

## Delivering quality Driving productivity



## There can be economy only where there is efficiency

The Thermo Scientific<sup>™</sup> Qtegra<sup>™</sup> Intelligent Scientific Data Solution<sup>™</sup> (ISDS) Software is a software platform built on four pillars: Workflow, Data Management, Scalability and Compliance. Each pillar is carefully optimized to deliver simplicity, productivity, efficiency and quality in your laboratory.

- Workflow
- Data Management
- Scalability
- Compliance

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#### Minimize steps needed to perform any task

A simple workflow and uncluttered user interface places the relevant controls at your disposal when you need them.

Less training and expertise are required to deliver your results.

#### Make all steps easy to understand and use

One click instrument "Get Ready" reduces operator time, freeing this valuable resource for other tasks.

#### Minimize time taken to perform any task

Just five clicks to create an analytical LabBook. The LabBook starts your intelligent sequence, with full QA/QC protocol and processes and reports your results. Unchain your time at the instrument to maximize your output.

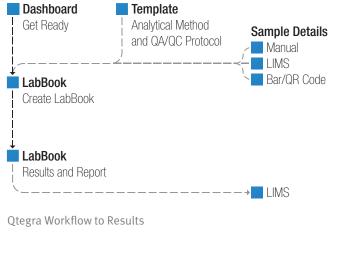
Qtegra ISDS Software drives your Efficiency, Productivity and Quality

## How do I get from sample to results?

A daily challenge for the laboratory or analyst. This challenge has many obstacles, including a complex collection of protocols, documents, and references. Due to this complexity, preparing to run an analysis on conventional software can be slow, tedious, and error-prone.

Qtegra ISDS Software has an intelligent workflow that drives you from sample to result. This intelligent and dynamic approach minimizes operator tasks between sample receipt and generation of the final result, dramatically boosting laboratory productivity.







"Get Ready" – Automated System Set-Up (Part of the Qtegra ISDS Software Dashboard)

#### Dashboard

The Qtegra Dashboard displays your system status. At a glance the status of your system and peripherals are displayed in a simple uncluttered layout.

Dashboard includes an intelligent automated instrument initialization algorithm - "Get Ready".

The Get Ready function sets your system automatically, saving you time and ensuring consistent system performance. The Dashboard takes you from instrument overview to your LabBook.

#### Template

A template contains the complete predefined measurement protocol: analyte details (elements, isotopes, wavelengths), internal standards, interference corrections, calibration parameters, QA/QC tests and sequence rules.

It contains comprehensive quality control tests that can be fully automated into your workflow, each with pass/fail actions.

The intelligent template enables continuous data quality monitoring and rule based automatic interaction on failures, such as re-calibration, repeat analysis and automatic dilution of samples outside the calibration range. The user experience in Qtegra ISDS Software is based around simplicity. Extensive automation of tasks reduces the requirements for manual intervention. The intelligent workflow saves you time at the instrument, saves you time training operators and saves you time working with your results.

#### Workflow

- Data Management
- Scalability
- Compliance

#### LabBook

The LabBook is home to your data and is prepared in just 5 clicks.

The user only needs to know two pieces of information to generate a LabBook:

- Which template?
- How many samples?

The analysis begins as soon as you create and schedule a LabBook; data is processed on the fly so your results are ready immediately. Your LabBook contains sample lists and fully interactive display of results, allowing you to dive into relevant areas of your data.

## Is there a direct route to relevant data?

Once an analysis has been made, the Qtegra ISDS Software LabBook provides a layered approach to results through a series of views, where data can be displayed, queried and instantly recalculated.

This layered approach quickly directs the user to relevant areas of data, maximizing your manual data review, to maximize your productivity.



- The initial display focuses on the most important values

   the final concentrations.
- More detailed information is available by expanding desired analyses.
- **3** Detailed calibration information.
- Sensitivity, regression information as well as detection limits.
- **6** Commenting on individual analyses.

Data, data and more data. It floods a productive laboratory from a range of instruments and systems. Organizations that excel are those that master the disciplines of data handling, gathering and diving to accurate and relevant data from a range of sources.

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#### Workflow

### Data Management Scalability Compliance

#### Enhanced LabBook Query

Fast searches across multiple LabBooks can be performed directly within Qtegra LabBook Query.

Can't remember when you analyzed a sample? Then search for results based on any metadata or data contexts. The data can be queried over multiple LabBooks simultaneously.

Want to combine data from multiple analytical runs? Data can be combined from several LabBooks; for example, to assess long term reproducibility of quality control results.

#### WYSIWYG Data Export

Once reviewed, you have several options where to send your data. A "What you see, is what you get" (WYSIWYG) data export tool enables simple reporting of relevant results, or transfer of data to third-party software (including lolite & Glitter). All information – whether it is graphical or data – can be instantly exported as an image or as text.

## Full Integration with LIMS

Sample lists can be imported from LIMS into pre-defined protocol templates, incorporating the full range of quality control checks. Comprehensive, userdefinable reports allow for flexible export to external LIMS software packages.

## How to expand without adding complexity?

Whether you are challenged with globalization or consolidation, Qtegra ISDS Software allows organizations to deploy in a familiar environment. ISDS Software Qtegra software provides simple integration into your various workflows, maximizes capital investments and minimizes administrative costs.

Qtegra software scalability provides a balance between mainstream capabilities and specialized functions: focusing on the immediate task and creating awareness of greater possibilities.



We have a full range of instrumentation for the analysis of elements and isotopes. Qtegra ISDS Software is the unifying platform that links our innovative and market leading hardware to your application. Current, future and legacy instrumentation will in time be supported by this enabling software.

# Workflow Data Management Scalability Compliance

#### Standardization

Qtegra ISDS Software is standardized from instrument to instrument. This minimizes the requirement for specialist operators and dramatically reduces the requirement for extensive cross training.

Qtegra ISDS Software promotes collaboration and provides capabilities that allow a corporation to standardize:

- Harmonized workflow
- Streamlined method development and validation
- Multi-vendor accessory control for LC, GC, lasers and other sampling devices
- Reduced training efforts and cost
- Standardized data format
- Secure user access and tracking

#### Rapid Deployment

Qtegra ISDS Software is simple to install and configure. An intuitive drag-anddrop instrument configurator provides a bespoke system configuration for your particular application. Each Thermo Scientific system comes pre-deployed with Qtegra ISDS Software. Your installation engineer is able to deploy or restore factory configurations from a Qtegra file server to ensure rapid system set-up and security of system settings.

#### Localization

Qtegra ISDS Software is designed to be deployable across global laboratories. Qtegra ISDS Software is localized, already supporting English, Japanese, Chinese, Russian and German languages. Further language support is in progress.

#### Simple Configuration

Qtegra ISDS Software is modular, so it provides a flexible framework in which instrument and accessory plug-ins are combined into a single workflow. In addition to the instrument plug-in, Qtegra ISDS Software provides integrated plug-ins for autosamplers, autodilutors as well as major chromatography and laser ablation systems.

Plug-ins are available for all major Thermo Scientific liquid, ion and gas chromatography systems as well as support for third-party instruments. We also provide a software plug-in development kit to allow third-party manufacturers to interface their technology seamlessly to the powerful Qtegra ISDS Software.

## Will new technology create a compliance challenge?

Companies in pharmaceutical, biotech or medical device industries continually push the boundaries of innovation to develop new products. These industries are constantly being challenged to meet rising standards of quality and to comply with rigorous regulatory requirements.

Thermo Scientific Qtegra ISDS Software recognizes these challenges and includes of the necessary tools for you to rapidly meet your compliance goals.



Compliance violations can cost a company severely in fines and lost revenue. However, achieving full regulatory compliance can be time consuming and complex with legacy software or third-party packages. Qtegra ISDS Software simplifies your route to compliance.

Workflow
Data Management
Scalability
Compliance

#### 21 CFR Part 11 Environment Support

Qtegra ISDS Software provides a full range of features to comply with your regulatory requirements, including:

- Audit trails
- Open / closed system control
- · Electronic signatures
- Identification codes and passwords
- Tools for integrated data management
- Full record change traceability

Qtegra ISDS Software security supports the administrator by creating a controlled environment to ensure that the system is configured to comply with GxP and 21 CFR Part 11 regulations.

## Data Security and Access Control

Qtegra ISDS Software ensures the utmost integrity and traceability for all of your raw data, metadata, and reported results.

Access control in Qtegra ISDS Software is provided by the Microsoft Windows<sup>®</sup> User Management system that is flexible, secure and customizable. Users are defined with privileges, roles, and access groups.

Qtegra ISDS Software enables you to establish audit trails, assign access privileges, set password expiry, and automated log-outs due to inactivity. Multi-level security is provided for every task.

#### Compliance Management

Qtegra ISDS Software also helps you manage your compliance on a day-to-day basis with such capabilities as secure time-stamped audit trails. Records can be easily reviewed so you can apply the appropriate electronic signatures. All data is relationally stored, so full documentation is automatic and complete, saving you time during compliance audits.

## **Qtegra driven –** the journey has begun

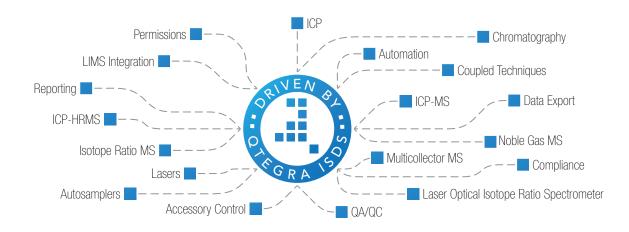
Qtegra ISDS Software is developed using a platform-based approach; it is a core control software across different analytical devices. The introduction of Qtegra software for Thermo Scientific iCAP Q ICP-MS was the first step on the implementation roadmap for Qtegra ISDS Software control of a variety of technologies for the analysis of elements and isotopes.

Over the coming months the list of techniques and supported peripherals will rapidly increase to allow you to fully exploit the benefits of Qtegra ISDS Software. Cross-device training and adoption of new instrumentation is faster and easier, allowing for increased flexibility in modern multi-technique laboratories. The range of instruments running Qtegra ISDS Software is rapidly expanding. This is supported on:

- Thermo Scientific<sup>™</sup> iCAP<sup>™</sup> 7000 ICP-0ES
- Thermo Scientific<sup>™</sup> iCAP<sup>™</sup> 6000 ICP-0ES
- Thermo Scientific<sup>™</sup> iCAP<sup>™</sup> Q ICP-MS
- Thermo Scientific<sup>™</sup> Argus VI<sup>™</sup> Noble Gas MS
- Thermo Scientific<sup>™</sup> Helix SFT<sup>™</sup> Noble Gas MS
- Thermo Scientific<sup>™</sup> Helix MC<sup>™</sup> Noble Gas MS
- Thermo Scientific<sup>™</sup> Delta Ray<sup>™</sup> Isotope Ratio Infrared Spectrometer (IRIS)
- Thermo Scientific<sup>™</sup> 253 Ultra<sup>™</sup> High Resolution Isotope Ratio Mass Spectrometer

Support coming soon:

- Thermo Scientific<sup>™</sup> iCAP<sup>™</sup> 7000 Plus ICP-0ES
- Thermo Scientific<sup>™</sup> ELEMENT 2 HR-ICP-MS
- Thermo Scientific<sup>™</sup> ELEMENT XR HR-ICP-MS



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