

# snappyHexMesh in OpenFOAM

Talk to a Teacher

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

National Mission on Education through ICT

<http://spoken-tutorial.org>

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# Learning Objectives

- Parameters in snappyHexMesh to generate Mesh in OpenFOAM



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# Pre-requisite

- Surface data files in STL format



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# Pre-requisite

- **Surface data files in STL format**
- **A domain with hex mesh**



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# Pre-requisite

- **Surface data files in STL format**
- **A domain with hex mesh**
- **snappyHexMeshDict**



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# System Requirement

- **Ubuntu Linux version 12.04**



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# System Requirement

- **Ubuntu Linux version 12.04**
- **OpenFOAM version 2.2.2**



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# System Requirement

- **Ubuntu Linux version 12.04**
- **OpenFOAM version 2.2.2**
- **ParaView version 3.12.0**



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# Methodology for snappyHexMesh

- Create a base mesh using blockMesh



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# Methodology for snappyHexMesh

- **Create a base mesh using**  
blockMesh
- **Refine base mesh**



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# Methodology for snappyHexMesh

- **Create a base mesh using blockMesh**
- **Refine base mesh**
- **Remove unused cells**



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# Methodology for snappyHexMesh

- Create a base mesh using blockMesh
- Refine base mesh
- Remove unused cells
- Snap mesh to surface



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# Methodology for snappyHexMesh

- **Create a base mesh using blockMesh**
- **Refine base mesh**
- **Remove unused cells**
- **Snap mesh to surface**
- **Add layers**



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# Summary

**In this tutorial we learnt**

- **Different parameters in snappyHexMesh to generate mesh in OpenFoam**



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# About the Spoken Tutorial Project

- Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- It summarises the Spoken Tutorial project



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- 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](mailto:contact@spoken-tutorial.org)**



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# Acknowledgements

- **Spoken Tutorial Project is a part of the Talk to a Teacher project**
- **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- **More information on this Mission is available at**

<http://spoken-tutorial.org/NMEICT-Intro>



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