

LabSolutions LC/GC

Notice before using

Version 5.57

Read the instruction manual thoroughly before you use the product.
Keep this instruction manual for future reference.

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1. Notice for Upgrading from LCsolution/GCsolution

1.1 About [User Administration] and [Rights Group Administration]

The user authentication database of LCsolution [Ver. 1] and GCsolution [Ver. 1~2] is not compatible with that of LabSolutions [Ver. 5]. When Oracle or SQLServer (MSDE) is used as the Shimadzu user authentication tool in LCsolution [Ver. 1] or GCsolution [Ver. 1~2], be advised that the rights group is not turned over although the user list is still available. Please reset the rights group in the [User Administration]/[Rights Group Administration] window of [Administration Tools] in LabSolutions [Ver. 5].

1.2 About Instrument Registration and System Configuration

The system configuration settings of LCsolution [Ver. 1] and GCsolution [Ver. 1~2] are not compatible with those of LabSolutions [Ver. 5].

When the user authentication database is replaced with another database after starting system operation, the LabSolutions system configuration settings and registered users shall be initialized.

Please add the instrument (system) in the [Instrument Administration] window of [Administration Tools] in LabSolutions [Ver. 5], and then reset the configuration in the [System Configuration] window of the Realtime Analysis program.

1.3 About File Compatibility

The following files created by LCsolution [Ver. 1] and GCsolution [Ver. 1~2] are seamlessly opened by LabSolutions [Ver. 5].

- Method files
- Data files
- Report format files
- Batch files
- UV spectrum files
- UV library files

Note. When performing Postrun batch, the manual integration settings are applied to each data file as they are stored in the data file. For this reason, “Analysis Type” to specify Integration (IT) and Quantitative Calculation (QT) in the LCsolution [Ver. 1] batch table is removed from the LabSolutions [Ver. 5] batch table.

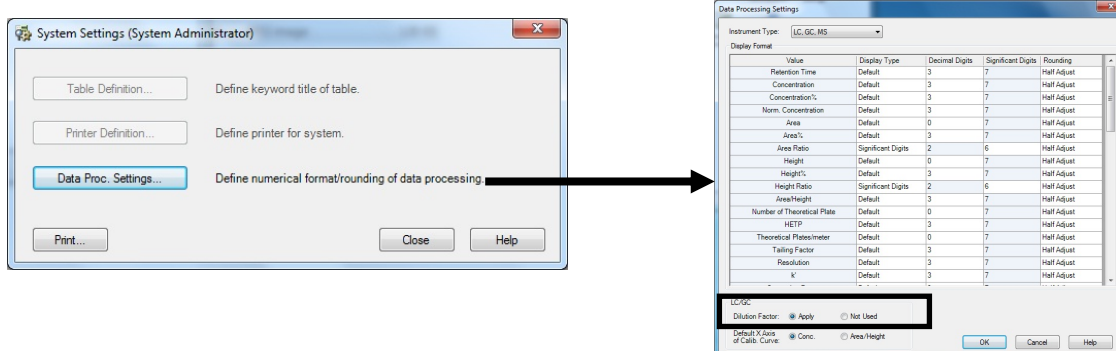
Note. These files created by LabSolutions [Ver. 5] cannot be opened by LCsolution [Ver. 1] and GCsolution [Ver. 1~2].

1.4 About the [Data Processing Settings]

In LabSolutions [Ver. 5], [Apply] or [Not Used] of [Dilution Factor] can be selected for the quantitative calculation formula. By default, [Apply] of [Dilution Factor] that is compatible with LCsolution [Ver. 1] is selected.

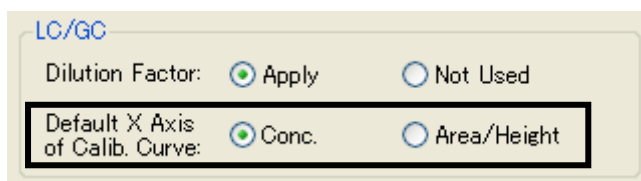
In GCsolution [Ver. 1~2], [Apply] or [Not Used] of [Dilution Factor] can be selected on installation.

In LabSolutions [Ver. 5], it is selected on the [System Settings]/[Data Proc. Settings] window of the [Administration Tools]. Please set [Dilution Factor] to [Not Used] after the system is installed, when using the system by the formula that [Dilution Factor] is [Not Used].



Be advised that the same results are not obtained when a data file is reprocessed as the quantitative calculation formula and the display format are different if the data processing settings are different on the two PCs. Please unify the data processing settings in the [Data Proc. Settings] window and use the PCs in the laboratory.

Default value of the [X Axis of Calib. Curve] in the Quantitative parameters can be selected in the [Data Processing Settings] sub-window in the System Settings.



[Default X Axis of Calib. Curve] is set to “Conc.” by default. Please select “Area/Height” for [Default X Axis of Calib. Curve] in order to set the default value of [X Axis of Calib. Curve] in the Quantitative parameters to “Area/Height” that is compatible with LCsolution [Ver. 1] and GCsolution [Ver. 1~2].

[X Axis of Calib. Curve] setting can be edited in the Quantitative parameters of method. The [Default X Axis of Calib. Curve] setting is applied to a method file newly created. The [X Axis of Calib. Curve] setting of method files already created is not changed.

1.5 About the System Suitability Calculation of LCsolution Version 1

The parameters for the system suitability calculation that is performed by the QC tool are added to the method. The macro described in the comment area of the LCsolution [Ver. 1] method is automatically converted to the system suitability settings of the LabSolutions [Ver. 5] method when the method file is opened. The user program settings of the LCsolution [Ver. 1] batch table for the QC tool are automatically converted to the system suitability settings of the LabSolutions [Ver. 5] batch table when the batch file is opened.

2. LC Unit

2.1 Instrument Control Specifications and ROM Versions

LabSolutions is able to control the following models. Please check the ROM version of each LC unit and consider an upgrade to a later version to obtain the functionality as described in the table below.

a. Nexera series

Model Name	ROM Version	Remarks
LC-30AD	2.01 or later	Ver. 2.10 or later is necessary for LPGE.
SIL-30AC	2.00 or later	
Rack Changer II	2.00 or later	
SIL-30ACMP	1.00 or later	CBM-20A/lite Ver. 2.20 or later is necessary.
CTO-30A	2.00 or later	
CTO-30AS	1.00 or later	CBM-20A/lite Ver. 2.20 or later is necessary.
SPD-M30A	3.00 or later	CBM-20A/lite Ver. 2.40 or later is necessary.

* Use CBM-20A/lite for the system controller.

b. Prominence series

Model Name	ROM Version	Remarks
CBM-20A/lite	2.02 or later	Ver. 2.20 or later is necessary to control SIL-30ACMP and CTO-30AS.
LC-20AD	1.10 or later	
LC-20ADXR	1.21 or later	
LC-20AT	1.07 or later	
LC-20AB	1.10 or later	
LC-20AP	1.00 or later	
SIL-20A/20AC	1.22 or later	When used as "SIL-HT" (SIL-HT compatible mode), SCL-10Avp Ver. 6.22 or later is necessary.
SIL-20AXR/20ACXR	1.22 or later	
Rack Changer/C	1.11 or later	
CTO-20A/20AC	1.07 or later	
SPD-20A/20AV	1.04 or later	Ver. 1.10 or later is necessary for 100 Hz sampling.
SPD-M20A	1.08 or later	Ver. 1.10 or later is necessary for 100 Hz sampling.
RF-20A/20AXS	1.00 or later	

c. LC-2010

Model Name	ROM Version	Remarks
LC-2010A/C	1.13 or later	
LC-2010AHT/CHT	2.11, 3.01 or later	

d. LC-VP series

Model Name	ROM Version	Remarks
SCL-10Avp	5.43, 6.22 or later	
SCL-10Asp	6.03 or later	When use the CDD-10Avp/sp
LC-10ADvp	5.31 or later	
LC-10ATvp	5.31 or later	
SIL-10ADvp	5.34 or later	Ver. 5.35 or later is necessary when it is used with the CBM-20A/lite.

SIL-HTA/C	SCL: 6.22 or later SIL: 6.06 or later	
CTO-10Avp/10ACvp	5.27 or later	
CTO-10ASvp	5.28 or later	
SPD-10Avp/10AVvp	5.24 or later	
SPD-M10Avp	3.30 or later	
CDD-10Avp/sp	5.00 or later	
Option Box VP/Subcon VP	5.22 or later	

e. LC-10A series, others

Model Name	ROM Version	Remarks
LC-10AD	3.1 or later	
LC-10AT	3.1 or later	
LC-10Ai	3.1 or later	
LC-10AS	3.1 or later	
LC-6AD/7A	1.4 or later	
LC-8A	1.5 or later	
SIL-10A/10Ai	3.50 or later	When the CBM-20A is used, 4.20 cannot be used.
SIL-10AF	4.10 or later	When the CBM-20A is used, 4.20 cannot be used.
SIL-10AP	4.10 or later	When the CBM-20A is used, 4.20 cannot be used.
SIL-10AXL	3.61 or later	
CTO-10A/10AC	3.0 or later	
SPD-10A/10AV	3.0 or later	
SPD-10Ai/10AVi	3.0 or later	
RID-10A	3.0 or later	
RF-10A	3.0 or later	
RF-10AXL	3.32 or later	
Option Box L, Valve I/F	3.2 or later	
FRC-10A	3.30 or later	When the CBM-20A is used, 3.60 cannot be used. 3.61 or later version is necessary.

f. Others

Model Name	ROM Version	Remarks
ELSD-LTII	Ver. 1.5 or later	The analog input board (PC-55N) is separately necessary.
Analog input board (PC-55N)	-	SCL-10Avp/sp or CBM-20A is required.

g. ROM version required for each feature

Item	CBM-20A/lite	ROM version of LC units
Fast sampling The data can be acquired in the high frequency(100Hz cycle, sampling time 10msec) to support the ultra fast analysis in high accuracy.	Ver. 2.02 or later	SPD-M20A Ver. 1.10 or later
		SPD-20A Ver. 1.10 or later
		SPD-20AV Ver. 1.10 or later
		RF-20A Ver. 1.00 or later
		RF-20AXS Ver. 1.00 or later

4 wavelength in RF-20A/AXS The data can be acquired by specifying the 4 wavelength for the excitation and fluorescence wavelength.	Ver. 2.40 or later	RF-20A/AXS Ver. 1.10 or later
Multiple oven 4 ovens can be controlled.		
Solvent blending The concentration of the mobile phase can be controlled using the valve attached to the pump.		LC-30AD Ver. 2.20 or later
LC-20ADXR LPGE mode LC-20ADXR LPGE mode can be used by using the valve attached to the pump.	Ver. 2.50 or later	LC-20ADXR Ver. 1.30 or later
LC-20ADXR Compressibility Setting An optimal compressibility can be set as required type of mobile phase.	Ver. 2.60 or later	LC-20ADXR Ver. 1.30 or later
LC-20AP LPGE mode LC-20AP LPGE mode can be used by using FCV-200AL connected to the pump.		LC-20AP Ver. 1.10 or later

Note. We recommend that you ask Shimadzu service associate to perform ROM upgrades.

Please note that this service is not covered under warranty and is billed separately.

2.2 RS-232C Communication Settings

(1) SCL-10Avp/SIL-HT

LabSolutions communicates with SCL-10Avp/SIL-HT via an Enhanced Level protocol. Use the following procedure to set the protocol mode to “Enhanced”.

1. Turn ON the power supply on the SCL-10Avp/SIL-HT.
2. From the main menu, press "F4(SYSTEM)" and "F3(NEXT)" to open the COMMUNICATION SETTING screen.
3. Set the communication settings as follows.

CLASS-VP:	5.x
Interface:	RS-232C
Baud rate:	19200
Level:	Enhanced
4. Turn OFF the SCL-10Avp/SIL-HT power supply, then re-start.

(2) SCL-10Asp Version 1

Note. When using an SCL-10Asp Version 6, please refer to “(1) SCL-10Avp/SIL-HT”. In this case, you select “SCL-10Asp” and “RS232C” as a communication setting for LabSolutions.

The system cannot be worked properly if the following Version 1 setting is specified.

The Enhanced mode cannot be used with the HIC-SP Suppressor Ion Chromatograph (CDD-6A

+ SCL-10Asp Ver.1.xx). Please set the Level to “Standard” as described in the procedure below.

1. Turn ON the SCL-10Asp power supply.
2. From the main menu, press "F4(SYSTEM)" and "F3(NEXT)" to open the COMMUNICATION SETTING screen.
3. Set the communication settings as follows.

CLASS-VP:	5.x
Interface:	RS-232C
Baud rate:	19200
Level:	Standard (or Level2)
4. Turn OFF the SCL-10Asp power supply, and then re-start.

Note. Please set “RS232C(S)” as a communication setting of the SCL-10Asp of the “instrument” dialog on the system configuration of LabSolutions when you use standard mode.

2.3 SPD-M10Avp Photo Diode Array Detector

(1) Driver

It is necessary to install SPD-M10Avp driver when using SPD-M10Avp detectors on LabSolutions. Follow the next procedure to install the SPD-M10Avp driver.

1. Shut down the PC after LabSolutions is installed. Connect the SPD-M10Avp detectors to the PC and turn on the power of the detectors.
2. Turn on the PC after the initialization of the SPD-M10Avp detectors is finished.
3. In the case of Windows Vista, the installation is automatically complete by the hardware wizard.

In the case of Windows XP, the installation starts automatically with the hardware wizard. Install the SPD-M10Avp driver by following the instruction of the hardware wizard.

Note. Even if LabSolutions is not installed, the hardware wizard starts the installation of the SPD-M10Avp driver when the Windows starts and the installation fails. In this case please cancel the hardware wizard and close it, then install LabSolutions and reboot PC.

In Windows 7, install the SCSI interface board driver.

(2) ROM Version

The SPD-M10Avp ROM version must be 3.3 or later.

When the SPD-M10Avp is installed in your HPLC system, please check the version number using the following procedure.

Note. If the ROM is older than version 3.3, it is necessary to upgrade it. We recommend that you ask Shimadzu service associate to perform ROM upgrades for SPD-M10Avp model. Please note that this service is not covered under warranty and is billed separately.

Procedure to check SPD-M10Avp CPU ROM Version

1. Turn on the power switch on the SPD-M10AVP main unit and wait until the LED stops blinking.
2. Turn on the PC and start LabSolutions.
3. Select the Operation menu and click the Analysis icon to log in the LC Analysis program (with user ID “admin” and no password by default).
4. Select [Instrument]>[System Configuration] menu to display the Instrument dialog box. (Double click the Instrument [Communication Settings] icon to display the Instrument dialog box if System Configuration window is open.)
5. Click the SCSI List button to open the SCSI Instruments dialog box.
6. Click the OK button to close the Instrument dialog box.
7. Double click the Detector icon in Available Modules to open the instrument tree and move SPD-M10Avp to Modules Used for Analysis.
8. Click the Auto Configuration button.
9. Double click the SPD-M10Avp icon to open the PDA Detector dialog box and check the ROM version.
10. Click the OK button to close the System Configuration window.

(3) Wavelength Calibration

When LabSolutions is upgraded from CLASS-VP or the SPD-M10Avp is installed for the first time, it is necessary to calibrate the wavelength on the SPD-M10Avp.

Procedure to perform the SPD-M10Avp wavelength calibration

1. Terminate all Analysis programs if they are running.
2. Select [Start]>[Programs]>[LabSolutions]>[Instrument Maintenance Tools].
3. In the [Application] drop-down box select “PDA Utility(SPD-M10Avp/M20A)” and for the [Instrument No.] select the corresponding instrument to launch the PDA Utility program.
4. Select the Wavelength Calibration button to perform wavelength calibration.

Note. The SPD-M10Avp should be configured using LabSolutions prior to performing the wavelength calibration.

3. GC Unit

3.1 Instrument Control Specifications and ROM Versions

LabSolutions is able to control the following models. Please check the ROM version of each GC unit and consider an upgrade to a later version to obtain the functionality as described in the table below.

a. GC unit

Model Name	ROM Version	Remarks
GC-2010 Plus	2.0000 or later	
GC-2010	1.1180 or later	
GC-2014	1.1150 or later	
GC-14B	-	CBM-102 is required.

b. Others

Model Name	ROM Version	Remarks
CBM-102	2.01 or later	
AOC-20i	2.10 or later	
AOC-20s	1.40 or later	
AOC-20d(M), (S)	-	Refer to AOC-20i, AOC-20s.
Turbo Matrix HS	2.14.83 or later	
Analog input board (PC-55N)	-	CBM-102 is required.

Note. We recommend that you ask Shimadzu service associate to perform ROM upgrades.

3.2 About the ECD Current Setting Range

Depending on the specification revision of the ECD detector of GC-2010/2014, the setting range of the ECD current has been changed as follows in LabSolutions.

Before change After change

0.0 to 2.0 nA 0.0 to 3.5 nA

The ECD current cannot be set to greater than 2.0nA with the ROM version before Ver. 1.1180 of GC-2010 or Ver. 1.1190 of GC-2014. It becomes an outside range error and cannot be set if you try to set the setting range after the changes (ex: 3.0 nA) in LabSolutions when the ROM version is old. (The setting in the range after the changes is possible in the GC-2010 Plus.)

4. Using the Online Manual

4.1 Manual

All information necessary for using LabSolutions is provided by the documents contained in this folder on the C: \LabSolutions\Manual Installation CD: \Manuals\en.

#	Document	File Name
1	LabSolutions Software Release Notes	GCLC_ReleaseNotes.PDF
2	LabSolutions Getting Started Guide(HPLC Edition)	GettingStartedGuideHPLC.PDF
3	LabSolutions Getting Started Guide(GC Edition)	GettingStartedGuideGC.PDF
4	LabSolutions Operation Manual	OperatorsGuide.PDF
5	LabSolutions Administration Manual	SystemUsersGuideFile.PDF
6	LabSolutions Data Acquisition and Processing Theory Manual	Data Acquisition and Processing Theory Guide.PDF
7	LabSolutions Installation and Maintenance Manual	Installation and Maintenance Guide.PDF
8	Quick Guide for Connection of CBM-20A(lite) and SPD-M20A/SPD-M30A	QuickGuideforConnectionofCBM-PDA.PDF
9	HS-20 Control Software Instruction Manual	HS20_OperationGuide.pdf
10	LabSolutions Certificate of Compliance ^{*1}	CertificateOfCompliance.PDF
11	Notice before using LabSolutions (This sheet)	GCLC_Notice.PDF
12	ReadMe	ReadMe.PDF

Note ^{*1} : Check “Print as Image” in the Printer dialog box before printing.

4.2 Online Manual Viewer

Viewing the online manual requires Adobe Acrobat Reader installed. If you try to use the manual without first installing Acrobat Reader, a dialog box will appear prompting you to install it. Adobe Acrobat Reader is stored on the LabSolutions Installation disk.

Procedure to install Adobe Acrobat Reader

1. Place the LabSolutions Installation disk into the disk drive.
2. Select the "\AdobeReader\en\AdbeRdrXXX_en_EN.EXE" (“XXX” is number.) file icon in the disk drive from the Start>Run menu.
3. Follow the instructions displayed on the screen to complete the installation.

Note. For more information about Adobe Acrobat Reader, please refer to the Adobe Acrobat Reader software's Online User's Guide and the Adobe Corporation's Internet Homepage.

5. Report Template Files

Report template files are copied into the following folder.

C:\LabSolutions\Sample\LC

C:\LabSolutions\Sample\GC

(LC/GC Common)

#	File name	Description
1	Method.lsr	Output the method parameters.
2	CalibrationCurveReport_1.lsr	Output the calibration curve graph and the list.
3	CalibrationCurveReport_2.lsr	Output the calibration curve graph and the list in detail.
4	CalibrationCurveReport_3.lsr	Output two blocks of calibration curve graph and the list.
5	PeakReport_1.lsr	Output the chromatogram and the peak report.
6	PeakReport_2.lsr	Output the chromatogram (Landscape) and the peak report.
7	PeakReport_3.lsr	Output the method parameters, the chromatogram and the peak report.
8	PeakReport_4.lsr	Output the chromatogram and the peak report in landscape page.
9	PeakReport_5.lsr	Output the divided chromatogram and the peak report.
10	PeakReport_CalibrationCurve.lsr	Output the chromatogram, the peak table and the calibration curve.
11	QuantitativeResults_1.lsr	Output the all chromatogram and the quantitative results.
12	QuantitativeResults_2.lsr	Output the chromatogram of detector1 and detector2 in a stack and the quantitative results.
13	QuantitativeResults_3.lsr	Output the chromatogram of detector1 and detector2 which are arranged to left and right and the quantitative results.
14	QuantitativeResults_4.lsr	Output the detector1 and the quantitative results, detector2 and the quantitative results.
15	QuantitativeResults_5.lsr	Output the all chromatogram (overlay) and the quantitative results in landscape page.
16	GroupResults_1.lsr	Output the chromatogram and the grouping results.
17	GroupResults_2.lsr	Output the chromatogram, the grouping results and the group calibration curve.
18	ColumnPerformance.lsr	Output the chromatogram and the column performance report.
19	SummaryReport_1.lsr	Output the chromatogram and the peak report for each data.
20	SummaryReport_2.lsr	Output the quantitative summary report for each compound.
21	SummaryReport_3.lsr	Output the concentration summary report, the area summary report and the height summary report.
22	SummaryReport_4.lsr	Output the chromatogram(Landscape), and the quantitative summary report for each compound.
23	SummaryReport_5.lsr	Output the concentration summary report, the area summary report and the height summary report in landscape page.
24	SummaryReport_6.lsr	Output the chromatogram(Overlay), and the quantitative summary report for each compound.
25	BatchTable.lsr	Output the batch table in landscape page.

(LC)

#	File name	Description
1	FractionCollectionReport.lsr	Output the chromatogram and the fraction collection report.
2	PDADataAnalysisResults.lsr	Output the PDA chromatogram, and the spectrum, the library search results and purity of the ID peaks.
3	Contour3DReport.lsr	Output the contour of PDA and the 3D graph.

(GC)

#	File name	Description
1	GCMethodShort.lsr	Output the chromatogram and the peak report with general method parameters.
2	GCCConfiguration.lsr	Output the GC system configuration.

6. CLASS-Agent Manager

6.1 Setting the instrument information files of the CLASS-Agent Manager

Several items about LabSolutions's (LCsolution/GCsolution) data are added in the CLASS-Agent Manager.

Notice the installation order of the CLASS-Agent Manager and LabSolutions (LCsolution/GCsolution).

Please install the LabSolutions (LCsolution/GCsolution) after the CLASS-Agent Manager. When the CLASS-Agent Manager is installed after the LabSolutions (LCsolution/GCsolution), please add the instrument information files of the CLASS-Agent Manager, which set the display of LCsolution/GCsolution's data in the CLASS-Agent Manager.

Procedure

1. Please copy the new instrument information files (LCsolution: "LabSol-LC.inf2", GCsolution: "LabSol-GC.inf2") on the LabSolutions Installation disk folder:
"\\LabSolutions\Supplement\Agent\inf2\en".
2. Please paste the files to the \Agent2\inf2 folder of the drive that installs the CLASS-Agent manager.

If the instrument information files are shared in the network, please confirm where the currently used instrument information files by selecting [Tools]>[Configuration]>[Common Info File] in the CLASS-Agent Manager.

6.2 Setting the instrument information files of LCsolution and GCsolution

The contents of instrument information files, which set the display of LabSolutions (LCsolution/GCsolution) data in the CLASS-Agent Manager is different from the instrument information files of the LCsolution and GCsolution, if their version less than 5.

Procedure

1. Copy the new instrument information files (LCsolution of less than version 5: "LabSol-LC_old.inf2", GCsolution of less than version 5: "LabSol-GC_old.inf2") on the LabSolutions Installation disk folder:
"\\LabSolutions\Supplement\Agent\inf2\en".
2. Paste the files to the \Agent2\inf2 folder of the drive that installs the CLASS-Agent manager.
3. Delete the files ("LabSol-LC.inf2", "LabSol-GC.inf2") that exist in \Agent2\inf2, and then change the file names from ("LabSol-LC_old.inf2", "LabSol-GC_old.inf2") to ("LabSol-LC.inf2", "LabSol-GC.inf2"), respectively.

7. Procedures for Converting CLASS-LC10 Files into LabSolutions Format

This document describes the procedure for converting CLASS-LC10 files into the LabSolutions format.

- Converting method files
- Converting data files

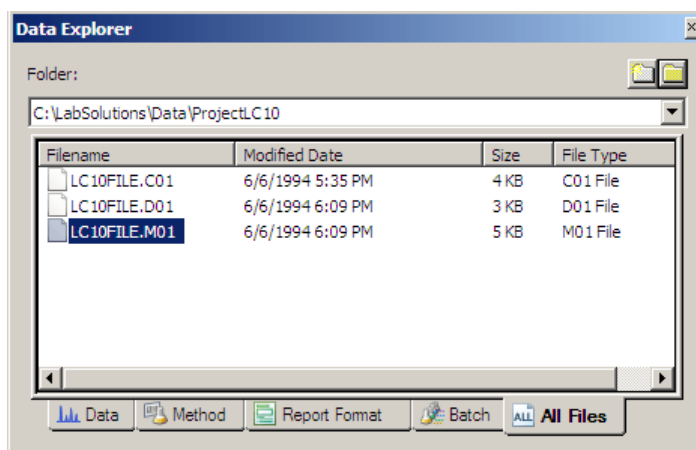
Files may be converted by either batch conversion via the Data Explorer window or seamless loading via the File Menu.

Batch conversion via the Data Explorer window is recommended for conversion from the CLASS-LC10.

7.1 Procedure for converting method files

a. Batch conversion via Data Explorer

- (1) Select the All Files tab of the Data Explorer window.



- (2) Select a method file or files (xxxx.M??) for the CLASS-LC10.
- (3) From the menu displayed by right-clicking in the Data Explorer window, choose [File Conversion]>[Convert CLASS-LC10 (...) File to LabSolutions (LC) File].
- (4) Specify the destination folder and click the OK button.
- (5) The files will be converted into the LabSolutions format as the ones named "xxxx_met.lcm."

b. Seamless loading from the File Menu

- (1) Choose [File]>[Open Method File] in the Data Acquisition or Calibration Curve window.
- (2) Select [CLASS-LC10 Method File] as Type in the Open Method File window.
- (3) Select a method file from the list of files and then click the Open button.
- (4) The method file for the CLASS-LC10 will be loaded.

Note. When method files of UV detector with dual mode are converted, data analysis parameters of Ch1/Ch2 are converted to the parameters of detector A (Ch1)/B (Ch1) in LabSolutions.

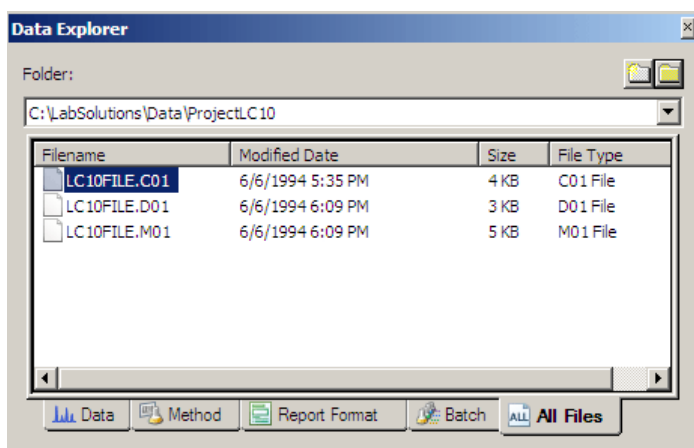
Note. Pretreatment program of autosampler in converted method file is set as Standard mode. When pretreatment program is customized, set the [Pretreatment] in [Autosampler] tab, selecting "Pretreatment Program" as the mode of pretreatment.

7.2 Procedure for converting data files

7.2.1 Converting chromatograms

a. Batch conversion via the Data Explorer window

- (1) Select the All Files tab of the Data Explorer window.



- (2) Select a chromatogram file or files (xxxx.C??) for the CLASS-LC10.
- (3) From the menu displayed by right-clicking in the Data Explorer window, choose [File Conversion]> [Convert CLASS-LC10 (...) File to LabSolutions (LC) File].
- (4) Specify the destination folder and then click <OK> button.
- (5) The file(s) will be converted into the LabSolutions format as the ones named "xxxx_C??.lcd."

b. Seamless loading via the File Menu

- (1) Choose [File]>[Open Data File] in the Postrun window.
- (2) Select [CLASS-LC10 Data File] as Type in the Open Data File window.
- (3) Select a chromatogram file (xxxx.C??) from the list of files and then click the Open button.
- (4) The chromatogram for the CLASS-LC10 will be loaded.

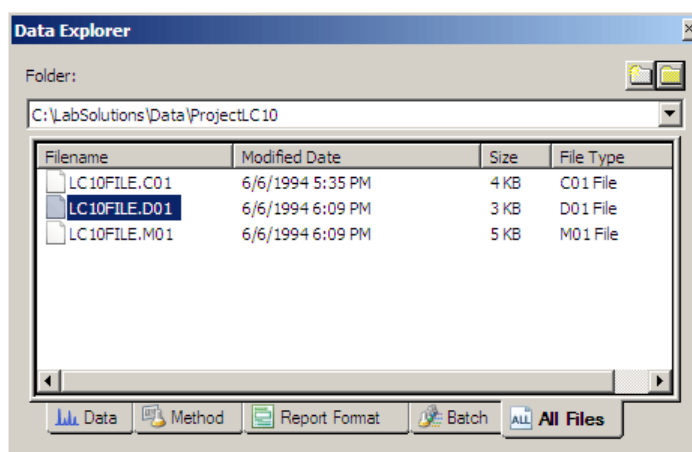
7.2.2 Conversion including a method and calculation results

A calculation data file, a chromatogram data file, and a method file linked to those data files may be converted into the LabSolutions format. For example, you may wish to convert the calculation data file, LC10DATA.D01, the chromatogram data file, LC10DATA.C01, and the method file (LC10DATA.M01 in the Auto Save mode) linked to those data files into the LabSolutions format.

Note. In the conversion including methods and calculation results, files can be converted only when there are a D-file, C-file, and M-file as a set.

a. Batch conversion via the Data Explorer window

- (1) Select the All Files tab of the Data Explorer window.



- (2) Select a calculation data file or files (xxxx.D??) for the CLASS-LC10.
- (3) From the menu displayed by right-clicking in the Data Explorer window, choose [File Conversion]> [Convert CLASS-LC10 (...) File to LabSolutions (LC) File].
- (4) Specify the destination folder and then click <OK> button.
- (5) The file(s) will be converted into the LabSolutions format as the ones named "xxxx_D??_lcd."

b. Seamless loading via the File Menu

- (1) Choose [File]>[Open Data File] in the Postrun window.
- (2) Select [CLASS-LC10 Data File] as Type in the Open Data File window.
- (3) Select a calculation data file (xxxx.D??) from the list of files and then click <Open> button.
- (4) The data file for the CLASS-LC10 will be loaded.

8. Procedures for Converting CLASS-VP Files into LabSolutions Format

This document describes the precautions and procedures for converting CLASS-VP files into the LabSolutions format.

- Handling CLASS-VP files
- Preparing for file conversion
- Converting method files
- Converting data files

Files may be converted by either batch conversion via the Data Explorer window or seamless loading via the File Menu.

Batch conversion via the Data Explorer window is recommended for conversion from the CLASS-VP.

8.1 Handling CLASS-VP files

The CLASS-VP files that may be used in/converted into the LabSolutions are as follows.

CLASS-VP file	Files name on LabSolutions
Method file (*.MET)	Method file (* MET.lcm)
Data file (*.DAT, etc.)	Data file (* DAT.lcd)

When method/data files for the CLASS-VP are used on the LabSolutions, the following restriction will apply.

- (1) The conversion or seamless loading of data files for the CLASS-VP requires that CLASS-VP Ver.5.04, Ver.6.12, or later version be installed in the computer (this is not applicable when the already converted data is reused). In addition, CLASS-VP Ver.6.13 or later version (when using Ver. 5 series, Ver.5.05 or later version in Ver.5.X) is necessary when converting CLASS-VP PDA data.

Note. When CLASS-VP is installed on the PC where LabSolutions is installed, there is a case that you cannot start LabSolutions.

In this case, select [Change] of [Sentinel Protection Installer] and execute [Repair] on [Control Panel]-[Programs and Features] or [Control Panel]- [Add or Remove Program].

(Reboot the PC when messages to do so appeared.)

During the installation of CLASS-VP, if the following message box is displayed, click the corresponding button in this table.

Window	Message	Button to click
Sentinel Driver	The Sentinel Driver is running. You must stop the driver by entering NET STOP SENTINEL on the command line. Then re-install the driver.	[OK]
Confirm File Replace	The target file exists and is newer than the source. Overwrite the newer file?	[No to All]

(2) The print format is different between the CLASS-VP and the LabSolutions. Therefore, no report format information for the CLASS-VP will be converted. A report format file for the LabSolutions must be created separately.

(3) The following data in a method file may be converted:

Comments

Instrument parameters

Integration parameters (CHROMATOPAC algorithm only)

Column performance parameters

Compound table (described later)

No other data (properties, calibration curve information, identification/quantification parameters, advanced settings, custom reports, and system suitability) will be converted.

(4) In the conversion of a compound table from the CLASS-VP into the LabSolutions, the following data marked with **Yes** will be converted from a method file and data file. For the data that cannot be converted (marked with **No**), the default values will be assumed.

	Method file conversion		Data file conversion	
	Conversion	Default value	Conversion	Default value
Compound name	Yes		Yes	Identified peaks only
Type	Yes		No	Target
Analysis channel	Yes		Yes	
Retention time	Yes		Yes	
Concentration (1-)	Yes		No	1
Bandwidth	Yes		No	0.01
Identified peak selection	--	Closest Peak	--	Closest Peak
Concentration unit	Yes		Yes	
Calculated by	Yes		No	Area
Calibration curve	Yes		No	Linear
Zero	Yes		No	Not Forced
Weighting	Yes		No	None
Window/band	--	Band	--	Band
Spiked	No	0	No	0

(5) In the conversion of data files for the CLASS-VP, chromatograms, the last analysis result, and the method and configuration settings in the original data will be converted.

(6) The original method used for data acquisition will be converted. Therefore, if the data processing parameters or PDA multi-chromatogram settings are modified, the settings in the method within the converted data may not conform to the chromatograms and calculation results.

In this case, separately convert the method used for Postrun analysis into the LabSolutions format and then create a batch table to perform Postrun batch processing. In the LC/PDA data analysis, no method file can be specified to make a Postrun analysis.

8.2 Preparing for file conversion

a. Installing the CLASS-VP software

- (1) Supply the installation disk for the CLASS-VP.
- (2) Place the installation disk into the drive and then run
ENGLISH\CLASS-VP\Disk1\Setup.exe.
- (3) Select the peak purity algorithm that was selected when the CLASS-VP was used.

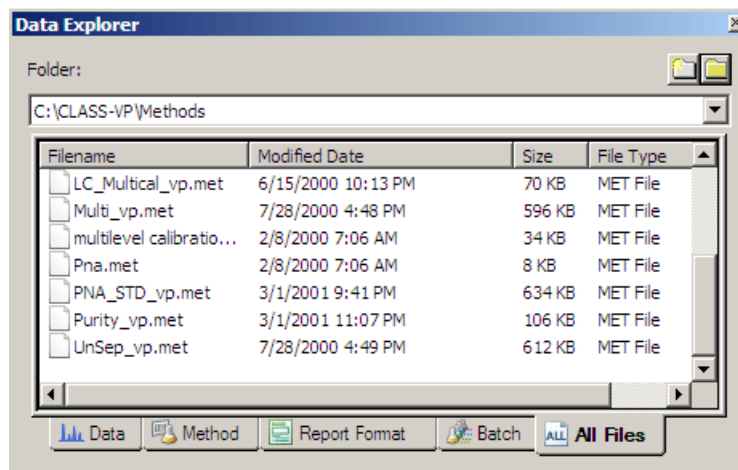
b. Copying CLASS-VP files

- (1) Copy the method file, data file, and configuration settings file to be used for the LabSolutions to an appropriate folder on the PC having the LabSolutions installed. If no configuration settings file is available, the method file will not be converted properly.

8.3 Procedure for converting method files

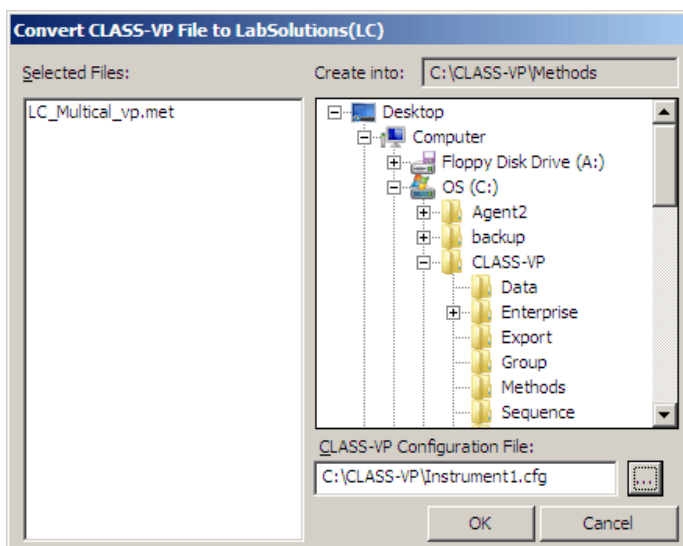
a. Batch conversion via the Data Explorer window

- (1) Select the All Files tab of the Data Explorer window.



- (2) Select a method file or files (xxxx.MET) for the CLASS-VP.
- (3) From the menu displayed by right-clicking the Data Explorer window, choose [File Conversion]>[Convert CLASS-LC10 (...) File to LabSolutions (LC) File].
- (4) Specify a configuration settings file [Instrument1(to 4).cfg] for the CLASS-VP. This file must be the one that used the method to be converted and corresponds to the instrument number of the CLASS-VP.

If no configuration settings file is available, one may be created by opening a data file acquired using the above method with the <Configuration> option selected. In this case, the configuration settings file will be given the number of the analysis instrument on which that data file has been opened.

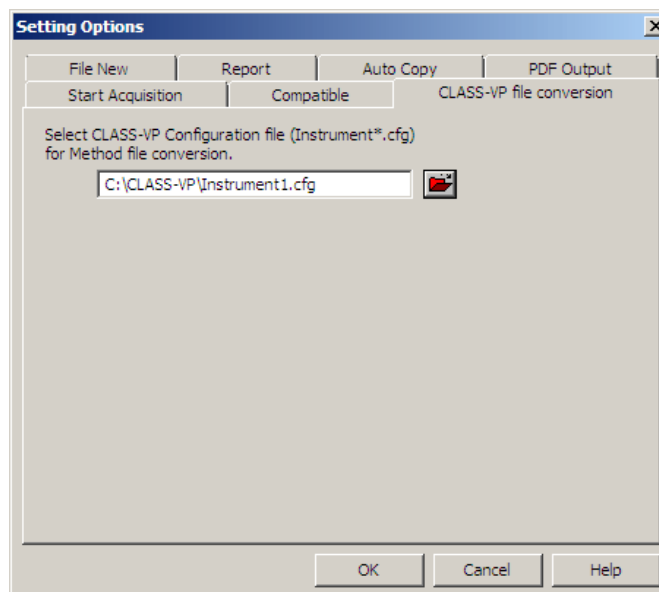


Note. If the correct configuration settings file is not selected, the instrument parameters will not be converted properly. Be sure to select the same configuration settings file as the one used for data acquisition (or the one that has been similarly set up)

- (5) Specify the destination folder and then click <OK> button.
- (6) The files will be converted into the LabSolutions format as the ones named "xxxx_met.lcm."

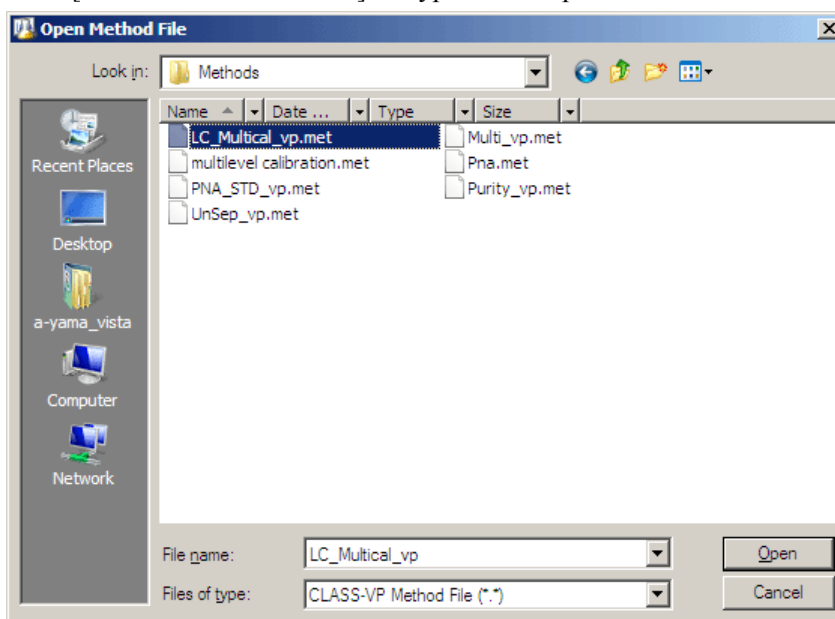
b. Seamless loading via the File Menu

- (1) Choose [Tools]>[Options] in the Data Acquisition window from the Analysis window or in the Postrun window.
- (2) Select [CLASS-VP file conversion] tab and specify the configuration settings file [Instrument1 (to 4).cfg] for the CLASS-VP, which is to be used for the file conversion. This file must be the one that used the above method and corresponds to the instrument number of the CLASS-VP.



Note. If the correct configuration settings file is not selected, the instrument parameters will not be converted properly. Be sure to select the same configuration settings file as the one used for data acquisition (or the one that has been similarly set up)

- (3) Choose [Files]>[Open Method File] in the Data Acquisition window from the Analysis window or in the Calibration Curve window from the Postrun window.
- (4) Select [CLASS-VP Method File] as Type on the Open Method File window.

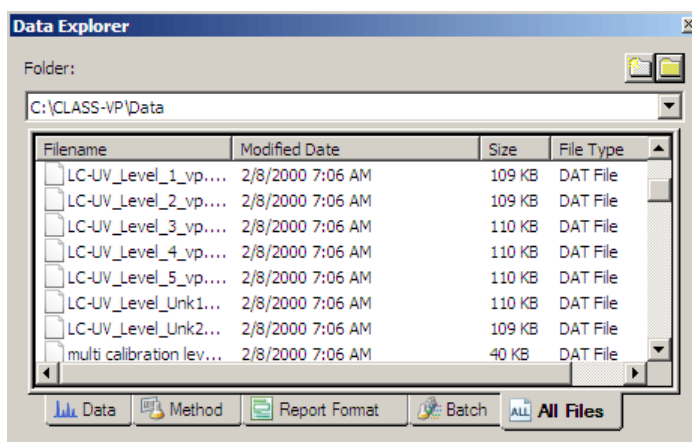


- (5) Select a method file from the list of files and then click the Open button.
- (6) The method file for the CLASS-VP will be loaded.

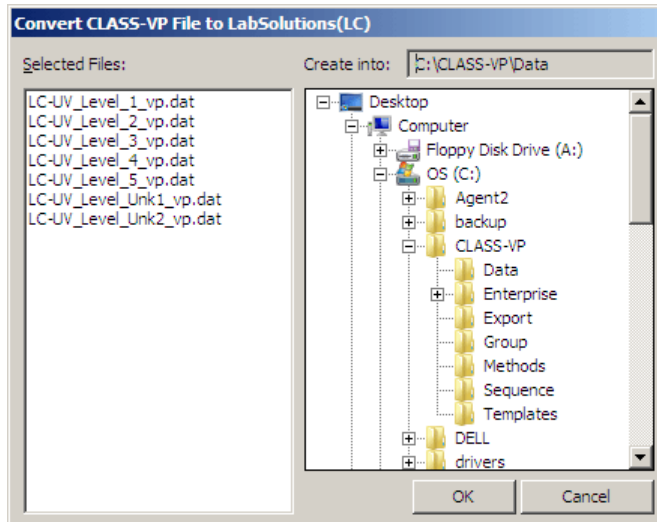
8.4 Procedure for converting data files

a. Batch conversion via the Data Explorer window

- (1) Select the All Files tab of the Data Explorer window.



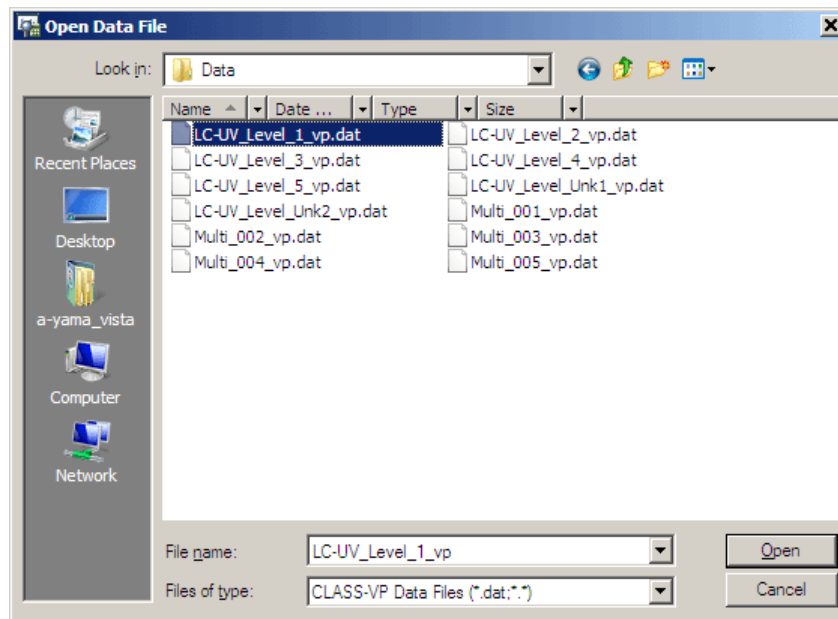
- (2) Select a data file or files (xxxx.dat, etc.) for the CLASS-VP.
- (3) From the menu displayed by right-clicking the Data Explorer window, choose [File Conversion]>[Convert CLASS-LC10 (...) File to LabSolutions (LC) File].



- (4) Specify the destination folder and then click <OK> button.
- (5) The file(s) will be converted into the LabSolutions format as the ones named "xxxx_dat.lcd."

b. Seamless loading via the File Menu

- (1) Choose [File]>[Open Data File] in the LC/PDA Data Analysis window from the Postrun window.
- (2) Select [CLASS-VP Data File] as Type in the Open Data File window.



- (3) Select data files (xxxx.dat, etc.) from the list of files and then click the Open button.
- (4) The data files for the CLASS-VP will be loaded.

9. Procedures for Converting CLASS-GC10 Files into LabSolutions Format

This document describes the procedure for converting CLASS-GC10 files into the LabSolutions format.

- Converting method files
- Converting data files

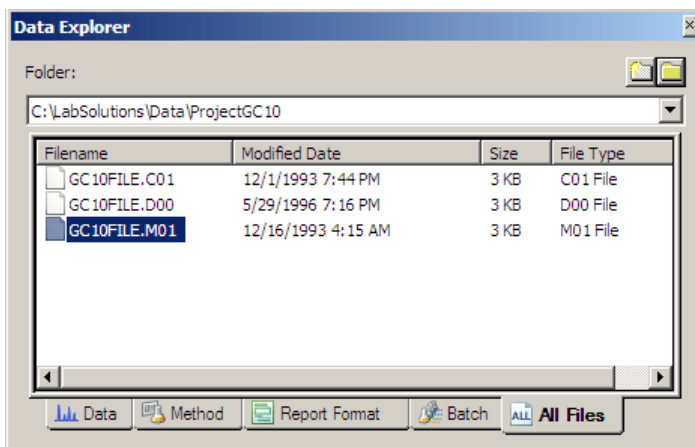
Files may be converted by either batch conversion via the Data Explorer window or seamless loading via the File Menu.

Batch conversion via the Data Explorer window is recommended for conversion from the CLASS-GC10.

9.1 Procedure for converting method files

a. Batch conversion via Data Explorer

- (1) Select the All Files tab of the Data Explorer window.



- (2) Select a method file or files (xxxx.M??) for the CLASS-GC10.
- (3) From the menu displayed by right-clicking in the Data Explorer window, choose [File Conversion]>[Convert CLASS-GC10 (...) File to LabSolutions (GC) File].
- (4) Specify the destination folder and click the OK button.
- (5) The files will be converted into the LabSolutions format as the ones named "xxxx_met.gcm."

b. Seamless loading from the File Menu

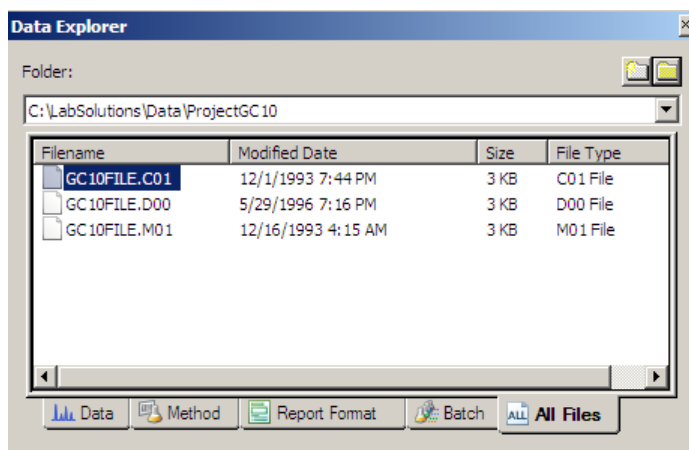
- (1) Choose [File]>[Open Method File] in the Data Acquisition or Calibration Curve window.
- (2) Select [CLASS-GC10 Method File] as Type in the Open Method File window.
- (3) Select a method file from the list of files and then click the Open button.
- (4) The method file for the CLASS-GC10 will be loaded.

9.2 Procedure for converting data files

9.2.1 Converting chromatograms

a. Batch conversion via the Data Explorer window

- (1) Select the All Files tab of the Data Explorer window.



- (2) Select a chromatogram file or files (xxxx.C??) for the CLASS-GC10.
- (3) From the menu displayed by right-clicking in the Data Explorer window, choose [File Conversion]> [Convert CLASS-GC10 (...) File to LabSolutions (GC) File].
- (4) Specify the destination folder and then click <OK> button.
- (5) The file(s) will be converted into the LabSolutions format as the ones named "xxxx_C??.gcd."

b. Seamless loading via the File Menu

- (1) Choose [File]>[Open Data File] in the Postrun window.
- (2) Select [CLASS-GC10 Data File] as Type in the Open Data File window.
- (3) Select a chromatogram file (xxxx.C??) from the list of files and then click the Open button.
- (4) The chromatogram for the CLASS-GC10 will be loaded.

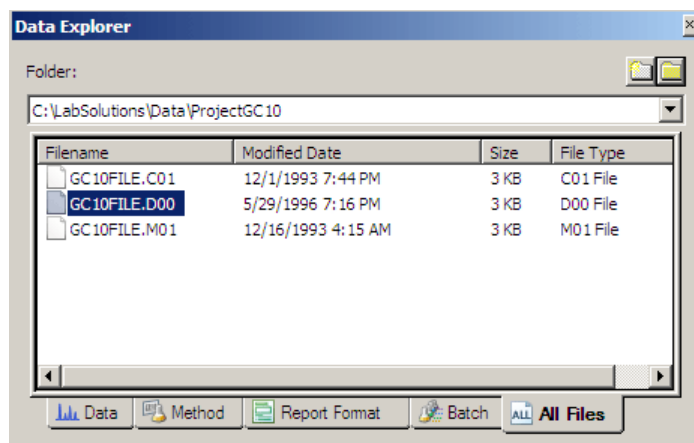
9.2.2 Conversion including a method and calculation results

A calculation data file, a chromatogram data file, and a method file linked to those data files may be converted into the LabSolutions format. For example, you may wish to convert the calculation data file, GC10DATA.D01, the chromatogram data file, GC10DATA.C01, and the method file (GC10DATA.M01 in the Auto Save mode) linked to those data files into the LabSolutions format.

Note. In the conversion including methods and calculation results, files can be converted only when there are a D-file, C-file, and M-file as a set.

a. Batch conversion via the Data Explorer window

- (1) Select the All Files tab of the Data Explorer window.



- (2) Select a calculation data file or files (xxxx.D??) for the CLASS-GC10.
- (3) From the menu displayed by right-clicking in the Data Explorer window, choose [File Conversion]> [Convert CLASS-GC10 (...) File to LabSolutions (GC) File].
- (4) Specify the destination folder and then click <OK> button.
- (5) The file(s) will be converted into the LabSolutions format as the ones named "xxxx_D???.gcd."

b. Seamless loading via the File Menu

- (1) Choose [File]>[Open Data File] in the Postrun window.
- (2) Select [CLASS-GC10 Data File] as Type in the Open Data File window.
- (3) Select a calculation data file (xxxx.D??) from the list of files and then click <Open> button.
- (4) The data file for the CLASS-GC10 will be loaded.

10. Notice for PDF File Output

10.1 Notice for PDF Output Settings

To output PDF file, perform PDF out directly from the menu (for example, the File/Data Report/PDF Output menu in the Data Analysis window) or select the Redirect Report to PDF file check box in the PDF Output tab of the Tools/Options menu.

(Although SkyPDF Pro Driver is displayed in the Printer Name list box in the Printer Setup window, do not select SkyPDF Driver in the list box.)

10.2 About Printing when “Redirect Report to PDF file” is selected

When “Redirect Report to PDF file” is selected, the PDF image is output to the following file by the Print operation.

#	Operation Window	Report Type	Output Folder	Output File Name
1	System Configuration	System Configuration Report	Current project folder	SystemConfiguratioun <i>N</i> .pdf <i>N</i> : Instrument number
2	System Check	System Check Report	Current project folder	System Check Report.pdf
3	Data Acquisition	Method Report	Current project folder	{Method filename}.pdf
4	Method Editor	Method Report	Current project folder	{Method filename}.pdf
5	Realtime Batch	Batch Table	Current project folder	{Batch filename}.pdf
6	Realtime Batch	System Check Report	Folder of batch file	System Check Report.pdf
7	Realtime Batch	Summary Report	Folder of batch file	{Batch filename}+_YYYYMMDDhhmmss.pdf <i>YYYY</i> : Year <i>MM</i> : Month <i>DD</i> : Day <i>hh</i> : Hour <i>mm</i> : Minute <i>ss</i> : Second
8	Batch Editor	Batch Table	Current project folder	{Batch filename}.pdf
9	Postrun Batch	Batch Table	Current project folder	{Batch filename}.pdf
10	Postrun Batch	Summary Report	Folder of batch file	{Batch filename}+_YYYYMMDDhhmmss.pdf <i>YYYY</i> : Year <i>MM</i> : Month <i>DD</i> : Day <i>hh</i> : Hour <i>mm</i> : Minute <i>ss</i> : Second
11	Calibration	Graph Image	Current project folder	{Method filename}.pdf
12	Data Comparison	Graph Image	Current project folder	Data Comparison Report.pdf
13	Data Analysis	Graph Image (Chromatogram)	Current project folder	{Data filename}.pdf
14	Data Analysis	Data Report	Current project folder	{Data filename}.pdf

15	PDA Data Analysis	Graph Image (Chromatogram)	Current project folder	{Data filename}.pdf
16	PDA Data Analysis	Graph Image (Spectrum)	Current project folder	{Data filename}.pdf
17	PDA Data Analysis	Spectrum Index	Current project folder	{Data filename}.pdf
18	PDA Data Analysis	UV Library Search Results	Current project folder	LSS UV Library Search.pdf
19	PDA Data Analysis	Data Report	Current project folder	{Data filename}.pdf
20	UV Library Editor	Library Report	Folder of UV library file	{Library filename}.pdf
21	Quant Browser	Print Table	Current project folder	LSS Quantitative Browser Table.pdf
22	Quant Browser	Quant. Report for Current Data	Current project folder	LSS Quantitative Browser Data.pdf
23	Quant Browser	Data Report	Current project folder	{Data filename}.pdf
24	Data Browser	Print Image of all cells	Current project folder	{Layout filename}.pdf or Data Browser Image.pdf
25	Data Browser	Graph Image	Current project folder	{Data filename}.pdf
26	Data Browser	Print Table	Current project folder	{Data filename}.pdf
27	Data Browser	Print Sample Information	Current project folder	{Data filename}.pdf
28	Data Browser	Data Report	Current project folder	{Data filename}.pdf

11. About Windows Settings

11.1 Precautions for Windows Update

When PC is connected to the network, Windows can recognize, download and install important updates(programs) for the security of Windows, by using the "Automatic Updates" function (described as "Windows Update" on Windows 7/Windows Vista). In this function, when "Automatic (recommended)" (Install updates automatically) is set, the Windows reboot after the installation is complete despite the status of applications, which might discard the data in analysis or files being edited.

To prevent this problem, when using the "Automatic Updates", do not set "Automatic (recommended)" There is a case that when PCs participate in a network (domain), the setting of "Automatic (recommended)" is forced by the domain or the network configuration. In such a case, please check with your network administrator.

11.2 Precautions for security on folders in Windows

In some cases, data files and folders can not be accessed by other users, because the Windows default security settings of newly created folders and files are more strict or because of user account control(UAC) function in Windows 7/Windows Vista.

In order to avoid this problem, LabSolutions changes the security rights for the LabSolutions installation folder and its subfolders when installing it, thereby sharing data files and method files.

If a new data folder is created in any location other than the LabSolutions installation folder (or its subfolders), you may become unable to perform some operations such as creating a subfolder and saving a file. It is therefore necessary to change the security settings for the folder by using the related capability of Windows.

11.3 Precautions for Sleep function

In the Windows XP/Vista/7, "Sleep(Hibernate)" function is supported which stores the working states on the memory or hard disks and retains it in the low-power mode. When this function is used while LabSolutions Real Time Analysis window is open, the communication with the instrument is disconnected and it cannot acquire the data. In order to avoid this problem, do not use Sleep(Hibernate) function when using LabSolutions.



In the Windows Vista, this button in the start menu gives the sleep(Hibernate) function. Do not click this button while using LabSolutions. This problem can be prevented by changing the Windows setting as below.

- 1) Select "Power Options" in the Control Panel.
- 2) Click "Change plan settings" for the current plan.
- 3) Click "Change advanced power settings".
- 4) In the tree, select "Shut down" for the setting of [Power buttons and lid] – [Start menu power button].

With this setting, the button in the start menu is changed to power button. (LabSolutions Real Time Analysis window does not close immediately when this button is clicked.)

In addition, change the settings as below when you restrict the Sleep function.

< Windows XP >

- 1) Select "Power Options" in the Control Panel.
- 2) Select "Never" for [Turn off hard disks] and [System standby].

< Windows 7/Windows Vista >

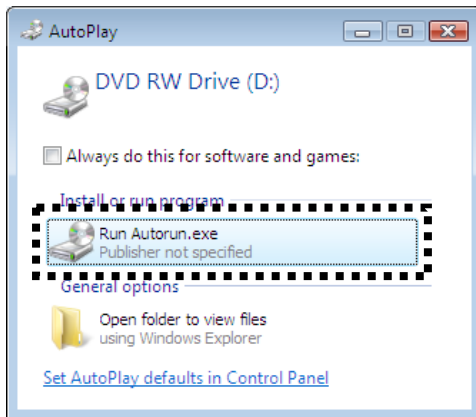
- 1) Select "Power Options" in the Control Panel.
- 2) Click "Change when the computer sleeps", then select "Never" for [Put the computer to sleep].

12. About installation

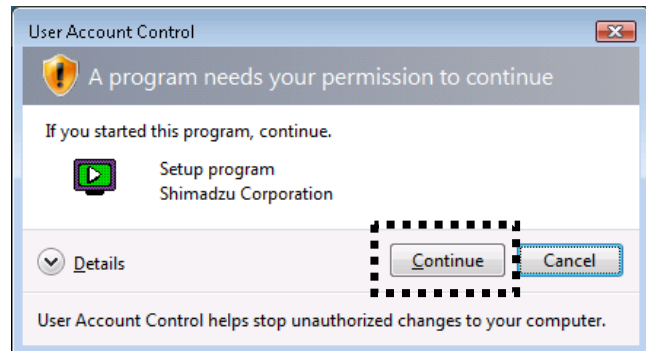
12.1 Notice for installation on Windows 7/Vista

In the Windows 7/Vista, when installation disks are inserted into the drive, [AutoPlay] window appears which asks whether to "Run AUTORUN.EXE*" or to "Open folder to view files". In order to auto-play the installer, select "Run AUTORUN.EXE". When the [User Account Control] window is displayed, click [Allow].

*Depending on the installation disks, other names such as "SETUP.EXE" may be displayed.



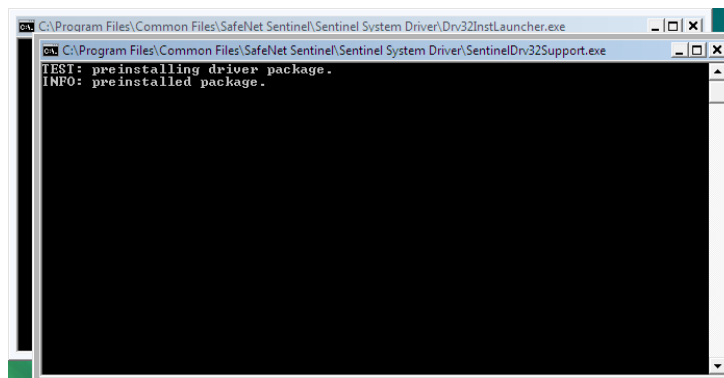
[AutoPlay]



[User Account Control]

12.2 Notice for installation

While installing LabSolutions, there is a case the driver installation screens below are displayed. In this case, wait a moment until the installation completes and these screens close.



12.3 Notice for installed files and folders

The installer copies the LabSolutions system files to the following folders. LabSolutions cannot work if the files on these folders are removed, moved, or renamed.

C:\LabSolutions\System ("C:\LabSolutions" means target folder for installation.)

C:\Program Files\LabSolutions ("C:" means Windows folder.)

12.4 Notice for installation language

The installer recognizes the language used with OS and starts the installation. Please integrate the setting of "Regional and Language Options" and "Date and time" in the Control Panel to the installation language.

13. Others

13.1 About changing the software

When moving from LabSolutions [Ver. 5] to LCMSsolution [Ver. 5], please initialize the customization information on the [Administration]/[Customization Information] window after the installation.

13.2 About USB Dongle

The LabSolutions's license is provided on a dongle, attach it to the PC. When the dongle is detached, you will not be able to work with LabSolutions. Attach the dongle on the backside of the PC to prevent it from being broken by mistake.

If the dongle is lost, license (USB dongle) cannot be reissued.

13.3 Notice of uninstalling the software

When uninstalling LabSolutions Ver. 5.30, please reboot PC. For LabSolutions Ver. 5.32 or later, please reboot PC if the message dialog to reboot is displayed after uninstalling the software.

If the LabSolutions software is re-installed without rebooting, there is a case the SkyPDF driver is not installed properly and PDF file cannot be created. In such a case, the LabSolutions software should be re-installed after removing the SkyPDF driver by the following procedure.

Procedure to remove SkyPDF

1. Uninstall the LabSolutions software from [Add or Remove Program] (Windows XP) or [Program and Features] (Windows 7/Vista) in the Control Panel.
2. Open the Printer List from the [Start] menu of the Windows and then delete the [Sky PDF].
3. Execute the "ClearSkyPDF.bat" file in the LabSolutions\Supplement folder of the installation disk. (When using Windows 7/Vista, select the file and then execute [Run as administrator] from the right-click menu.)