

Writing Commands

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

Snehalatha Kaliappan

IIT Bombay

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Learning Objectives



Learning Objectives

Type commands to,

- ▶ **Change the display to atoms**



Learning Objectives

Type commands to,

- ▶ Change the display to atoms
- ▶ Show and hide ribbons



Learning Objectives

Type commands to,

- ▶ Change the display to atoms
- ▶ Show and hide ribbons
- ▶ Change the color of the amino acid residues



Learning Objectives

Type commands to,

- ▶ Change the display to atoms
- ▶ Show and hide ribbons
- ▶ Change the color of the amino acid residues
- ▶ Label individual residues



Learning Objectives



Learning Objectives

- ▶ **Remove solvent molecules**



Learning Objectives

- ▶ **Remove solvent molecules**
- ▶ **Save the image in different file formats**



Pre-requisites



Pre-requisites

- ▶ **Undergraduate Biochemistry**



Pre-requisites

- ▶ Undergraduate Biochemistry
- ▶ Structural Biology



Pre-requisites

- ▶ Undergraduate Biochemistry
- ▶ Structural Biology
- ▶ Chimera interface



Pre-requisites

- ▶ Undergraduate Biochemistry
- ▶ Structural Biology
- ▶ Chimera interface
- ▶ <http://spoken-tutorial.org>



System Requirement



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- ▶ **Ubuntu OS version 14.04**



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- ▶ **Chimera version 1.10.2**



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- ▶ **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**



Chimera Commands



Chimera Commands

- ▶ Chimera commands are entered at the Command line



Chimera Commands

- ▶ Chimera commands are entered at the Command line
- ▶ Multiple commands can be combined into one line with semicolon separators



Chimera Commands

- ▶ Chimera commands are entered at the Command line
- ▶ Multiple commands can be combined into one line with semicolon separators
- ▶ Press Enter key to execute the command



Chimera Commands



Chimera Commands

- ▶ Previous commands can be accessed from command History



Chimera Commands

- ▶ Previous commands can be accessed from command History
- ▶ <http://www.cgl.ucsf.edu/chimera/docs/UsersGuide/framecore.html>



Summary



Summary

Commands to,

- ▶ **Change the display to atoms**
- ▶ **Show and hide ribbons**
- ▶ **Change the color of the amino acid residues**
- ▶ **Label individual residues**



Summary



Summary

- ▶ Remove solvent molecules
- ▶ Save the image in different file formats



Assignment



Assignment

Type Commands to,

- ▶ Load the structure of Human Oxyhemoglobin (PDB code: 2dn1)
- ▶ Change the display to **atoms** and hide ribbons
- ▶ Color all **histidine** residues in **green**
- ▶ Remove the solvent molecules
- ▶ Save the image in **JPEG** format



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



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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

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- ▶ 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>

