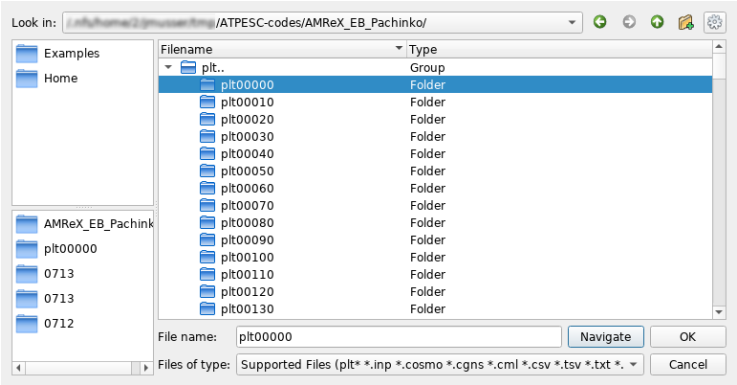
Visualizing AMReX_EB_Pachinko with ParaView (version 5.6.0)

Build and run the 3d version of `AMReX_EB_Pachinko`. The default `inputs_3d` file should generate 300 directories with a `plt` prefix (e.g., `plt00000`, `plt00010`, …, `plt03000`).

Visualizing the Pachinko board

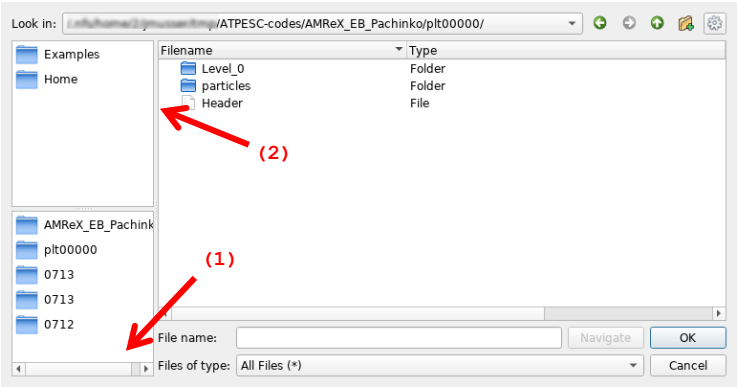
Launch ParaView (version 5.6.0 or newer). Next read the `Header` file in `plt00000`.

In ParaView, click **`File > Open`**, and navigate to the directory where you ran `AMReX_EB_Pachinko`.

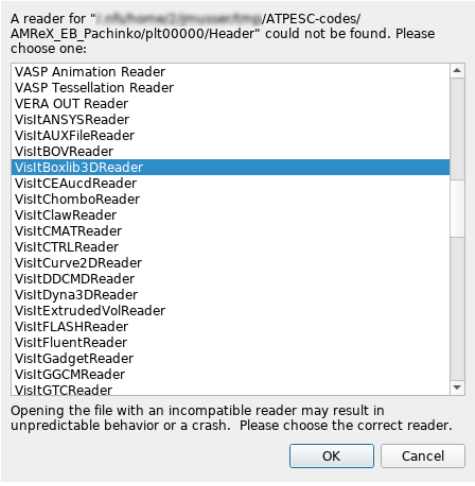


Double click the `plt00000` directory. Using the drop down menu,

(1) change the '**`Files of type:`**' selection to '**`All Files (*)`**'
(2) double click on **`Header`**

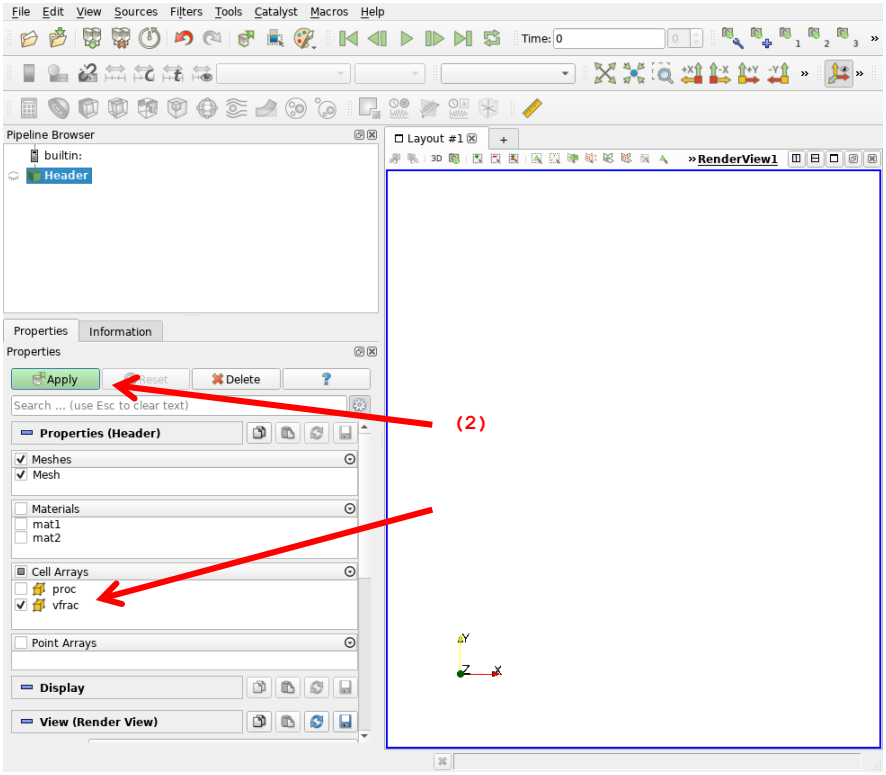


This opens the `**`Open Data With…`**` dialog box. Select `VisItBoxlib3DReader`, and click `OK`.



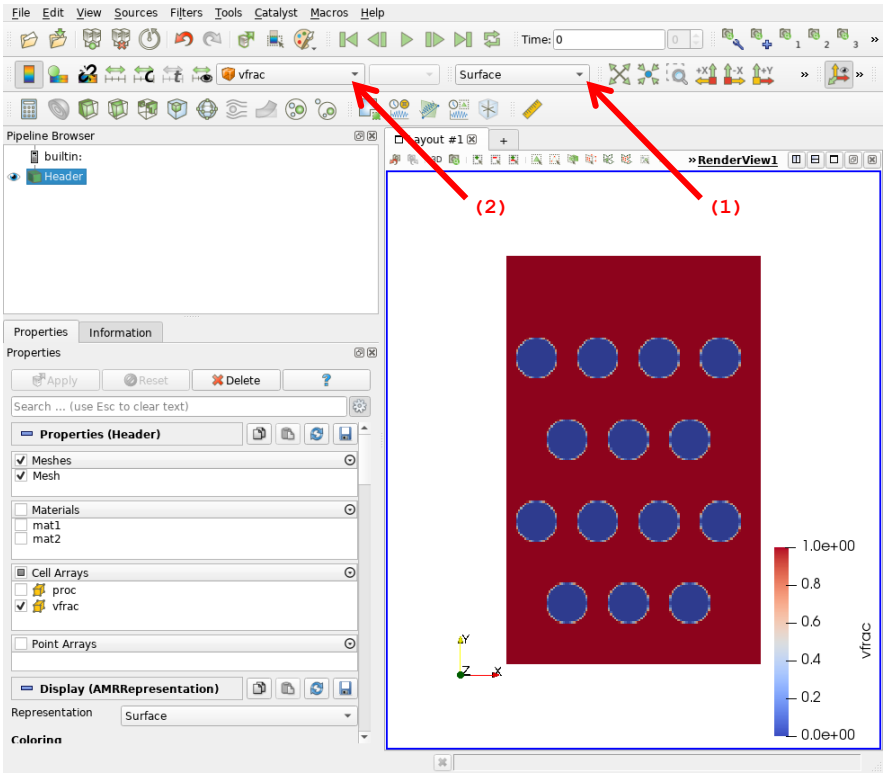
Header should now be listed in the Pipeline Browser. To load data

(1) Click the checkbox beside `vfrac`
(2) Click the **`Apply`** button.



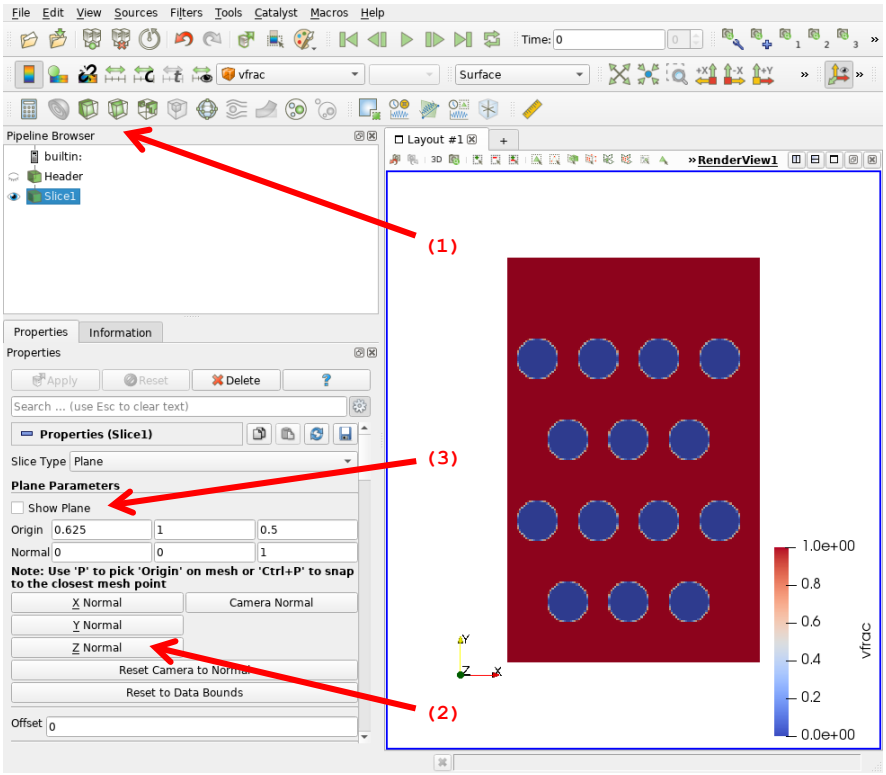
Change the visualization options using the drop down menus to

(1) Change the representation from **`Outline`** to **`Surface`**
(2) Color by **`vfrac`**



Take a 2D slice of the data along the Z Normal

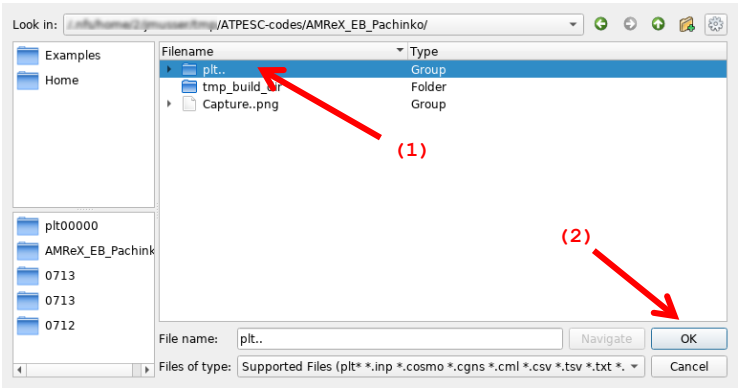
(1) Click the **`Slice`** filter icon
(2) Click the **`Z Normal`** direction button
(3) Deselect the **`Show Plane`** option



Visualizing the Tracer data

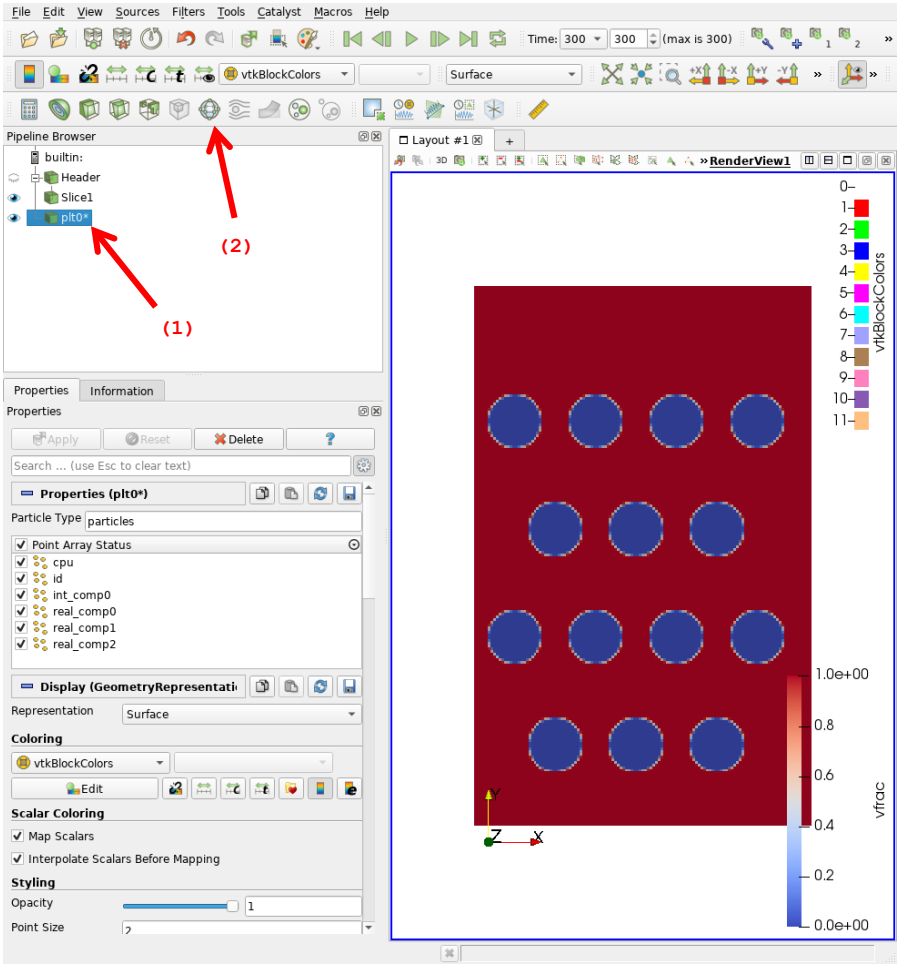
Load the tracer data. Again, click **`File > Open`**, and navigate to the directory where you ran `AMReX_EB_Pachinko`.

(1) Highlight the plotfile glob (plt..)
(2) Click OK
(3) Click the green Apply button in ParaView (not shown)



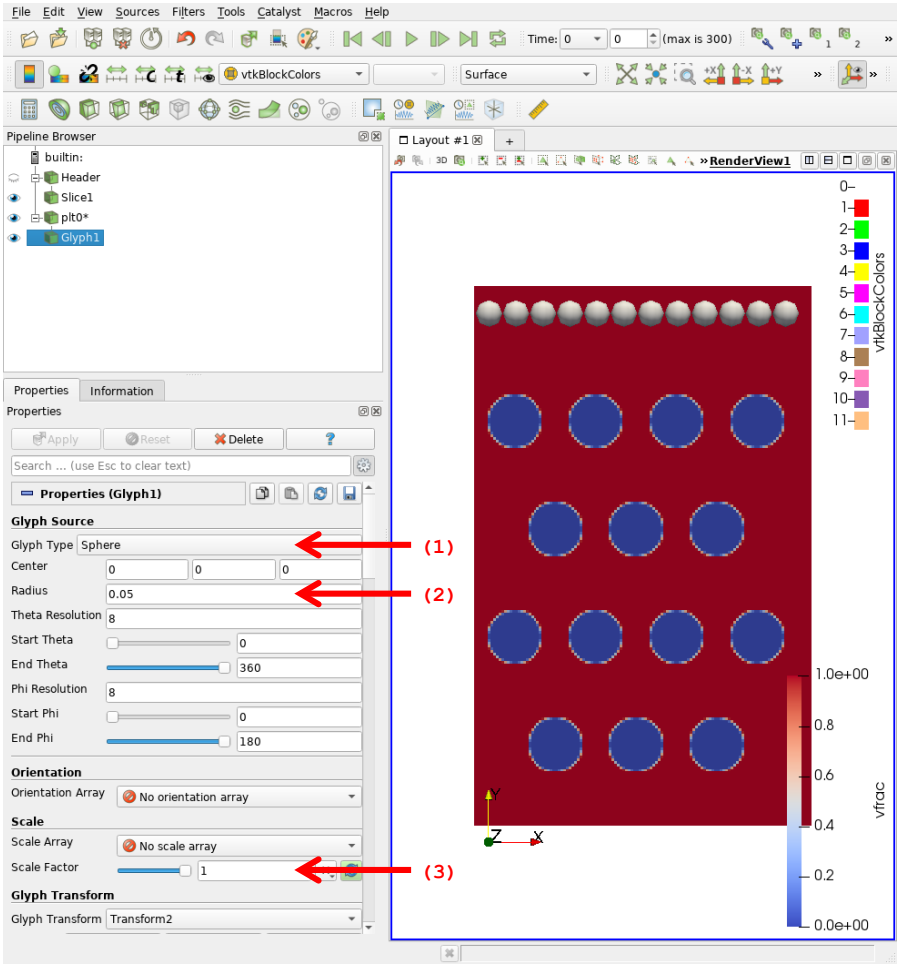
Add a glyph to the tracer data.

(1) Verify that the `plt*` glob is selected.
(2) Click the Glyph filter button.



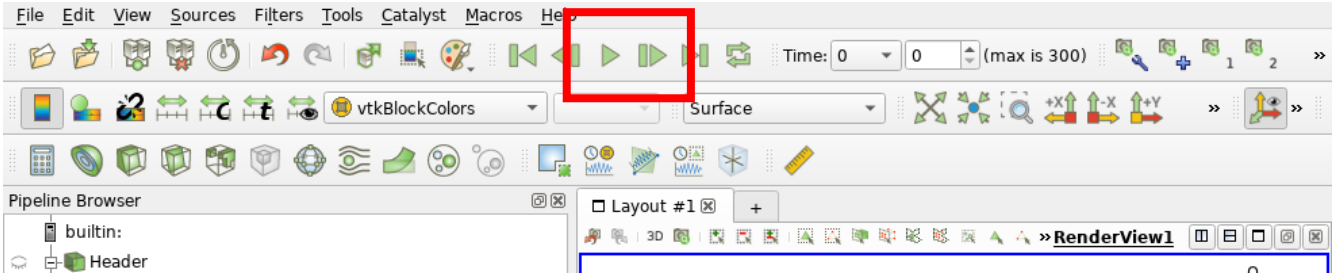
Modify the glyph properties.

(1) Change the `Glyph Type` to `Sphere`
(2) Change the `Radius` to `0.02` (or whatever value you have set for “particle_radius” in your inputs file); shown in these pictures is radius = 0.05
(3) Set the `Scale Factor` to `1.0`
(4) Click the green Apply button



Animate the scene by either

(1) Clicking the play button, or
(2) Click the Next Frame button to advance one frame at a time



ParaView may not display all the glyphs at once. To ensure that all tracers are shown for all steps, you can change the **`Masking`** option from **`Uniform Spatial Distribution`** to **`All Points`** to prevent tracers from disappearing and reappearing throughout the animation.