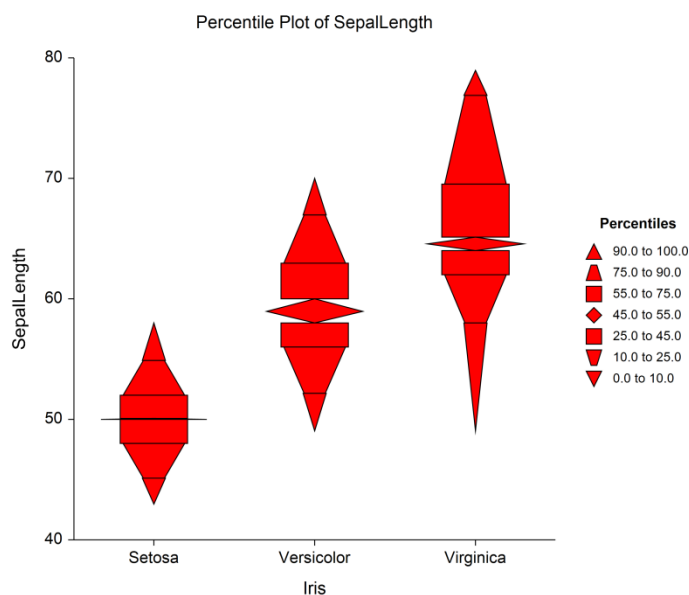


Chapter 153

Percentile Plots

Introduction

This procedure calculates and displays percentiles between 0 and 100. It lets you assign different shapes, colors, and widths to each percentile group. Using various combinations, you can generate percentile plots that will be tailored to your particular need. Following is a percentile plot for the PetalWidth variable of Fisher's iris data.



Data Structure

A percentile plot is constructed from a numeric variable. A second variable may be used to divide the first variable into groups (e.g., age group or gender). In the two-factor procedure, a third variable may be used to divide the groups into subgroups.

Percentile Plot Format Window Options

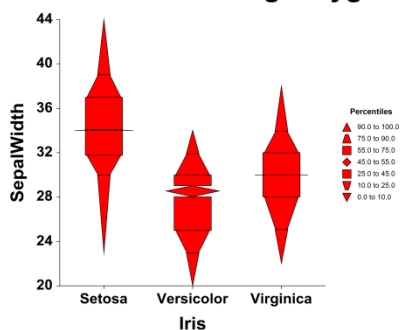
This section describes the specific options available on the Percentile Plot window, which is displayed when the Percentile Plot button is clicked. Common options, such as axes, labels, legends, and titles are documented in the Graphics Components chapter.

Percentile Plot Tab

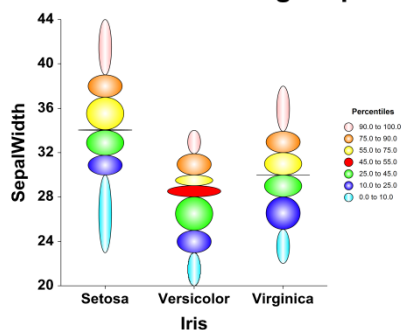
Segments Section

You can modify the color, shape, and width of each segment using the options in this section. You can also change the percentile range that makes up a segment.

Percentile Plot using Polygons



Percentile Plot using Ellipses

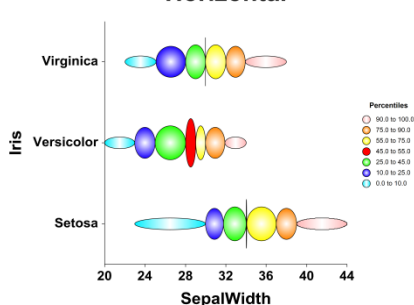


Layout Tab

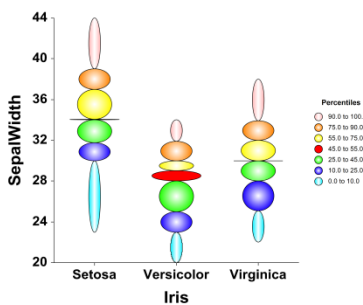
Orientation Section

You can orient the plot horizontally or vertically.

Horizontal

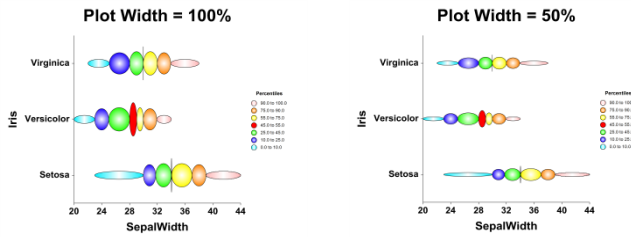


Vertical



Object Spacing and Size Section

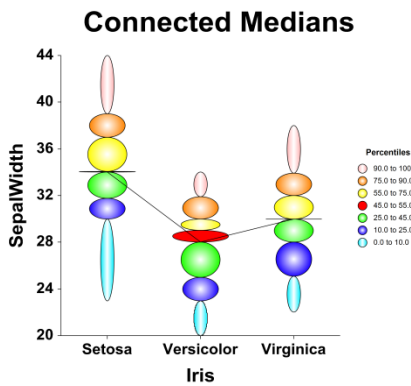
You can change the size of the gap between individual plots.



Connecting Lines Tab

Connect Between Groups Section

You can add reference lines at group means and percentiles.



Titles, Legend, Numeric Axis, Group Axis, Grid Lines, and Background Tabs

Details on setting the options in these tabs are given in the Graphics Components chapter.

Example 1 – Creating a Percentile Plot

This section presents an example of how to generate a percentile plot. The data used are from the Fisher dataset. We will create percentile plots of the *SepalLength* variable, grouping on the type of iris.

Setup

To run this example, complete the following steps:

1 Open the Fisher example dataset

- From the File menu of the NCSS Data window, select **Open Example Data**.
- Select **Fisher** and click **OK**.

2 Specify the Percentile Plots procedure options

- Find and open the **Percentile Plots** procedure using the menus or the Procedure Navigator.
- The settings for this example are listed below and are stored in the **Example 1** settings file. To load these settings to the procedure window, click **Open Example Settings File** in the Help Center or File menu.

Variables Tab

Data Variable(s).....**SepalLength**

Horizontal (Group) Variable**Iris**

Report Options (*in the Toolbar*)

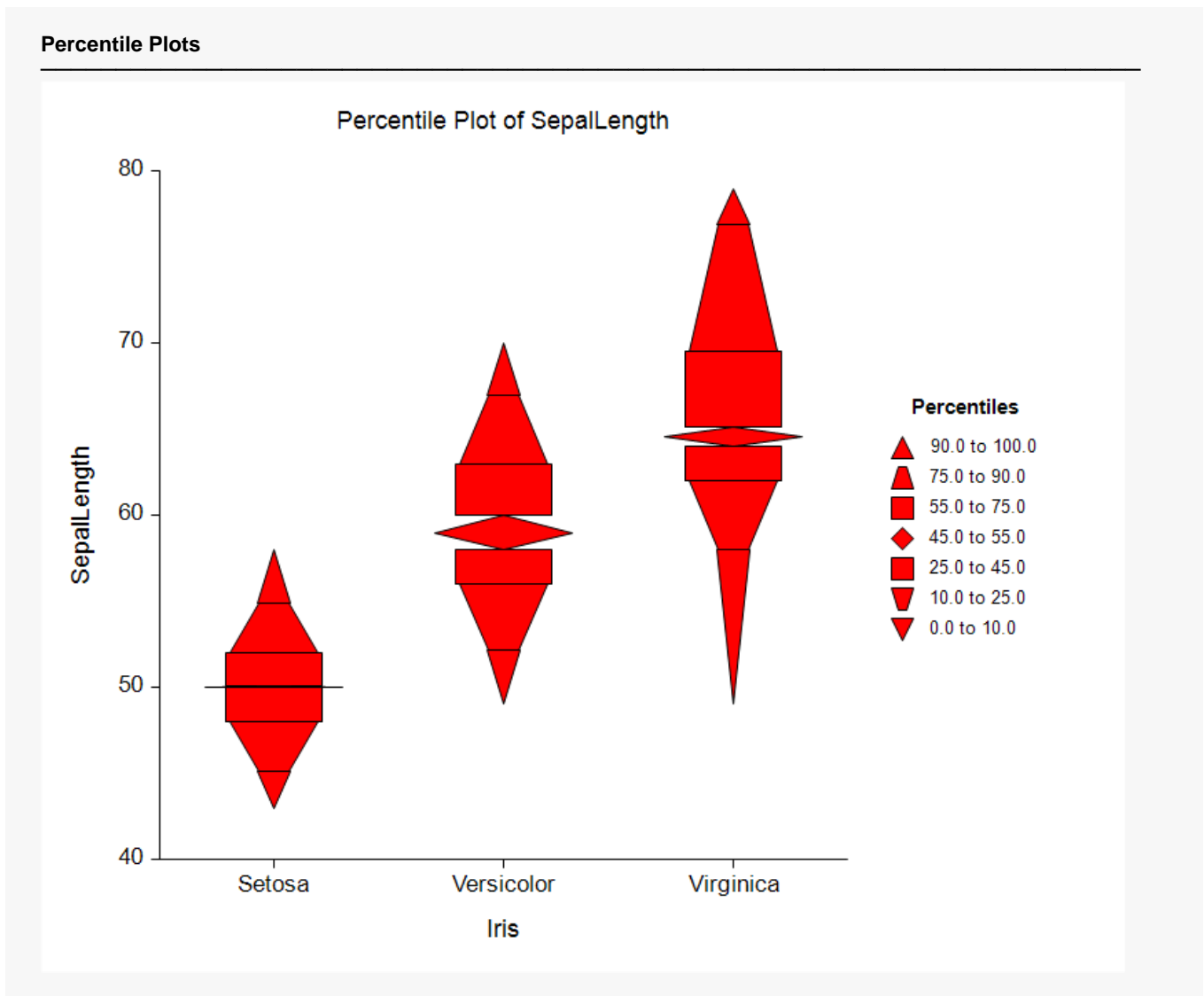
Variable Labels.....**Column Names**

Data Labels.....**Value Labels**

3 Run the procedure

- Click the **Run** button to perform the calculations and generate the output.

Percentile Plot Output



Example 2 – Creating a Percentile Plot with Subgroups

This section presents an example of how to generate a percentile plot with subgroups. The data used are from the fictitious Tree dataset. We will create percentile plots of the *Diameter* variable, grouping on *Species*, with subgroups according to *Sunlight*.

Setup

To run this example, complete the following steps:

1 Open the Tree example dataset

- From the File menu of the NCSS Data window, select **Open Example Data**.
- Select **Tree** and click **OK**.

2 Specify the Percentile Plots (2 Factors) procedure options

- Find and open the **Percentile Plots (2 Factors)** procedure using the menus or the Procedure Navigator.
- The settings for this example are listed below and are stored in the **Example 2** settings file. To load these settings to the procedure window, click **Open Example Settings File** in the Help Center or File menu.

Variables Tab

Data Variable(s).....**Diameter**
 Horizontal (Group) Variable.....**Species**
 Legend (Subgroup) Variable.....**Sunlight**

Report Options (*in the Toolbar*)

Data Labels.....**Value Labels**

3 Run the procedure

- Click the **Run** button to perform the calculations and generate the output.

Percentile Plot Output

