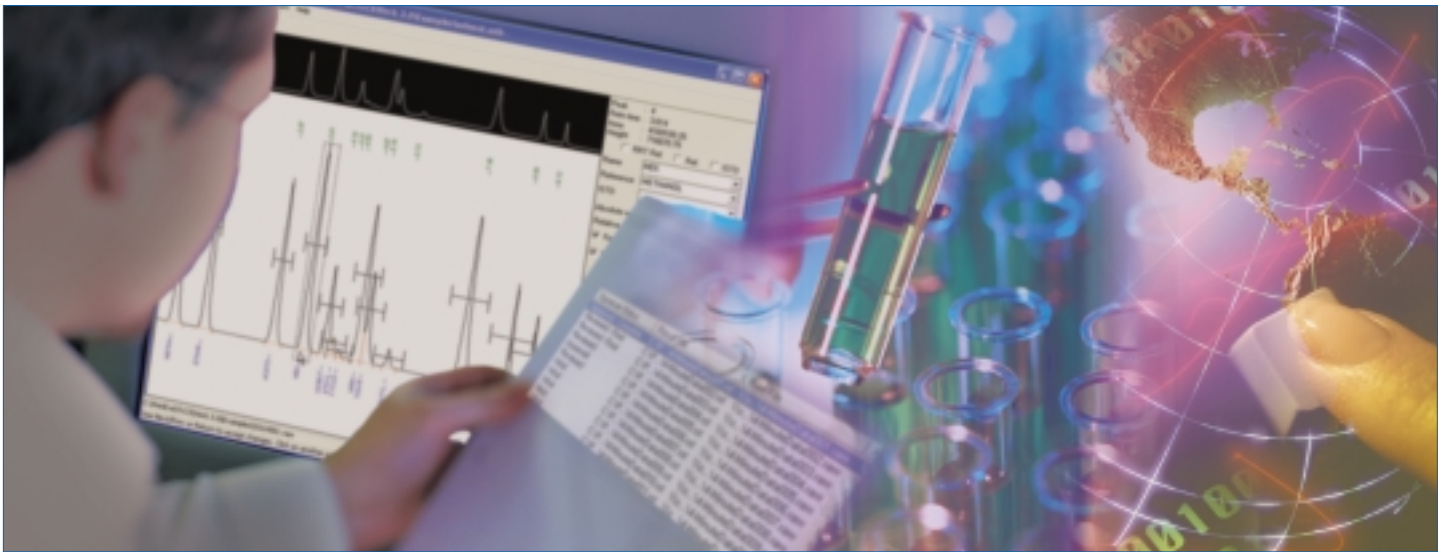


TotalChrom

Chromatography Data Systems



Streamlining your
laboratory workflow

maximize productivity with TotalChrom CDS

Acquiring, processing, reporting, reviewing and approving data is a streamlined series of operations in PerkinElmer's TotalChrom® Chromatography Data System (CDS) software, designed to fit your laboratory workflow and maximize productivity. With its scalable architecture, 21 CFR Part 11 compliance features and proven algorithms, TotalChrom offers a computing strategy to manage your chromatography data quickly and securely in both regulated and non-regulated environments.

TotalChrom data systems can be deployed in stand-alone, thin client, or enterprise client/server computing environments. When configured with a PerkinElmer Gas Chromatograph (GC) or Liquid Chromatograph (LC), the data system serves as both an instrument controller and data manager for the overall system. Compatible with most commercial LCs and GCs, TotalChrom data systems are the best choice for chromatography data handling in demanding multi-user, instrument, and site environments.



stable, scalable architecture

Seamless, networked data acquisition

Chromatography data can be collected throughout your network through PerkinElmer Intelligent Interfaces and LINK modules. These modules allow chromatographs from any location to be easily and inexpensively connected to your LAN and accessed by users from any network location. The TotalChrom system's unique data protection features assure that data acquisition in progress is never disrupted or compromised.

Non-stop data acquisition with 100% integrity

Communications from each interface module to the host computer include special TotalChrom security

rouines that ensure 100 percent data integrity. The interfaces continue data collection and instrument control even if the network, clients, or servers become inoperative. Data collection on a TotalChrom data system can run virtually non-stop.

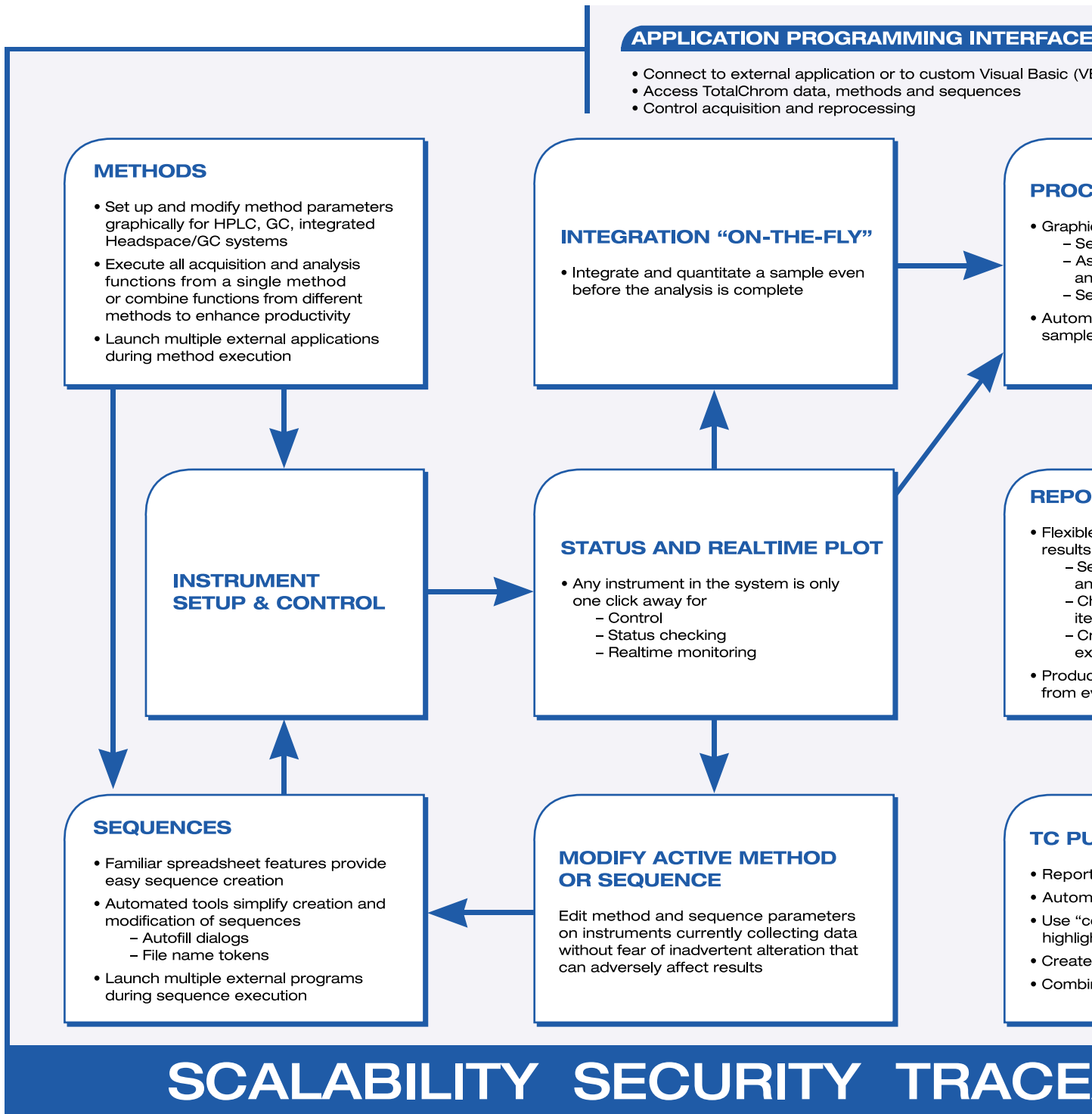
Designed for growth and change

PerkinElmer's "start here" strategy allows you to implement TotalChrom systems in stages that fit your needs. New users are accommodated by simply adding more PC clients. You can easily add additional servers to increase system capacity, add file services, and accommodate new workgroups. There is no limit to the number of instruments you can access from any location on the network.



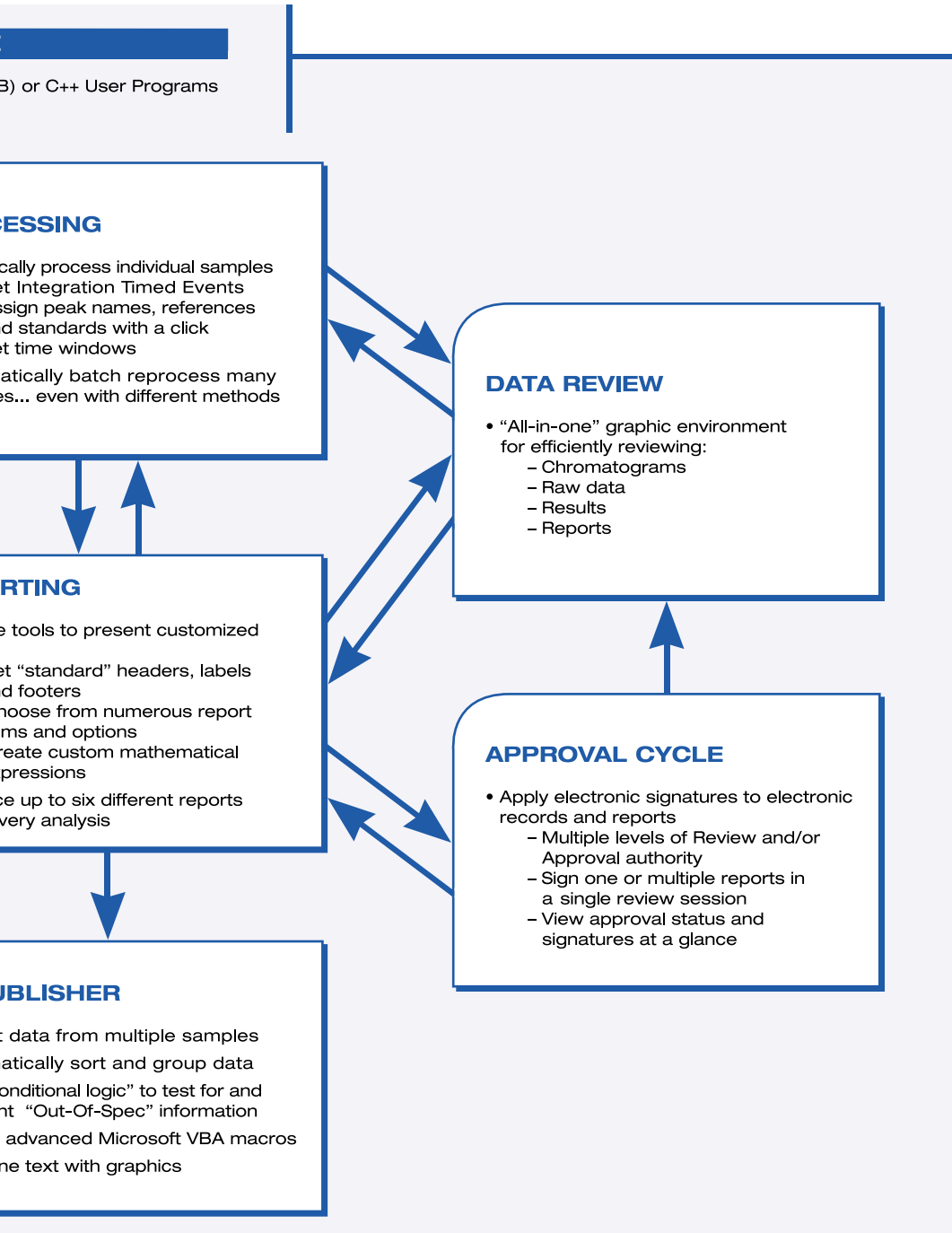
streamlining your

The entire process from setting up an analytical method to the fir



laboratory workflow

Final approval of reports is a streamlined series of operations in TotalChrom.



ABILITY COMPLIANCE

Optional TotalChrom applications

PerkinElmer offers a complete suite of applications integrated with TC to meet customer's demands:

IRIS™ Spectral Processing software developed by PerkinElmer is a sophisticated application that allows users to navigate, process and report PhotoDiode Array spectra, offering a full suite of functionality and an intuitive user interface all protected under a fully 21 CFR Part 11 compliant architecture.

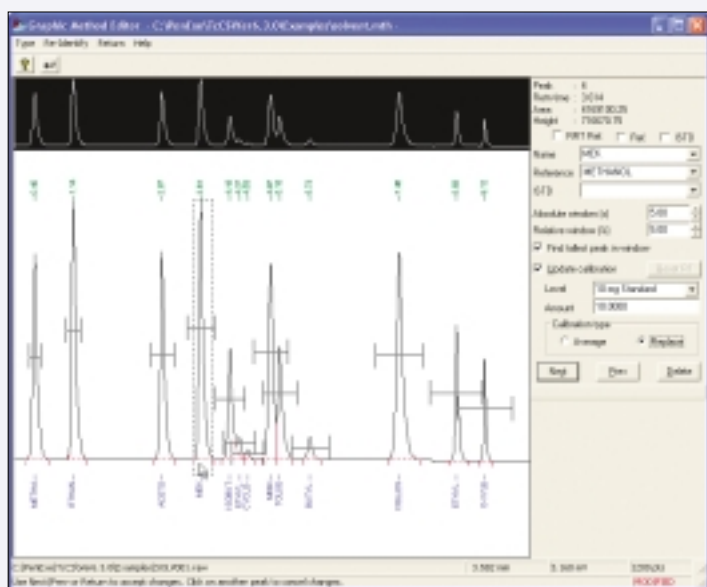
Turbo Method Development software automates HPLC method development and validation processes such as solvent optimization, and robustness testing on samples of known/unknown composition.

Gel Permeation Chromatography (GPC) software uses specific algorithms for gel permeation analysis.

quickly and easily build methods and sequences

Instrument control parameters, such as oven temperature and pressure ramps for GC, or solvent gradients for LC, are displayed as both graphic profiles and numeric grids for rapid visualization of your experiment. The Sequence Editor uses a template to quickly and conveniently build a complex list of injections in the editor's spreadsheet. Editing tools facilitate the entry of parameters common to selected rows or fields in the spreadsheet, saving time and eliminating errors from repetitive entry of common values.

TotalChrom data systems handle peak detection, integration, and analysis with the most sophisticated algorithms, refined through years of experience in chromatographic data processing. Even when pushing the limits of detection, TotalChrom's sophisticated routines minimize the impact of noise on results.



Visually optimize methods

Optimize data handling methods in seconds using the Graphic Method Editor (GME) to set integration parameters, add component names to known peaks and groups, and define amounts of standards and typologies of compounds.

TotalChrom provides two specific tools for reporting, to meet the different needs of the users: the standard report and TC Publisher

Standard report

The standard TotalChrom reporting tool provides various basic report formats for quantitative analysis and allows users to tailor results with customized headers and labels, expressions (mathematical formulas), and footers. Numerous report options provide formatting choices and automated ASCII output file creation.

Special Summary Report and Suitability Report options enable users to obtain additional information on the operation of the analytical system, and support the analyst in the method validation process.

TC Publisher

TC Publisher extends report capabilities beyond the standard templates by providing a sophisticated laboratory report generator using standardized tools. Unique features let you graphically format the exact report you want without extensive training or special commands.

Report templates have the ability to perform calculations between different peaks in the same sample or even between samples, as well as automate statistical determination for replicate injections, with full control over the output format.

Report templates can include control of the graphic data representation, separate tables for standard and sample data, and "if/then" conditional logic for Pass/Fail tests or Limits Checking.

quickly and easily navigate, review and approve your data

In the “paper world”, reports need to be reviewed and signed. The TotalChrom Review & Approve (R&A) feature is a graphical reviewing environment that allows intuitive navigation into data and reports, and provides for the implementation of a data approval cycle using electronic signatures. High throughput applications have dramatically increased the amount of information produced every day in a laboratory. This feature streamlines tedious data review by using a single environment to navigate into data, just like we navigate into e-mail. With TC R&A, chromatograms, raw data, results and reports can be easily viewed and compared at a glance. Reviewing and approving reports can be done electronically, with multiple levels of authority and secure electronic signatures.

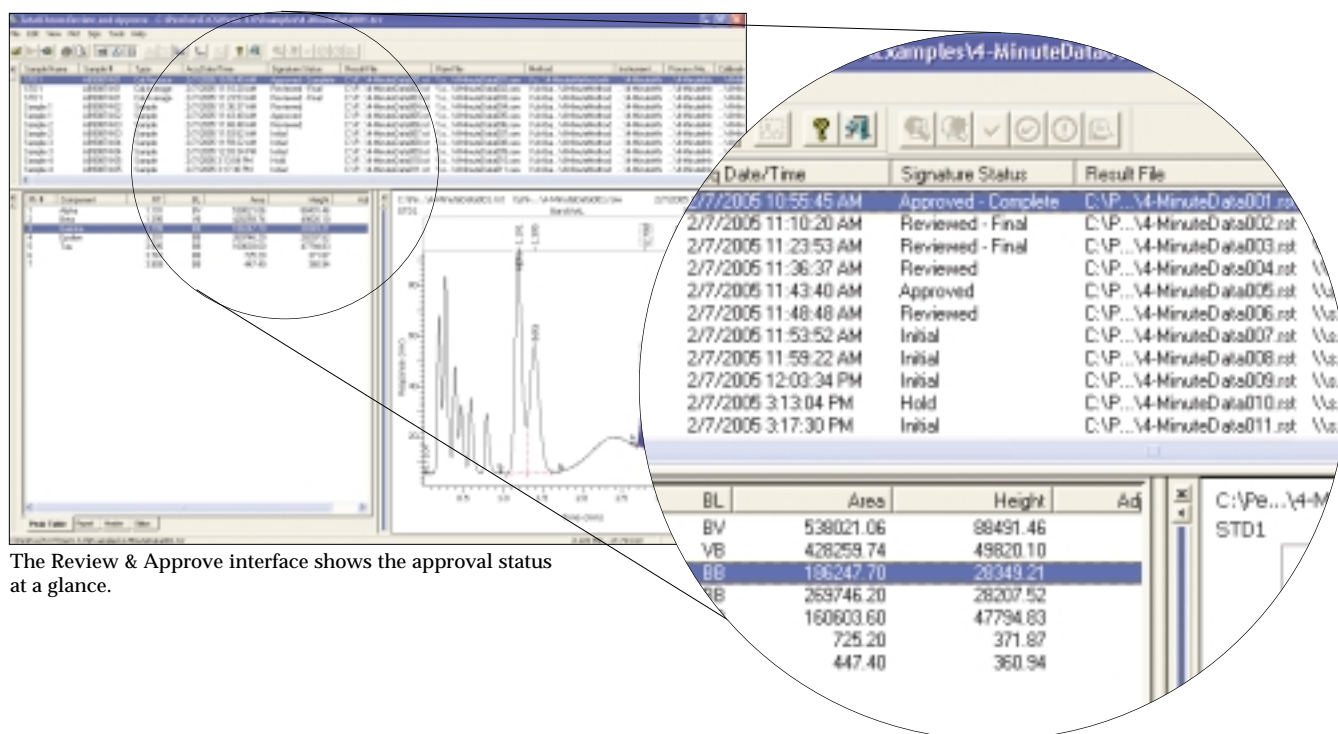
Unsurpassed 21 CFR Part 11 compliance for regulated labs

The TotalChrom system features Enhanced Security™, a proprietary protocol for supporting United States FDA 21 CFR Part 11 compliance. Audit trails and electronic

signatures recorded during data acquisition, instrument control and data analysis processes ensure that data integrity is always maintained. System features fully document all methods, sequences, and reports, including instrument run logs, and provide a complete and unambiguous link from the initial experiment to the final results. Multiple TotalChrom “JobTypes” can be created to control who can perform what functions in the system.

Validation assistance

PerkinElmer uses a world-class software development process to ensure reliability. The TotalChrom system is developed and structurally validated following a certified quality system, which conforms to Good Laboratory Practice (GLP), Good Manufacturing Practice (GMP) and ISO 9000/2000/TickIT requirements. Our software development life cycle and documentation structure conform to GAMP IV and IEEE guidelines. As part of your validation program, an audit of our development site is available.



The Review & Approve interface shows the approval status at a glance.

PerkinElmer, Inc.

PerkinElmer continues to drive innovation and performance in Gas Chromatography and Liquid Chromatography instrumentation and software, with a focus on making your lab more productive and efficient. When bundled with TotalChrom and other PerkinElmer software, you get a complete PerkinElmer solution that is integrated, fully tested and supported.

You get the speed, accuracy and reliability you seek – for the productivity you need. Our service and support people are located in 125 countries throughout the world and are factory-trained. Compliance does not get any easier than with our Enhanced Security line of software products, including 21 CFR Part 11 technical compliance on many products. And online consumables and accessories ordering lets you get your hands on what you need fast.

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