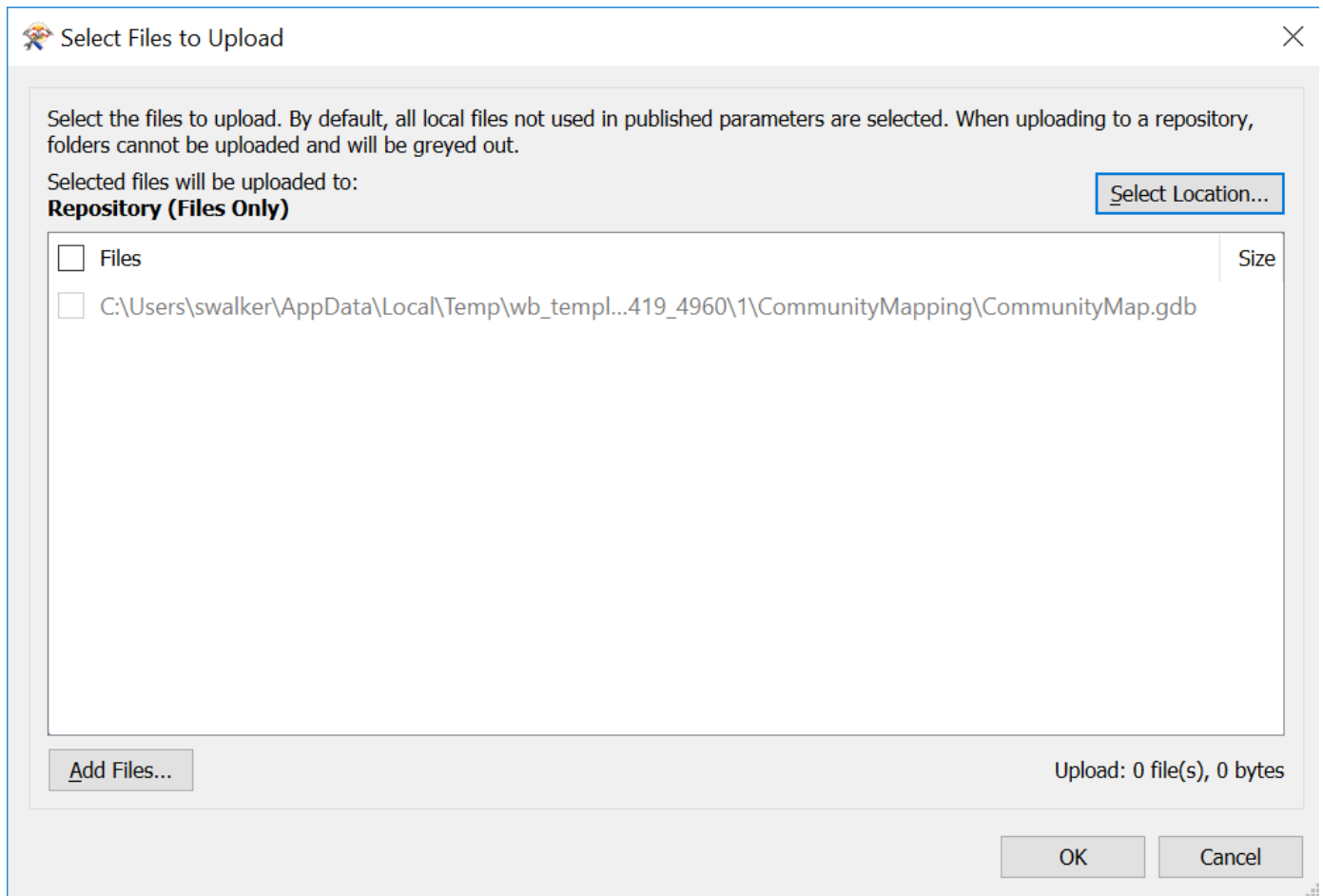
#### d) Upload data files

Click on the Select Files button.



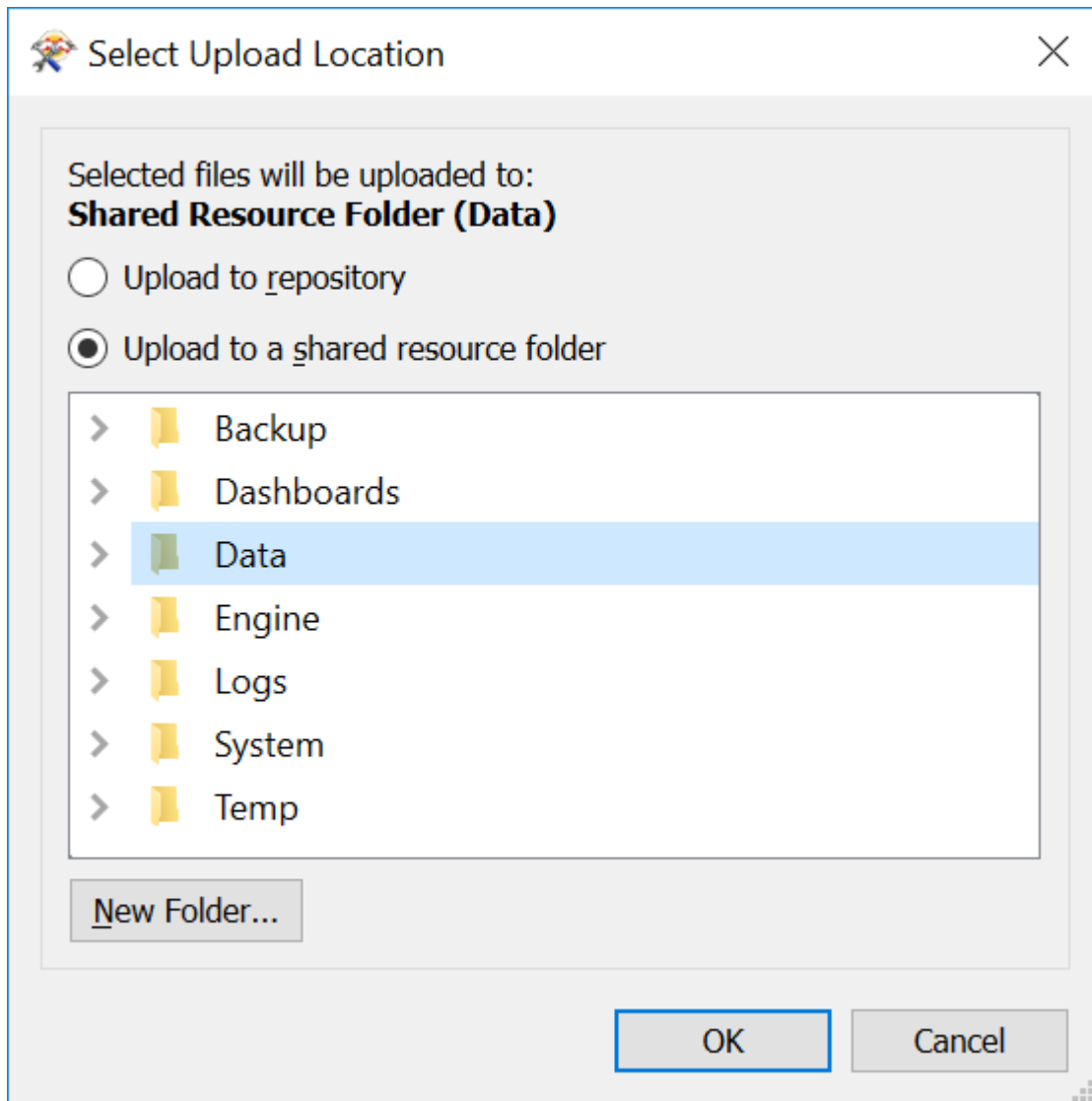
The screenshot shows a dialog box titled "Publish to FME Server". It has a standard Windows-style title bar with a question mark and a close button. The main content area is divided into sections. The first section, "Publish Workspace", contains instructions: "Select a repository and name for your Workspace on FME Server. If you want to update an existing Workspace, select it from the list." Below this, there are two input fields: "Repository Name:" with the text "Server Tutorial" and a dropdown arrow, and "Workspace Name:" with the text "CommunityMapping.fmw". To the right of the "Repository Name" field is a "New..." button. Below these fields is a section titled "Existing Workspace List:" which contains a large empty rectangular area. At the bottom left of the dialog, there is a checkbox labeled "Upload data files". To the right of this checkbox is a "Select Files..." button. The bottom of the dialog features a row of four buttons: "Help", "< Back", "Next >", and "Cancel".

Select Location.



Click the “Upload to a shared resource folder” radio button and then select the Data folder and hit OK.





Select the checkbox for communitymap.gdb. OK.

Ensure “Upload data files” is checked and then click Next.

Note: if you completed [part 2](#) and kept the same workspace name (CommunityMapping.fmw), you will be prompted “The Workspace ‘CommunityMapping.fmw’ already exists in this repository. Are you sure you want to replace this workspace?” Click Replace to overwrite it, or click Cancel and go back and change the Workspace Name if you do not want to overwrite.

Ensure the Data Download Service is selected and click Publish.

## 3. Run Workspace from FME Server Web User Interface

### a) Open the FME Server Web User Interface

Log in with the author/author username/password.

### b) Click Run Workspace

On the Run Workspace page, select Server Tutorial for the repository and the CommunityMapping workspace. Select Data Download for the Service.

Check out the Published Parameters. The 2 that were set up and just tested in FME Workbench are shown. Just as before, select an output format, and select one or more layers.

Click Run.

#### Published Parameters

|                                  |                               |
|----------------------------------|-------------------------------|
| Output Format (optional)         | MapInfo TAB (MITAB) ▼         |
| Feature Types to Read (optional) | AccessibleParking Libraries ▼ |

#### c) Results

The Data Download service presents a URL link to the translation results in a zip file. A quick inspection of the contents of the zip file confirms the results are what we expected.

*Note: The parameters in this workspace were all set up manually to demonstrate how to work with published parameters. A quicker way to create the workspace is to select the Dynamic Schema option when generating the new workspace.*

## Continue to Next Article:

[Schedule a Workspace to Run with FME Server](#)

## Additional Resources:

[Working with User Parameters](#)

[Publishing to FME Server](#)

[Running and Configuring a Workspace](#)

[FME Server Troubleshooting Guide](#)

## Schedule a Workspace to Run with FME Server Automations

*Note: This article applies to FME Server 2019+. For FME Server 2018 and older, please refer to [Schedule a Workspace to Run with FME Server](#).*

[Tutorial: Getting Started With Automations](#)

## Introduction

In this scenario, the goal is to have FME Server automatically run a workspace, that extracts data from a database and refreshes a set of Shapefiles, on a daily basis. FME Server Automations makes this easy to

set up.

We'll make use of the CommunityMapping.fmw workspace already published to FME Server, which reads layers from a file geodatabase and writes out to one of four formats.

In part 4 of this tutorial, you'll learn how to set up an FME Workspace to run automatically on a schedule.

*Please note that this video was created with FME Server 2019.0, the interface - and functionality - may vary in other versions of FME.*

## Step-by-Step Instructions

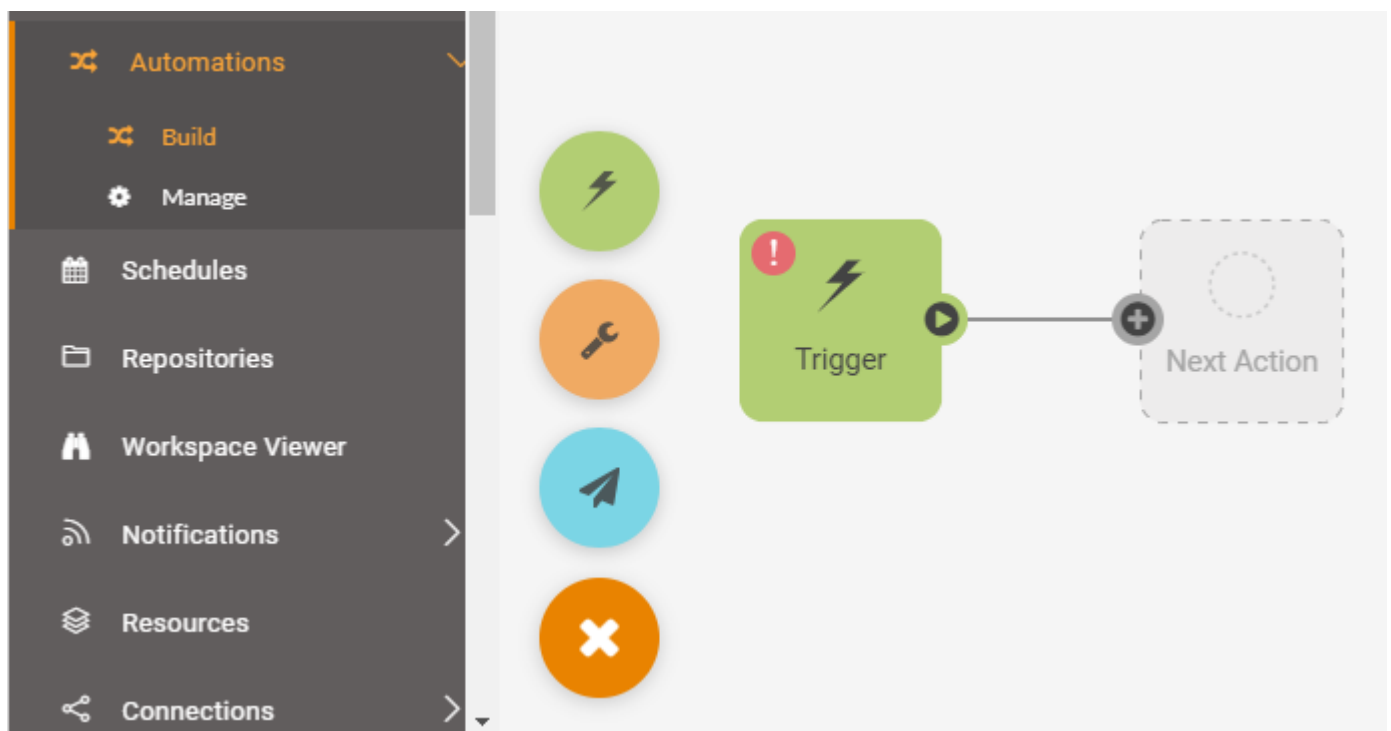
### 1. Create New Scheduled Automation

a) From the FME Server Web User Interface, click on *Automations*, then *Build*.

This opens the Automations page. In the Get Started pop-up, click the Build tab.

b) Click *Create New...* to create a new Automation.

You'll be presented with a canvas already populated with a green Trigger node. Double click it.



c) **Configure the Trigger node as a schedule**

This Automation will eventually run daily at the same time, but for now, set it up to trigger immediately and then every 1 minute, just so we can see it in action right away. To do this:

Select the Trigger Event ‘Schedule initiated’ from the drop-down menu. Parameter options will appear. Accept the default for Repeat On Interval.

Under Repeat Every, enter 1 and then select Minutes from the drop-down menu.

Start Immediately is checked by default. Leave this as-is.

Click Apply. Your Trigger is now configured!

#### **d) Configure an Action to run the *CommunityMapping* workspace.**

Double click the silhouetted Next Action node downstream of your new Schedule Trigger.

Select Run a workspace from the drop-down menu.

Select the repository the workspace belongs in (Server Tutorial)

Select the *CommunityMapping.fmw* workspace.

For output format select *Esri Shapefile*.

Process all the layers in the workspace, so select all the options under *Feature Types to Read*.

Ignore the Output Keys and Advanced tabs.

Click *Apply*. Your Action is configured!

#### **e) Save and Start Automation**

Click *Menu > Save As*.

Choose a name, e.g. ScheduledShapeUpdater.

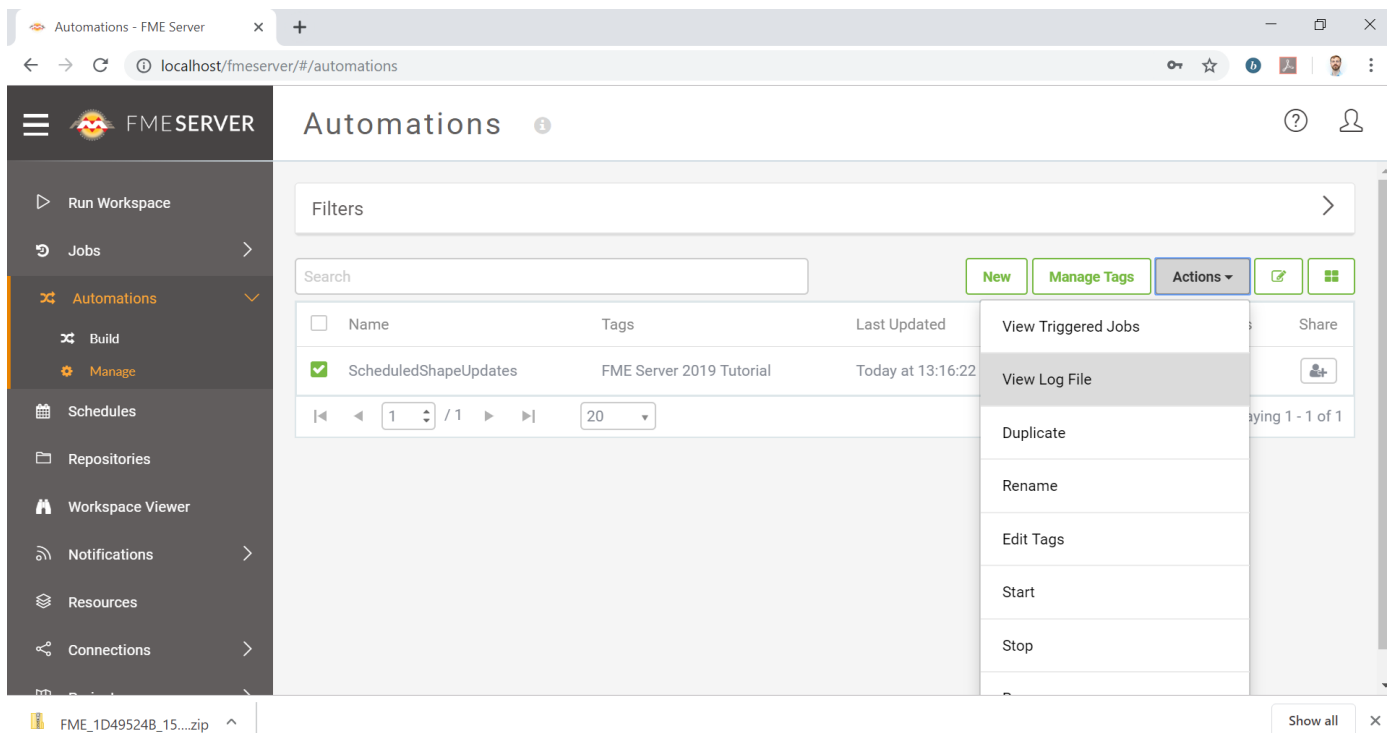
Click + to add a Tag. Input ‘Server Tutorial’ and click *OK*. Click *OK* again.

Click *Start Automation* in the upper right.

The Automations canvas should now be greyed out and display a message that the Automation is running.

#### **f) Verify that the workspace runs**

Since you left Start Immediately checked, CommunityMapping.fmw started running when you clicked *Start Automation*. To check the status of your Automation and its triggered jobs, you can do the following:



## 1. View the Automation Log

- Click Manage under Automations in the left menu pane.
- Click the check box next to your new Automation. The Actions button in the upper right becomes active.
- Select Actions > View Log File. You will see a log of processes initiated by your Automation, including any jobs sent to the FME Engine. Time stamps can be shown by clicking the clock icon above the log on the right.

To aid in archiving or troubleshooting, a Download Log button is available in the upper right. Once you have made any changes to the Automation, it may be a good idea to Clear Log of any now-irrelevant errors and warnings after archiving the original log.

## 2. View Triggered Jobs and their logs

- From the Automations > Manage page, select an Automation and then Actions > View Triggered Jobs. A list of only those jobs run by the selected Automation(s) appears. These jobs also appear in the main Jobs > Completed list.
- Select any listed job to see its individual log. These logs can also be downloaded for archiving or sharing by clicking a button near the top of the log interface.

# 2. Set up Actual Schedule

## a) Stop the Automation

Running Automations cannot be edited, so to make any changes to your too-frequent test schedule, you

must do one of the following:

1. From the Build page, select Menu > Open and choose your scheduled Automation.

Click Stop Automation in the upper right.

You are now ready to edit the schedule!

2. From the Manage page, click the check box next to your scheduled Automation.

Select Actions > Stop

Click on the Automation in the list to open it.

You are now ready to edit the schedule!

## **b) Edit the Trigger**

Double click the Schedule Trigger, then update Minutes to Days in the Repeat every section.

Fill in a start date of tomorrow at 1:00 AM. (select the date on the calendar widget and manually edit the time that populates.)

Apply the changes, then Start Automation.

## **c) Manually Trigger the Automation**

To test the Automation without waiting for the next scheduled run time,

Double-click the Schedule Trigger while the Automation is running.

There will be a green Trigger button at the bottom of the (locked) configuration panel. Click it to initiate the Automation.

To verify that your Automation worked, check the logs via one of the methods above.

The screenshot displays the FME Server Automations web interface. At the top, the 'Automations' header is visible with a help icon and a user profile icon. Below the header, a 'Menu' dropdown and the automation name 'ScheduledShapeUpdates' are shown. A red 'Stop Automation' button is in the top right corner. The main workspace area shows a workflow diagram with a green 'Schedule' trigger block connected to an orange 'Community Mapping' workspace block. A status bar at the top of the workspace indicates 'Automation is running. Stop Automation'. On the right, the 'Schedule Details' panel is open, showing the 'Trigger' set to 'Schedule initiated', 'Parameters' and 'Output Keys' tabs, 'Schedule Type' set to 'Repeat On Interval', and 'Repeat every' set to '5 Minutes'. At the bottom of the panel are 'Trigger', 'Cancel', and 'Apply' buttons.

Congratulations! We've now set up FME Server to perform a scheduled task once a day. You can confirm the schedule is in place by looking at the Start Time column in your Schedules page; it should show the workspace will run tomorrow at 1:00 am.

If desired, an Automation can send notifications on success and/or failure of a task. To do this, we would attach External Actions to the output ports of the CommunityMapping workspace Action. For now, we'll omit these. If you would like to learn more about FME Server Automations, please consider the tutorial [Getting Started with Automations](#).

## Conclusion

We hope you have found these Getting Started with FME Server tutorials useful. If you have any questions about using FME Server, check out the [Q&A Forum](#), read the [FME Server Documentation](#), or post your question in the comments below. If you want more tutorials to try out other features of FME Server, check out the [Quickstart](#) (also accessible from the web user interface login page). You can also view a recorded training course or sign up for a live online training on our [training page](#). Thanks!