

# Justice Laboratory Software

## Chrom Perfect<sup>Spirit</sup><sup>®</sup>

Multi-Instrument Chromatography Data System  
Single User or Client/Server

Scientists world wide know the **Chrom Perfect<sup>®</sup>** brand represents the finest in chromatography data acquisition products. **Chrom Perfect Spirit<sup>®</sup>** is now the Flagship member of an expanding family of quality software and hardware offerings.

**Chrom Perfect Spirit<sup>®</sup>** is built on a solid foundation. Thirteen years of software development has transformed the original World Class **Chrom Perfect** CDS into the most feature rich solution available today for the multiple instrument laboratory. **Chrom Perfect Spirit<sup>®</sup>**, V5 Series is the Perfect solution for small laboratories as well as laboratories with hundreds of users and instruments.

**Chrom Perfect Spirit<sup>®</sup>** is the only CDS that gives chromatographers complete freedom of choice when selecting hardware and software appropriate for the laboratory. Data acquisition and data acquisition/instrument control products are available to meet the needs of current and legacy instrumentation. Chemists experience a single user-friendly interface and all data are created in a common file format. This makes training and data transfer to the rest of the enterprise surprisingly simple.



**Justice Laboratory Software** also provides a wide variety of data acquisition and control solutions to fit the needs of today's laboratory.

### Available Options

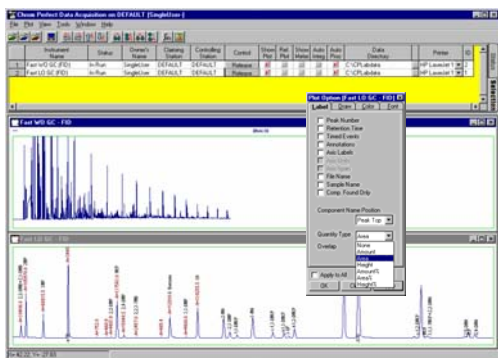
- Integrated LABS/Q Perfect LIMS
- Chrom Perfect SEC/GPC Viscosity
- Chrom Perfect SAS Autosampler for any GC or HPLC
- Chrom Perfect Analog-Out Software for Process Control
- Chrom Perfect Streamlines Multi-Port VICI Valve Control
- Chrom Perfect Instrumentation Set-point Control
- Chrom Perfect Simulated Distillation and Natural Gas Applications
- USB, Serial, and Network A/D Solutions

## Data Acquisition

Real time integration gives users freedom to make decisions early in the run. Integrate automatically with a fixed time interval, or click any time to trigger integration. Save time, samples, and other resources.

Method fine tuning can occur while your data is being acquired. Noise and peak adjustments can be tested and saved as you are acquiring the data.

Unlimited downloadable user fields add key search and report criteria for a database.



*Simply right-click on the real-time plot to access real-time features.*

## LABS/Q Perfect LIMS

Available Now! An integrated system to both acquire and manage your chromatographic data.

Justice Laboratory Software continues to provide easy interface tools so users have the freedom to select the LIMS of their choice. But for those who wish to have an integrated CDS/LIMS system we now offer an out-of-the-box CFR 21 Part 11 compliant solution.

**LABS/Q Perfect LIMS**—the **Perfect** choice!

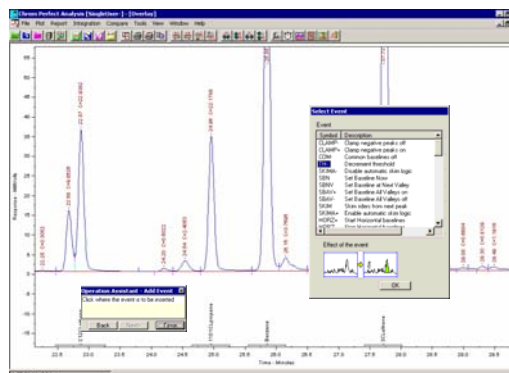
## Intelligent Automation

- Intelligent Sample Introduction with our Sample Automation System Auto-sampler and Streamlines Multi-Port VICI valve control
- Intelligent Acquisition utilizes your network with TCP IP communication
- Intelligent Reporting with automatic pdf file creation and automatic email service
- Intelligent Process Control with results based output to PLC and relay devices.

## Data Analysis

Users have freedom to choose how many chromatograms are displayed and analyzed at a time. Key chromatogram information is only one right click away.

Every chromatogram displayed in the analysis program can be individually adjusted for plotting, integration, and reporting. Programs such as **Rapid Review, Batch Processing, and Summary** allow users to review, reprocess, and report data from multiple files.



*Operation Assistant helps users step by step in all interactive operations such as: manual integration, annotation, calibration parameter adjustments, etc.*

## Unique Client/Server Implementation

Our unique client/server software technology blends users and instruments across the enterprise. The acquisition *client* presents virtual instruments that provides users a common GUI for all instruments. The data acquisition *server* handles the different instrument hardware requirements behind the scene.

Instruments are securely "claimed" by users. Once claimed, only users with sufficient privileges can control the instrument.

Other users have freedom to view status and acquiring chromatograms remotely via DCOM. If a user decides to leave the acquisition running while absent, control can be locked so no one except system managers can access the instrument.

The client/server technology also provides a safe environment for busy networks. Once a sequence of data acquisition is downloaded to the server on the network, operation can continue to the end of the sequence.

## Custom Reports

**Chrom Perfect Spirit**® is shipped with over fifty custom report templates. Select from a broad range of reports that cover all aspects of laboratory reporting from Certificates of Analysis to system validation. All are easily modified by users. The powerful features of **ReportWritePlus**™ and the Chrom Perfect Method program allows users to produce multiple reports from a single analysis. Satisfy the needs of QA, engineering, client, and the LIMS interface with a separate report for each.

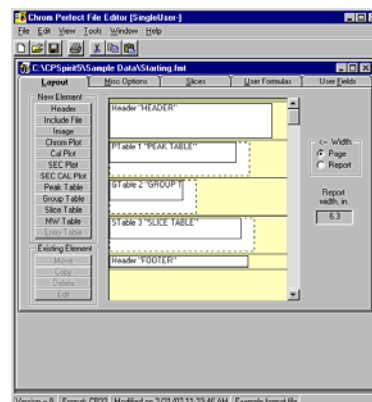
### ReportWritePlus™

- Unlimited reporting capabilities
- Create pdf files for email or web viewing
- Output results to PLC devices or relays
- Easy data transfer of results
- Easy LIMS interface



## Incredible Power and Flexibility

- Use the power and freedom of **Chrom Perfect Spirit**® for your lab
- The complete solution for any HPLC, GC, or CZE application
- Connects to any brand of HPLC/GC
- The greatest number of data acquisition choices available
- Automatic email, automatic pdf files
- Full custom calculations without the cost and complexity of embedded data bases
- Fastest, Easiest, Most Complete, Summaries and Reports
- Easy universal LIMS interface as well as integrated **LABS/Q Perfect** LIMS solution
- ISO certified developer



*Graphically format your report without using special commands.*

## Choice of Thousands of Chemists Worldwide

The purchase of a Chromatography Data System, no matter how large or small, is considered an investment in the productivity of the laboratory. We recognize that this investment requires confidence in a company, its products, strategy, support, and management.

**Justice Laboratory Software** offers the most comprehensive line of high technology software products for your Laboratory. Whether you require an XP/2000/NT based client/server chromatography system or a single user basic system, Justice Laboratory Software meets the demanding needs of chromatography applications. Our products offer multi-vendor instrument interfacing and distributed data processing for complete data integration of your lab.

**Chrom Perfect Spirit**® data systems do not require proprietary hardware data acquisition servers and are compliant with all Microsoft 32 bit ActiveX, COM/DCOM, and COM+ standards.

## PC Requirements

Operating System	<b>Windows 2000, Windows XP Pro</b>
Processor	Pentium IV and higher @ all clock speeds
RAM	256—512 MB
CD-ROM/DVD	32X or higher plus a CD-RW for backup
Video Accelerator	4X AGP or PCI or higher
Monitor	17" FST 0.28mm dot pitch
Floppy	1.44MB 3.5"
Ports	At least one Serial, Parallel, and USB (1.1 or 2.0 compliant), Mouse & Keyboard

Justice Laboratory Software invites you to compare **Chrom Perfect Spirit**® to any data system at any cost and find out about our dedication to customer service and support. Review our consistent record providing our customers with a significant revision **every year since 1989**.

*The leading independent ISO certified developer of Chromatography Data Systems.*

### Ordering Information

40-0000-0000 **Chrom Perfect Spirit**® V5 Series Software Suite Includes : one **Spirit**® User license.  
*Data acquisition requires selection of one or more of the appropriate A/Ds or instrument interface solution below:\**

40-5000-7102	<b>Type II</b>	two channel RS232 24 Bit A/D converter
40-5000-7202	<b>Type III</b>	two channel USB 24 Bit A/D converter
40-5000-7404	<b>Type IV</b>	four channel USB 24 Bit A/D converter
40-5100-7202	<b>Type E+</b>	two channel TCP/IP A/D converter

\* Contact **Justice Laboratory Software** for information on the many direct instrument interface options.



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# Justice Laboratory Software

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## Detailed List of Features

### **Chrom Perfect Spirit<sup>®</sup>**

#### **Operating System Support**

Windows 2000  
Windows XP Pro

#### **ISO 9000 Certified, FCC, CE approved**

##### **General**

Country of Origin: USA  
Shipping date of first revision of product: 1989  
Manual Hard copy : Yes  
Manual as help file: Yes  
Max Number of instruments/per/workstation: 16  
Max Number of detector channels/workstation: 16  
Max Number of users: unlimited  
Number of Active X objects available to user: 34  
Instrument interface protocols supported: RS232, TCP/IP, USB, ISA

##### **Implemented Technologies**

Client/Server  
COM/DCOM  
Active X

##### **GLP/ 21 CFR Part 11 Implementation Tools**

Enable Logon and Password  
Password Time out  
Enforce system wide event logging  
Define all page set ups  
Serializes printed reports  
Support of group rights  
Memberships  
Password selectable rights  
User specific directory paths  
Station Level Logging flags  
View Data error alarm log files  
Change Station Specific hardware  
Claim control instruments  
Download instruments  
Change run Times  
Operate relays manually  
Write Cal Files  
Write Method Files  
Write Raw files  
Write Report Format Files  
Write instrument Control files  
Write Sequence Files  
Write SEC files  
Allow manual integration  
Modify Raw data settings  
Modify Calibration settings  
Modify Method Settings  
Import Data  
Export Data

Print Reports  
Dismiss alarms  
Create artificial Raw Files  
Unique user profiles for each user  
Enforce change control

##### **Data Acquisition**

24 Bit external interface interfaces  
Delta-Sigma High Speed  
Linearity 0.002% of full scale  
Input range +/- 0 to 1 Volts and Custom Ranges  
Sample rate dependant on A/D choice  
Number of channels dependent on the number and types of A/Ds selected  
8 TTL outputs in each A/D device  
Run starts with hardware or software initiation  
Multi-national power supply  
28 integration timed events  
Any number of user programs enabled before, during, or after data acquisition,  
Tigre II - 2 channel one time base RS232  
Tigre III - 2 channel one/two time base USB  
Tigre IV - 4 channel one thru four time base USB  
Tigre E+ - 2 channel one/two time base TCP/IP  
Direct instrument acquisition and control via TCP/IP

##### **Calibration Routines**

1000 Named components with up to 60 levels  
Fit types: Point to Point, linear, quad, cubic, power, avg cal factor  
Fit weight: Equal, Inv X, Inv sq X, Inv Y, Inv sq Y  
Origin treatment: force, ignore, extrapolate  
Internal, external standard, calculations  
Statistics include: Coefficient of determination, avg cal factor, average error, percent RSD  
Group calibrations and unlimited reference peaks

##### **Peak Integration Features**

Automatic Integration  
Peak Width  
Threshold  
Area Reject  
injection Volume  
Sample weight  
Dilution Factor  
Internal Standard Amount

##### **Manual Integration**

Move Peak Start/End  
Add peak  
Delete Peak  
Split Peak  
Fuse Peak  
Merge /Break Baseline  
Move SEC Baseline Start end

##### **Insert Events from interactive list**

Auto correction On/Off

Clamp Negative Peaks on  
Clamp Negative Peaks off  
Force Common baselines on  
Force Common baselines off  
Increment Threshold  
Decrement Threshold  
Enable automatic skim logic  
Disable automatic skim logic  
Double peak width  
Half, peak width  
Force Common Base lines  
Invert Negative Peaks On  
Invert Negative Peaks Off  
Measure and update threshold  
Negative Peak detection on  
Negative Peak detection off  
10 Groups of Peak selection  
8 TTL events as necessary  
Retention time labeling on/off  
Set Base line all Valleys on/off  
Set Base line next Valley  
Set Baseline Now  
Show Data as Points  
Show Peak Tic Marks  
Skim Riders from Next peak  
Split Peak  
Start and end Horizontal Base line  
Start and Stop Peak Sum Window  
Start and Stop Peak Integration  
Menu or mouse drag and drop  
Event Deletion  
Interactive Timed-Event placement

#### **Batch Reprocessing**

From Sequence or list  
Allows Automatic Smoothing  
Allows Automatic Baseline subtraction  
Allows Automatic Bound files  
Allows Automatic ASCII files  
Allows Automatic Reports  
Allows Auto AIA CDF / Net CDF  
Allows Auto Z file for LIMS  
Allows Auto Append report  
Allows Automatic Cal updates  
Allows Automatic Cal reports  
Allows User programs

#### **Send Reports to File**

Printer Screen All  
as ANDI, AIA, CDF, and Net Cdf  
ASCII, selectable format, CSV  
Single line Tab or comma delimited  
Concatenated files

Windows emf (enhanced meta file)  
PDF files  
CP Raw and or Bound™ files

#### **Rapid Review of reports without printing**

View all Chromatograms  
View all Reports

#### **Summary of Multiple analysis up to 1000 runs**

Amounts  
Amount %  
Area  
Area %  
Ret. Time  
Height  
Height %  
Response Ratio  
Summary File list can come from:  
Lists  
Previous List  
Sequence  
Calibration File  
Components to Summarize from:  
Largest  
Selected peak totals  
Group Totals  
Summary Styles  
Tables=Components  
Tables=Multiple Components  
Table= Items  
Component names in headers

#### **Real time Status Displays, selectable**

Instrument  
Controlling Station  
Detector  
Status  
Sample  
Raw File  
Method file  
Cal, file  
Run Time  
Response  
Sequence  
Sequence Number  
Vial Number  
Relay Position  
Reference Chromatogram  
Automatic Name  
Real time Integration

***And Much More.....***

***Compare this list of features to any other Chromatography Data System and "Demand Justice"***