

iC Raman™ 4.1: 21 CFR Part 11 Compatible Data Acquisition & Reaction Analysis Software

Raman Products Technical Note

Number 1408

Introduction

iC Raman™ 4.1 is the newest release of the iC Raman™ platform and was designed in partnership with METTLER TOLEDO. iC Raman™ 4.1 controls analyzer set up, data acquisition, and allows reaction analysis. The iC platform provides powerful data acquisition and interpretation tools which allow users to quickly evaluate Raman data from Kaiser analyzers. iC Raman™ 4.1 builds on the iC framework incorporating Kaiser's experience in Raman spectroscopy resulting in an expansion of the framework to include Raman-proven methods, pre-processing steps, and univariate analysis tools.



Designed as a “quick-to-learn” application, inexperienced users can become iC Raman™ 4.1 proficient within minutes. iC Raman™ 4.1 provides a wizard-driven environment for rapid analyzer setup and data collection, leaving the chemist time to focus on chemistry.

- iC Raman™ software supports the acquisition and evaluation of data from all **RAMANRXN1**, **RAMANRXN2C**, **RAMANRXN2C HYBRID**, **RAMANRXN3**, **RAMANRXN4**, and **P^bAT System** series instruments including multichannel instruments.
- Newly acquired data and historic *.spc data can be analyzed.
- Interpretation of how changes to chemical reactions, concentrations, polymorphic forms, and heat flow affect the particle distribution

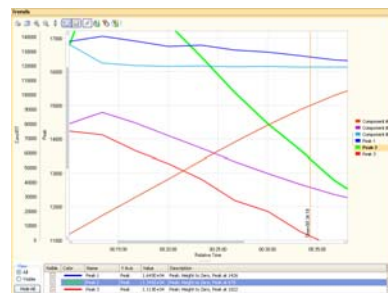
through seamless communication between iC Raman™, iC FBRM™, iC IR™, and iControl™ software

Select Features and Benefits

Wizards - Allow competent use within minutes. Rapid analyzer setup and data collection, leave the chemist time to focus on the chemistry.

Linked Views - Changes in one window dynamically update changes in the remaining windows.

Multichannel Capable – iC Raman™ 4.1 provides the ability to monitor multiple concurrent reactions for multichannel **RAMANRXN SYSTEMS™** analyzers.



ConcIRT™ Live - Supplies effortless, automatic profiling of key reaction components to scrutinize reaction progress.

Enhanced algorithms make it easy to extract the maximum information from each reaction. Mechanistic insight with Raman has never been easier.

Real-time Solvent Subtraction - Dynamic spectral subtraction of a solvent in real time.

Univariate Data Analysis Tools – Take advantage of the specificity of Raman with Univariate tools for robust quantitative models.

Automated Functional Group Profiling – Scrutinizes reaction progress.

Trend Math – Automated percent conversion, scale trends to HPLC data, convert trend to 1st derivative, etc.

Professional Report Generation Tools – From visualization on your instrument to departmental reports with a click of the mouse.

21 CFR Part 11 Compatibility – iC Raman™ implements the necessary audit logging and tamper detection function to be compatible with 21 CFR part 11.

cGMP Compatibility – iC Raman™ is based on Mettler Toledo AutoChem's ISO accredited Quality Management System (QMS) and Kaiser's Analyzer Control™ V5.0 engine developed under Kaiser's ISO 9001:2000 certified QMS.

Integration with METTLER TOLEDO Automated Lab Reactors – ALR integration through iControl RC1e, iControl LabMax, and iControl EasyMax software.

Computer System Requirements

The minimum system requirements for an iC Raman™ 4.1 installation are as follows:

	Minimum
Operating System	Microsoft Windows XP™ SP3 or Vista™ 32-bit
CPU	Intel Core 2 Duo
Clock Rate	2.2 GHz (Notebook) 2.4 GHz (Desktop)
Memory	2 GByte (4GByte recommended)
Graphics	1280x1024 (or higher) resolution with 3D hardware acceleration
Additional Software	Internet Explorer 7.0, Microsoft Office 2003

Kaiser Supported Analyzers and iC Raman™ 4.1 Compatibility

Only USB-based **RAMANRXN SYSTEMS™** analyzers are compatible with iC Raman™ 4.1. **RAMANRXN SYSTEMS™** analyzer with PCI-based cameras cannot operate with iC Raman™ 4.1 and are limited to iC Raman™ 3.0 without hardware upgrade. Contact Kaiser service and support with you analyzer serial number for further compatibility information on your specific **RAMANRXN SYSTEMS™** analyzer.

Kaiser System	iC Raman™ 4.1 Compatibility
For Kaiser systems listed and delivered since Jan 1, 2008.	iC Raman™ 4.1 is compatible.
For Kaiser systems listed and delivered between Oct 1, 2006 and Dec 31, 2007.	Kaiser Service and Support should review the configuration prior to quoting.
For Kaiser systems listed and delivered prior to Oct 1, 2006.	iC Raman™ 4.1 is not compatible without hardware upgrade to RAMANRXN SYSTEMS™ analyzer.

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