

## QGIS: Time Manager to Create a Basic Animation

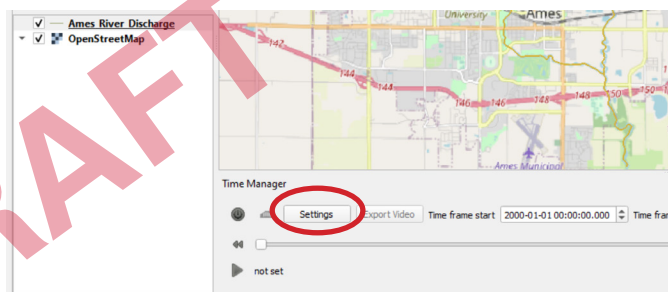
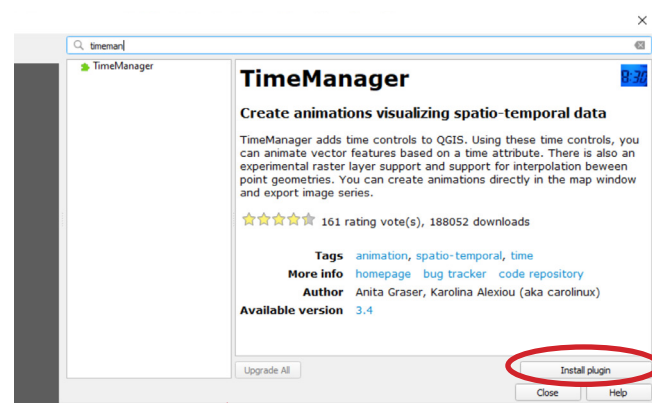
QGIS 3.4.1

Welcome to the Data Science Tasksheet Series. This series supplements the Iowa State University Geospatial Technology Training Program short course series. The tasksheets are designed to provide quick, easy instructions for performing mapping and data analysis tasks.

QGIS Time Manager is an animated data visualization plugin. Using data in a time series format to able users to browse their data automatically and create eye catching videos. Data for this plugin must have a date field inorder for QGIS to organize your visible data, and there are many ways for QGIS to display a change in you data either by colors, size, or shape symbology. This tasksheet will show you how to create and customize an animation. By the end you will be able to play through and visualize your data in a short animation.

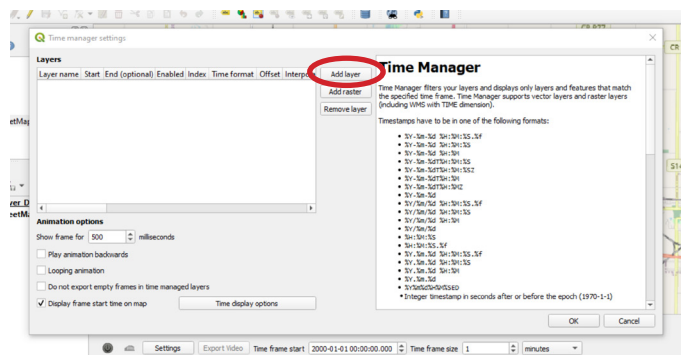
### 1. Getting Started

- Download the data files for this tasksheet from the following link: <https://bit.ly/tasksheet-data/PM2082-20#.zip>. Extract the files when the download is complete.
- Open a new QGIS project, and add the **Ames\_River\_Discharge.shp** file.
- Open the **Attribute Table** for the Ames\_River\_Discharge layer. Observe the **Date** field, formating dates is important for QGIS to recognize the data. Also obverse the range of discharge values, this will help create the symbology in **steps 4**. Close the attribute table.
- Add a base map using the XYZ Tiles or WMS Layer in the Browser panel. Double click OpenStreetMap or any layer to add the layer. This tile was installed in tasksheet **QGIS GPX and XYZ Layers PM2082-19o**. Notice: Any file used as a base map will not effect the Time Manager, and is only for a visual reference.
- Make sure the Ames\_River\_Discharge layer is above your base map layer in the Layers panel.



### 2. Installing Time Manager

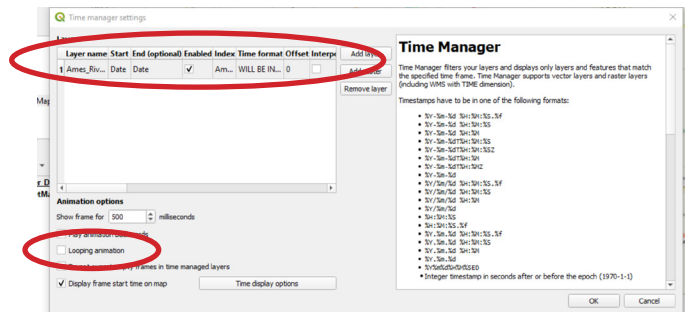
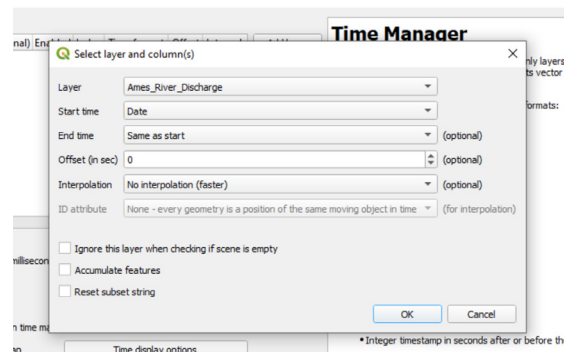
- Install the TimeManager plug in by opening **Plugins** from the main menu and selecting **Manage and Install Plugins**.
- The Plugins window will open, In the search box type: **TimeManager**. Select TimeManager and click **Install**. Once installed close the plugins window.
- The TimeManager controls should now be visible in QGIS, if not, open Plugins from the main menu, then expand the new Time Manager option and select Toggle Visibility.



### 3. Time Manager settings

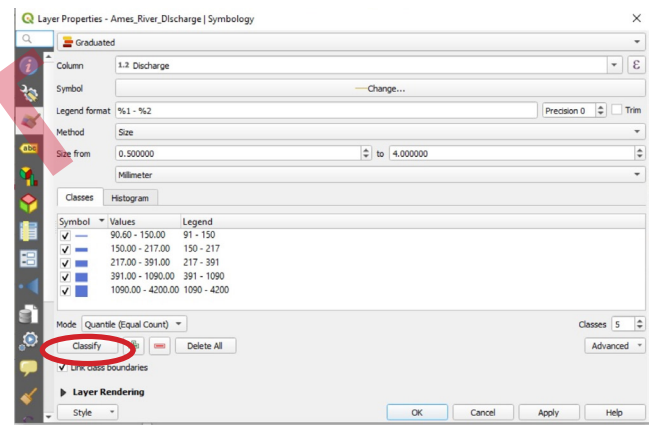
- Click on **Settings** in the Time Manager controls to open the Time Manager Settings window. The right window will show the variety of date formats QGIS can recognize. Click **Add layer**.

- The Select Layer and column(s) window will open. For the **Layer** option Select **Ames\_River\_Discharge**. Set **Start Time** to **Date**, and **End Time** as **Same as Start**. The other options may be left to their defaults setting.
- Click **OK** to close the Select Layer and Column(s) window., and go back to the Time Manager Settings. A new layer will appear in the box to the left.
- From the Animations options check the box for **Loop animation**.
- Click **Time display options** to open the Options window. Here you can control the appearance of the date stamp during the animation. Settings may be left to their defaults, feel free to try different settings. Click **OK** to close the window. Click **OK** to close the Time Manager Settings window.



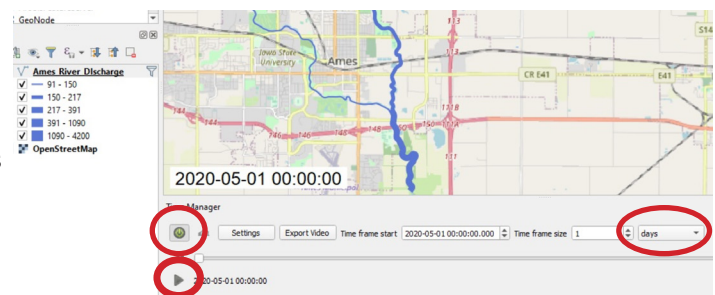
## 4. Symbolology

- Open the **Symbolology** options for the **Ames\_River\_Discharge** layer. Change the first option from Single symbol to **Graduated**. Set the Column option to **Discharge**, then change Method from Color to **Size**. Adjust the **Size** from **0.5** to **4**.
- Finally click **Classify** under Mode and QGIS will automatically separate the discharge values. Make sure your values will represent the range of discharge values. To change the color of the symbol highlight all the options, then right-click open **Change Color**. Choose a color such as Blue and click **OK** to close the Change color window.
- Click **Apply** in the Layers Properties window, then close the window.



## 5. Playing Animations

- Click the **Power** symbol in the Time Manager Controls, and the power symbol will turn **green**. Change Minutes to **Days**, because the date file is daily discharge.
- Click **Play**.



## Contact:

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