

Basic Post Processing using ParaView

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in/>

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Learning Objectives

We will learn:



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We will learn:

- ▶ **Some basic** visualization techniques **in** ParaView



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- ▶ **Some basic** visualization techniques **in** ParaView
- ▶ **Export** field data **to** .csv **file**



Learning Objectives

We will learn:

- ▶ **Some basic** visualization techniques **in** ParaView
- ▶ **Export** field data **to** .csv **file**
- ▶ **Plot** graph **in** LibreOffice suite calc



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We will learn:

- ▶ **Some basic** visualization techniques **in** ParaView
- ▶ **Export** field data **to** .csv **file**
- ▶ **Plot** graph **in** LibreOffice suite calc
- ▶ **Save screenshot of a view**



System Specifications



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► Ubuntu Linux OS version 18.04



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- ▶ **Ubuntu Linux OS version 18.04**
- ▶ **OpenFOAM version 7**



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- ▶ **ParaView version 5.6.0**



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- ▶ **OpenFOAM version 7**
- ▶ **ParaView version 5.6.0**
- ▶ **LibreOffice suite version 6.4**



Prerequisite



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- ▶ **Tutorial on** Simulating Hagen Poiseuille Flow through a Pipe **from** OpenFOAM **course**



Prerequisite

- ▶ **Tutorial on** Simulating Hagen Poiseuille Flow through a Pipe **from** OpenFOAM **course**
- ▶ **Tutorial on** Using Charts and Graphs **from** LibreOffice Suite Calc **course**



Prerequisite

- ▶ Please go through these two tutorials on <https://spoken-tutorial.org>



Summary

We have learnt:

- ▶ **Some basic** visualization techniques **in** ParaView
- ▶ **Export** field data **to** .csv **file**
- ▶ **Plot** graph **in** LibreOffice suite calc
- ▶ **Save screenshot of a view**



Assignment



Assignment

- ▶ **Simulate the** hagen poiseuille flow **for the** pipe **of** 0.5 cm diameter **with**



Assignment

- ▶ **Simulate the** hagen poiseuille flow **for the** pipe **of** 0.5 cm diameter **with**
- ▶ Inlet velocity 0.05 m/s **and** outlet pressure 0 Pascal



Assignment

- ▶ **Simulate the** hagen poiseuille flow **for the** pipe **of** 0.5 cm diameter **with**
- ▶ Inlet velocity 0.05 m/s **and** outlet pressure 0 Pascal



Assignment

- ▶ **Plot graphs of velocity and pressure in ParaView and LibreOffice Calc**



About the Spoken Tutorial Project

- ▶ Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



Spoken Tutorial Forum

- ▶ **Questions in THIS Spoken Tutorial?**
- ▶ **Visit** <https://forums.spoken-tutorial.org/>
- ▶ **Choose the minute and second where you have the question**
- ▶ **Explain your question briefly**
- ▶ **The Spoken Tutorial project will ensure an answer**

You will have to register to ask questions



FOSSEE Forum

- ▶ Questions not related to the Spoken Tutorial?
- ▶ Do you have general / technical questions on the Software?
- ▶ Please visit the FOSSEE Forum <https://forums.fossee.in/>
- ▶ Choose the Software and post your question



FOSSEE Case Study Project

- ▶ The FOSSEE team coordinates solving feasible CFD problems of reasonable complexity using OpenFOAM
- ▶ We give honorarium and certificates to those who do this
- ▶ For more details, please visit:
<https://cfd.fossee.in/>
<https://fossee.in/>



Acknowledgements

- ▶ **Spoken Tutorial Project is supported by the MHRD, Government of India**

