Animating Over Time in ArcGIS Pro

1. Enable Time as a Property for your Data Layer

When data layer you want to animate is added to the project, right-click on it and go to Properties. Click on the Time tab at left, then change the option to 'Filter layer content based on attribute values'.

Next to 'Time Field', choose the name of the field from the attribute table that contains the date/time (e.g. fireyear). Under 'Time Format', change to match the formatted date in this field (e.g. YYYY for fireyear).
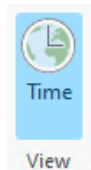
Leave everything else as default and click OK.

(Note: see this documentation for more information or other date formats: https://pro.arcgis.com/en/pro-app/latest/help/mapping/time/set-the-time-properties-on-data.htm)
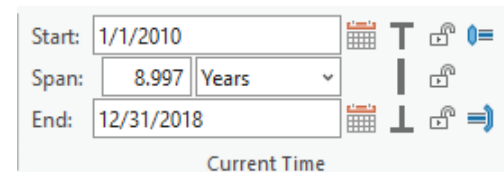
2. Enable Time as a Property for your Map

Once you have enabled time for your layer, you should now see a new Time tab in the upper ribbon. Click on it.

Click once on your layer's name in the Contents pane to select it, then click on the big Time button (in the View group) to enable time.

In the Current Time group, change the Start and End dates to match with your dataset (e.g. 2010 and 2018). It should automatically calculate the span.
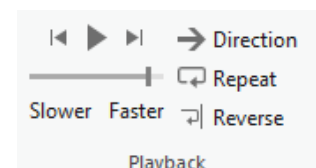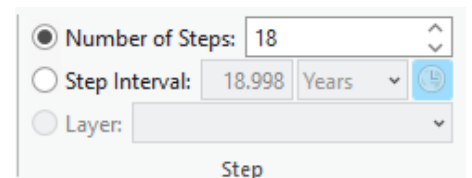
3. View Time Playback

Before creating the animation, you might want to view what your data will look like as a time series. This will be made up of "steps"- essentially the amount of time the computer spends on a particular date before moving to the next.
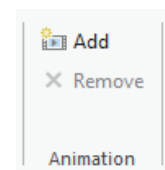
In the Step group, change the steps to be 'Number of Steps', and set the interval to some number (maybe number of years between start and end date if you want one step per year, years * 12 months if you want one per month, etc.).

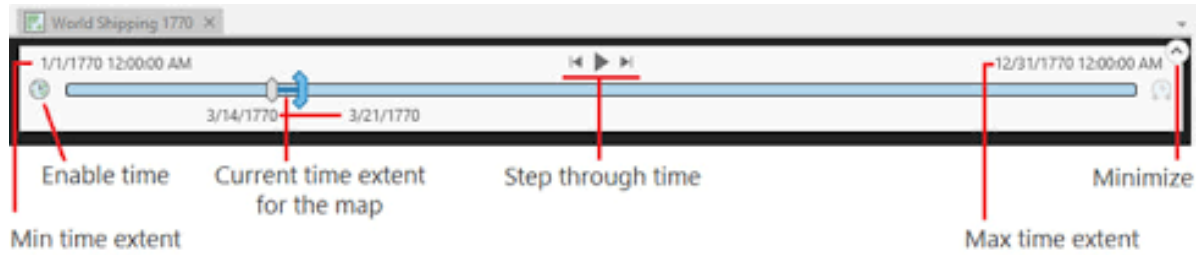Press the play button icon in the Playback group to play the time series.
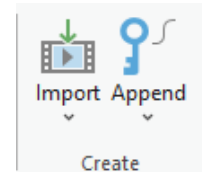
4. Create Animation

Go to the View tab -> Animation Group and click Add. You should see a new Animation tab open on the upper ribbon, and a timeline appear at the bottom. Go to the Animation tab.

You should see a partially grayed out time slider at the top of the map- hover your cursor over it until it becomes transparent, then click and drag the slider back to the beginning.
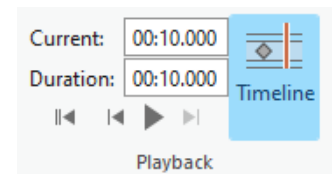

Make sure that your map is positioned on your study area and showing a view that you are satisfied with, then click on the Append button in the Create group to create your first keyframe. You should see it added in the animation timeline below.

Click and drag your time slider to the end time of your data, then create another keyframe using Append.

Hit the play button in the Playback group (or in the timeline below) to watch your animation. If you want to slow it down, increase the duration time to something reasonable.

Make any updates to layer symbology, basemap, etc. that you would like to best represent your data.

(Note: if you do not want a smooth animation as described here, (e.g. you want an animation that spends more time on a certain period of years/months), go to this documentation and read through the section for "Animate by stepping through time":

https://pro.arcgis.com/en/pro-app/latest/help/mapping/animation/animate-through-time.htm)

5. Export Animation

In the Animation tab, click on the Export Movie button. There are many different formats available for exporting- you can ignore the presets and just save the file name as a .gif or perhaps .mp4 and export. It may take some time- once finished, you can view the output. If needed, can make changes to the animation and re-export.