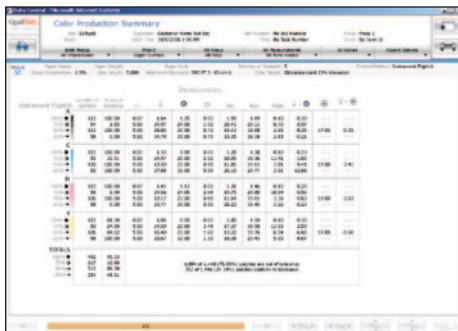


QuadTech[®] Data Central[®] Reports Overview

Overview:

The QuadTech Data Central Performance Reporting Module offers powerful, inclusive information and statistics to help you monitor and improve the performance of your equipment – and to quantify your product quality to help minimize rebates and reruns. Data Central[®] offers a number of different report formats and filter options that allow users to determine the data included in the report. These preferences can be saved for future use. The Performance Reporting Module can be applied to any or all ICON[™] platform press controls. Reporting capabilities are outlined below.

Densitometric Reports for QuadTech[®] Color Control System



Color Production Summary

Displays job summary statistics in a tabular format with one row for each Color/Print Attribute combination. Data includes: Number of Samples, % Out of Tolerance, Tolerance, Average, Targets, Standard Deviation, Min, Max, Range and Measurement at Color Approval – as well as the difference between the Average Measured Value and the Job Target, Color Approval and/or Reference Standard.

- Filter Options:
- Control Mode (Auto/Manual/Both) and Impression Range
 - Web, Surface
 - Alleys (Pages) and/or Keys
 - Measurement (Print Attributes) and Tones
 - Colors
 - Report Options



Color Distribution of Color Error

Displays the difference between the measured values and target values in a histogram format. Statistics on Standard Deviation, % In or Out of Tolerance, Average/Min/Max measurements and Average/Min/Max target values are also displayed.

- Filter Options:
- Control Mode (Auto/Manual/Both) and Impression Range
 - Web, Surface
 - Alleys (Pages) and/or Keys
 - Measurement (Print Attributes)
 - Colors



Color Deviation from Target

Displays the difference between the measured value and target value throughout the job. Each key is represented by one line on the report. The tolerance scale can be adjusted using the zoom in/out buttons.

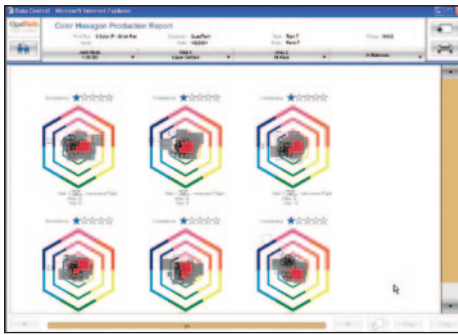
- Filter Options:
- Control Mode (Auto/Manual/Both) and Impression Range
 - Web, Surface
 - Alleys (Pages) and/or Keys
 - Measurement (Print Attributes)
 - Colors



Color Average with Range

Summarizes the average and range of measurements from the selected ink keys in a box-and-whisker plot. The horizontal line plots the trend of the average reading of all keys for each scanner pass. The vertical bar represents the range of readings over all keys for that scanner pass. The tolerance scale can be adjusted using the zoom in/out buttons.

- Filter Options:
- Control Mode (Auto/Manual/Both) and Impression Range
 - Web, Surface
 - Alleys (Pages) and/or Keys
 - Measurement (Print Attributes)
 - Colors

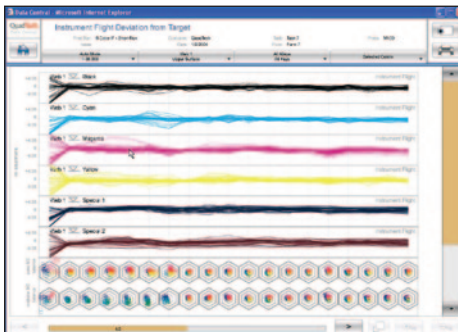


Instrument Flight® Hexagon™ Production Report

Displays 3-Color Overprint Solid, 3-Color Overprint Midtone, Single-Color Solid and Single-Color Midtone balance measurements in a scatter-graph report that indicates how consistent the balances held during the selected impression range on a per key basis.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Web, Surface
- Alleys (Pages) and/or Keys
- Balances

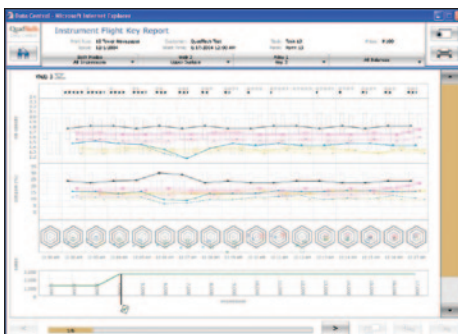


Instrument Flight® Deviation from Target

Displays the difference between the measured value and target gray balance set point throughout the job. Each ink key is represented by one line on the report. In addition, solid balances and midtone gray balances are also shown per ink key on the System Brunner® Hexagon™.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Web, Surface
- Alleys (Pages) and/or Keys
- Colors

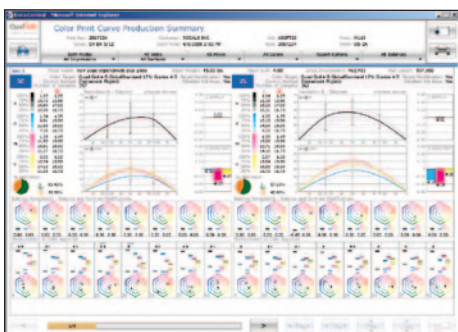


Instrument Flight® Key Report

Reports the CMYK single-color patch and the 3-color gray-balance patch readings for a single key throughout the selected impression range. Also reports the 3-Color Overprint Solid, 3-Color Overprint Midtone, Single-Color Solid, and Single-Color Midtone balance on the System Brunner Hexagon.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Web, Surface
- Alley (Page) and Key
- Balances



Color Print Curve Production Summary (optional)

Displays a concise view of key print attributes together with tone value curves. For Instrument Flight print runs, it also shows the gray balance measurements and any Balance Navigator™ gray balance or contrast shifts that were in place at the time of color approval.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Webs, Surfaces
- Alleys (Pages)
- Colors
- Balances
- Report Options

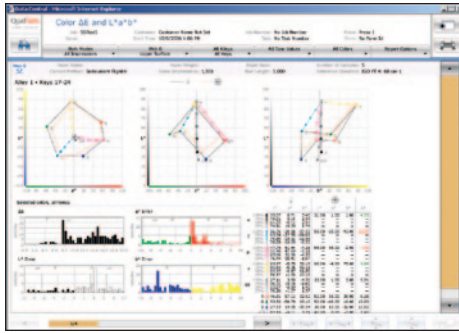


Color Calibration Check

Displays the differences between the values measured by the color control camera and known baseline values from the color control calibration strip. Any out of tolerance values are indicated.

Colorimetric Reporting Option for QuadTech Color Control System

The Data Central Colorimetric Reporting option expands our existing color control reporting to include the $L^*a^*b^*$ and ΔE data you need to demonstrate your adherence to industry standards such as ISO 12647-2. The Colorimetric Reporting option is available for QuadTech Color Control Systems using SpectralCam™.



Color ΔE and $L^*a^*b^*$

Enables you to quickly see if print run measurements are falling within the expected color gamut. Shows Average $L^*a^*b^*$ and ΔE compared to $L^*a^*b^*$ values from the Color Approval and/or selected Reference Standard. Also displays the difference between the measured values and target values in a histogram format.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Web, Surface
- Alleys (Pages) and/or Keys
- Tones
- Colors
- Report Options



Color Production Summary

Enhances the available job summary statistics to include comparisons of the Average Measured $L^*a^*b^*$ values to the $L^*a^*b^*$ values from the Color Approval and/or Reference Standard. Data is displayed in a tabular format with one row for each Color/Print Attribute combination. Data includes: Number of Samples, % Out of Tolerance, Average $L^*a^*b^*$ values, selected $L^*a^*b^*$ Target values, ΔE , and a^*b^* Error.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Web, Surface
- Alleys (Pages) and/or Keys
- Measurement (Print Attributes) and Tones
- Colors
- Report Options



Color Print Curve Production Summary

Expands the functionality of our Print Curve Report to include a concise view of key print attributes – including $L^*a^*b^*$ and ΔE – together with tone value curves. Provides a graphical display of ΔE showing you how well the Average Measured Values compared to either the baseline values from the standard or to the measurements from the color OK.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Webs, Surfaces
- Alleys (Pages)
- Colors
- Balances
- Report Options

In addition to the three reports outlined above, the Colorimetric Reporting Option also provides enhanced capabilities for:

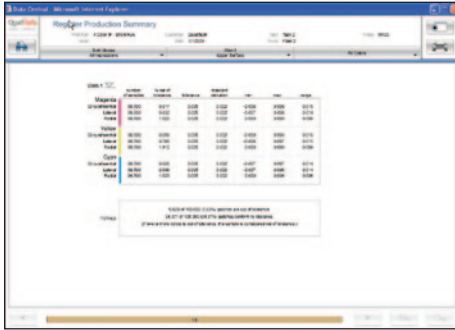
Color Calibration Check

Expands the Color Calibration Check report to include $L^*a^*b^*$ values measured by the color control camera and known $L^*a^*b^*$ baseline values from the color control calibration strip. Any out of tolerance values are indicated.

Color $L^*a^*b^*$ ICON Export Data

Adds to our existing densitometric data export capabilities, allowing you to generate per surface export data files containing $L^*a^*b^*$ data. The raw $L^*a^*b^*$ data can then be imported into other systems or used to create your own customized report formats.

Reports for QuadTech® Register Guidance System

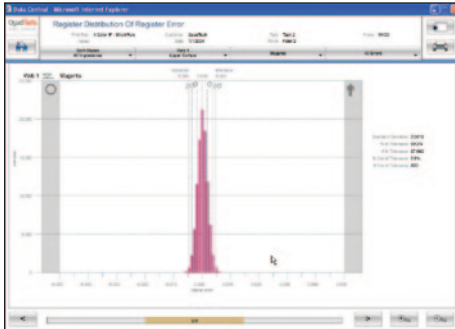


Register Production Summary

Displays job summary statistics for color-to-color register in a tabular format with one row for each register error type (circumferential, lateral, and radial). Data includes: Number of Samples, % Out of Tolerance, Tolerance, Standard Deviation, Min, Max, and Range.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Web, Surface
- Colors



Register Distribution of Register Error

Displays circumferential, lateral, and radial color-to-color register error in a histogram format. Statistics on Standard Deviation, % in Tolerance and % Out of Tolerance are also displayed.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Web, Surface
- Colors
- Error Type (circumferential, lateral and/or radial)



Register Average with Range

Summarizes the average and range of a number of sequential measurements in a box-and-whisker plot. The horizontal line represents the average register error. Vertical bars represent the Min and Max errors from the measurements included in the average. The impressions and tolerance scales can be adjusted using the zoom in/out buttons.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Web, Surface
- Colors
- Error Type (circumferential, lateral and/or radial)



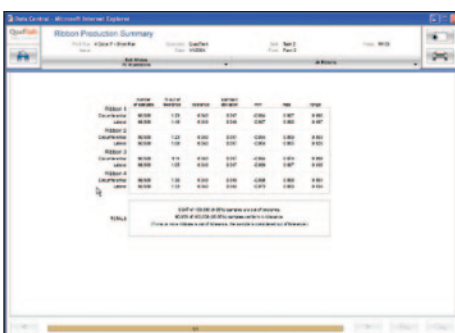
Register Scatter Graph

Displays register error measurements in a scatter-graph report that indicates how consistently register held during the selected impression range.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Web, Surface
- Colors

Reports for QuadTech® Ribbon Control System

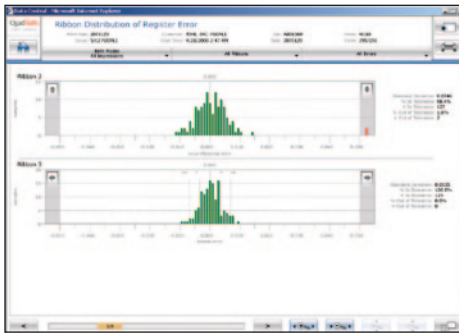


Ribbon Production Summary

Displays job summary statistics in a tabular format with one row for each error direction (circumferential and lateral) for each ribbon. Data includes: Number of Samples, % Out of Tolerance, Tolerance, Standard Deviation, Min, Max, and Range.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Ribbons

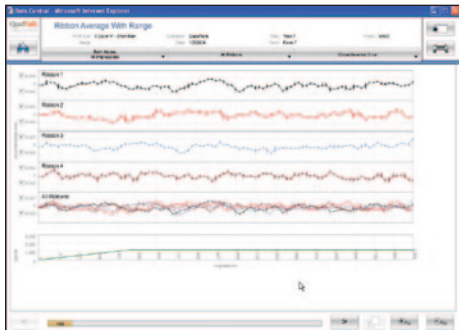


Ribbon Distribution of Register Error

Displays circumferential and lateral error in a histogram format. Statistics on Standard Deviation, % In Tolerance, and % Out of Tolerance are also displayed.

Filter Options:

- Control Mode (Auto/Manual/Both) and Impression Range
- Ribbons
- Error Type (circumferential, lateral)



Ribbon Average with Range

Summarizes the average and range of a number of sequential measurements in a box-and-whisker plot. The horizontal line represents the average register error. Vertical bars represent the Min and Max errors from the measurements included in the average. The impressions and tolerance scale can be adjusted using the zoom in/out buttons.

Filter Options:

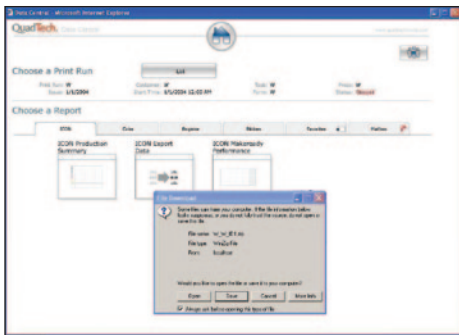
- Control Mode (Auto/Manual/Both) and Impression Range
- Ribbons
- Error Type (circumferential, lateral)

ICON™ Reports¹

Surface	Color	Area	Volume	Weight	Area	Volume	Weight
Surface 1	Color 1	1000	1000	1000	1000	1000	1000
Surface 2	Color 2	2000	2000	2000	2000	2000	2000
Surface 3	Color 3	3000	3000	3000	3000	3000	3000
Surface 4	Color 4	4000	4000	4000	4000	4000	4000
Surface 5	Color 5	5000	5000	5000	5000	5000	5000
Surface 6	Color 6	6000	6000	6000	6000	6000	6000
Surface 7	Color 7	7000	7000	7000	7000	7000	7000
Surface 8	Color 8	8000	8000	8000	8000	8000	8000
Surface 9	Color 9	9000	9000	9000	9000	9000	9000
Surface 10	Color 10	10000	10000	10000	10000	10000	10000

ICON™ Production Summary

Eliminates need to run multiple job summary reports for each control system. Displays job summary tables for all surfaces of all control systems in one report.



ICON™ Export Data

Enables data to be exported from Data Central and used to create reports that view the data in a specialized format, create reports that incorporate data from other systems, or archive data for long term storage. At the end of the job, a ZIP file is generated that contains per surface or per ribbon .csv files with the data for that job. Available .csv files include:

- Color Data – Per surface .csv file containing density-based patch measurement data
- Color $L^*a^*b^*$ Data² – Per surface .csv file containing $L^*a^*b^*$ patch measurement data
- Color Control Event Data – Includes impression and timestamp data on i/o inputs connected to the system, such as good/savable copy, blanket wash, etc.
- Register Data – Per surface .csv file containing color-to-color register error data
- Ribbon Data – Per ribbon .csv file containing cutoff and/or sidelay error data

Surface	Color	Area	Volume	Weight	Area	Volume	Weight
Surface 1	Color 1	1000	1000	1000	1000	1000	1000
Surface 2	Color 2	2000	2000	2000	2000	2000	2000
Surface 3	Color 3	3000	3000	3000	3000	3000	3000
Surface 4	Color 4	4000	4000	4000	4000	4000	4000
Surface 5	Color 5	5000	5000	5000	5000	5000	5000
Surface 6	Color 6	6000	6000	6000	6000	6000	6000
Surface 7	Color 7	7000	7000	7000	7000	7000	7000
Surface 8	Color 8	8000	8000	8000	8000	8000	8000
Surface 9	Color 9	9000	9000	9000	9000	9000	9000
Surface 10	Color 10	10000	10000	10000	10000	10000	10000

ICON™ Makeready Performance

Provides a way to easily see the impression counts at which each control system achieved an In Tolerance press condition. Data includes: Target Makeready Impression count, Actual Makeready Impression Count, Difference, and % Difference.

¹ Reporting functionality can be purchased on a per control system basis. The ICON combined system reports only show data from control systems for which the Data Central Performance Reporting option was purchased.

² Color $L^*a^*b^*$ Data available on systems with SpectralCam and the Colorimetric Reporting option.

Specifications subject to change without notice

QuadTech.



quadtechworld.com

The Americas
United States
+1 414 566 7500 **TEL**
sales@quadtechworld.com

Europe
France • Germany • Ireland
Italy • The Netherlands •
United Kingdom
+31 294 496222 **TEL**
qtesales@quadtechworld.com

Asia-Pacific
China
+86 21 62882525 **TEL**
chinasales@quadtechworld.com

India
+91 79 2642 1863 **TEL**
indiasales@quadtechworld.com

Tokyo, Japan
+81 48 839 8831 **TEL**
tokyosales@quadtechworld.com

Osaka, Japan
+81 6 6330 0919 **TEL**
osakasales@quadtechworld.com

Singapore
+65 6538 3517 **TEL**
apsales@quadtechworld.com