

Installing and running Gmsh

Talk to a Teacher

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

National Mission on Education through ICT

<http://spoken-tutorial.org>

Gautam Sharma, Rahul Joshi
IIT Bombay

January 5, 2015



Talk to a Teacher

Learning Objectives

- Install and run Gmsh



Talk to a Teacher

Learning Objectives

- Install and run Gmsh
- Create a basic geometry in Gmsh



Talk to a Teacher

Pre-requisite

- Basic knowledge about mesh



Talk to a Teacher

System Requirement

- **Ubuntu Linux Operating System version 12.04**



Talk to a Teacher

System Requirement

- **Ubuntu Linux Operating System version 12.04**
- **Gmsh version 2.8.5**



Talk to a Teacher

Introduction to Gmsh

- Automatic 3D finite element mesh generator



Talk to a Teacher

Introduction to Gmsh

- Automatic 3D finite element mesh generator
- Built-in pre and post-processing facilities



Talk to a Teacher

Introduction to Gmsh

- Automatic 3D finite element mesh generator
- Built-in pre and post-processing facilities
- Open-source software



Talk to a Teacher

Introduction to Gmsh

- Advantageous in creating complex geometries than blockMesh utility



Talk to a Teacher

Introduction to Gmsh

- Advantageous in creating complex geometries than blockMesh utility
- For example blades, aerofoil



Talk to a Teacher

Introduction to Gmsh

- Advantageous in creating complex geometries than blockMesh utility
- For example blades, aerofoil
- OpenFOAM supports importing mesh from third party meshing software like Gmsh



Talk to a Teacher

Installing Gmsh

- **Gmsh - Synaptic Package Manager**



Talk to a Teacher

Downloading Gmsh

- **Download Gmsh from:**



Talk to a Teacher

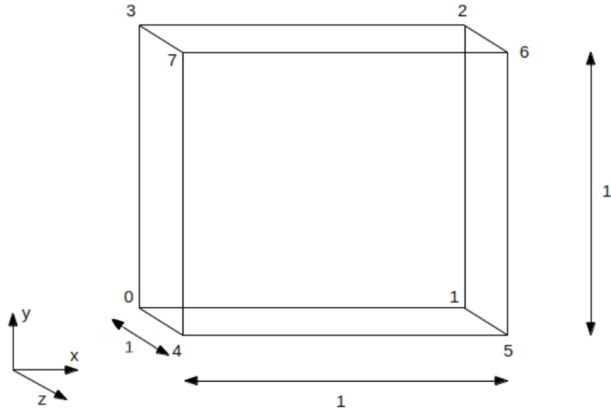
Downloading Gmsh

- Download Gmsh from:
- <http://geuz.org/gmsh>



Talk to a Teacher

Cube geometry



Assignment

- Create other simple geometry in Gmsh
- For example cylinder, sphere



Talk to a Teacher

Summary

In this tutorial we learnt :

- **To install and run Gmsh : Synaptic Package Manager and Website**
- **Created a cube using Gmsh**



Talk to a Teacher

About the Spoken Tutorial Project

- Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- It summarises the Spoken Tutorial project



Talk to a Teacher

About the Spoken Tutorial Project

- Watch the video available at http://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



Talk to a Teacher

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



Talk to a Teacher

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>



Talk to a Teacher