

Animation

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

Snehalatha Kaliappan

IIT Bombay

20 September 2016



Learning Objectives



Learning Objectives

- ▶ **Adjust background lighting and effects**



Learning Objectives

- ▶ **Adjust background lighting and effects**
- ▶ **Create scenes for animation**



Learning Objectives

- ▶ **Adjust background lighting and effects**
- ▶ **Create scenes for animation**
- ▶ **Place scenes along a timeline**



Learning Objectives

- ▶ **Adjust background lighting and effects**
- ▶ **Create scenes for animation**
- ▶ **Place scenes along a timeline**
- ▶ **Record a movie of the resulting animation**



Pre-requisites



Pre-requisites

- ▶ **Chimera interface**



Pre-requisites

- ▶ **Chimera interface**
- ▶ <http://spoken-tutorial.org>



System Requirement



System Requirement

- ▶ **Ubuntu OS version 14.04**



System Requirement

- ▶ **Ubuntu OS version 14.04**
- ▶ **Chimera version 1.10.2**



System Requirement

- ▶ **Ubuntu OS version 14.04**
- ▶ **Chimera version 1.10.2**
- ▶ **Mozilla firefox browser 42.0**



System Requirement

- ▶ **Ubuntu OS version 14.04**
- ▶ **Chimera version 1.10.2**
- ▶ **Mozilla firefox browser 42.0**
- ▶ **Working internet connection**



Animation Scenes



Animation Scenes

A Chimera scene can have,



Animation Scenes

A Chimera scene can have,

- ▶ **Orientations of models and clipping planes**



Animation Scenes

A Chimera scene can have,

- ▶ **Orientations of models and clipping planes**
- ▶ **Display styles and colors of models**



Animation Scenes

A Chimera scene can have,

- ▶ **Orientations of models and clipping planes**
- ▶ **Display styles and colors of models**
- ▶ **Molecular surfaces**



Animation Scenes

A Chimera scene can have,

- ▶ **Orientations of models and clipping planes**
- ▶ **Display styles and colors of models**
- ▶ **Molecular surfaces**
- ▶ **Electron Density maps and Electrostatic Potential maps**



Animation Scene



Animation Scene

- ▶ **2D labels**



Animation Scene

- ▶ **2D labels**
- ▶ **Axis, plane and centroid representation**



Animation Scene

- ▶ **2D labels**
- ▶ **Axis, plane and centroid representation**
- ▶ **CAST-P pocket display**



Animation Scene

- ▶ 2D labels
- ▶ Axis, plane and centroid representation
- ▶ CAST-P pocket display
- ▶ Parameters such as background lighting and effects



Summary



Summary

- ▶ **Adjust background lighting and effects**
- ▶ **Create scenes for animation**
- ▶ **Place scenes along a timeline**
- ▶ **Record a movie of the resulting animation**



Assignment



Assignment

- ▶ **Open a model of Chymotrypsin (PDB code: 7GCH)**
- ▶ **Adjust background and lighting effects**
- ▶ **Adjust transparency to show ligand inside the protein surface**
- ▶ **Create a few scenes and make animation movie**



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



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



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



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>

