Part1

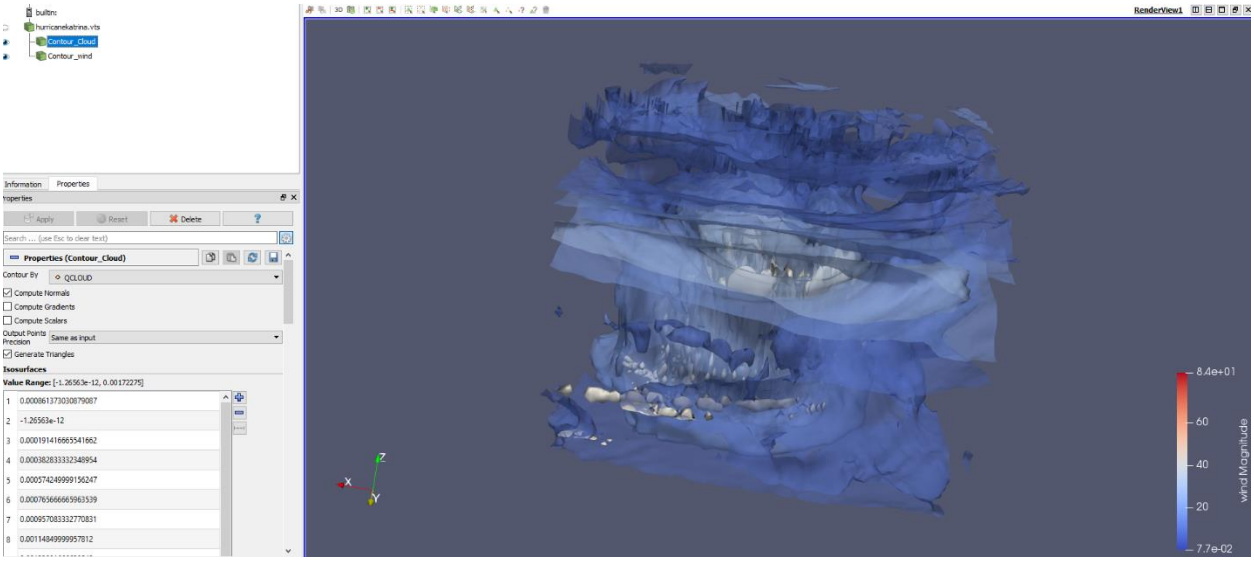


Figure 1-Contour_Cloud

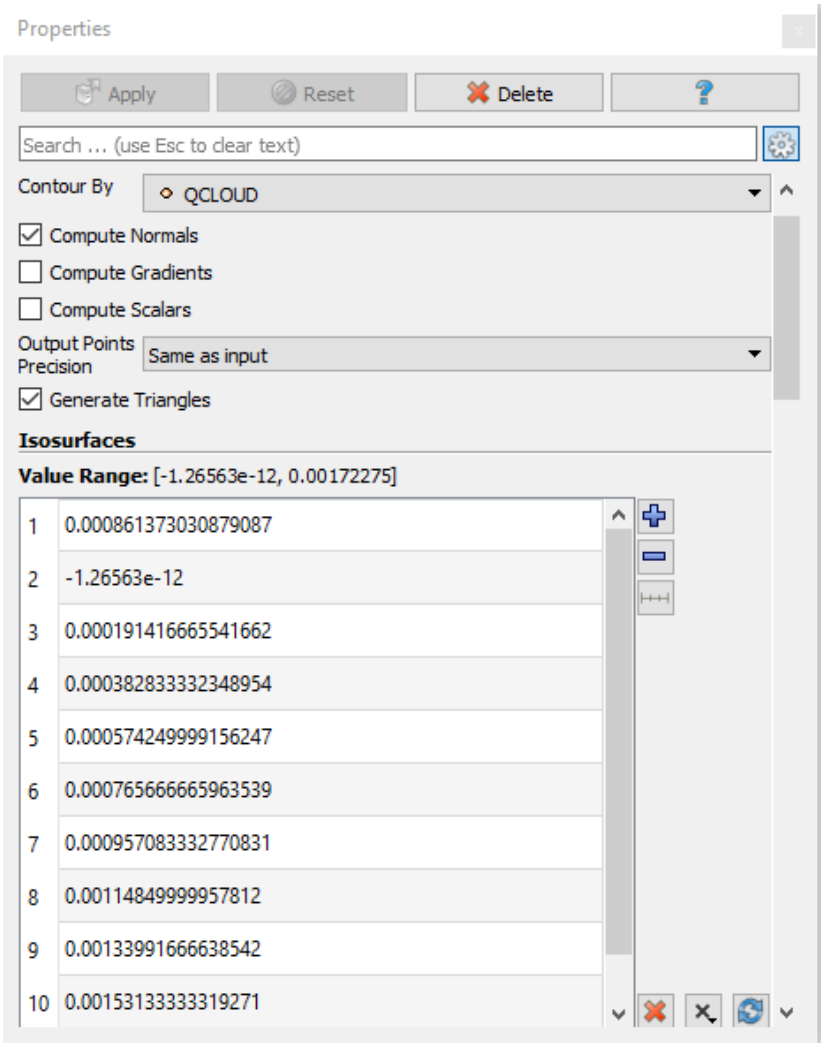


Figure 2-Properties panel for Contour

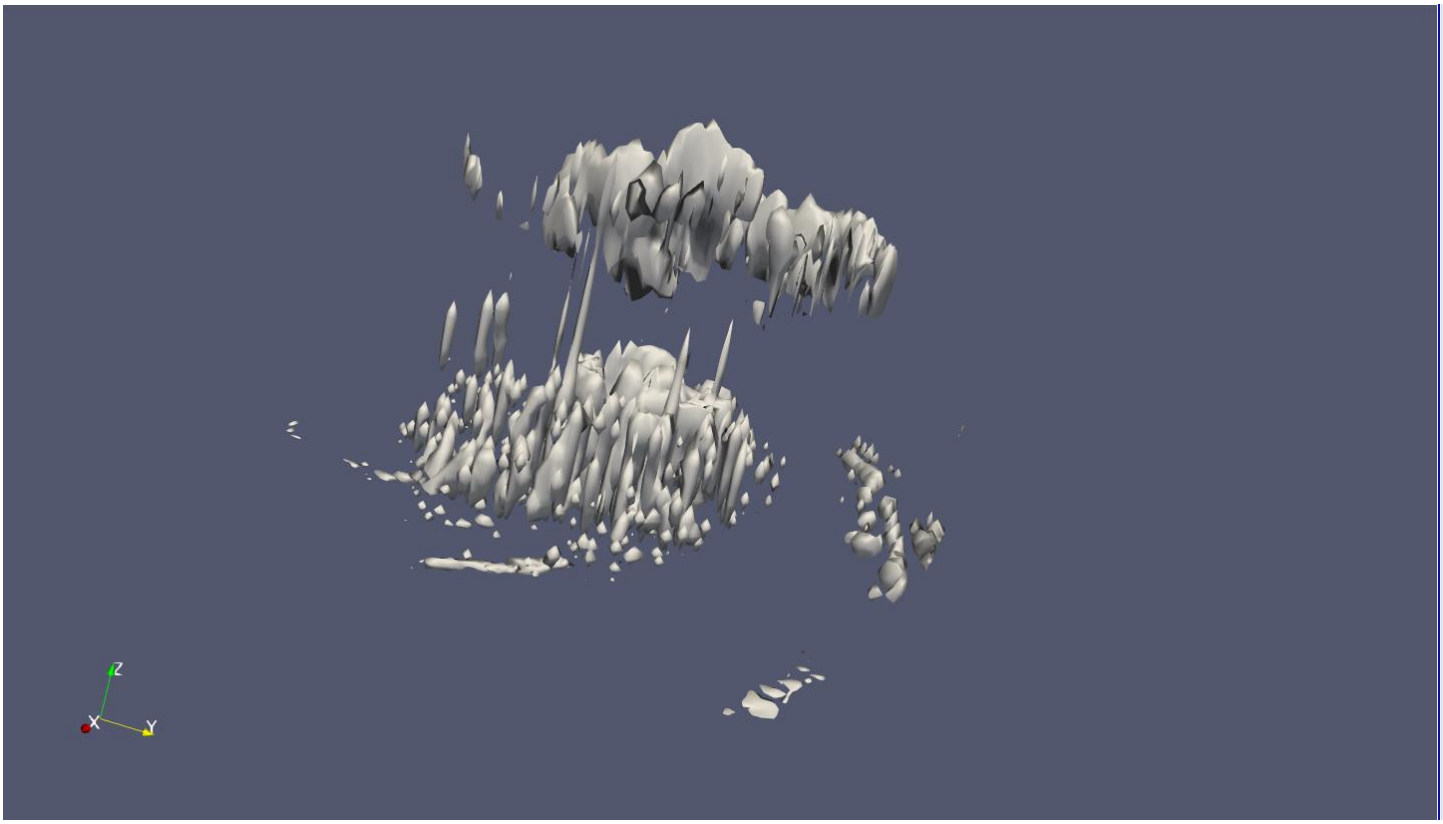


Figure 3-Contour view

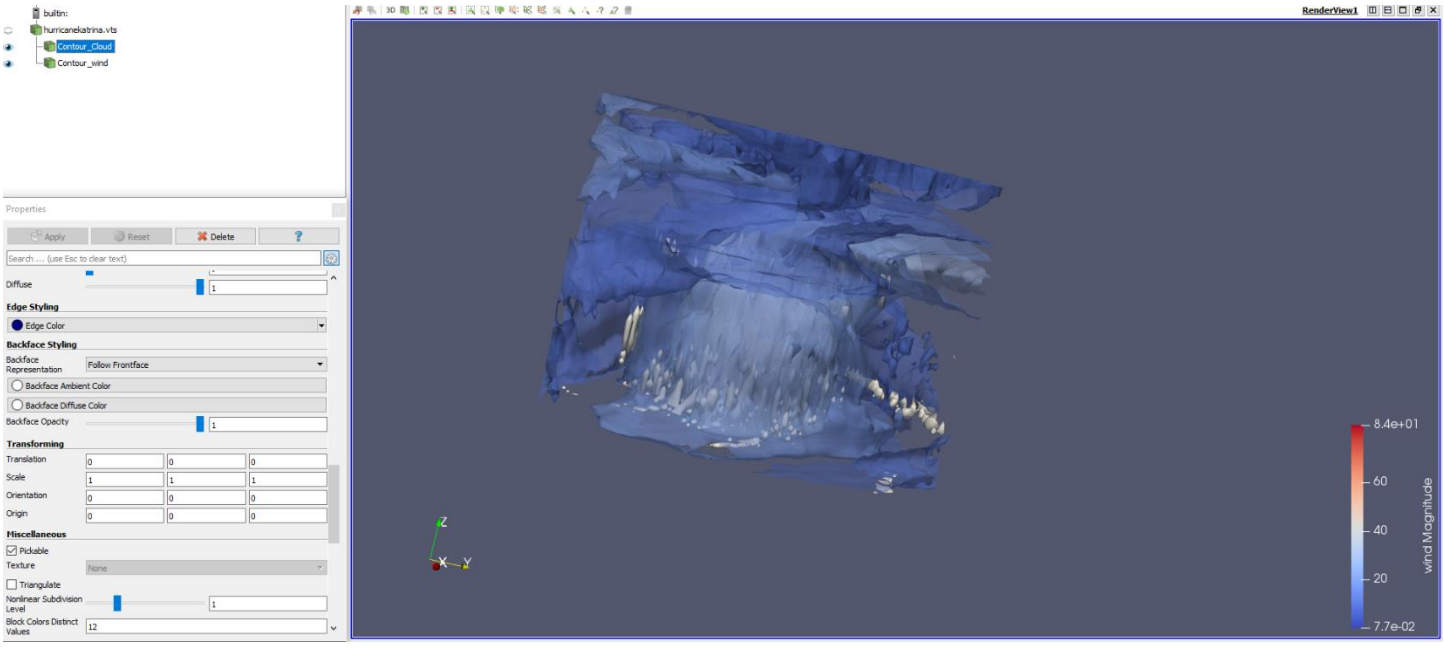


Figure 4-different view

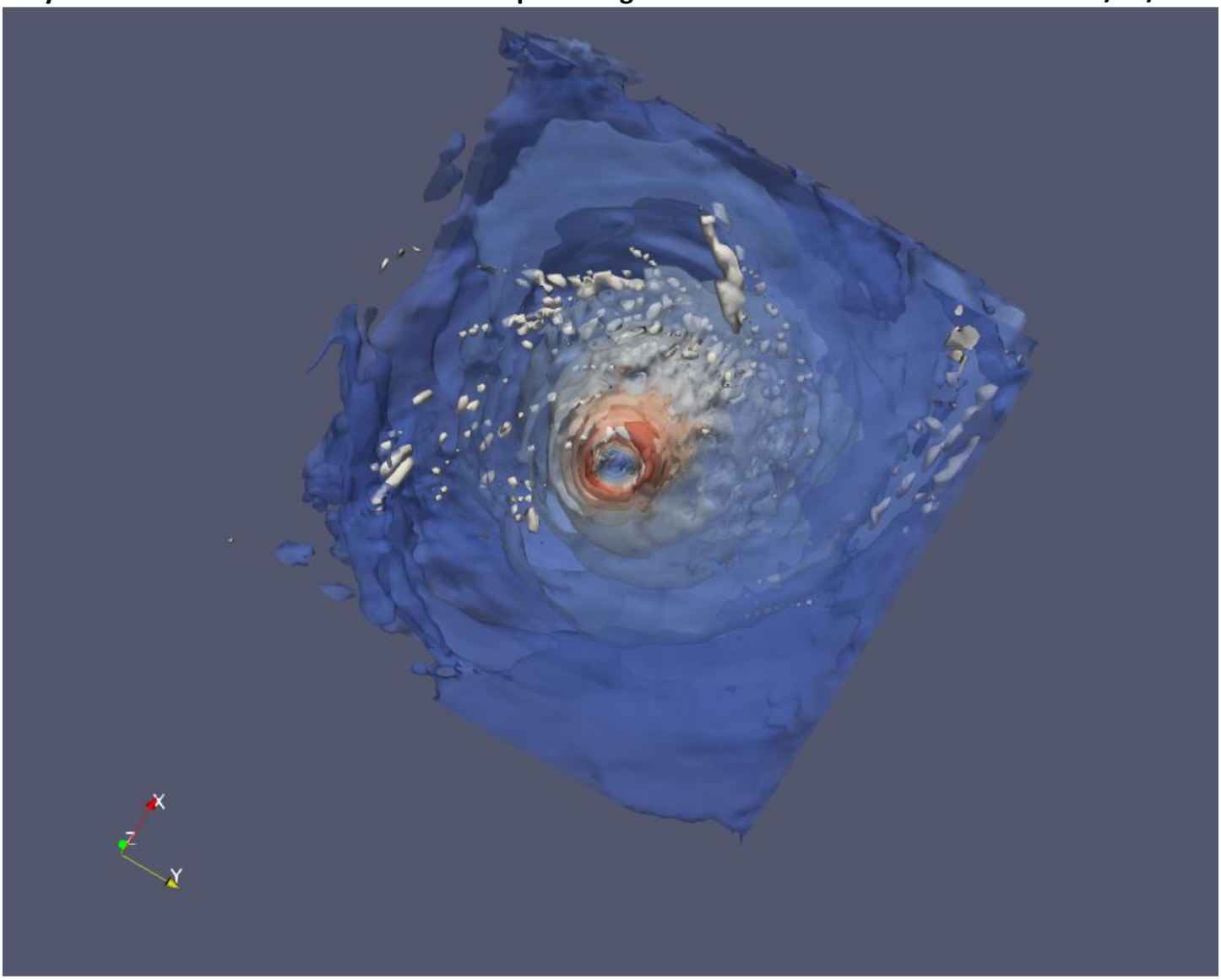
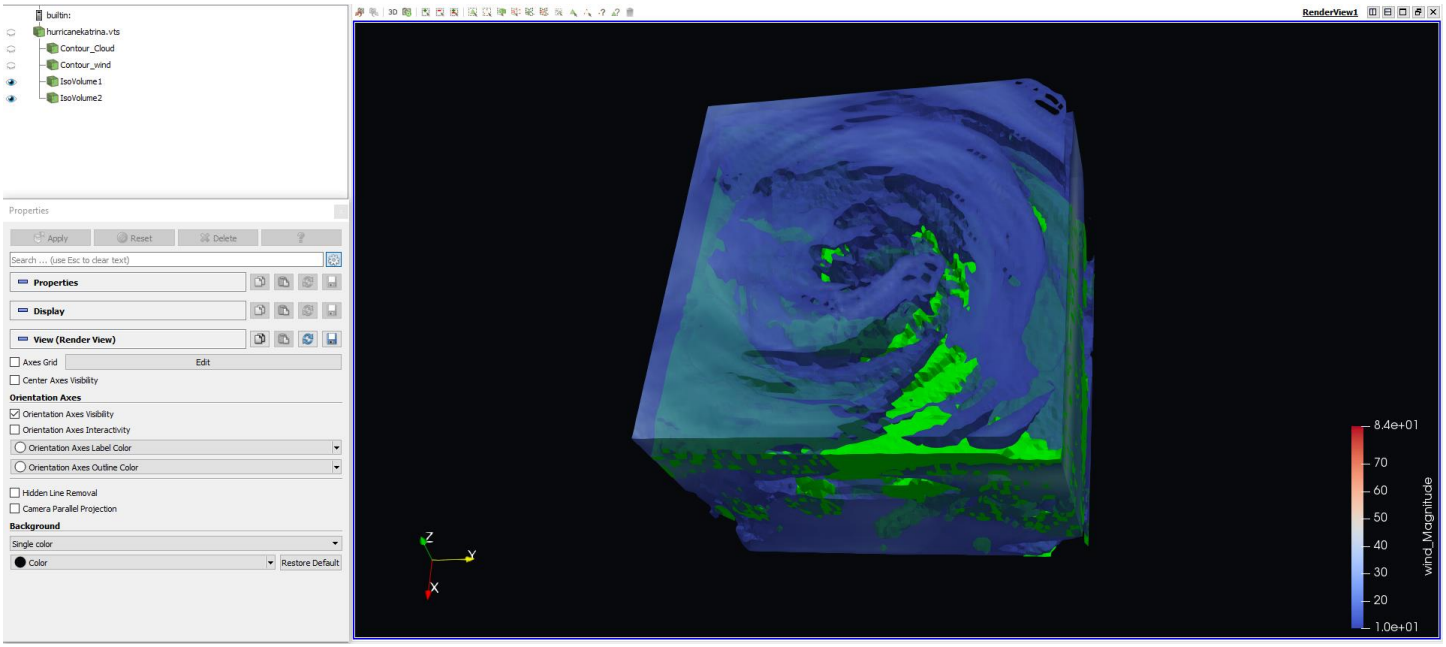
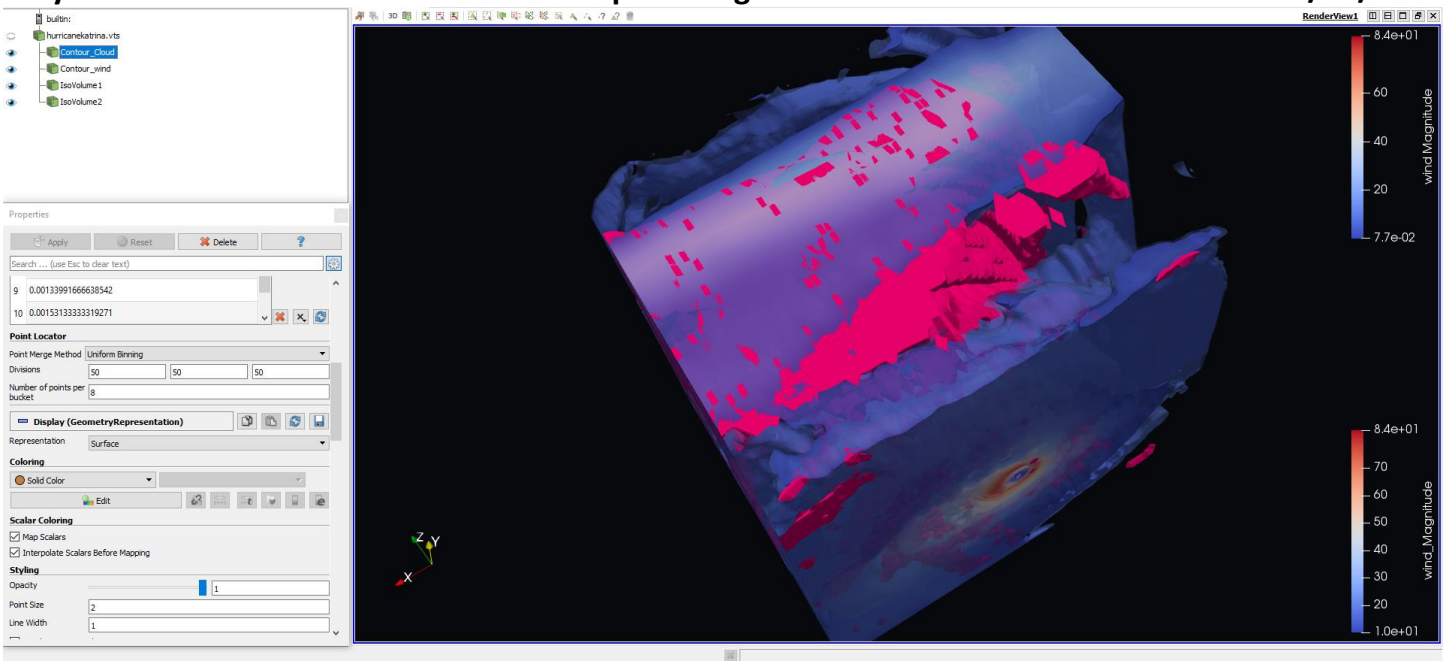

X
Z
Y

Figure 5-


builtin:
hurricanekatrina.vts
Contour_Cloud
Contour_wind
IsoVolume1
IsoVolume2
Properties
Apply
Reset
Delete
Search ... (use Esc to clear text)
Properties
Display
View (Render View)
Axes Grid
Edit
Center Axes Visibility
Orientation Axes
Orientation Axes Visibility
Orientation Axes Interactivity
Orientation Axes Label Color
Orientation Axes Outline Color
Hidden Line Removal
Camera Parallel Projection
Background
Single color
Color
Restore Default
RenderView1
Z
Y
X
8.4e+01
70
60
50
40
30
20
1.0e+01
wind_Magnitude



Part1 Detail:

Scalar Field Visualization

After I run the dataset. I create isosurface for Qcloud, also I changed the color as well. I added isovolume two times and I reduce the opacity and. I changed the scalar number for min to 10 and I kept the number for Max.

Part 2 Details:

Multi- Field Visualization

After I run the dataset, an add the Contour for wind and cloud. Also, I add Iso Volume for wind and cloud. For creating Streamline we need to use the Stream Trace. For creating good Streamline we need to make sure that the 3D structured grid is the active data, after that we just need to click on Stream Tracer filtering I con on the toolbar. The stream Tracer is more complicated than previous Contour. Their are two section we can use to create seed for Streamline, the one allow you to modify the integration properties of the Stream Tracer filter. The second one seeds, allows you to spacify the creation of seed points on the streamline.

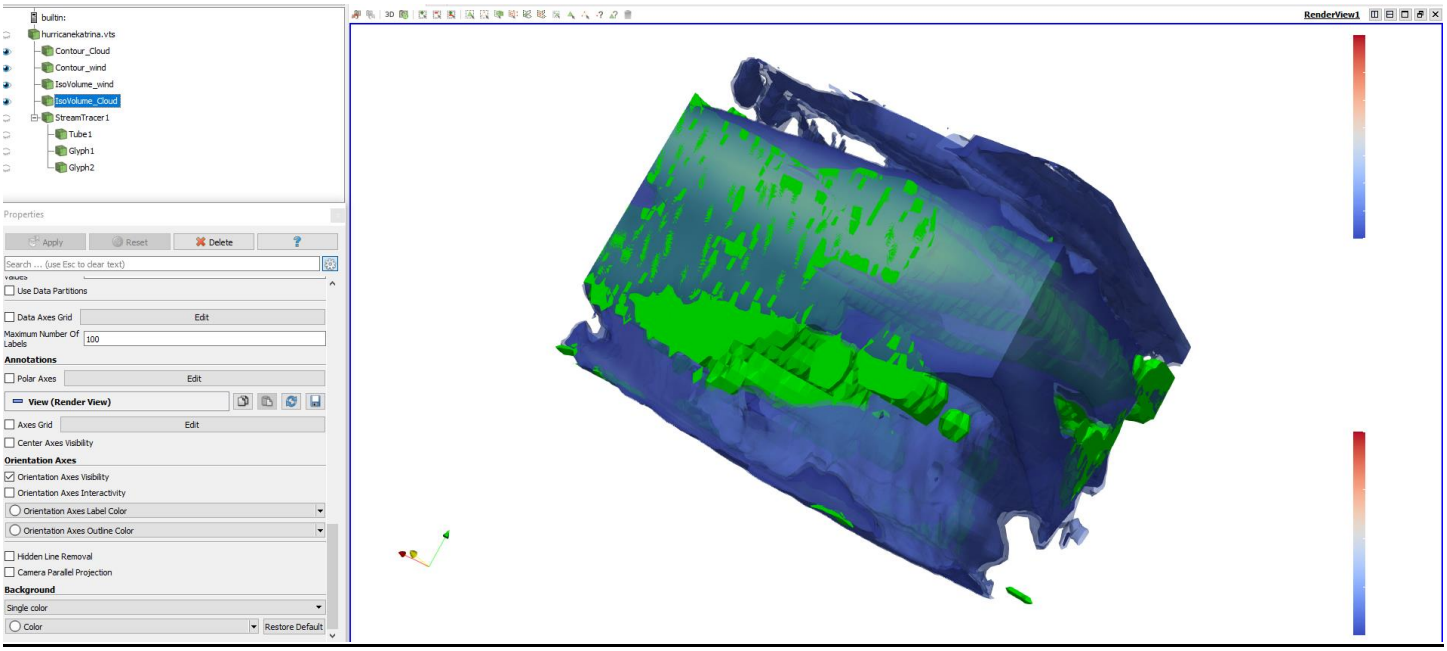


Figure 6-Contour_Cloud, Contour_Wind, Isovolume_wind, Isovolume_Cloud

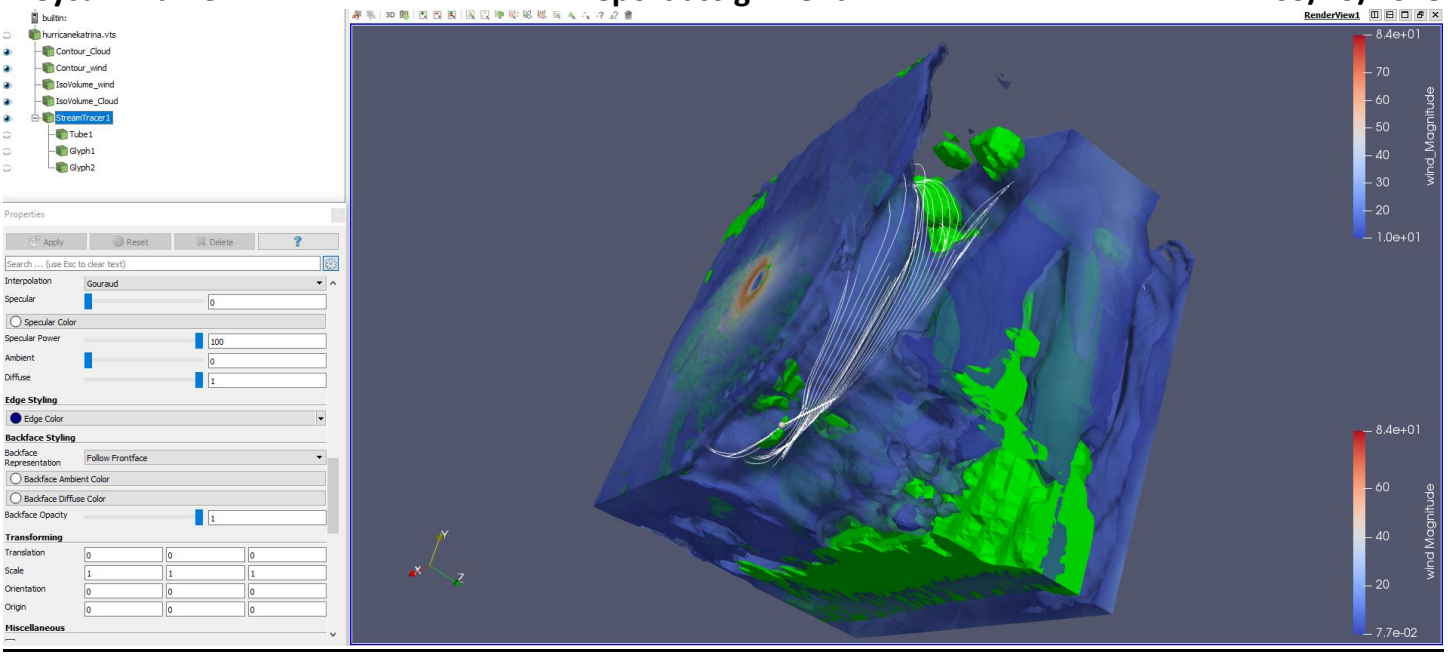


Figure 7- Like Figure 6 with StreamTracer

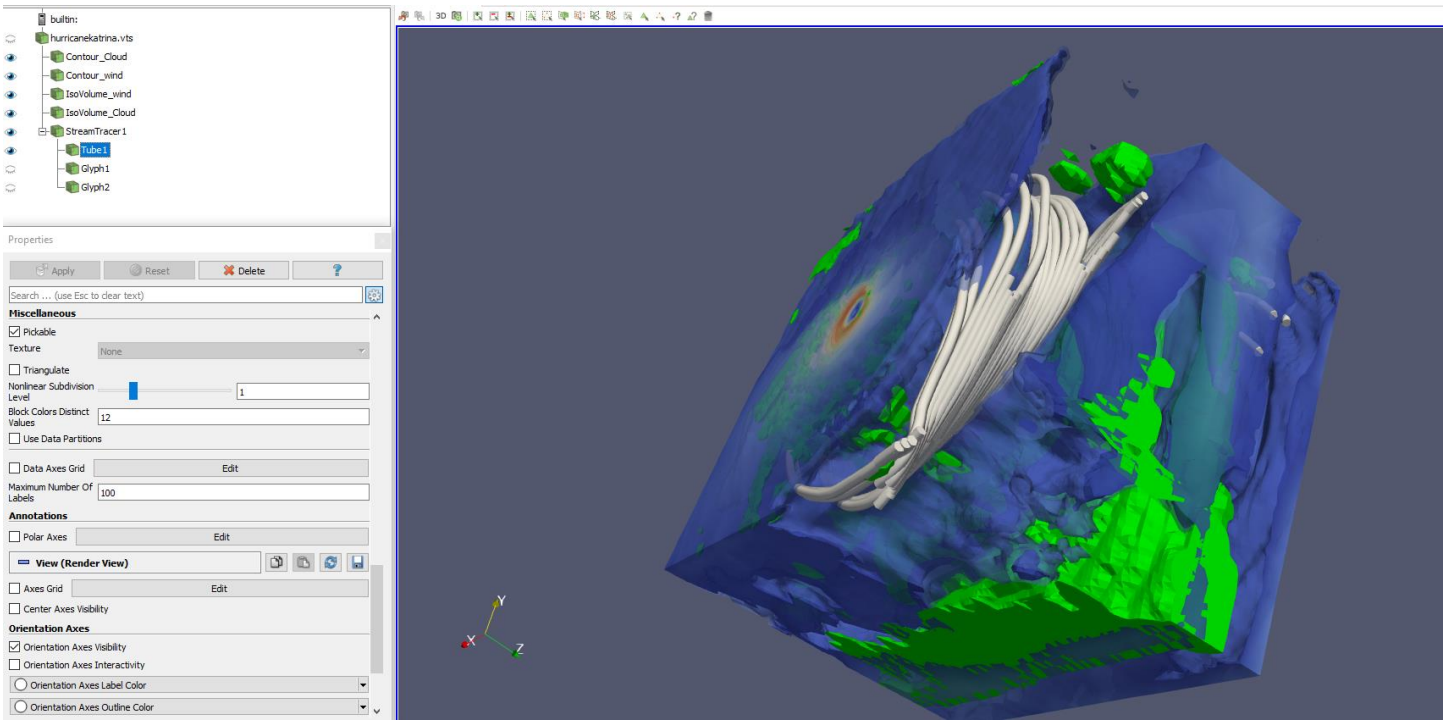


Figure 8-With Tube

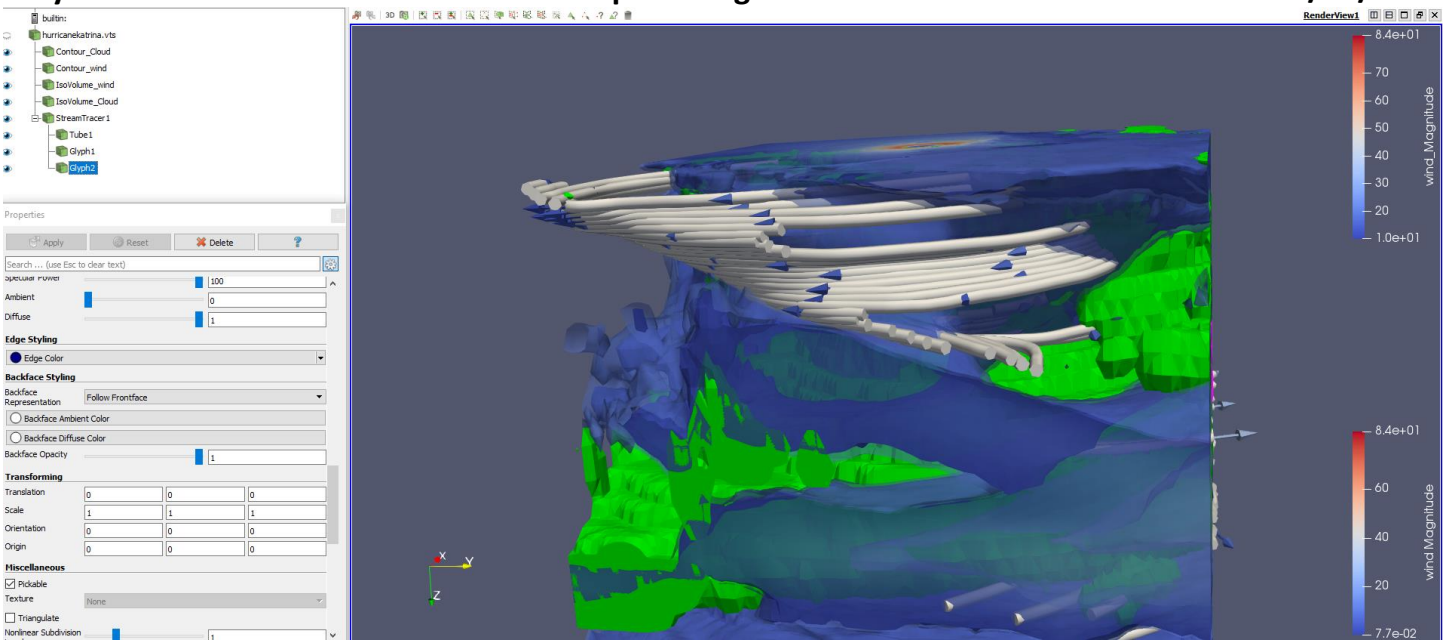
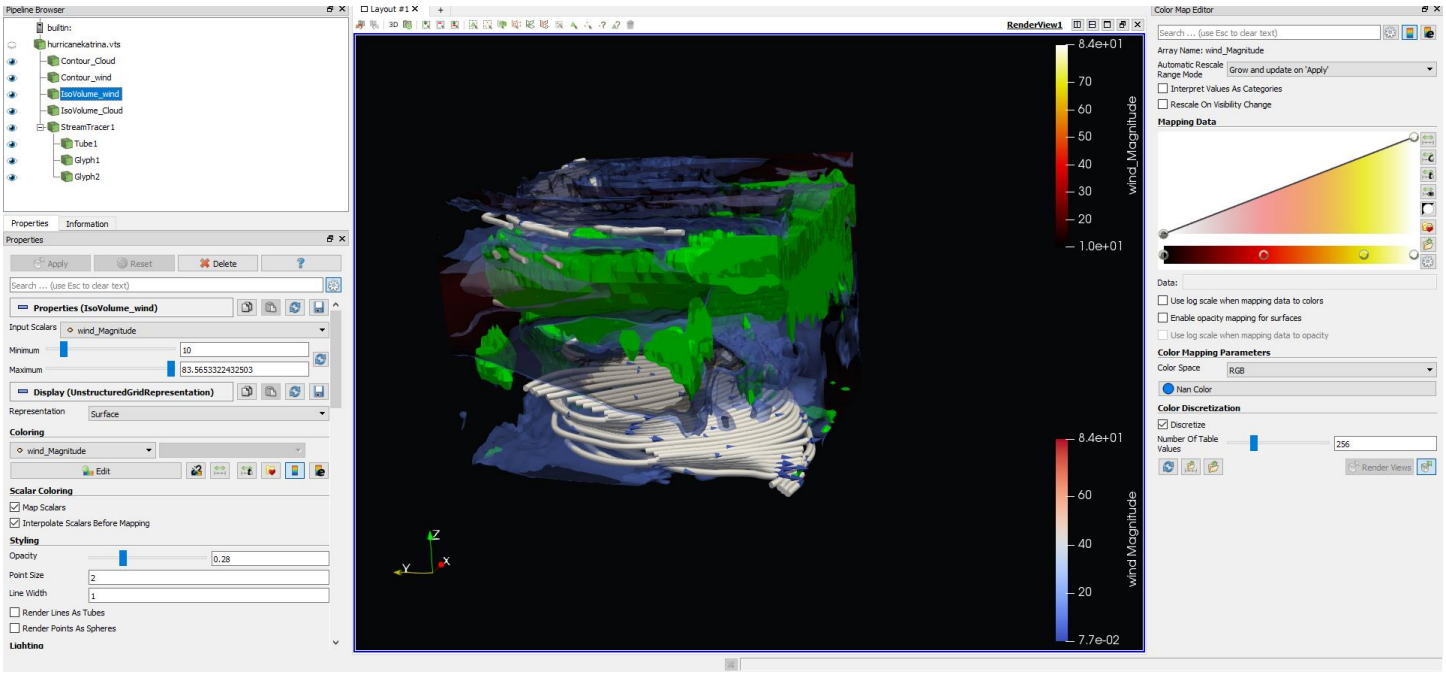


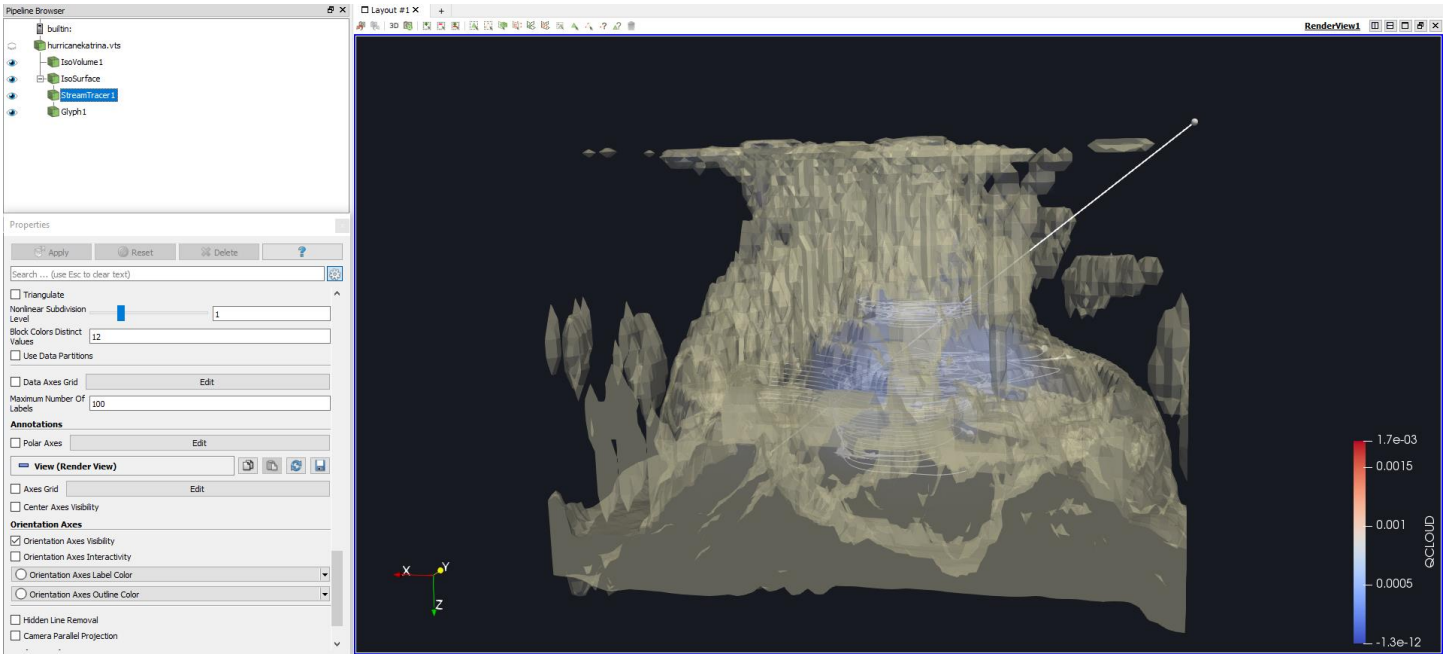
Figure 9-With Glyph1 and Glyph 2

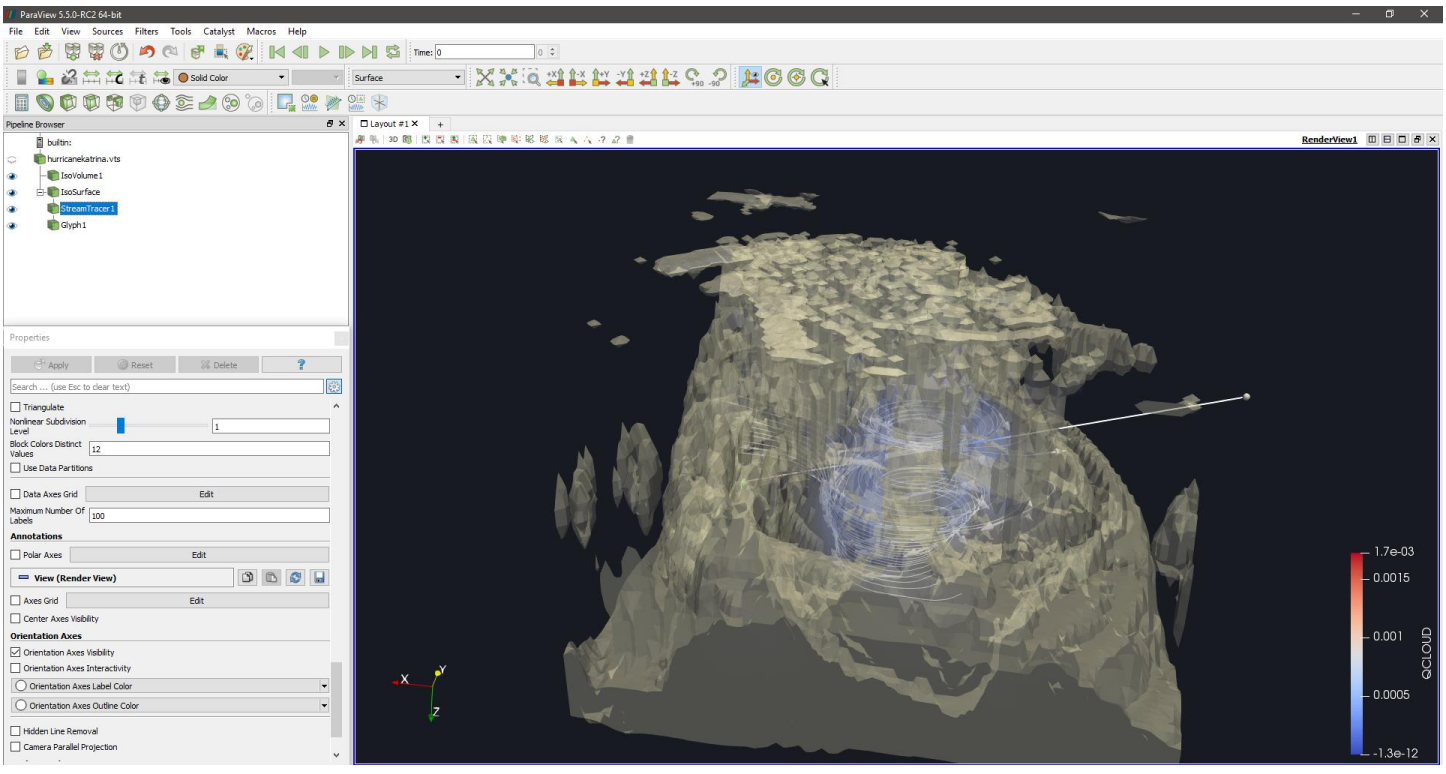


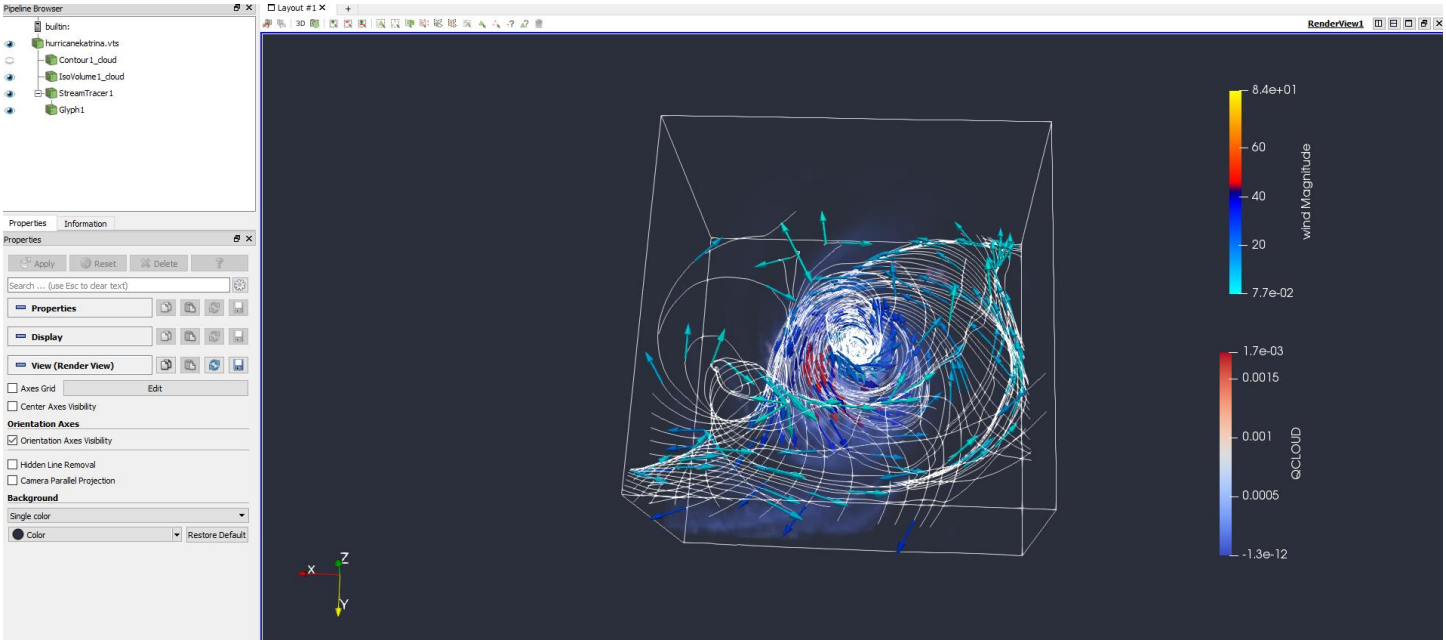
Part 3 Details:

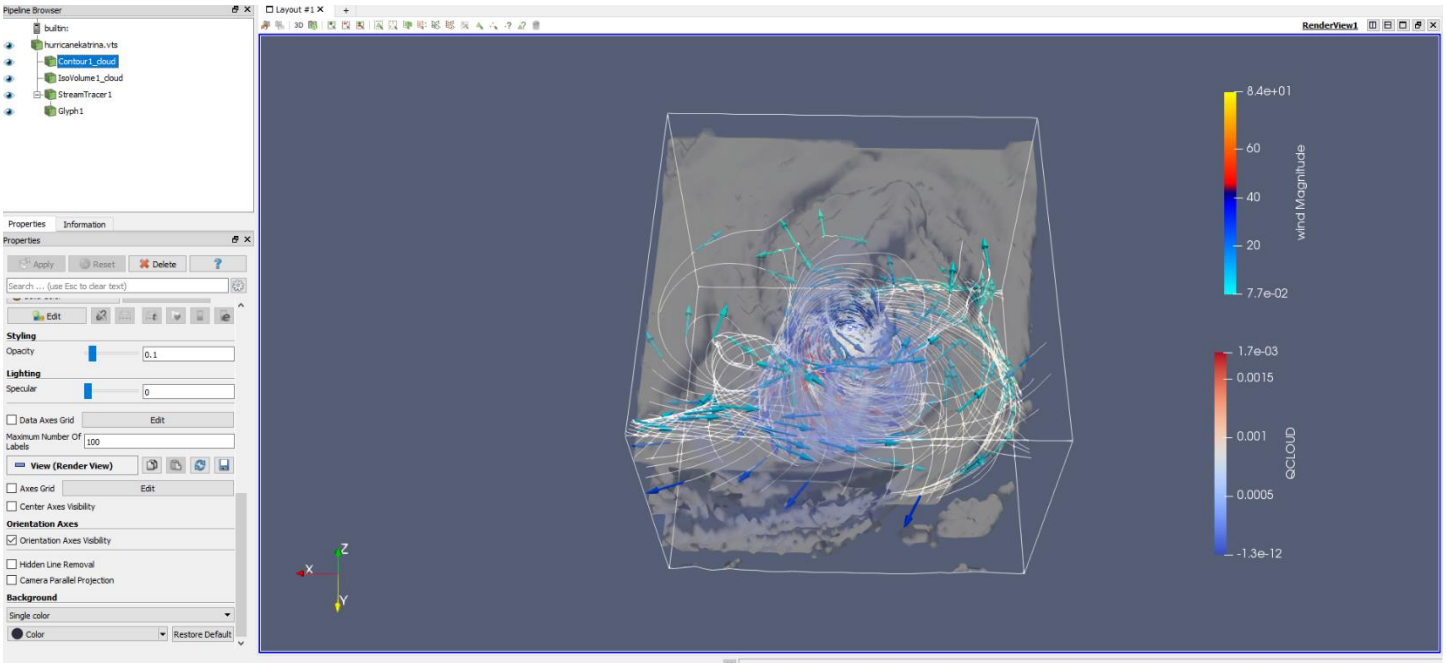
Multi-Field Visualization

It is hard to add Iso Surface and Iso volume rendering on QCLOUD. Basically volume rendering is a technique that we can use to display a sampled data set. Also Iso surface is appoints of a constant value within a volume of space or is a set of a continuous function on 3D space.






Pipeline Browser
builtin:
hurricanekatrina.vts
Contour1_cloud
IsoVolume1_cloud
StreamTracer1
Glyph1
Properties
Information
Apply
Reset
Delete
Search ... (use Esc to clear text)
Display
View (Render View)
Axes Grid
Edit
Center Axes Visibility
Orientation Axes
Orientation Axes Visibility
Hidden Line Removal
Camera Parallel Projection
Background
Single color
Color
Restore Default
Layout #1
RenderView1
8.4e+01
60
40
20
7.7e-02
wind Magnitude
1.7e-03
0.0015
0.001
0.0005
-1.3e-12
QCLOUD
Z
X
Y


Pipeline Browser
builtin:
hurricanekatrina.vts
Contour1_cloud
IsoVolume1_cloud
StreamTracer1
Glyph1
Properties
Information
Apply
Reset
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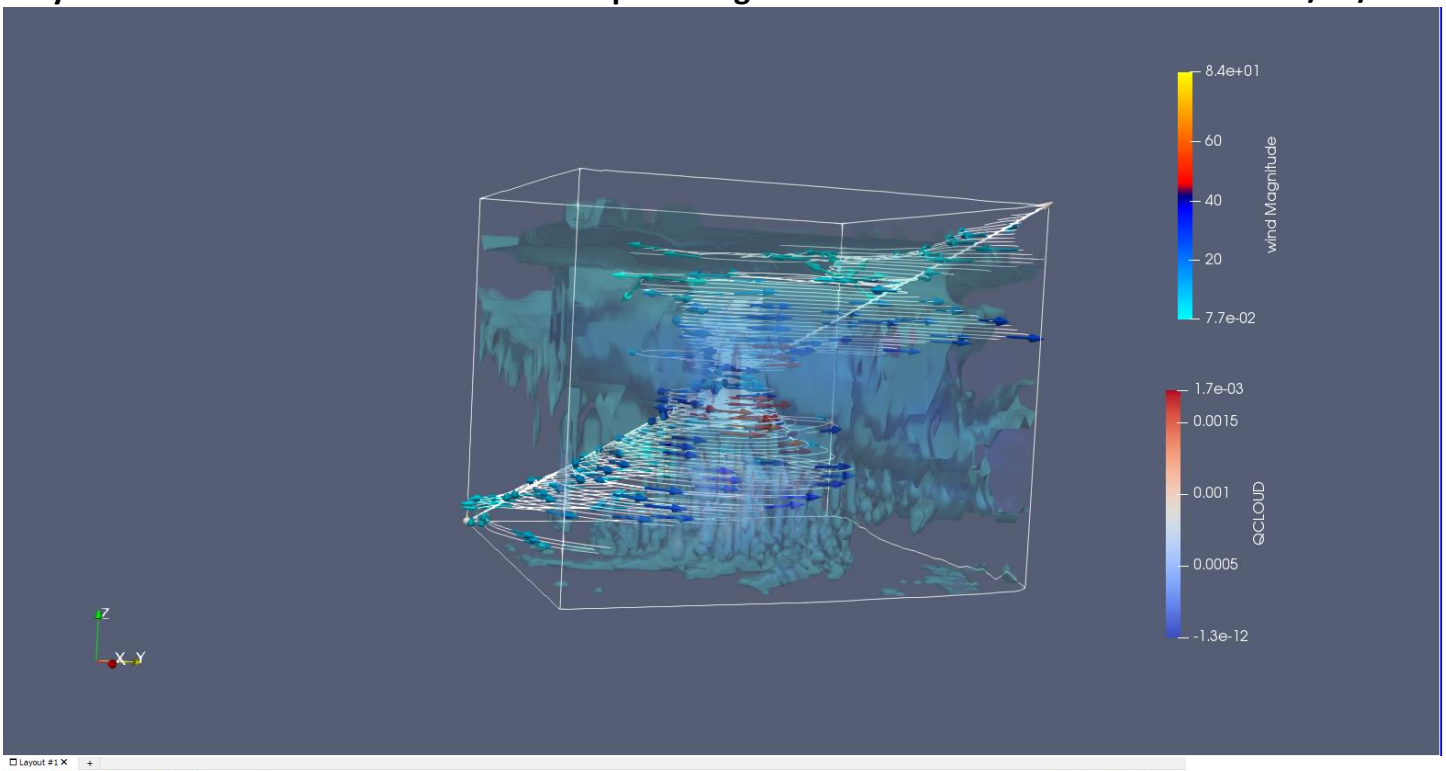
Edit
Styling
Opacity
0.1
Lighting
Specular
0
Data Axes Grid
Edit
Maximum Number Of Labels
100
View (Render View)
Axes Grid
Edit
Center Axes Visibility
Orientation Axes
Orientation Axes Visibility
Hidden Line Removal
Camera Parallel Projection
Background
Single color
Color
Restore Default
Layout #1
RenderView1
8.4e+01
60
40
20
7.7e-02
wind Magnitude
1.7e-03
0.0015
0.001
0.0005
-1.3e-12
QCLOUD
Z
X
Y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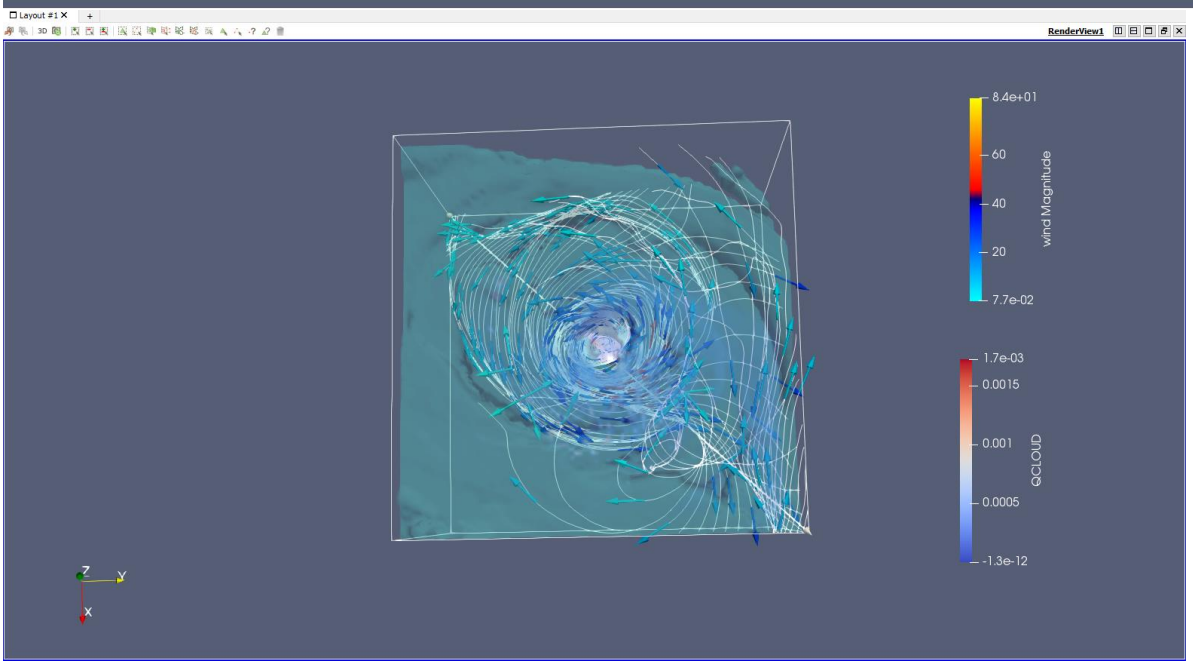
0.001
0.0005
-1.3e-12
QCLOUD
Z
X
Y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RenderView1
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7.7e-02
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-1.3e-12
QCLOUD
Z
Y
X