TIBCO Spotfire® Software for IR Instrumentation

Introduction
PerkinElmer FT-IR and NIR instruments are established workhorses in thousands of laboratories worldwide. As instruments generate more and more data, operators increasingly need tools to better understand trends and patterns in results. TIBCO Spotfire® Software for IR Instrumentation is an exclusive software product from PerkinElmer that creates powerful visualizations to ensure the quality and consistency of your results-every time.

How TIBCO Spotfire® Software for IR Works
All major data commands in the Spectrum 10 IR software generate log files which can be imported directly into TIBCO Spotfire® through the dashboard of your choice. Alternatively, results displayed on-screen in Spectrum 10 view panes may be sent directly to TIBCO Spotfire® using the ‘Send to’ command. Established visualizations update automatically and can be built upon as needed. TIBCO Spotfire® can apply another dimension to existing data analysis protocols through multivariate visualization creation, automatic notification of failed data, filter-driven drill-down, and the capability to pinpoint critical data across multiple charts.

Figure 1. Adulterant Screen Dashboard. Level and detection limit 2D scatterplot (top) and data table (bottom).
TIBCO Spotfire® Software for IR Dashboards
Fifteen Dashboards have been developed to simplify the exploration of results acquired from Spectrum 10 software functions as well as end market specific analysis with metadata integration. Pre-built Spectrum 10 software dashboards have been developed for Adulterant Screen, Compare, Instrument Verification, Multiple Spectra, Beer’s Law, PCR+, PLS1, Ready Checks, Search, and Assure ID. Five pre-built end market dashboards were developed for Food, Nutraceuticals, Pharmaceuticals, Polymers and Used Oil.

TIBCO Spotfire® Software for IR Package Includes
- Full TIBCO Spotfire® software application
- Five pre-built starter and end market dashboards

TIBCO Spotfire® Data Templates for IR Spectrum 10 Add-On Package Includes
- Ten pre-built dashboards based upon Spectrum 10 functions

Ordering Information

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<td>TIBCO Spotfire® for Infrared</td>
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Spectrum 10 Add-on Package Dashboards Include:

- **Adulterant Screen**: Shape by rules allow for effortless analysis of detection limit and sample level measurements of all potential adulterant hits for each sample
- **AssureID Tutorial**: Confirm the identity of materials by visualizing total distance ratio and pass/fail identification data in the same visualization
- **Compare**: View sample correlation by date or material to identify trends in pass/fail data
- **Instrument Verification**: Maintain records of instrument performance which can track trends by a variety of date and time series displays
- **Multiple Spectra**: Instantly select and compare numerous spectra through uniquely designed document property controls
- **Quant Beer’s Law**: Determine sample thickness with embedded Beer’s Law equation
- **Quant PCR+**: Analyze principal component regression results through visualization of outcomes and explanatory variables
- **Quant PLS1**: Visualize results of partial least squares analysis in order to determine underlying matrix relationships
- **Ready Checks**: Maintain a visual log of instrument data to quickly pinpoint and track system error across many date and time series displays
- **Search**: Track and explore likely spectral matches for quick referential analysis of samples

End Market Package Dashboards Include:

- **Food**: Ensure food products contain allowable limits of specified ingredients to meet internal or external regulations
- **Nutraceuticals**: Use the mapping feature to track quantities of key active ingredients from samples collected across the world
- **Pharmaceutical**: Separate data according to different variables for easier comparison through trellising and hierarchical design
- **Polymers**: Rapidly identify differences in polymer spectra and analyze simultaneously alongside additional test results
- **Used Oil**: Track used oil results from multiple sample locations through longitudinal and latitudinal geocoding of samples

Figure 2. PCR+ Dashboard. Data table (top), line chart (bottom left) and stacked bar chart (bottom right).
Analyze your data more efficiently with TIBCO Spotfire® software for IR. Contact your local PerkinElmer Representative for more information or visit www.perkinelmer.com/iranalytics