Momentum
Laboratory Automation Workflow Software

Less Complicated
More Productive

More tools to enable user to go from design through
to successful integration: Speed · Reliability · Flexibility

Thermo
S C I E N T I F I C

Unequaled Achievement

Thermo Scientific™ Momentum™ moves laboratory automation software far forward, attaining whole new levels of performance, reliability, and ease. To achieve a comprehensive redesign of all that's gone before, Momentum designers answered critical questions.

How does the user work? Momentum lets users define, execute, and monitor complex processes in a powerful yet easy-to-use visual environment.

How open can a system be? Momentum provides control and data integration for any appropriate third-party device.

How can lab workflow be radically improved? The data-centric design delivers simplified integration of data flow upstream and downstream of the process, plus exceptional tracking of samples and results.

How reliable can an automated system be? While integrating an ever expanding list of instruments, Momentum isolates problems and provides recovery options for attended and unattended modes to keep your science moving.

Supplied with other advanced Thermo Scientific laboratory systems, the software builds on more than 20 years of proven success in system integration and high-throughput lab automation.
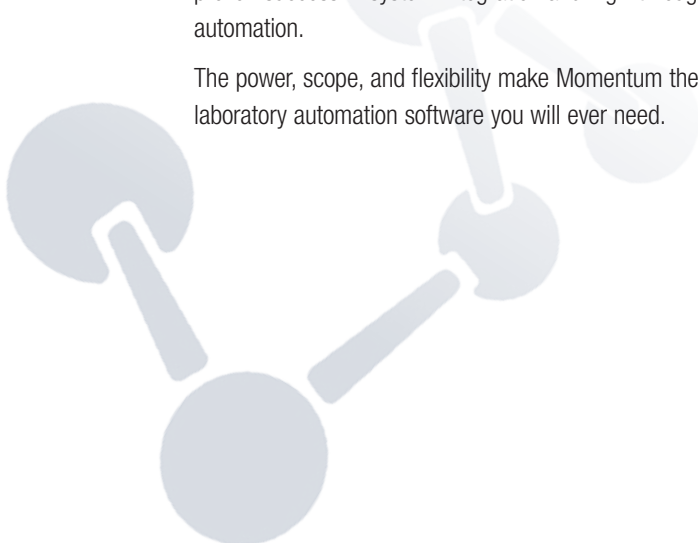
The power, scope, and flexibility make Momentum the last laboratory automation software you will ever need.

Unparalleled Advantages
Advanced Workflow

Momentum keeps revolutionizing your laboratory's workflow, day after day. Its unique design is highly adaptive to complex real-time conditions. The easy-to-use visual environment allows for advanced decision-making, as well as for monitoring multiple workflows and integrating offline processes. Users can define virtually any method.

Sophisticated decision-making. Tedious individualized data handling becomes obsolete. With datatracking, analysis, and reporting at the core of the software, real-time decision-making is finally a reality. The system collects and analyzes information continually, allowing for a multitude of workflows.

Exceptional sample & inventory management. Historical, current, and future-state information on dispensing and container contents is integrated smoothly with notification and decision-making.
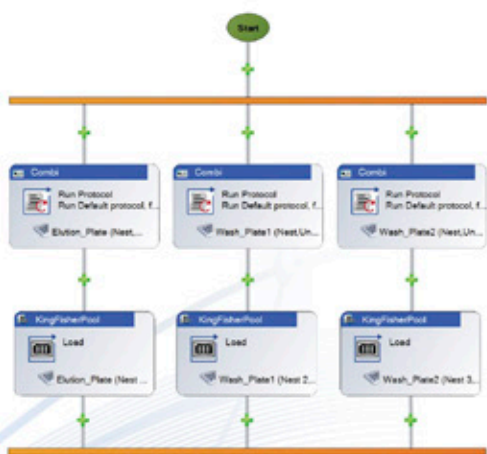
Plug-in Architecture

Many scientists prefer specific tools for data analysis and management. Momentum lets you integrate these, while upgrading to the most advanced automation platform on the market. This solution allows for quick and efficient integration of third-party tools. Ask about personalizing your experience.

Phenomenal Error Management for truly reliable walk away time. With Momentum your system is much greater than the sum of the parts. No automated device is perfect but your system recovery should be. Take devices and movers offline to solve problems, reteach positions or hotswap for the fastest possible recovery while protecting your valuable samples.

Armed with process and runtime validation, deadlock/bottleneck detection and avoidance, coupled with a comprehensive range of recovery modes, Momentum gives your automation a 'never give up' attitude.
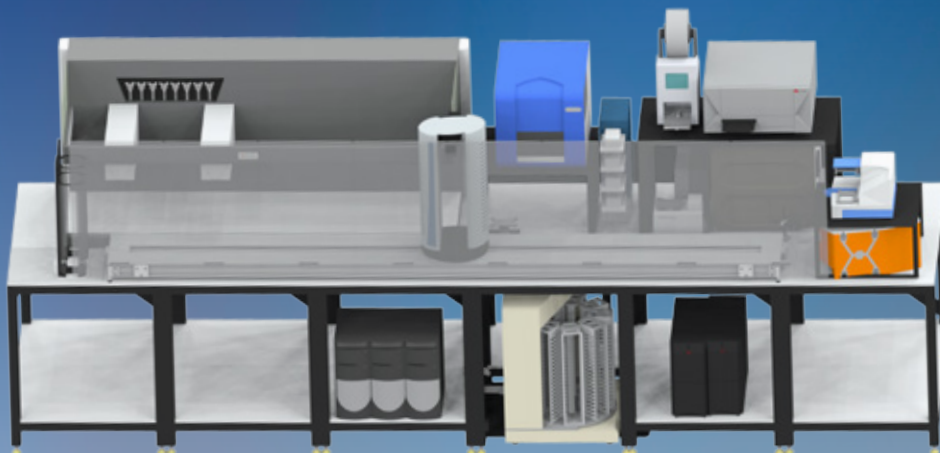
Open Topology

Momentum provides the ultimate in connectivity. Open topology makes it easier to integrate and extend your automated system within your workflow.

Collaborative solutions. Expand the possibilities of your research across multiple labs, or across the globe. For the first time, you can link together islands of automation (including thirdparty instruments), integrate offline processes, and synchronize multiple applications. Allow one software platform to streamline your entire enterprise.
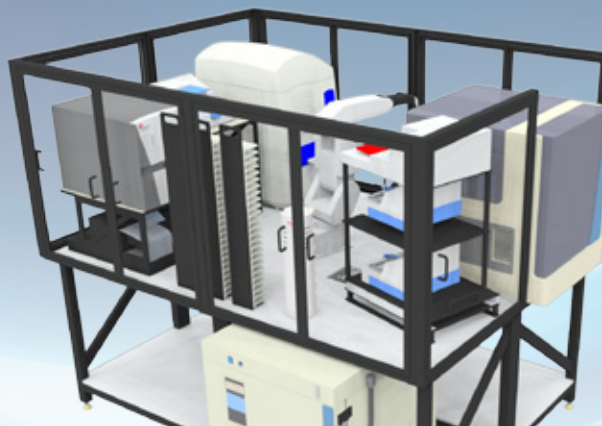
Mover mix. Traditional lab automation software only allows the user to select from a limited range of mover types and configurations. Momentum has been designed to be mover agnostic, allowing you to select the optimal combination of movers including arms, conveyors, tracks, etc. to design your system to match your performance and speed requirements. Momentum provides you the freedom of choice to match your present and future needs.

Momentum takes full advantage of all the latest and most powerful software technology tools, from Microsoft. It is developed and tested in an agile environment to ensure maximum flexibility, robust performance, and exceptional operational longevity.
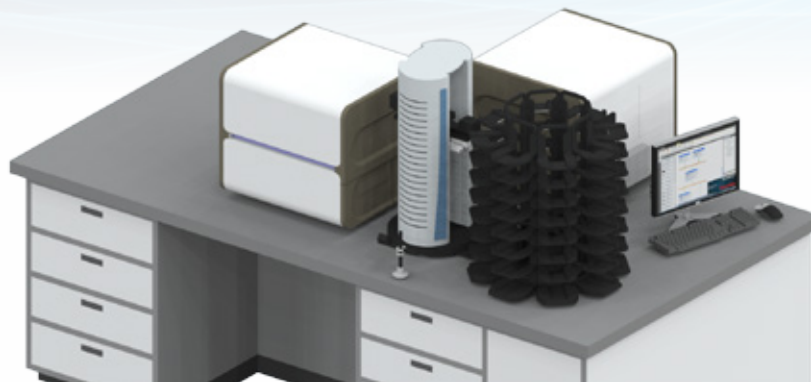
Keep your laboratory systems moving forward. Ask your Thermo Fisher Scientific representative about breakthrough Momentum software today.

Flexible Benchtop Automation

Productive Screening Platforms

Walk-up Benchtop Workstations

We are committed to helping your laboratory achieve success. Our solutions ensure that your automation systems are optimized for accuracy, productivity, and performance. We offer flexible solutions:

Service agreements • Preventative maintenance plans • Software upgrades • Software application support
Technical support • Integration services • Relocation services • Training

Momentum At a Glance: Top 25 Features

Simple touch screen Dashboard Execution

Detailed runtime views

Controlled mid-run sample loading/unloading

Automatic execution from a worklist

Powerful process flow controls with time and logical constraints

Multi-user login management

Built in process validation and version control

Full xml audit log

CFR21-11 & CLIA compliant

Graphical integration/system design wizard

Support distributed motion (multi-mover systems)

Robust error management and recovery strategies

Flexible drag and drop workflow designer

Looping

Data driven decision making

Track samples by barcodes and sample ID

Instrument pooling strategies

Pool storage devices and sample location management

Coordinate manual tasks as part of the automation workflow

Built in container definition library

Dynamic event driven scheduler

Accurate realtime/accelerated simulation mode

Take instruments offline or disable

Free standard data handling drivers

SiLA device interface

Comes with over 175 drivers

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