14   LabSolutions DB/CS (Option)

LabSolutons RF is software for controlling Shimadzu RF instruments and analyzing data, and combined with LabSolutions DB/CS extension kit (Option), it can be used for data base management (LabSolutions DB) or in a client/service configuration (LabSolutions CS) within a system.

When LabSolutions RF is configured as a LabSolutions DB/CS system, some functions and specifications will change as below.

- The procedure to start LabSolutions RF will be changed. ("Photometric file (fquf)")

- Created data, measurement parameters, reports and other files will be saved in database. ("Quantitation file (fqqf)")

> **NOTE**   The quantum yield measurement and the quantum efficiency measurement are out of scope of this system. While the user name of the login user will be used as the analyst name, the data file will be managed in the local folder of the PC as usual.

- Security policy settings and user administration will be possible.
  ("Report file for Quick Print - default setting"、 "Row Deletion"、 "Column Deletion")

- A change control function for measurement parameters will be enabled.
  ("Reviewing the Audit Trail in the Log Browser")
  Thus, measurement will not be possible until the configured measurement parameters or the loaded measurement parameter file is saved.

> **NOTE**   If you are not authorized to modify measurement parameters, [Measurement] of the measurement toolbar will be inactive until you open an existing measurement parameter file.

This Help describes changes in LabSolutions RF functions and specifications that are required to use LabSolutions RF under the LabSolutions DB/CS management functions.

- 14.1 Starting the System
- 14.2 File management
- 14.3 Security Policy Settings (System)
- 14.4 Security Policy Settings (Project)
- 14.5 User Administration
- 14.6 Log Management
- 14.7 Instrument Administration
- 14.8 Data Processing Settings
- 14.9 Other

14.1   Starting the System

In LabSolutions DB/CS (RF), the LabSolutions RF is started up in either [Measurement] (measurement mode), which enables execution from instrument control through to data analysis and printing, or in [Postrun] (postrun mode), which enables only data analysis and printing.
In the postrun mode, the function to communicate with the instrument and measurement-related functions cannot be used. Other than that, functions are the same as the measurement mode. Only one the measurement mode can be run at one time. Up to five postrun mode operations can be simultaneously run.
In LabSolutions DB/CS (RF), the LabSolutions RF launcher is started up in the [LabSolutions Main] window.

To start the [LabSolutions Main] window, double-click the   (LabSolutions) on the desktop or select [All Programs] from the [Start] menu and then click [Main Window] in LabSolutions.
First, the [Login] sub-window opens. When the user is authenticated in this sub-window, the [LabSolutions Main] window opens.

- 14.1.1 Starting the LabSolutions RF in the Measurement mode
- 14.1.2 Starting the LabSolutions RF in the Postrun mode

14.1.1　Starting the LabSolutions RF in the Measurement mode

1　In the [LabSolutions Main] window, click the ⬚ (Instruments).

2　**Select the RF instrument using the icon or the table in the sub-window and start the LabSolutions RF Luncher in measurement mode.**

[Instrument Name - User Name - Project Name] is displayed at the lower left of the launcher.

LabSolutions RF launcher in the measurement mode

14.1.2　Starting the LabSolutions RF in the Postrun mode

Since the postrun mode is for analyzing data files, there are some differences from the sub-window (functions) of the measurement mode as described below.

- This mode cannot be switched to the [Measurement] mode.

- In quantitation and photometric, neither measurement toolbar nor instrument status is displayed.

1　In the [LabSolutions Main] window, click the ⬚ (Postrun).

2　**Double-click the [RF postrun] in the sub-window to start the LabSolutions RF Luncher in postrun mode.**

[Postrun - User Name - Project Name] is displayed at the lower left of the launcher.

LabSolutions RF launcher in the postrun mode

14.2   File management

In LabSolutions DB/CS system, the files created using the basic analysis application (Spectrum, Quatitation, etc), such as data, parameters, and reports are saved in the database and managed with [DataManager].

▶▶ **Reference**   For details of the functions of [Data Manager], refer to LabSolutions Help.

- 14.2.1 File Type
- 14.2.2 File Operation
- 14.2.3 Data Manager
- 14.2.4 Create Report Set
- 14.2.5 Confirm Result File

14.2.1   File Type

Files not listed in the following tables will be managed in the local folder in the PC.

▶▶ **Reference**   "1.2 File Types"

■**Data**

Name	Ext.	Description
Spectrum file	fs2f	Data file created in the Spectrum application. This file contains Spectrum (waveform) data, measurement parameter information, file information (summary), data history, peak pick data, point pick data, and area calculation data.
3D Spectrum file	fs3f	Data file created in the 3D Spectrum application. This file contains 3D Spectrum data, measurement parameter information, file information (summary), and data history.
Calibration curve file	fqcf	Calibration curve data file created in the Quantitation application. This file contains standard table data, measurement parameters, calibration curve parameters, file information (summary), and data history.
Quantitation file	fqqf	Quantitation result data created in the Quantitation application. This file contains standard sample / sample table data, measurement parameters, calibration curve parameters, file information (summary), and data history.
Photometric file	fquf	Measurement result data created in the Photometric application. This file contains sample table data, measurement parameters, file information

		(summary), and data history.
Time course file	fttc	Data of changes in fluorescence intensity over time created in the Time course application. This file contains Time course (waveform) data, measurement parameter information, file information (summary), data history, peak pick data, point pick data, and area calculation data.
Validation file	fpvr	This test result data is created by the RF performance validation software.

> **NOTE** The data of the special analysis applications (quantum yield measurement and quantum efficiency measurement) and RF performance validation software are not stored in the database and are thus not managed.

■**Parameters**

> **NOTE** Those data are classified in the "method" category by the data manager.

Application	Ext.	Description
Spectrum	fm2f	This file stores measurement, instrument, and attachment parameters.
3D Spectrum	fm3f	This file stores measurement, instrument, and attachment parameters.
Quantitation	fmqf	This file stores wavelength, calibration curve, measurement (standard sample), measurement (sample), instrument, attachment, calculation, and pass/fail parameters.
Photometric	fmff	This file stores wavelength, measurement (sample), instrument, attachment, calculation, and pass/fail parameters.
Time course	fmtc	This file stores wavelength, measurement, instrument, and attachment parameters.

■**Report**

Name	Ext.	Description
Report File	frpt	This is the template file for printing that includes the print object.

■**Other**

Name	Ext.	Description
Spectrum Peak Area template	fsta	Template file for peak area tables that contain the wavelength range and coefficients used in area calculation.
Spectrum Point Pick template	fstp	Template file for point pick tables that contain the wavelengths used in point picking.
Time course Peak Area template	ftta	Template file for peak area tables that contain the time range and factors used in area calculation.
Time course Point Pick template	fttp	Template file for point pick tables that contain the times used in point picking.
Quantitation template	fqtf	Quantitation measurement file that contains standard sample / sample table information without any data, measurement parameters, and calibration curve parameters.
Photometric template	futf	Photometric measurement file that contains sample table information without any data, and measurement parameters.

14.2.2   File Operation

■**Open**

❶   ❷
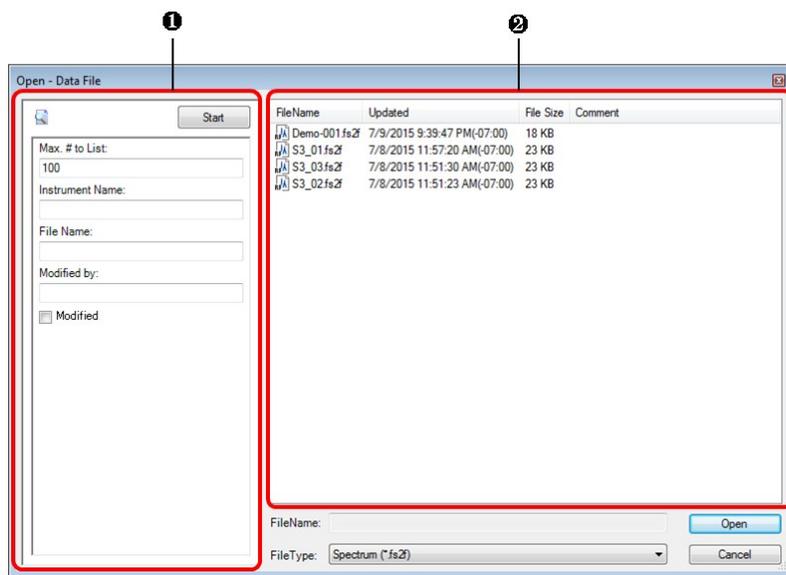
Window to open a file (spectrum)

No.	Item	Description
❶	Filtering View	Sets the filtering conditions for files to be displayed.
❷	File List	Click the [Start] button in [Filtering View] to display the list of files filtered by the specified conditions. Select (highlight) a file in the list. The corresponding file name is displayed in the [File Name] edit box.

■Save as

❶   ❷
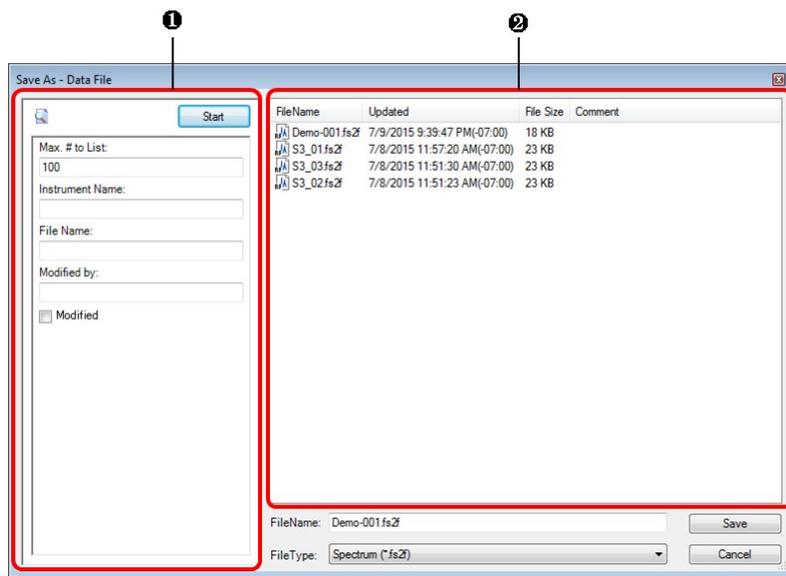
Save as (spectrum)

No.	Item	Description
❶	Filtering View	Sets the filtering conditions for files to be displayed.
❷	File List	Click the [Start] button in [Filtering View] to display the list of files filtered by the specified conditions.

■Import

This operation loads a data file stored in the local folder within the PC.

While this operation targets files that can be saved in the database, "RFPC software data files" can be imported.

> **NOTE**   The RFPC data files imported by a basic analysis application will be saved with the file format automatically converted.

▶▶ **Reference**   To save a measurement parameter file, report file, or template file in the local folder within the PC into the database, use the import function of the data manager. For details of the functions of [Data Manager], refer to LabSolutions Help.
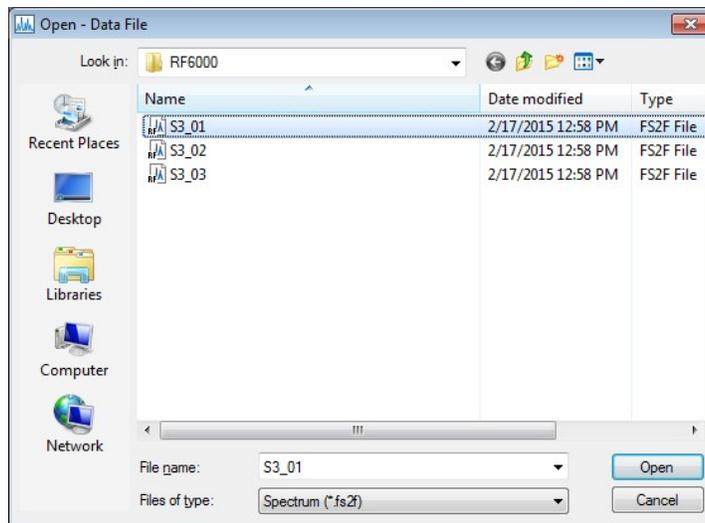
File import (spectrum)

■Audit trail log of measurement parameters

This enables to view the change history of a loaded measurement parameter file.

▶▶ **Reference**   "Recording a Reason for Change in the Change History of Measurement Parameters"
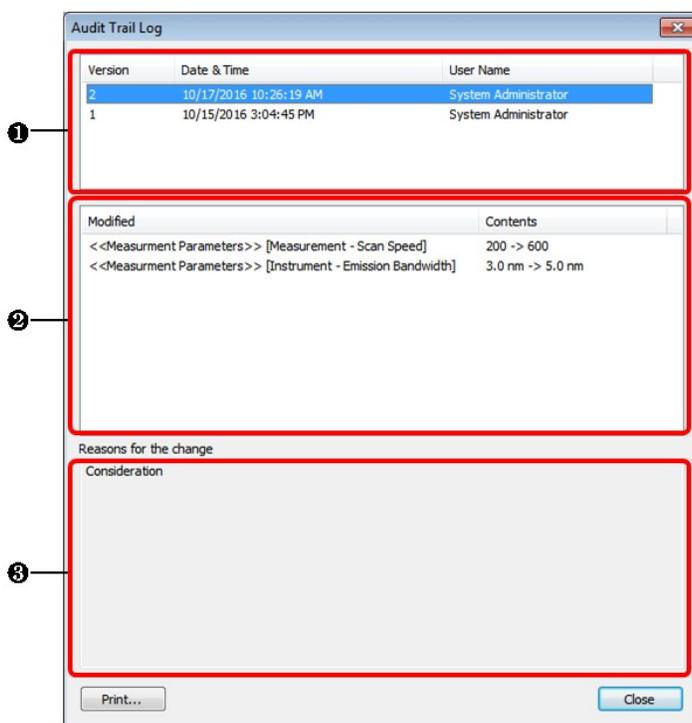
Change history of a measurement parameter file (spectrum)

No.	Item	Description
❶	Change history	Displays the change history of a loaded measurement parameter file. Select a desired line to display the content and reason of the change made at the time.
❷	Descriptions of change	Displays the changed portion and content of the change selected.
❸	Reason of change	Displays the reason of the change selected.

14.2.3   Data Manager

Using the [DataManager] function allows you to browse the information of the database in which individual files used in LabSolutions, including data files, method files, batch files, and report format files, are managed, and filter out necessary data.

The [DataManager] sub-window has four views: [Filtering View], [Sample Information View], [Data Information View], and [Result Files View].

▶▶ Reference   For details on the [DataManager] function, refer to the LabSolutions Help.

Data Manager
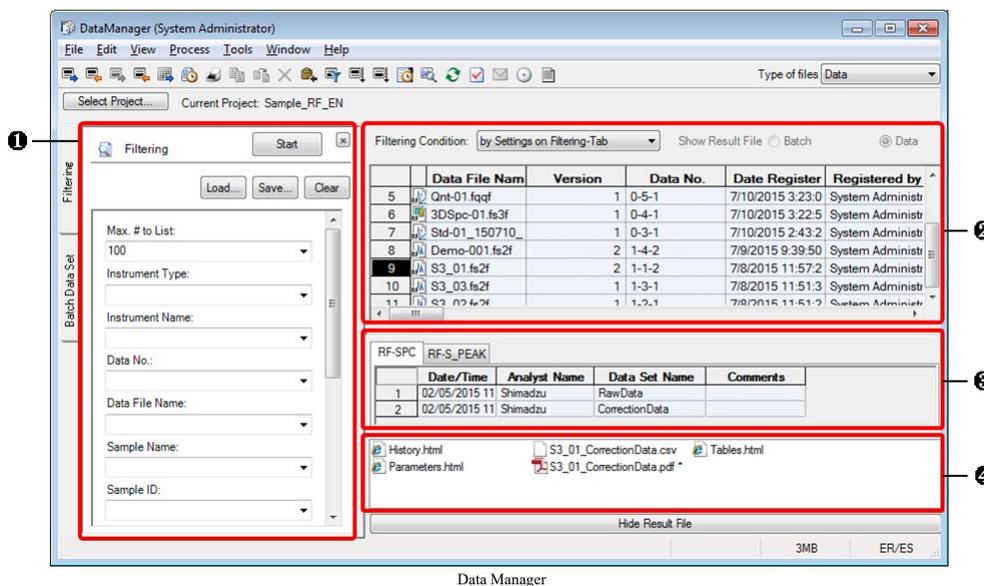
No.	View	Description
❶	Filtering View	Displays the file filtering search conditions. The displayed search conditions can be switched by clicking the tab ([Filtering] or [Batch Data Set]) and selecting the file type ([Data], [Method], [Batch], [Report], or [Other]) at [Type of Files].
❷	Sample Information View	Displays the results of filtering data sets and files. ▶▶ **Reference** "Sample Infomation View"
❸	Data Information View	Displays the data information on the data file selected in [Sample Information View]. The displayed items differ depending on the data file type. ▶▶ **Reference** "Data information View"
❹	Result Files View	Displays a list of result files (i.e. data acquisition result reports and data processing results) for the data files selected in [Sample Information View]. ▶▶ **Reference** "Result Files View"

■**Sample Infomation View**

This view displays a list of sample information items for RF instrument data.

Item	Description	
	【**Spectrum/3D Spectrum/ Time course**】	【**Quantitation/Photometric**】
Instrument Type	Displayed as "RF".	
Software	Displayed as "LabSolutions RF".	
Sample Name	The sample name within the summary is displayed.	None (blank) ▇ **NOTE** The sample name is displayed in the data information view.
Sample ID	The sample ID within the summary is displayed.	None (blank) ▇ **NOTE** The sample ID is displayed in the data information view.

File Information 1	The type of data file is displayed.	
File Information 2	The active data set name when saved is displayed.	None (blank)
File Information 3	Displays the name of the result file in which the measurement parameters information is extracted. (Parameters.html)	
File Information 4	Displays the name of the result file, in which the data history is extracted. (History.html)	
File Information 5	Displays the name of PDF file output as a result file.	
File Information 6	Displays the name of the result file, in which data processing table data (peak detection, point pick, area calculation) are extracted. (tables.html) 🖥 NOTE This item cannot be created in 3D spectrum.	Displays the name of the result file, in which the data of the standard sample table/sample table are extracted.
File Information 7	Displays the name of CSV file output as a result file.	None (blank)
File Information 8	Time course only. Displays the name of the result file in which the event table information is extracted. (Event.html)	None (blank)
File Information 9	Displays the name of the result file in which the main table data are extracted. (Main Table.html)	None (blank)
Sample Information 1	The name of the instrument, for which data were acquired, is displayed.	
Sample Information 2	The optional information in the summary is displayed.	None (blank)
Sample Information 3	None (blank)	Data acquisition method (manual/instrument) is displayed.
Sample Information 4	None (blank)	Displays the ON/OFF status of the "Post-rounding calculation function".
Data Comment	The comment information in the summary is displayed.	

This view displays a list of sample information items for a validation file.

Item	Description
Instrument Type	Displayed as "RF".
Software	Displayed as "LabSolutions RF".
Sample Name	None (blank)
Sample ID	None (blank)
File Information 1 to 9	None (blank)
File Information 10	Displays the name of PDF file output as a result file.
Sample Information 1	The name of the instrument, for which data were acquired, is displayed.
Sample Information 2 to 20	None (blank)
Data Comment	The comment information in the summary is displayed.

■Data information View

This view displays the data information on the data file selected in [Sample Information View].
The following list describes the data information items for each data files.

> **NOTE** If a file contains more than one data set, information of the data set last edited before the file is saved will be displayed.

Spectrum file (fs2f)

Item	Description
[RF-SPC] tab (Inforamtion of the data set)	
Date/Time	Displays the date and time included in data set summary information.
Analyst Name	Displays the analyst name included in data set summary information.
Data Set Name	Displays the data set name.
Comments	Displays the comments included in data set summary information.
[RF-S_PEAK] tab (Inforamtion in the peak pick table)[*1]	
P/V	Indicates whether the detected wavelength is a peak (🔼) or valley (🔽) using marks.
Wavelength	Displays the wavelength of the detected peak or valley.
Intensity	Displays the fluorescence intensity of the detected peak or valley.
Description	Displays a comment to describe the peak or valley.
[RF-S_POINT] tab (Inforamtion in the point pick table)[*1]	
Wavelength	Displays the wavelengths for which point pick was executed.
Intensity	Displays the fluorescence intensity that corresponds to the wavelengths that underwent point pick.
Description	Displays a comment to describe an added point pick.
[RF-S_AREA] tab (Inforamtion in the peak area table)[*1]	
Start	Displays the start wavelength of the calculation region.
End	Displays the end wavelength or end time of the calculation region.
Divisor	Displays the divisor assigned to the area under the data curve. The default value is "1".
Area	Displays the area under the data curve in the set calculation region.
Result	Displays the result of the area column value divided by the divisor column value and then multiplied by the [Factor]. When both the divisor and [Factor] are "1" in the table, the area column value and the result column value are the same.
Description	Displays any remarks or comments on the specified region.

*1 Data processing results included in the active data set in saving the file. Nothing is displayed when there is no data processing result.

3D Spectrum file (fs3f)

Item	Description
[RF-SPC3] tab (Inforamtion of the data set)	
Date/Time	Displays the date and time included in data set summary information.
Analyst Name	Displays the analyst name included in data set summary information.
Data Set Name	Displays the data set name.
Comments	Displays the comments included in data set summary information.

Quantitation file (fqqf) / Calibration curve file (fqcf)

While the displayed items are the same because the files are created by the same application, some items have no data or information depending on the file type. Those items are shown in blank ("-" in the table).

Item	Description	fqqf	fqcf
[RF-QNT] tab (Information about the standard sample/sample table)			

Item	Description		
ID No.	Displays the sequential number of the standard sample/sample table row.	✓	✓
Sample Name	Displays the Sample name of the standard sample/sample table row.	✓	✓
Sample ID	Displays the Sample ID of the standard sample/sample table row.	✓	✓
Option	Displays the Option of the standard sample/sample table row.[1]	✓	✓
Comments	Displays the comment of the standard sample/sample table row.	✓	✓
Type	Displays the data type (i.e. Standard, Unknown, Blank, and Average).	✓	✓
Ex	Displays the status of the Ex column in the standard sample/sample table. (Selected: 1, Not selected: 0)	✓	✓
Date	Displays the date of data capture.	✓	✓
Time	Displays the time of data capture.	✓	✓
Wgt. Factor	Displays the weight factor of the standard sample table row.	✓	✓
Conc.	Displays the concentration of the standard sample/sample table row.	✓	✓
Data for Quantitation	Displays the value used for quantitative calculation (for calibration curve creation in the standard sample table and for quantitative calculation in the sample table).	✓	✓
WL1, WL2, WL3	Displays up to 3 measurement wavelengths from the registering order. For the range measurement, when [Peak], [Valley], [Max], or [Min] is selected, the detected wavelengths are displayed. When [Area] is selected, the wavelengths within the measurement wavelength range are displayed.	✓	✓
WL1(Intensty) - WL3((Intensty)	Displays the measurement results (fluorescence intensity) for the above-mentioned wavelengths. When [Area] is selected in range measurement, the calculated area values will be displayed.	✓	✓
Pass/Fail Equation	Displays only the first pass/fail equation among those registered in measurement parame-ters	✓	−
Pass/Fail Result	Displays the pass/fail result for the above-mentioned equation.	✓	−
Equation - Equation4	Displays up to 4 equations registered in measurement parameters.	✓	−
Result - Result4	Displays the calculation results for the above-mentioned equations.	✓	−
Factor - Factor10	Displays column name of the factor of up to 10.	✓	−
Facto Value - Factor Value10	Displays the factor for the above-mentioned equations.	✓	−

[1] The title of Option in the standard sample/sample table is changeable by LabSolutions RF and thus does not match the item name described here.

Photometric file (fquf)

Item	Description
[RF-PHO] tab (Information in the sample tale)	
ID No.	Displays the sequential number of the sample table row.
Sample Name	Displays the Sample name of the sample table row.
Sample ID	Displays the Sample ID of the sample table row.
Option	Displays the Option of the sample table row.[1]
Comments	Displays the comment of the sample table row.
Type	Displays the data type (i.e. Unknown, Blank, and Average).
Ex	Displays the status of the Ex column in the sample table. (Selected: 1, Not selected: 0)
Date	Displays the date of data capture.
Time	Displays the time of data capture.
Data for Quantitation	Displays "0" for photometric files.

WL1 - WL10	Displays up to 10 measurement wavelengths from the registering order. For the range measurement, when [Peak], [Valley], [Max], or [Min] is selected, the detected wavelengths are displayed. When [Area] is selected, the wavelengths within the measurement wavelength range are displayed.
WL1(Intensty) - WL10((Intensty)	Displays the measurement results (fluorescence intensity) for the above-mentioned wavelengths. When [Area] is selected in range measurement, the calculated area values will be displayed.
Pass/Fail Equation	Displays only the first pass/fail equation among those registered in measurement parame-ters
Pass/Fail Result	Displays the pass/fail result for the above-mentioned equation.
Equation - Equation4	Displays up to 4 equations registered in measurement parameters.
Result - Result4	Displays the calculation results for the above-mentioned equations.
Factor - Factor10	Displays column name of the factor of up to 10.
Facto Value - Factor Value10	Displays the factor for the above-mentioned equations.

*1 The title of Option in the standard sample/sample table is changeable by LabSolutions RF and thus does not match the item name described here.

Time course file (fttc)

Item	Description
[RF-FTTC] tab (Inforamtion of the data set)	
Date/Time	Displays the date and time included in data set summary information.
Analyst Name	Displays the analyst name included in data set summary information.
Data Set Name	Displays the data set name.
Sample Name	Displays the Sample name of the dataset.
Sample ID	Displays the Sample ID of the dataset.
Option	Displays the Option of the dataset.[*1]
Activity	Displays the activity of the main table row.
WL	Displays the wavelength during measurement.
Start	Displays the start time of the range in which activity values are calculated.
End	Displays the end time of the range in which activity values are calculated.
Initial Reading	Displays the fluorescence intensity at the start time of the activity value calculation region.
SD	Displays the standard deviation of [I/min].
I/min	Displays the rate of change in the fluorescence intensity (I) per minute.
Factor	Displays the factor used in activity value calculation.
Correction Factor	Displays the correction factor used in activity value calculation. This value is used to correct dilution and concentration factor errors.
Comments	Displays the comments included in data set summary information.
[RF-T_PEAK] tab (Inforamtion in the peak pick table)[*2]	
P/V	Indicates whether the detected wavelength is a peak (⬆) or valley (⬇) using marks.
Wavelength	Displays the wavelength of the detected peak or valley.
Intensity	Displays the fluorescence intensity of the detected peak or valley.
Description	Displays a comment to describe the peak or valley.
[RF-T_POINT] tab (Inforamtion in the point pick table)[*2]	
Wavelength	Displays the wavelengths for which point pick was executed.
Intensity	Displays the fluorescence intensity that corresponds to the wavelengths that underwent point pick.

	Description	Displays a comment to describe an added point pick.
[RF-T_AREA] tab (Inforamtion in the peak area table)[2]		
	Start	Displays the start time of the calculation region.
	End	Displays the end time or end time of the calculation region.
	Divisor	Displays the divisor assigned to the area under the data curve. The default value is "1".
	Area	Displays the area under the data curve in the set calculation region.
	Result	Displays the result of the area column value divided by the divisor column value and then multiplied by the [Factor]. When both the divisor and [Factor] are "1" in the table, the area column value and the result column value are the same.
	Description	Displays any remarks or comments on the specified region.

*1 The title of Option is changeable by LabSolutions RF and thus does not match the item name described here.

*2 Data processing results included in the active data set in saving the file. Nothing is displayed when there is no data processing result.

Validation file (fpvr)

Item	Description
[RF-VAL] tab (Information in the Bach of Test(s).)	
Test Item	Displays the items specified to be tested before the test is started.
Result	Displays the result of the test (passed, failed or not conducted).

■**Result Files View**

This view displays a list of the result files (i.e. data acquisition result reports and data processing results) for the files selected in [Sample Information View].

The following describes a list of the result file created for the data file.

▊ NOTE	If a file contains more than one data set, a result file of the data set last edited before the file is saved will be created.

Spectrum file (fs2f)

Result File Name	Description
History.html	Data History
Parameters.html	Measurement parameters Informations
Tables.html	Peak Pick Table, Point Pick Table, Peak Area Table
(Data set name).csv[1]	Text output results of data sets that were active when saved
(Data set name).pdf	The PDF file that was printed out from the set report file

*1   Output with items and in digits set in the text output setting ("[Text Output] tab") of the application.

3D Spectrum file (fs3f)

Result File Name	Description
History.html	Data History
Parameters.html	Measurement parameters Informations
(Data set name).csv[1]	Text output results of data sets that were active when saved
(Data set name).pdf	The PDF file that was printed out from the set report file

*1   Output with items and in digits set in the text output setting ("[Text Output] tab") of the application.

Quantitation file (fqqf)

Result File Name	Description
History.html	Data History

Parameters.html	Measurement parameters Informations
Tables.html	Data*1 of the standard table and the sample table
(Filename).pdf	Text output results of a quantitation file

*1 Only items displayed when saved are extracted.

Calibration curve file (fqcf)

Result File Name	Description
History.html	Data History
Parameters.html	Measurement parameters Informations
Tables.html	Data*1 of the standard table
(Filename).pdf	Text output results of a calibration curve file

*1 Only items displayed when saved are extracted.

Photometric file (fquf)

Result File Name	Description
History.html	Data History
Parameters.html	Measurement parameters Informations
Tables.html	Data*1 of the sample table
(Filename).pdf	Text output results of a photometric file

*1 Only items displayed when saved are extracted.

Time course file (fttc)

Result File Name	Description
History.html	Data History
Parameters.html	Measurement parameters Informations
Tables.html	Peak Pick Table, Point Pick Table, Peak Area Table
MainTable.html	Data*1 of the main table
Event.html	Informathion of the event table
(Data set name).csv*2	Text output results of data sets that were active when saved
(Data set name).pdf	The PDF file that was printed out from the set report file

*1 Only items displayed when saved are extracted.
*2 Output with items and in digits set in the text output setting ("[Text Output] tab") of the application.

Validation file (fpvr)

Result File Name	Description
(Filename).pdf	Text output results of a test result file

14.2.4 Create Report Set

A report set is a single PDF file that includes a consolidation of applicable data file sample information and various types of reports, such as data and log reports.

▶▶ Reference   For details and usage examples of report set, refer to LabSolutions Help ([Data Manager]/[Creating a Report Set]).

When creating the report set by using RF data, confirm all the target data files （"14.2.5 Confirm Result File"） and then perform the following steps to create the report set.

1   **On DataManager, select the data file for which the report set is created.**

Hint   Click the target data files while pressing the Shift key or the Ctrl key to select multiple data files.
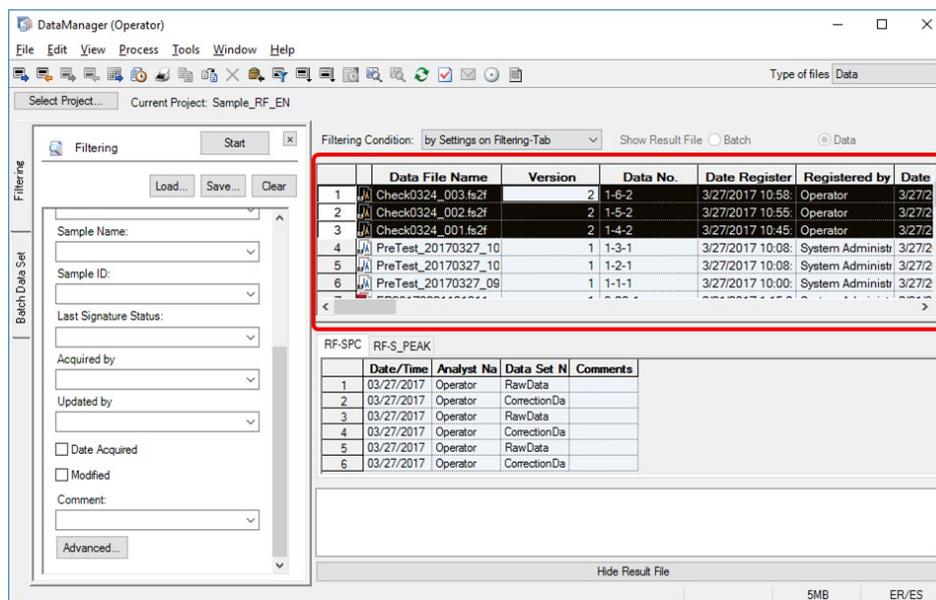
2   **Right-click the selected (highlighted) row to display the menu and click [Create Report Set].**

NOTE   The report set cannot be created when multiple projects are selected or the history view is selected.
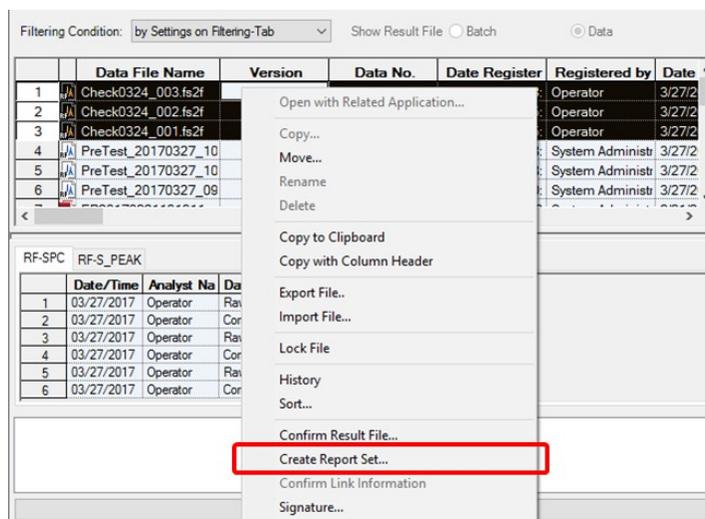
3   **Check the image created in the [Create Report Set] sub-window and click [Save].**
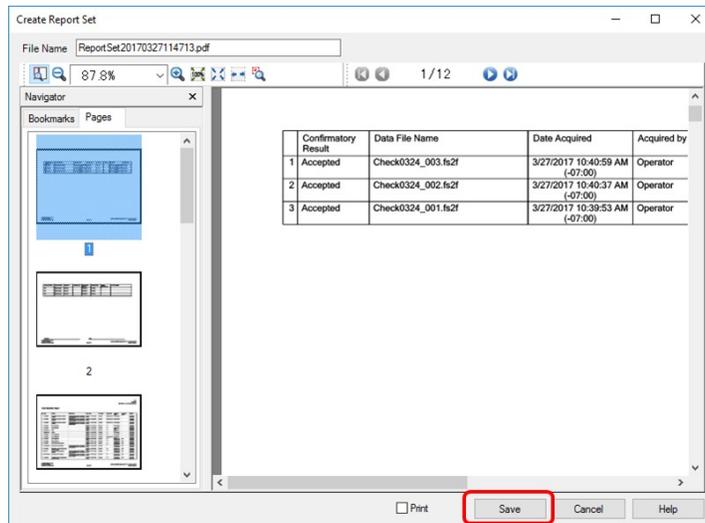
The report set file is registered in the location specified in [Data].
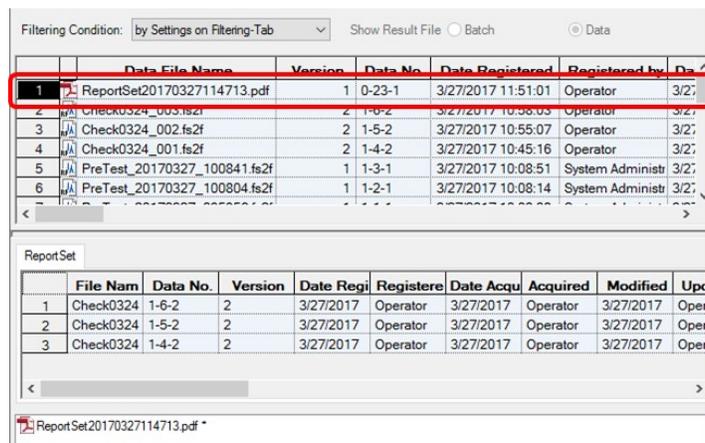
14.2.5   Confirm Result File

To open the [Confirm Result File] sub-window, right-click on the [Sample Information View] in the [Data Manager] sub-window and click [Confirm Result File] on the right-click menu.

Confirmation results can be saved when the [Confirmation Form] report object appears in the signature PDF file ("Arranging [Confirmation Form] to the Report File").

Hint   • When confirmation results are saved, then either [Accepted] or [Rejected] is displayed in the [Confirmatory Result] column in the [Data Manager]-[Sample Information View].

             • Specify settings for content displayed in the [System Settings]-[Report Confirmation Settings] sub-window.

Reference   For details of the "Confirming Result Files", refer to LabSolutions Help ([Data Manager]/[Confirming Result Files]).
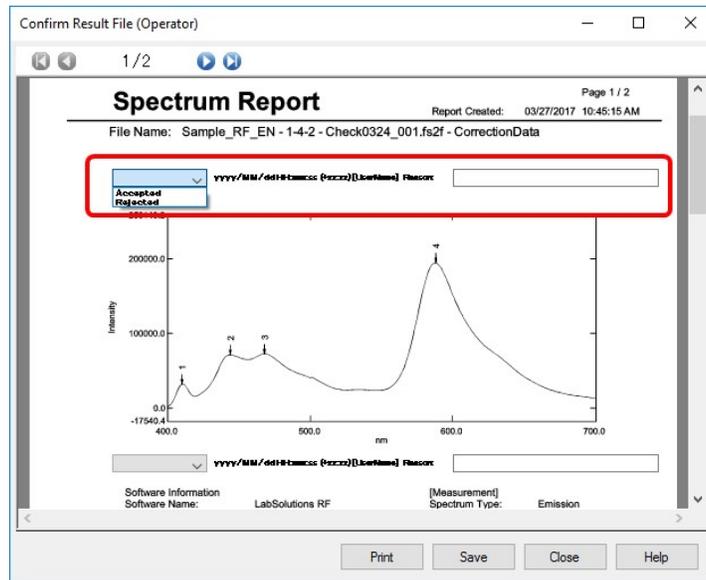
■Arranging [Confirmation Form] to the Report File

1   **Open the report file for the data acquisition result report in Edit Printform mode of LabSolutions RF.**

💡 **Hint**   For the report file for the data acquisition result report, see the table in "14.9.4 Report File".
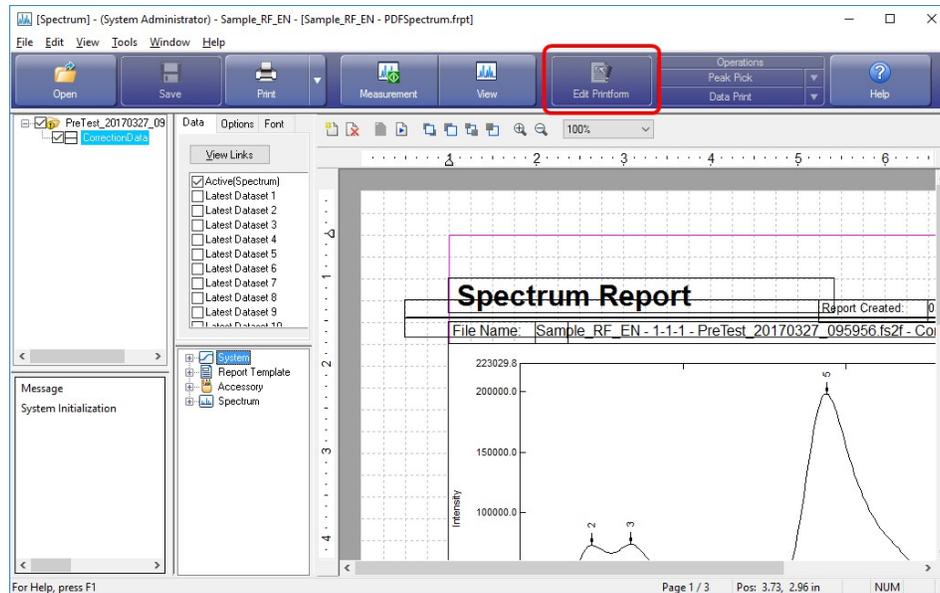
2   **Double-click "Link Text" on the print object table to insert the object.**
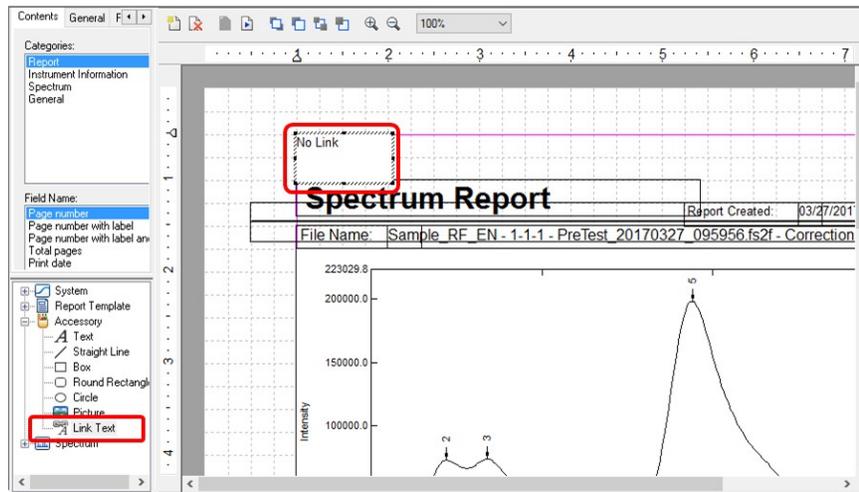
3   Click "General" under the Categories and then double-click "Confirmation Form" under the Field Name.
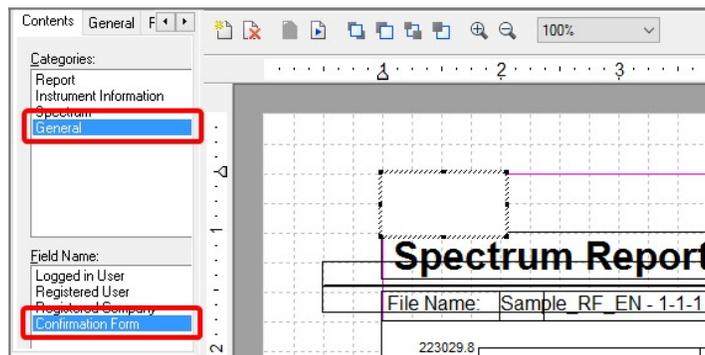
4   Arrange the object of the inserted confirmation form to the desired position on the report.

💡 **Hint**   Repeat steps 2 to 4 to arrange multiple objects.
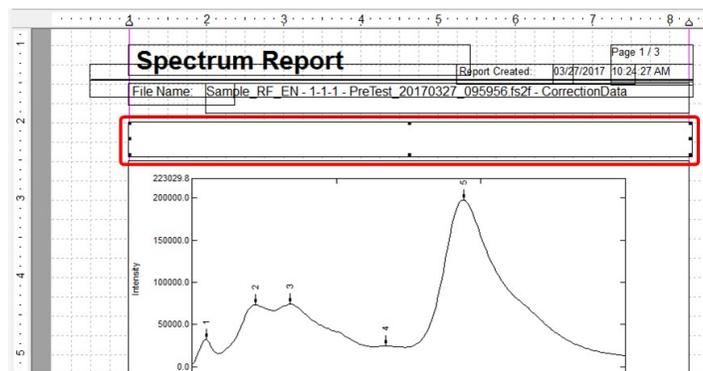
5   Save the report file by selecting [Save] or [Save as] from the [File] menu.

NOTE When saving the file with a different name, change [Report File to Be Used] to the new created file on the [User Settings] window ([PDF Output] tab) of the basic analysis application.

14.3   Security Policy Settings (System)

Reference For details of the system administration function of LabSolutions, refer to LabSolutions Help.

To open the [Security Policy Settings] sub-window, double-click the   (Security Policy) in the [Administration Tools] sub-window in the [LabSolutions Main] window.

Reference For details of "security policy settings," refer to LabSolutions Help.

The [Security Policy Settings] sub-window is for setting system operating policy (system policy), management of change history (audit trail), user accounts, approval of data acquisition results, signatures for PDF files, and other security settings.

NOTE • The [Security Policy Settings] sub-window is displayed only when a user with [System Administration] rights logs in.
       • Changes to security policy are updated when the application, including the [LabSolutions Main] window, is next started up.

In LabSolutions security policy, the system, signature, account, and instrument polices are set.

System:	You can set file version management, project management, audit trail, e-mail, automatic screen lock function, and other functions.
Signature:	You can set the reason for signatures (confirm, review, approve, etc.), signature operations for data files registered to the Data Manager, and signatures for data acquisition result reports (PDF files).
Account:	You can set account information for users who will log into the system and configure settings for locking out users from the system.
Instrument:	Instrument-specific policies are set. Reference "14.3.1 [Instrument] Tab Page"

- 14.3.1 [Instrument] Tab Page
- 14.3.2 Protection Policy Settings for Measurement Data and Data Processing Results
- 14.3.3 Default Values and Protected Settings in ER/ES Mode

14.3.1   [Instrument] Tab Page

Clicking the [Instrument] tab in the [Security Policy Settings] sub-window and then setting the [Instrument Type] to [RF] displays the RF-specific setting sub-window.

NOTE When the system administration database is created in the normal mode, the checkboxes are cleared (disabled) as the default setting. In a case where the database is created in the ER/ES mode, refer to "14.3.3 Default Values and Protected Settings in ER/ES Mode".
For the creation of database, refer to the "Data Management" in "Help" of LabSolutions.

No.	Name	Function
Audit Trail Log		
❶	Input reason when saving file	If an existing (already saved) data file is edited, a window to input the reason for editing is displayed when saving the file.
❷	Output audit trail to application log	Enable the audit trail log, which was recorded when the data file was saved, to be displayed in the application log of the [Log Browser] window as well.
❸	Request to reenter the password when a reason is entered	Password entry is mandatory in the audit trail sub-window.
❹	Select a reason for the audit trail from the selection items	Enables the selection dropdown list. The settings already registered in the dropdown list are displayed in the Selection Administration [Selection Administration] sub-window. ▶▶ Reference For details of the [Selection Administration] function of LabSolutions, refer to LabSolutions Help.
Report		
❺	Output data status in header of report	Output the data file's information to a report when printing without saving the data file.
❻	Prohibit printing of unsaved files	Prohibit printing of the files in editing.
Others		
❼	Prohibit renaming of dataset	Prohibit renaming of dataset names for spectrum file, 3DSpectrum file, and Time cource file.
❽	Protect raw data	Prohibit destruction of raw data. • Spectrum, 3DSpectrum, and Time cource: Prohibit deletion of RawData and CorrectionData in the File Properties window. • Quatitation, Photometric: Prohibit deletion of columns displaying user-defined calculation formula or judgment formula information on the standard table and sample table. ▶▶ Reference For details, refer to "14.3.2 Protection Policy Settings for Measurement Data and Data Processing Results" .
❾	Protect results of data operations	Prohibit destruction of data operations results. ▶▶ Reference For details, refer to "14.3.2 Protection Policy Settings for Measurement Data and Data Processing Results".

		• Spectrum, 3DSpectrum, and Time cource: If unsaved, automatically save the file before closing. Also, prohibit deletion of datasets created by data calculation. • Quatitation, Photometric: Prohibit deletion of columns displaying user-defined calculation formula or judgment formula information. NOTE • This policy can be set when the "Protect raw data" policy is ON. • A file opened as read-only will be excluded (not saved automatically when closed).
❿	Prohibit entering sample table data manually	（Quantitation, Photometric） "Manual" cannot be selected as the data acquisition method for the sample table.
⓫	Prohibit saving data file as other name	Prohibit duplication of a data file by disabling [Save as] - [Data] in the [File] menu. NOTE To save a calibration curve file, click [Save] in the standard sample table.
⓬	Prohibit that to hide the lines on the standard sample table or sample table	Prohibit hiding of repeating lines and exception lines (lines with the "EX" column checked) in quantitative or photometric measurement.

14.3.2   Protection Policy Settings for Measurement Data and Data Processing Results

When "Protect measurement data" and "Protect data processing results" are set in the instrument policy, the related LabSolutions RF operations are as follows.

■Spectrum, 3DSpectrum, and Time cource

LabSolutions RF operation for unsaved data files

Measurement Dataset Creation

Operation :   At measurement completion (Includes measurement interruptions due to [Stop].)

System Policy Settings		LabSolutions RF Operation
Protect Measurement Data	**Protect Data Processing Results**	
OFF	OFF	Data file remains unsaved
ON	OFF	File automatically saved
	ON	File automatically saved

Dataset Deletion

Operation :   [Properties] - [Delete] from the [File] menu

System Policy Settings		LabSolutions RF Operation
Protect Measurement Data	**Protect Data Processing Results**	
OFF	OFF	No action (always enable)
ON	OFF	[Delete] shown as disabled when "RawData", "CorrectionData"is selected
	ON	[Delete] shown as disabled when dataset is selected

File Closure

Operation :

- [Close All] from the [File] menu
- [Close] from the legend
- [Close] in the tree view
- [Exit] in LabSolutions RF

System Policy Settings		LabSolutions RF Operation
Protect Measurement Data	**Protect Data Processing Results**	
OFF	OFF	Confirmation message displayed
ON	OFF	Confirmation message displayed
	ON	Unsaved files are saved and closed

■Quantitative and Photometric

LabSolutions RF operation when unsaved measurement data exists in a table

Row Deletion

Operation :   Select a measurement row and click [Delete Row] in the right button menu.

System Policy Settings		LabSolutions RF Operation
Protect Measurement Data	**Protect Data Processing Results**	
OFF	OFF	Selected line deleted
ON	OFF	Not deleted
	ON	Not deleted

Column Deletion

Operation :   Deletion of the [Calculation] and [Judgment] result column
Click [Delete] with the registered formulas in the measurement method [Calculation Formula] tab and in the [Judgment Formula] tab selected.

System Policy Settings		LabSolutions RF Operation
Protect Measurement Data	**Protect Data Processing Results**	
OFF	OFF	Target column deleted
ON	OFF	Target column deleted
	ON	Non-operational (Button shown as disabled)

File Closure

Operation :

- Open an existing quantitation (photometric) file, calibration curve file, measurement parameters, or a template.
- [Import] from the [File] menu (Postrun only)
- [Close] from the [File] menu
- [Exit] in LabSolutions RF

System Policy Settings		

Protect Measurement Data	Protect Data Processing Results	LabSolutions RF Operation
OFF	OFF	Confirmation message displayed
ON	OFF	Files are overwritten (saved) and closed
	ON	Files are overwritten (saved) and closed

14.3.3   Default Values and Protected Settings in ER/ES Mode

When the system administration database is made in the electronic recording/electronic signature (ER/ES) mode, the following default values are displayed.
Also, the items for prohibiting overwriting of data files, audit trail, and other settings will be protected once the item checkboxes are selected.

No.	Policy	Default settings	Protected settings
❶	Input reason when saving file	ON	✓
❷	Output audit trail to application log	ON	✓
❸	Request to reenter the password when a reason is entered	OFF	-
❹	Select a reason for the audit trail from the selection items	OFF	-
❺	Output data status in header of report	ON	✓
❻	Prohibit printing of unsaved files	ON	-
❼	Prohibit renaming of dataset	OFF	-
❽	Protect raw data	ON	✓
❾	Protect results of data operations	OFF	-
❿	Prohibit entering sample table data manually	ON	✓
⓫	Prohibit saving data file as other name	OFF	-
⓬	Prohibit thatto hide the kile on the standerd ample table or sample table	ON	-

14.4   Security Policy Settings (Project)

In LabSolutions, within the entire system operating policy range, data under the electronic recording/electronic signature (ER/ES) regulations and those out of regulation control are managed per project, and system policies can be set for each project individually.

NOTE	Changes to security policy are updated when the application, including the [LabSolutions Main] window, is next started up.

To open the [Security Policy Settings (Project)] sub-window, click [Security Policy] is in the [Edit Project] sub-window. Also, when creating a new project, the [Security Policy Settings (Project)] sub-window is displayed by clicking [Security Policy] in the [Project Creation Wizard 1/4] sub-window.

The [Security Policy Settings (Project)] sub-window includes the [System] and [Instrument] tab pages.

System:	Settings for managing file versions for each project and controlling data files, etc. can be configured. For details, refer to the LabSolutions Help.
Instrument	Instrument-specific policies are set for each project. ▶▶ **Reference** "14.3.1 [Instrument] Tab Page" The policies that can be set are the same as those on the [Instrument] tab page in the [Security Policy Settings] sub-window. For details on the default values and protected settings when the system administration database is made in the ER/ES mode, see "14.3.3 Default Values and Protected Settings in ER/ES Mode".

14.5   User Administration

Double-click the user administration folder in the [Administration Tools] sub-window in the [LabSolutions Main] window to display the icon for setting each function used for user administration.

▶▶ **Reference**   For details of the user administration function of LabSolutions, refer to LabSolutions Help.
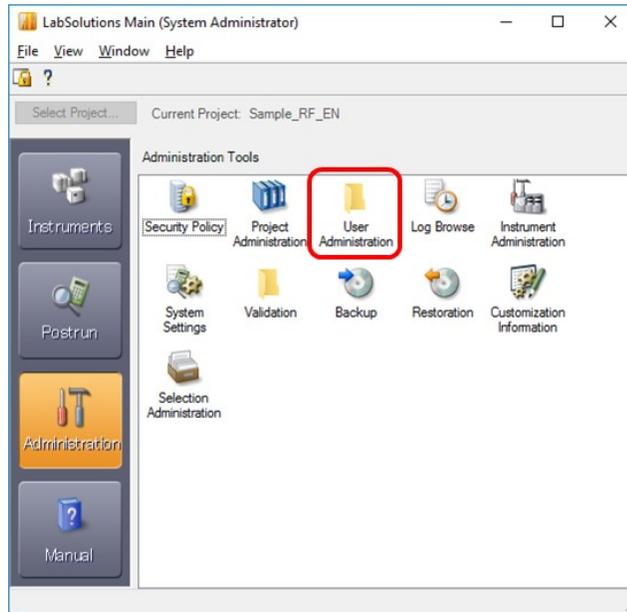
- 14.5.1 Rights Group Administration and Rights for RF Instrument

14.5.1   Rights Group Administration and Rights for RF Instrument

If you select [RF] for the instrument type in the [Add Rights Group] sub-window, the list of operation rights for the RF instrument is displayed.

To display the [Add Rights Group] sub-window, double-click the 🔧 (Rights Group Administration) in the [Administration Tools/User Administration] sub-window and click the [Add] button in the [Rights Group Administration] sub-window displayed.
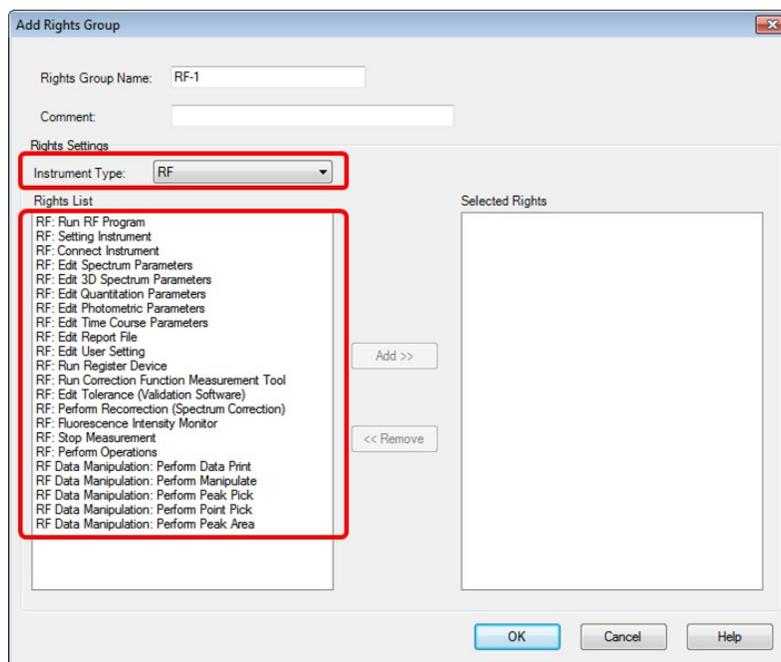
■RF/List of Rights

Right Type	Executable Function
Run RF Program	The right to run all applications of LabSolutions RF.
Setting Instrument	The right to use [Configuration of Instrument] of the [Instrument] menu. ▶▶ **Reference** "[Configure Instrument] window"
Connect Instrument	The right to run instrument control. This right includes the execution of sample measurement.
Edit Spectrum Parameters	The right to edit measurement parameters in the Spectrum.
Edit 3D Spectrum Parameters	The right to edit measurement parameters in the 3D Spectrum.
Edit Quantitation Parameters	The right to edit measurement parameters in the Quantitation.
Edit Photometric Parameters	The right to edit measurement parameters in the Photometric.
Edit Time Course Parameters	The right to edit measurement parameters in the Time Course.
Edit Report File	The right to edit and save report files.
Edit User Setting	The right to use [User Settings] on the [Tools] menu. ▶▶ **Reference** "2.2.4 [Tools] Menu"
Run Register Device	The right to run the instrument registration tool.
Run Correction Function Measurement Tool	The right to run the spectrum correction function measurement tool.
Edit Tolerance (Validation Software)	The right to edit the acceptance criteria of the performance validation software.
Perform Recorrection (Spectrum Correction)	The right to use [Re-correction] on the [Tools] menu. ▶▶ **Reference** "2.2.4 [Tools] Menu"
Fluorescence Intensity Monitor	The right to display the set wavelength and fluorescence intensity in real time within the instrument status. 📝 **NOTE** While this right is OFF, the search function is unavailable.
Stop Measurement	The right to interrupt measurement.

	The right to perform all operations in "Data Processing" of the main toolbar. If you enable "Manipulate", "Peak Pick", "Point Pick (including Batch Point Pick)", or "Peak Area" individually, remove this right from "Selected Rights" and add desired data manipulation rights.
Perform Operations	
Data Manipulation: Perform Data Print	The right to print data.
Data Manipulation: Perform Manipulate	The right to calculate data.
Data Manipulation: Perform Peak Pick	The right to perform peak detection.
Data Manipulation: Perform Point Pick	The right to perform point picking and batch point picking.
Data Manipulation: Perform Peak Area	The right to calculate area.

■Rights Group List

Rights List	Test Manager(RF)	Operator(RF)
Run RF Program	✓	✓
Setting Instrument		
Connect Instrument	✓	✓
Edit Spectrum Parameters	✓	
Edit 3D Spectrum Parameters	✓	
Edit Quantitation Parameters	✓	
Edit Photometric Parameters	✓	
Edit Time Course Parameters	✓	
Edit Report File	✓	
Edit User Setting	✓	
Run Register Device		
Run Correction Function Measurement Tool	✓	✓
Edit Tolerance (Validation Software)	✓	
Perform Recorrection (Spectrum Correction)	✓	
Fluorescence Intensity Monitor	✓	✓
Stop Measurement	✓	✓
Perform Operations	✓	✓
Data Manipulation: Perform Data Print	✓	✓
Data Manipulation: Perform Manipulate	✓	✓
Data Manipulation: Perform Peak Pick	✓	✓
Data Manipulation: Perform Point Pick	✓	✓
Data Manipulation: Perform Peak Area	✓	✓

14.6   Log Management

After the software is extended to LabSolutions DB/CS system, the system log of LabSolutions RF are managed by LabSolutions system and they can be viewed and printed using [Log Browser].

To display [Log Browser], double-click the 🕒 (Log Browser) in the [Administration Tools] sub-window in the [LabSolutions Main] window.

> **■ NOTE**   To view and print the previous system logs in the LabSolutions DB/CS system, use [Log Browser].

▶▶ **Reference**   For details of data management and functions of [Log Browser] in LabSolutions, refer to LabSolutions Help.
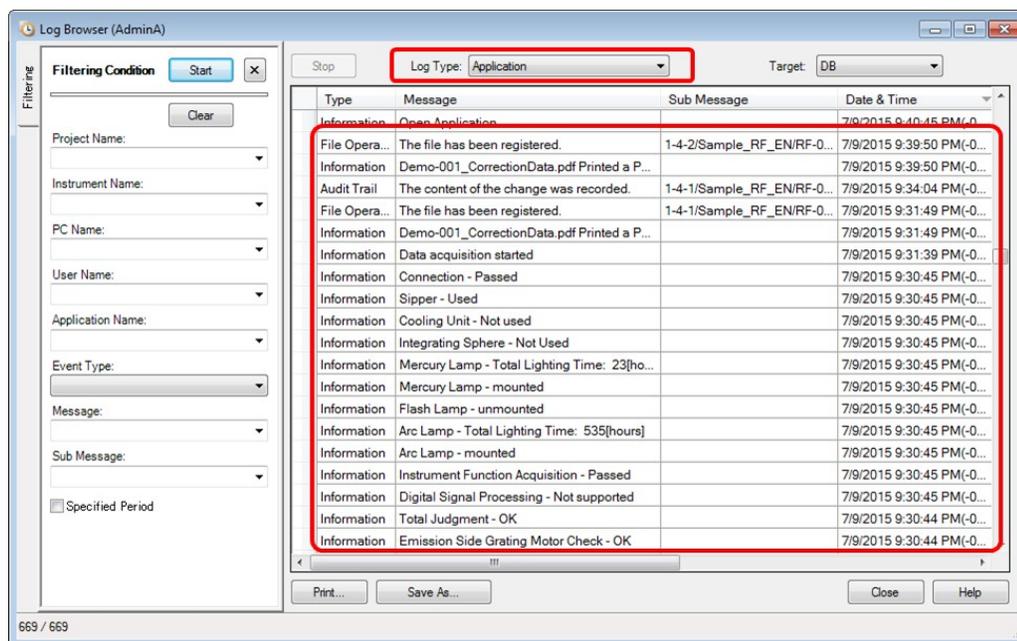
14.7 Instrument Administration

To set the instrument name that used to be set on the Register Device, use [Instrument Administration] on LabSolutions DB/CS system.

To open the [Instrument Administration] sub-window, double-click the ⬛ (Instrument Administration) icon in the [Administration Tools] sub-window in the [LabSolutions Main] window.

▶▶ **Reference** For details of instrument administration, refer to "Help" of LabSolutions. For the procedures to register (add) an instrument, refer to "3.1.1 Registration of Instruments" in the LabSolutions DB/CS Installation & Maintenance Guide [RF Volume].

14.8 Data Processing Settings

In the [Data Processing Settings] sub-window, set the format to display data in [Data Information View] on [Data Manager] and rounding.

To display the [Data Processing Settings] sub-window, double-click the [System Settings] in the [Administration Tools] sub-window in the [LabSolutions Main] window and then click the [Data Proc. Settings...].
If you select [RF] for [Instrument Type], the sub-window for configuring settings for data of RF instrument is displayed.

▶▶ **Reference** For details of data processing settings, refer to "Help" of LabSolutions.
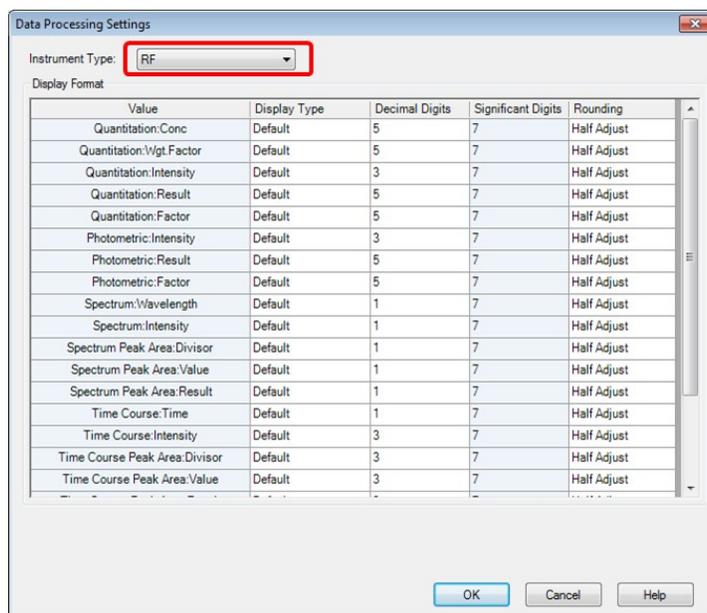
Data setting window (for the system)

To configure settings specific to a project, select [Project Settings...] - [Data Proc Settings...] in the project editing window to display the setting window. Then untick "Synchronize with the data processing settings of a system" and change the settings.
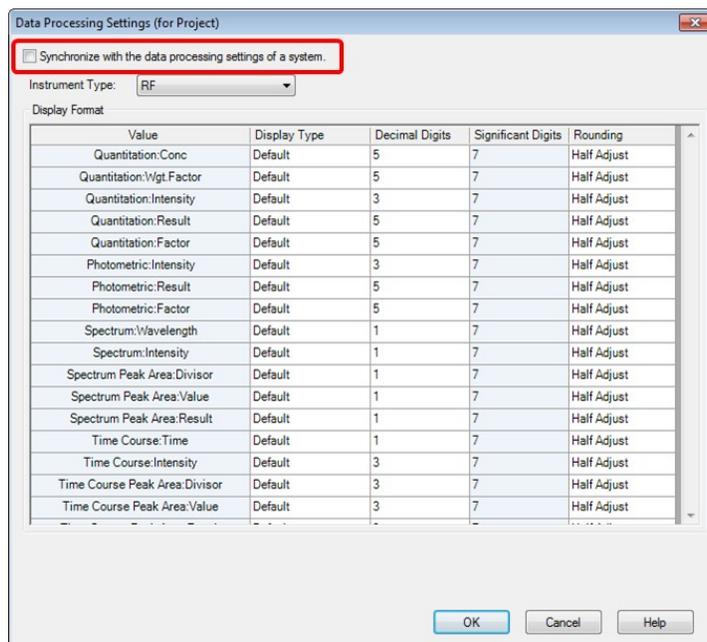
Data setting window (for the project)

14.9   Other

- 14.9.1 Audit Trail Log
- 14.9.2 Measurement Parameter Reader
- 14.9.3 Sample File
- 14.9.4 Report File

14.9.1   Audit Trail Log

■**Recording a Reason for Changes in the Data History**

If [Input reason when saving file] of the instrument policy is enabled (checked), inputting the reason for changes is required when saving the edited data.

Audit Trail Log - A window to input the reason

No.	Item	Description
❶	Filename	The name of the spectrum file to be saved is displayed.
❷	Username	The name of the user who has logged in is displayed.
❸	Date & Time	The date and time of saving are displayed.
❹	Dataset Name	The name of the changed data set is displayed. If more than one data set was changed, other data sets can be viewed by clicking [<prev.] and [Next>] in ❻.
❺	Contents	Changes made between the last saving and the current saving operation are displayed.
❻	[<prev.] / [Next>]	Enabled if more than one data set was changed. Click them to switch to a desired data set to input a reason for change.
❼	[Apply to all]	Click to apply the input reason to changes of all other data sets as well.
❽	Selection (dropdown) list	This item is displayed only when "Select a reason for the audit trail from the selection items" is selected in the [Instrument] Tab of [Security Policy Settings]. The reasons, which have been already registered in "Selection Administration", are listed as the selection items. Select the appropriate reason from them. ▶▶ **Reference** For details of "Selection Administration", refer to LabSolutions Help.
❾	Input change reason	Input reasons, etc. for the above changes. When ❽ is not displayed, the window cannot be closed if this part is left blank. **NOTE** When the selection list is enable, select the appropriate reason from the list and then input the additional reasons.

The input reasons for changes are recorded in the data history within the data files.

[Example of spectrum]

Measure a sample (automatically saved after completion of measurement).

Parameter	History	Summary	
Description		**Date/Time**	**User**
Created new data set: Sample_RF_EN - 1-5-1 - Check0324_002.fs2f.		03/27/2017 10:40:43 AM	Operator
Spectrum Correction - No integrating sphere, creation date of correction function: 12/25/2014 11:15:39 AM		03/27/2017 10:40:43 AM	Operator

Overwrite the file after executing peak detection.

Parameter	History	Summary	
Description		**Date/Time**	**User**
Created new data set: Sample_RF_EN - 1-5-1 - Check0324_002.fs2f.		03/27/2017 10:40:43 AM	Operator
Spectrum Correction - No integrating sphere, creation date of correction function: 12/25/2014 11:15:39 AM		03/27/2017 10:40:43 AM	Operator
Peak Pick - threshold:1000.00 number of points:5		03/27/2017 10:45:36 AM	Operator

Select the appropriate reason from the selection list. When adding the reasons, input them directly to the space, and then click [OK].

> 📍 **NOTE**   The list is displayed only when "Select a reason for the audit trail from the selection items" is selected in the [Instrument] Tab of [Security Policy Settings].

Audit Trail Log - Input Reason

Filename: Sample_RF_EN - 1-5-1 - Check0324_002.fs2f

Username: Operator

Date & Time: 3/27/2017 10:53:34 AM

Dataset
CorrectionData

Contents
Peak Pick - threshold:1000.00 number of points:5

Input change reason

<Prev.   Next>   Apply to all

Reason:

To etect the peak

OK   Cancel

■Recording a Reason for Change in the Change History of Measurement Parameters

If [Input reason when saving file] of the instrument policy is enabled (checked), inputting the reason for changes is required when saving the parameters.
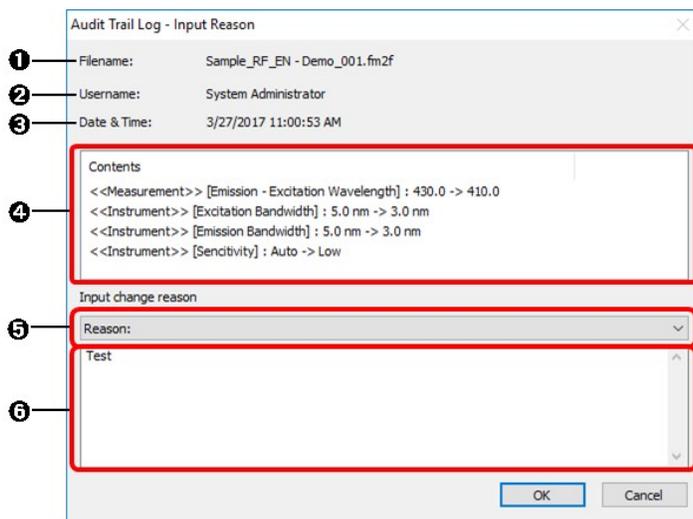
Audit Trail Log - Input Reason window (for measurement parameter file)

No.	Item	Description
❶	Filename	The name of the spectrum file to be saved is displayed.
❷	Username	The name of the user who has logged in is displayed.
❸	Date & Time	The date and time of saving are displayed.
❹	Contents	Changes made between the last saving and the current saving operation are displayed.
❺	Selection (dropdown) list	This item is displayed only when "Select a reason for the audit trail from the selection items" is selected in the [Instrument] Tab of [Security Policy Settings]. The reasons, which have been already registered in "Selection Administration", are listed as the selection items. Select the appropriate reason from them. ▶▶ **Reference** For details of "Selection Administration", refer to LabSolutions Help.
❻	Input change reason	Input reasons, etc. for the above changes. When ❺ is not displayed, the window cannot be closed if this part is left blank. 📝 **NOTE** When the selection list is enable, select the appropriate reason from the list and then input the additional reasons.

■Reviewing the Audit Trail in the Log Browser

If [Output audit trail to application log] of the instrument policy is checked, the changes and reasons can also be viewed in the [Log Browser].

Double-click a row of the audit trail log in the log browser.
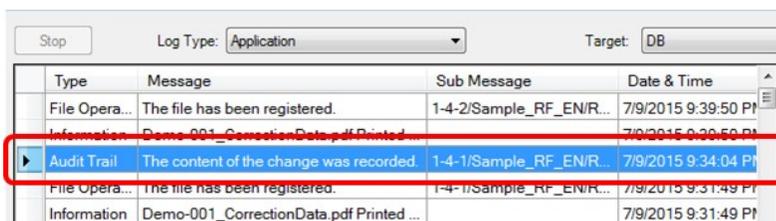
The audit trail log window is displayed.
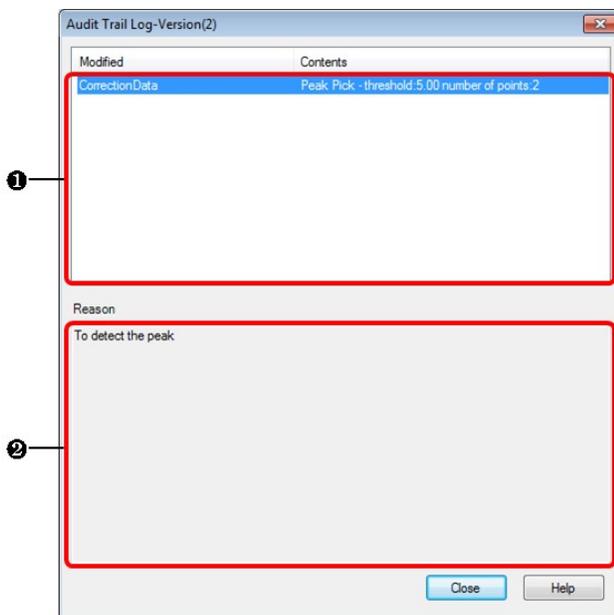
Example of the data file (spectrum) window

No.	Item	Description
❶	Modified Contents List	"Contents" of "Modified" matters are displayed. If several data sets have been changed for a single file, the reasons for changes are input for every data set. Click (highlight) a row in the list to display the reason for the changes of the data set displayed in the [Modified] field in the [Reason] field.
❷	Reason	The reason for changes input before saving is displayed.

14.9.2 Measurement Parameter Reader

Use this function to view the details and history of measurement parameters in Data Manager.

In Data Manager, select "Method" as the type of files.

Select a desired measurement parameter line, right-click and select "Open with Related Application" from the menu.
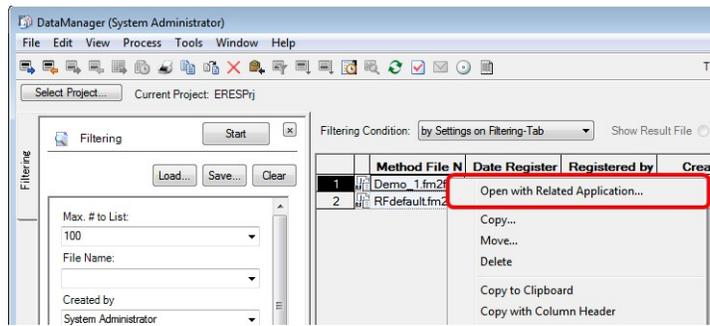
Measurement Parameter Reader starts up and displays the details of the measurement parameter.
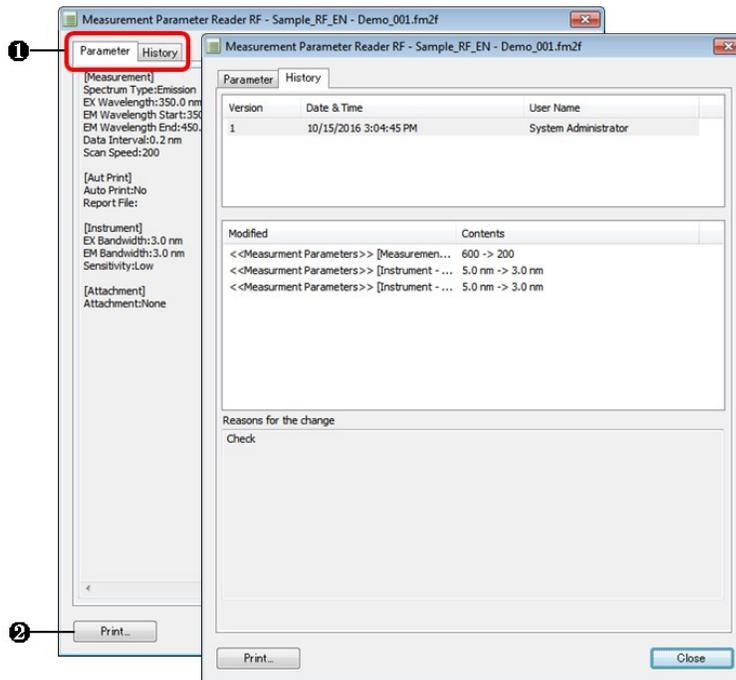
No.	Item	Description
❶	[Parameter] tab	The setting details of the measurement parameter are displayed.
	[History] tab	The change history of the measurement parameter is displayed.
❷	[Print]	Prints the setting details and change history of the measurement parameter.

14.9.3   Sample File

In LabSolutions DB/CS system, when using the sample file (data file) for LabSolutions RF, a project with a sample file pre-registered needs to be created.

▶▶ Reference   For instructions on creating a project with a sample file registered, refer to "LabSolutions DB/CS Installation & Maintenance Guide [RF Volume]".

14.9.4   Report File

A report file used for Quick Print is automatically registered when a project is created.
The report file registered this time is pre-defined but can be edited with LabSolutions RF.

▶▶ **Reference**   For the Quick Print function, refer to "10.1 Quick Print" of the LabSolutions RF Instruction Manual [Basic Operation Edition].

To use a report file created in a different project, use the copy function from the Data Manager.

▶▶ **Reference**   For details on the Data Manager, refer to the LabSolutions Help.

Report file for Quick Print - default setting

Application	View Area Printable Using Quick Print	Report Filename
Spectrum	Active graph	SpectrumActiveV.frpt
	Overlay graph	SpectrumOverlayH.frpt
	Measurement parameters	SpectrumParameters.frpt
	Data Print table	SpectrumDataPrint.frpt
	Peak Pick table	SpectrumPeakPick.frpt
	Point Pick table	SpectrumPointPick.frpt
	Batch Point Pick table	SpectrumBatchPointPick.frpt
	Peak Area table	SpectrumPeakArea.frpt
3D Spectrum	Active graph (Contour Plot)	Spectrum3DActiveContour.frpt
	Active graph (3D Spectrum Graph)	Spectrum3DActiveShift2D.frpt
	Measurement parameters	Spectrum3DParameters.frpt
	Tiles 1×2	Spectrum3DTile1x2.frpt
	Tiles 2×1	Spectrum3DTile2x1.frpt
	Tiles 2×2	Spectrum3DTile2x2.frpt
	Tiles 2×3	Spectrum3DTile2x3.frpt
	Tiles 3×2	Spectrum3DTile3x2.frpt
Quantitation	Standard table	QuantitationStandardTable.frpt
	Sample table	QuantitationSampleTable.frpt
	Measurement parameters	QuantitationParameters.frpt
	Calibration curve	QuantitationCalibrationCurve.frpt
	Sample graph	QuantitationSampleGraph.frpt
Photometric	Measurement parameters	PhotometricParameters.frpt
	Sample table	PhotometricSampleTable.frpt
	Sample graph	PhotometricSampleGraph.frpt
Time course	Active graph	TimeCourseActiveV.frpt
	Overlay graph	TimeCourseOverlayH.frpt
	Measurement parameters	TimeCourseParameters.frpt
	Data Print table	TimeCourseDataPrint.frpt
	Peak Pick table	TimeCoursePeakPick.frpt
	Point Pick table	TimeCoursePointPick.frpt
	Batch Point Pick table	TimeCourseBatchPointPick.frpt
	Peak Area table	TimeCoursePeakArea.frpt
	Main Table	TimeCourseMainH.frpt
	Intensity Difference table	TimeCourseDifference.frpt
	Event table	TimeCourseEvent.frp

Report file for Data Acquisition Result reports(PDF Output) - default setting

Application	Target File	Report Filename

Spectrum	Spectrum File	PDFSpectrum.frpt
3D Spectrum	3D Spectrum File	PDFSpectrum3D.frpt
Quantitation	Quantitation File	PDFQuantitation.frpt
	Calibration Curve File	PDFCalibrationCurve.frpt
Photometric	Photometric File	PDFPhotometric.frpt
Time course	Time course File	PDFTimeCourse.frpt