Overview of Grace

Spoken Tutorial Project
https://spoken-tutorial.org
National Mission on Education through ICT
http://sakshat.ac.in

Rani PV
IIT Bombay

17 December 2019

Learning Objectives

Learning Objectives

- **The Grace program**

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- **The Grace program**
- **The Grace parent website**

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- **Online example files and forks**

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- **Grace project file structure**

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- **The Grace program**
- **The Grace parent website**
- **Online example files and forks**
- **Qtgrace fork website**
- **Grace project file structure**
- **Benefits of Grace**

Learning Objectives

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- **We will also play excerpts of Grace tutorials available on this website**

System Requirements

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- **Ubuntu Linux 16.04 OS**

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- **Firefox web browser 70**

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- **Gedit 3.18**

System Requirements

- **Ubuntu Linux 16.04 OS**
- **Firefox web browser 70**
- **Gedit 3.18**
- **Working internet connection**

Pre-requisites

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- **Learner should have knowledge of basic Mathematics**

Code Files

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- **The files used in this tutorial are available in the Code files link**

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- **The files used in this tutorial are available in the Code files link**
- **Please download and use them while practising**

Grace

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- **Grace is a graphical 2D plotting program for graphing & data fitting**

Grace

- **Grace is a graphical 2D plotting program for graphing & data fitting**
- **The official website of Grace is** http://plasma-gate.weizmann.ac.il/Grace/

Who can Use Grace

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- **Teachers & students can use Grace for various types of data analysis**

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- **Teachers & students can use Grace for various types of data analysis**
- **Students can analyse laboratory generated data or for data fitting**

Who can Use Grace

- **Teachers & students can use Grace for various types of data analysis**
- **Students can analyse laboratory generated data or for data fitting**
- **Teachers may analyse student statistics on marks or attendance**

Benefits of Grace

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There are several benefits of using Grace

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- **Grace is widely used by the scientific community**

Benefits of Grace

There are several benefits of using Grace

- **Grace is widely used by the scientific community**
- **The graph can be incorporated programmatically**

Video Clippings

Video Clippings

- **Now, we will briefly go through the individual tutorials created in this series**

Installation and Introduction of Grace

Installation and Introduction of Grace

This tutorial explains about

- **Installation of Grace**

Installation and Introduction of Grace

This tutorial explains about

- **Installation of Grace**
- **Opening the Grace interface**

Installation and Introduction of Grace

This tutorial explains about

- **Installation of Grace**
- **Opening the Grace interface**
- **Resizing a graph panel**

Installation and Introduction of Grace

This tutorial explains about

- **Installation of Grace**
- **Opening the Grace interface**
- **Resizing a graph panel**
- **Loading a project**

Installation of QtGrace on Windows OS

Installation of QtGrace on Windows OS

In this tutorial, learner will,

- **Download QtGrace**

Installation of QtGrace on Windows OS

In this tutorial, learner will,

- **Download QtGrace**
- **Set user preferences**

Installation of QtGrace on Windows OS

In this tutorial, learner will,

- **Download QtGrace**
- **Set user preferences**
- **Resize the graph panel**

Installation of QtGrace on Windows OS

In this tutorial, learner will,

- **Download QtGrace**
- **Set user preferences**
- **Resize the graph panel**
- **Load a graph project**

Creating a 2D Graphical Plot

Creating a 2D Graphical Plot

This tutorial explains about,

- **Changing color, symbol and line style**

Creating a 2D Graphical Plot

This tutorial explains about,

- **Changing color, symbol and line style**
- **Adjusting axis limits and grid**

Creating a 2D Graphical Plot

This tutorial explains about,

- **Changing color, symbol and line style**
- **Adjusting axis limits and grid**
- **Adding title and axis labels**

Bar Chart and Error Bars

Bar Chart and Error Bars

This tutorial explains about

- **Drawing a bar chart**

Bar Chart and Error Bars

This tutorial explains about

- **Drawing a bar chart**
- **Using strings for axis tick marks**

Bar Chart and Error Bars

This tutorial explains about

- **Drawing a bar chart**
- **Using strings for axis tick marks**
- **Editing a dataset in Grace**

Bar Chart and Error Bars

This tutorial explains about

- **Drawing a bar chart**
- **Using strings for axis tick marks**
- **Editing a dataset in Grace**
- **Incorporating error bars**

Data Fitting

Data Fitting

This tutorial explains about

- **Data Fitting for a straight line**

Data Fitting

This tutorial explains about

- **Data Fitting for a straight line**
- **Adding more than one dataset to a graph panel**

Fit an Exponential Decay Curve

Fit an Exponential Decay Curve

This tutorial explains about

- **Add multiple graph panels in the canvas**

Fit an Exponential Decay Curve

This tutorial explains about

- **Add multiple graph panels in the canvas**
- **Write an equation for data fitting**

Fit an Exponential Decay Curve

This tutorial explains about

- **Add multiple graph panels in the canvas**
- **Write an equation for data fitting**
- **Fit a given dataset to an exponential decay curve**

Summary

Summary

- The Grace program
- The Grace parent website
- Online example files and forks
- Qtgrace which is a Windows fork
- Grace project file structure

Summary

Summary

- **Watched excerpts of the Grace tutorials from Spoken Tutorial website**

About the Spoken Tutorial Project

- Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- It summarises the Spoken Tutorial project

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- 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**

Forum questions

- Questions in THIS Spoken Tutorial?
- Visit https://forums.spoken-tutorial.org
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer

You will have to register to ask questions

Forum for specific questions

- **The Spoken Tutorial forum is for specific questions on this tutorial**
- **Please do not post unrelated and general questions on them**
- **This will help reduce the clutter**
- **With less clutter, we can use these discussion as instructional material**

Acknowledgements

Spoken Tutorial Project is supported by

- **National Mission on Education through ICT (NMEICT)**
- **Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)**

MHRD, Government of India