Introduction

Drug products touch the vast majority of the population. With such an impact on human health, it is crucial to ensure the quality of these products with reliable means. Targeting failed samples with precision and ease, the TIBCO Spotfire® Software for Inorganic USP 232 Dashboard can provide your laboratory with an efficient data analysis and visualization tool. This streamlined dashboard will assist in the confirmation of drug products to USP 232 regulations while saving both time and money.

Features

Line Chart

A Line Chart has been trellised by column name in order to view drug trial results separately, yet comparably, for each metal tested. A line and color by rule has been applied to display a separate colored line for each drug undergoing testing. This Line Chart is shown in Figure 1.

2D Scatterplots

2D Scatterplots, which can be seen in Figure 2, have been created to simply display drug contaminant data above and below regulated limits. A horizontal line has been added to each plot to provide a quick reference of the contaminant limit. A color by rule was applied to change all results above their limit red and those below green. This formatting allows you to identify suspect data rapidly and accurately.

A calculated column has been added to the Data Table that identifies whether a given sample has passed or failed its testing. The column displays "True" when a sample is considered passing and "False" when the sample has failed one or more metal contaminant tests. A new Scatterplot was created on page one of the analysis to represent this data. The Scatterplot is shown in Figure 3.

Figure 1. Trellised Line Chart (top), Data Table (bottom).
Interactivity
The visualizations included in the USP 232 Dashboard are each created from the SpotfireInorganicUSP232v1 Data Table. The fundamental interactivity of TIBCO Spotfire® allows these visualizations to update based upon markings made from either page. Metals that have results above contaminant limits may be marked in the Scatterplots and identified using the Line Chart or vice versa.

Instructions have been provided on the final page of the dashboard to guide you through uploading and customizing your metal contaminant data.