Introduction to STEP

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http://www.ITforChange.net

Talk to a Teacher Project

http://spokentutorial.org

National Mission on Education through ICT

http://sakshat.ac.in

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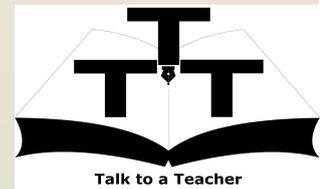Public Software Centre
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Introduction to STEP

What is STEP?

STEP is an interactive tool for Physics

What is STEP?

Using this tool, you can model the physical world

by selecting objects and

changing the parameters by which they interact

What is STEP?

Step is part of the KDE project
http://www.kde.org

and can be downloaded using Synaptic Package Manager

What is STEP?

In this tutorial, I have worked on Ubuntu version 10.04 LTS and STEP version 0.1.0, KDE 4.4.5

Three main components

Palette which is the selection of objects and types of interactions to choose from

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Three main components

World Scene is where the objects are placed and you can build the model

Three main components

Panels on the right include world, the properties panel, context information and simulation history

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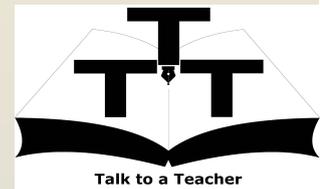
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Lesson Outline

Introduce a particle on the world scene

and define the parameters of the particle in the properties panel

Lesson Outline

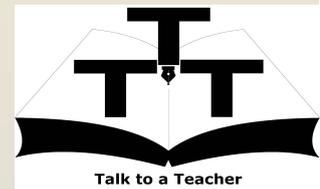Adding motors, forces or springs will add the conditions you are simulating

Lesson Outline

We will now run the simulation

Lesson Outline

We will see how STEP works by the simulation of free fall of two objects

Where to use STEP

We can use STEP to illustrate complex interactions in mechanics

Where to use STEP

After the theory has been introduced,

the models can be built/simulated

to reinforce understanding

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Where to use STEP

This can be a supplement for syllabus at college level

Assignment

Simulate a scenario when a ball is thrown upwards at a given angle to the horizontal

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Assignment

What is the path and why does it follow such a path

Acknowledgement

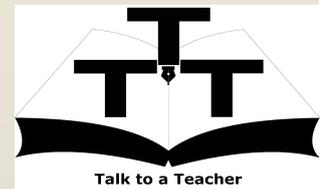Spoken Tutorial Project is a part of Talk to a Teacher Project

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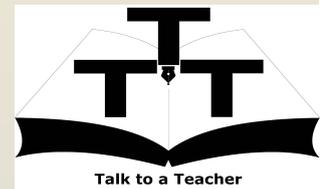
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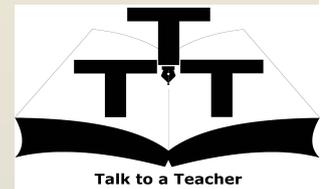
Acknowledgement

More information:

http://spoken-tutorial.org/NMEICT-Intro

Acknowledgement

Thank you