The Spoken Tutorial project

- Self explanatory - uses simple language
- Audio-video - uses multisensory approach
- Small duration - has better retention
- Learner-centered - learn at your own pace
- Learning by doing - learn and practice simultaneously
- Empowerment - learn a new FOSS

Target group

- School students
- Undergraduates / Postgraduates
- Research scholars
- Teachers

Workshops

The Spoken Tutorial Project Team conducts work-shops on CellDesigner and other FOSS using spoken tutorials and gives certificates to those who pass an online test.

For more details, please write to
contact@spoken-tutorial.org

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Spoken Tutorials

CellDesigner™

National Mission on Education through
Information and Communication Technology
(NMEICT)
www.sakshat.ac.in
An MHRD intiative

http://spoken-tutorial.org

Introduction

- CellDesigner is a modeling tool of biochemical networks with graphical user interface.
- It is designed to be Systems Biology Work bench compliant, and support Systems Biology Markup Language format.
- CellDesigner is developed by the Systems Biology Institute (SBI), Tokyo, Japan.
- Latest version is 4.4
- Details about CellDesigner are available at this link http://www.celldesigner.org/index.html

Features of CellDesigner

- Biochemical Gene Regulatory Networks Modeling with GUI.
- Visual Representation of Biochemical Semantics.
- Comprehensive Graphical Notation: SBGN Process Diagram.
- Is a Systems Biology Markup Language compliant software.
- Direct integration with SBML ODE Solver and Copasi.
- Smooth linkage to SBWpowered simulation module.
- Database Connections.
- Export image to image files including PDF and SVG format.

System Requirements

The current version of CellDesigner requires Java2 Runtime Environment (JRE1.6.0 or later).

Pathway Databases

- Directly accessible from CellDesigner's database menu:
  - PANTHER Pathway database
  - BioModels.Net
- Other databases using CellDesigner for Pathway building
  - iPAVS
  - NaviCell
  - BioPP

Plugins

- CellDesigner Plugins allow developers to extend the function of CellDesigner.
- CellDesignerTM 4.0 onwards support Plugin functions.

Uses of CellDesigner

- Easy data exchange is possible with other SBML compliant applications.
- SBML is the computer-readable format for representing models of biochemical reaction networks.
- Calling SBML ODE Solver and Copasi directly from CellDesigner via the ControlPanel enables us
  - to specify details of parameters
  - conduct parameter search and
  - in interactive simulation in intuitive manner.
- CellDesigner complies with Systems Biology Workbench, which enables the seamless linkage to SBWpowered simulators.

Graphical notation of CellDesigner (ver4.2)