Chapter 162

Scatter Plot Matrix

Introduction

A *scatter plot matrix* is table of scatter plots. Each plot is small so that many plots can be fit on a page. When you need to look at several plots, such as at the beginning of a multiple regression analysis, a scatter plot matrix is a very useful tool.

Following is an example of a scatter plot matrix created during the initial phase of a multiple regression study. Five test scores form the pool of independent variables and the subjects IQ value is the dependent variable. Notice how quickly you can scan the plots for highly correlated variables and for outliers.
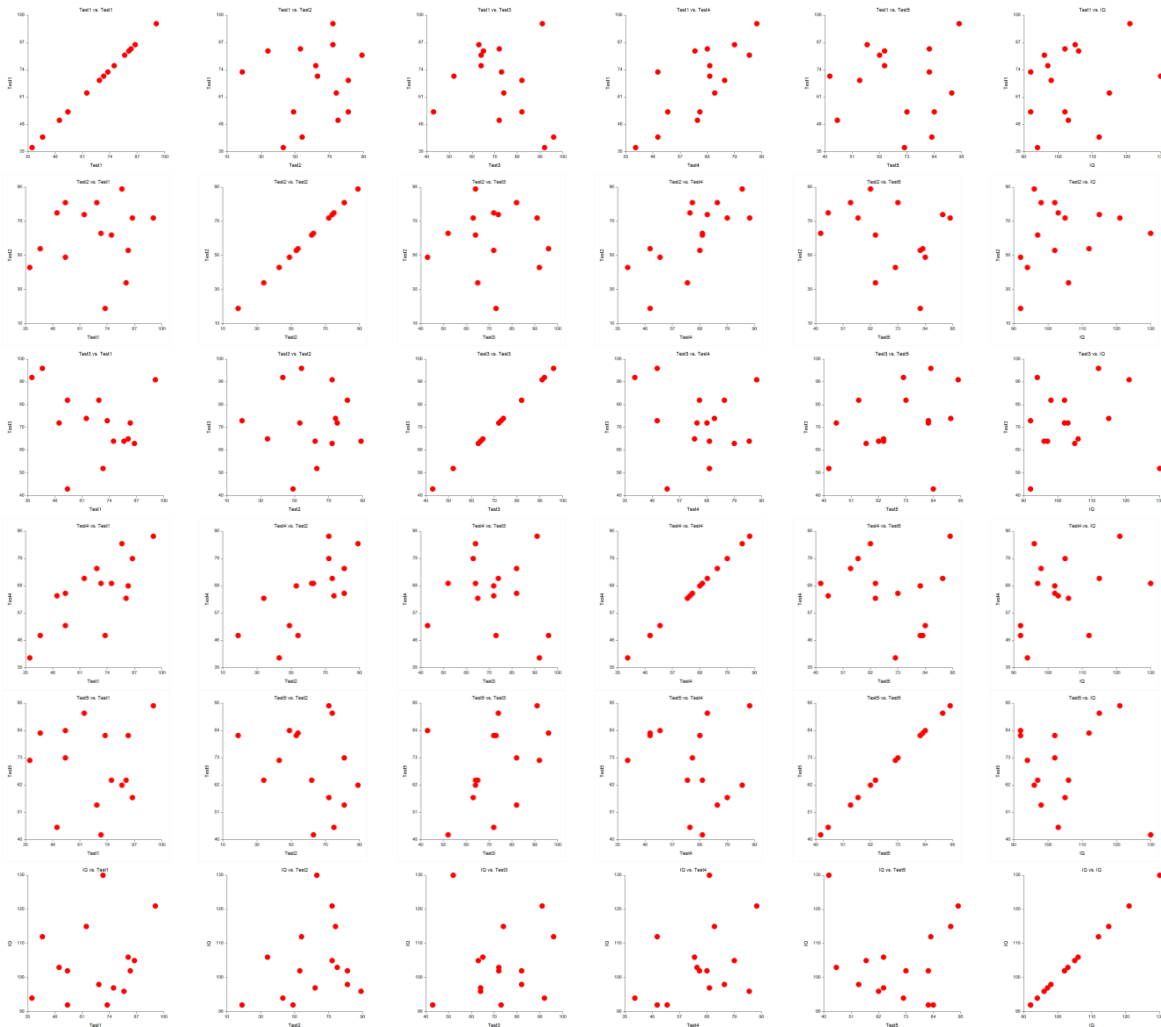
Data Structure

Each scatter plot is constructed from two numeric variables. A third, alphanumeric, variable may be used to control the plot symbol.

Example 1 – Creating a Scatter Plot Matrix

This section presents a tutorial on generating a scatter plot matrix. To run this example, take the following steps using the Tests dataset.

Setup

To run this example, complete the following steps:

1 Open the Tests example dataset
- From the File menu of the NCSS Data window, select **Open Example Data**.
- Select **Tests** and click **OK**.

2 Specify the Scatter Plot Matrix procedure options
- Find and open the **Scatter Plot Matrix** 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
  _____

  Vertical Variable(s) ....**<Empty>**
  Horizontal Variable(s) **Test1-IQ**

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

Scatter Plot Matrix Output

Scatter Plots

This report displays the scatter plot matrix. In the output screen you can double-click any of the plots to see it in full size.