

Picking and Selection

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives



Learning Objectives

- ▶ **Show labels for atoms and residues**



Learning Objectives

- ▶ **Show labels for atoms and residues**
- ▶ **Select atoms and residues using Select menu/by Picking**



Learning Objectives

- ▶ Show labels for atoms and residues
- ▶ Select atoms and residues using Select menu/by Picking
- ▶ Change the color and display of the residues



Learning Objectives

- ▶ Show labels for atoms and residues
- ▶ Select atoms and residues using Select menu/by Picking
- ▶ Change the color and display of the residues
- ▶ Add, delete or change atoms



Learning Objectives

- ▶ Show labels for atoms and residues
- ▶ Select atoms and residues using Select menu/by Picking
- ▶ Change the color and display of the residues
- ▶ Add, delete or change atoms
- ▶ Rotate bonds



Learning Objectives



Learning Objectives

- ▶ **Open more than one model on display window**



Learning Objectives

- ▶ **Open more than one model on display window**
- ▶ **Select and move the model**



Pre-requisites



Pre-requisites

- ▶ **Undergraduate Biochemistry**



Pre-requisites

- ▶ Undergraduate Biochemistry
- ▶ Structural Biology



Pre-requisites

- ▶ Undergraduate Biochemistry
- ▶ Structural Biology
- ▶ <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 35.0**



System Requirement

- ▶ **Ubuntu OS version 14.04**
- ▶ **Chimera version 1.10.2**
- ▶ **Mozilla firefox browser 35.0**
- ▶ **Working internet connection**



Ways to make a Selection



Ways to make a Selection

- ▶ **Select menu (menu bar)**



Ways to make a Selection

- ▶ **Select menu (menu bar)**
- ▶ **Picking from the graphics window**



Ways to make a Selection

- ▶ Select menu (**menu bar**)
- ▶ Picking from the graphics window
- ▶ **Typing Commands on the command line**



Ways to make a Selection

- ▶ Select menu (menu bar)
- ▶ Picking from the graphics window
- ▶ Typing Commands on the command line
- ▶ Model Panel and Sequence (Favorites menu)



Summary



Summary

- ▶ Show labels for atoms and residues
- ▶ Select atoms and residues using Select menu/Picking
- ▶ Change the color and display of the residues
- ▶ Add, delete or change atoms
- ▶ Rotate bonds



Summary



Summary

- ▶ **Open more than one model on display window**
- ▶ **Select and move the model**



Assignment



Assignment

- ▶ Open a structure of human insulin ([4ex1.pdb](#))
- ▶ Color all the **hydrophobic** amino acid residues in blue
- ▶ Color all **polar** residues in red



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>

