2 Window Layout

- 2.1 Basic Analysis Application Window Layout
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2.1 Basic Analysis Application Window Layout

The basic analysis application window comprises the following areas.



Basic Analysis Application V	Window Lay	out
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No.	Name	Function
0	Title bar	Displays information including the application name, registered instrument name, and window mode ([Measurement] or [View]).
0	Menu bar	Displays the application menus. Selecting a menu along the bar displays multiple command menus. The displayed command menus differ depending on the application type and window mode.
0	Main toolbar	Displays tool buttons for executing main functions, such as file operations, printing, and data processing.
4	Tree view	Displays the open data file and the data set contained in this file in tree format. Operations including switching the active data set and closing open files can be performed.

6	Log view	Displays logs that indicate the Photometer Status and operations performed on the system as well as warnings.
6	Application area	Displays a graph, data processing table, and information on the measurement parameters. The type of view displayed in the area and layout differ depending on the application.
0	Status Bar	The status bar is an area at the bottom of the active window that displays information about the status of documents and contains other information, such as the meaning of a command. For example, when the mouse is pointed at a menu command, the status bar provides a brief description of that menu command.

2.2 Menu Bar

The menu bar comprises menu items that are common between applications.

- 2.2.1 [Edit] Menu
- 2.2.2 [View] Menu
- 2.2.3 [Instrument] Menu
- 2.2.4 [Tools] Menu
- 2.2.5 [Window] Menu
- 2.2.6 [Help] Menu

2.2.1 [Edit] Menu

Command	Description
[Cut]	Move the selected item to the clipboard.
[Copy]	Copy the selected item to the clipboard.
[Paste]	Paste the item on the clipboard to the selected position.
[Select All]	Select all selectable items.

2.2.2 [View] Menu

The commands displayed on this menu differ depending on the window mode.

NOTE The quantitation and photometric application windows do not have a view mode.

■Measurement mode

Command	Description
[Tree View]	Display or hide the tree view.
[Log View]	Display or hide the log view.
[Status Bar]	Display or hide the status bar.
[Measurement Toolbar]	Display or hide the measurement toolbar.
[Parameters View]	Display or hide the parameter view.

[Photometer Status]	Display or hide the Photometer Status.
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■View mode

Command	Description
[Tree View]	Display or hide the tree view.
[Log View]	Display or hide the log view.
[Status Bar]	Display or hide the status bar.
[Operation View]	Display or hide the data processing area.
[Parameters View]	Display or hide the parameter view.

■Edit printform mode

Command	Description
[Tree View]	Display or hide the tree view.
[Log View]	Display or hide the log view.
[Status Bar]	Display or hide the status bar.
[Properties View]	Display or hide the properties for printable objects.
[Objects List]	Display or hide the printable object view.

2.2.3 [Instrument] Menu

Command	Description				
[Integrating	Only availab Select the in window. Th the instrume	ble when connecting to the RF-6000 series. tegrating sphere to use in measurement in the [Integrating Sphere] is command is only available when an integrating sphere is installed on ent.			
Sphere]	Reference	rence <u>"[Integrating Sphere] window"</u>			
	🋉 Hint	If an integrating sphere is installed, an integrating sphere icon is shown on the Photometer Status.			
[Configure	Configure settings related to the instrument in the [Configure Instrument] window				
Instrument]	Reference	"[Configure Instrument] window"			
[Lamp Align]	Only availab Displays the intensity is a adjusting the	ole when connecting to the RF-5300PC series. [Light Source Position Adjustment] window. The fluorescence lisplayed in the window in real time. For details on the procedure for e light source position, refer to the RF-5300PC instruction manual.			

	Light Sou	rce Position Adiu	stment		
	Arc Lar	ip lighting Time:	40 hours	<u>R</u> eset	
	().01	4	Close	
	[Lig	ht Source Position	Adjustment] W	Vindow	
Ϋ́	Hint	Clicking [Rese in the window	t] changes the to zero.	e cumulative o	perating time of the lamp displayed

■[Integrating Sphere] window

Use integrating sphe	re for measurement
Name	Serial Number
ISR-01	A90255200000

[Integrating Sphere] Window

Item	Description
[Do not use integrating sphere for measurement]	Select this setting when not using an optional integrating sphere.
[Use integrating sphere for measurement]	Select this setting when performing measurement using an optional integrating sphere. When this setting is selected, information on registered integrating spheres is displayed in a list. When multiple integrating spheres are registered, click the name of the integrating sphere to use in measurement in the list to select it.

■[Configure Instrument] window

• When connecting to the RF-5300PC series:

Auto Shutter:	ON	OFF
Dark Current Correction:	Run	
Negative High-Pressure Control:	ON	OFF
PMT Protection:	ON	OFF
Serial No;	A40193901186	SA
ROM Version:	3.2	

[Configure Instrument] Window

Item	Description	
	To prevent sample degradation or reaction, the sample must not be irradiated with excitation light when measurement is not being performed.	
[Auto Shutter]	• If [ON] is selected, the shutter is automatically opened only for measurement to allow excitation light to irradiate the sample.	
	• If [OFF] is selected, the [Open] and [Close] shutter buttons on the measurement toolbar must be used to manually open and close the shutter.	
[Dark Current Correction]	Click [Run] to perform dark current level correction and set the zero point. The result of this operation is the same as closing the shutter and executing [Auto Zero].	
[Negative High- Pressure Control]	If [ON] is selected, automatic correction of changes in fluorescence intensity due to variations in xenon lamp power is performed. Normally perform measurement with the [ON] setting. When the lamp is OFF, this setting is automatically set to [OFF].	
[PMT Protection]	If [ON] is selected, the emission side slit automatically changes to the "Close" state when the lid on the sample compartment is opened in order to prevent outside light from damaging the photomultiplier. Normally perform measurement with the [ON] setting.	
[Serial No.]	Displays the serial number of the connected instrument.	
[ROM Version]	Displays the firmware version of the connected instrument.	

• When connecting to the RF-6000 series:

aintenance Light Source S	tatus
Auto Shutter:	ON OFF
Dark Current Correction:	5s
Arc Lamp:	ON OFF
Serial No.:	H2200141222a
ROM Version:	1.00

[Configure Instrument] Window - [Maintenance] Tab

Item	Description	
	To prevent sample degradation or reaction, the sample must not be irradiated with excitation light when measurement is not being performed.	
[Auto Shutter]	• If [ON] is selected, the shutter is automatically opened only for measurement to allow excitation light to irradiate the sample.	
	• If [OFF] is selected, the [Open] and [Close] shutter buttons on the measurement toolbar must be used to manually open and close the shutter.	
	Select the integration time and click [Execute] to perform dark current level correction and set the zero point. The result of this operation is the same as closing the shutter and executing [Auto Zero]. To measure samples with low fluorescence intensity accurately, perform dark current correction.	
[Dark Current Correction]	 Dark current correction cannot be executed if the sensitivity is set to Auto. Set the sensitivity to High or Low when executing dark current correction. A dark current correction value will be saved for both High and Low settings. 	
	• To stabilize capturing of dark current correction data, set the accumulation time parameter longer for dark current correction. Set the parameter longer especially when the instrument is unstable immediately after the power is turned on.	
	Turn ON or OFF the xenon arc lamp used as the light source. Although measurement is normally performed with the [ON] setting, select the [OFF] setting when using an optional lamp.	
[Arc Lamp]	When toggling from the [OFF] state to the [ON] state, the instrument restarts automatically.	
[Serial No.]	Displays the serial number of the connected instrument.	
[ROM Version]	Displays the firmware version of the connected instrument.	

Maintenance Light Source Status		
Arc Lamp Lighting Time:	1092 hours	Reset
		1

Item	Description	
[Arc Lamp Lighting Time]	Displays the operating time of the arc lamp. Click [Reset] to return the arc lamp operating time to zero.	

2.2.4 [Tools] Menu

	Command	Description		
[Sy	stem Log]			
	[Configure]	Displays the [Configure System Log] window. Use this window to configure automatic saving of log files and change the name of log files to be saved.		
		Reference "[Configure System Log] window"		
Displays the [System Log] window. [View] A list of log files are displayed in this window.		Displays the [System Log] window. A list of log files are displayed in this window.		
		Reference <u>"[System Log] window"</u>		
	[Open]	Select a log file in the [Open Log File] window that appears. The [System Log] window showing the details of the specified log file is displayed.		
Displays the [User Settings] window. Use this window to change of each application.		Displays the [User Settings] window. Use this window to change the settings of each application.		
		• "[User Settings] window (spectrum application)"		
[User Settings]		 "[User Setting] window (3D spectrum application)" 		
		"[User Settings] window (quantitation application)"		
		• <u>"[User Settings] window (photometric application)"</u>		
		 "[User Setting] window (time course application)" 		
		"[User Setting] window (edit print form)"		
		Set the destination folder of each file type in the [Destination Folder] window.		

	Destination Folder		
	Data File: C:\RF-Data\Data		
	Parameters File: C:\RF-Data\Parameters		
[Destination Folder]	Template File: C:\RF-Data\Template		
	Report File: C:\RF-Data\Report		
	Text File: C:\RF-Data\Text		
OK Cancel			
	[Destination Folder] Window		
This function is available only when connecting to the RF-6000 series. Perform re-correction on any data file using the current correction function. NOTE When re-correction is performed, the corrected data set			
[Re-contection]	that data processing results such as for peak pick obtained before the re-correction will be erased as well.		
	Reference [PDF Output] tab"		
	Set the option name of the sample information in the [Sample Information Settings] window.		
[Ontional comple	Sample Information Settings		
information]	Label of Optional sample information: Option		
	OK Cancel		
	[Sample Information Settings] Window		

■[Configure System Log] window

File <u>n</u> ame:	logfile.log	
Destination Folder:	C: \RF-Data\Log	
1920120	um Size: 1000 🚔 kB	
Maximu OK	Cancel	

Item	Description	
[File name]	Displays the name of the used log file.	
[Destination Folder]	Displays the destination of the used log file.	
[Automatically change log file to maximum size]	Select this checkbox to automatically change the log file when the specified maximum size is exceeded.	
[Maximum Size]	Set the maximum size of log files.	
[OK]	Apply the system log settings and close the [Configure System Log] window.	
[Cancel]	Cancel any changes to the system log settings and close the [Configure System Log] window.	

■[System Log] window

Message	Date/Time	User Name	-
Arc Lamp - mounted	9/1/2015 7:19:32 PM		-
Connection - Passed	9/1/2015 7:19:32 PM		
Instrument Function Acquisition - Passed	9/1/2015 7:19:32 PM		
Integrating Sphere - Not Used	9/1/2015 7:19:32 PM		
Mercury Lamp - unmounted	9/1/2015 7:19:32 PM		
Sipper - Not Used	9/1/2015 7:19:32 PM		
Acquisition of Initialization Results	9/1/2015 7:19:31 PM		
EEPROM Check - OK	9/1/2015 7:19:31 PM		
Emission Side Grating Motor Check - OK	9/1/2015 7:19:31 PM		
Emission Side Slit Motor Check - OK	9/1/2015 7:19:31 PM		
Excitation Side Grating Motor Check - OK	9/1/2015 7:19:31 PM		
Excitation Side Slit Motor Check - OK	9/1/2015 7:19:31 PM		
Hardware Configuration - OK	9/1/2015 7:19:31 PM		
RAM Check - OK	9/1/2015 7:19:31 PM		
ROM Check - OK	9/1/2015 7:19:31 PM		
Shutter Motor Check - OK	9/1/2015 7:19:31 PM		Ŧ
< III		•	
Text Output			

[System Log] Window

Item	Description		
[Event]	Displays the details of the log. Log events including initialization result information, status of the connected instrument, and starting and stopping of measurement are displayed in real time.		
	Indicates the date and time that the log event was generated.		
[Date/Time]	NOTE The date and time that instrument initialization information is obtained is displayed because this information is obtained in bulk at the start of communication.		
	Nothing is displayed in the standard configuration. When using the optional		

[User Name]	user management function, the user name of the logged in user is recorded automatically.
[Text Output]	Save the log file information to a text file.
[Close]	Close the [System Log] window.

■[User Setting] window (common)

[Text File Formats] tab

Set the delimiting character and type of quotation marks for text to use when outputting text files (.txt).

General	Quick Print	Links	Text File Formats	Text C	Output	
Delimit	er		Quotes for Te	đ		
─ <u>T</u> ab			Oouble Qu	ote		
O Con	ima		Single Quo	te		
© <u>S</u> pa	ce		Mone			
Sem	icolon					
O Othe	er					

[User Setting] Window - [Text File Formats] Tab

Item	Description
[Delimiter]	Select the delimiting character to use when outputting text files.
[Quotes for Text]	Select the quotation marks to use for text when outputting text files.

[Text Output] tab

Create text file automatically when data file is saved File Conversion Type: Text File Conversion Conditions: Including Summary Including Parameters Number of Decimal Points (Wavelength): Number of Decimal Points (Data):	General	Quick Print	Links	Text File Formats	Text Output
Conversion Conditions: Including Summary Including Parameters Number of Decimal Points (Wavelength): Number of Decimal Points (Data):	File C	ate text file au Conversion Typ	tomatica	illy when data file is Text File	saved
Number of Decimal Points (Data):	⊂Conv ▼ In ▼ In Nun	ersion Condition cluding Summ cluding Param nber of Decima	ons: ary eters al Points	(Wavelength): 1	•
	NUN	ider of Decima	ai points	(Data): 3	•

[User Settings] Window - [Text Output] Tab

	Item	Description			
[Create text file automatically when data file is saved]		Select this checkbox to automatically convert data contained in data files to text when the data file is saved and save the text to a text file in the specified folder.			
[File Conversion Type]		Select the format for saving text files.			
[Conversion Conditions]					
	[Including Summary]	Add summary information regarding the data set or data file to the created text file.			
	[Including Parameters]	Add measurement parameter information of the data set or data file to the created text file.			
	[Number of Decimal Points (Wavelength)]	Select the number of decimal places to use when converting wavelengths to text.			
	[Number of Decimal Points (Data)]	Select the number of decimal places to use when converting data to text.			

[PDF Output] tab

The [PDF Output] tab appears only when using the LabSolutions DB (CS) system in combination with the optional LabSolutions DB (CS) Connection Kit.

The LabSolutions DB (CS) system outputs the print image as a PDF file when a data file is registered to the database and manages them together.

Use the [PDF Output] tab to set a report file to be used for print image creation.

eneral Te	t File Formats Quid	k Print PDF Outp	ut Text Output	
Target File:	Quantitation File Calibration Curve Fi	le		
Report <u>F</u> ile t PDFQuanti	o Be Used: ation.frpt		Browse	
			Reset	

[User Settings] Window – [PDF Output] tab (Quantitaion)

Item Description				
Target File	Displays data file types for which a PDF file will be created (output) when the data file is registered in the database.			
Report File to Be Used.	Displays a report file name linked to the target file and its save destination. Hint When there are multiple target files in the list, the report file name for a selected (highlighted) data file is displayed.			
Browse	Displays the report file selection window.			
Reset	Return links to their initial state.			

■[Recorrect] window



Item	Description
[Data File]	Specify the data for performing re-correction.
[Correction Function]	Select the correction function to use in re-correction. When "No Sphere" is selected, the correction function of the currently connected instrument is selected.
Graph	Displays the corrected spectrum of the selected data. Click [Recorrect] to display the re-corrected waveform in red superimposing the current waveform.
[Recorrect]	Perform re-correction. Although the result (graph) after re-correction is displayed in the window, selecting other data in this state will cause the re-correction result to be discarded.
[OK]	Accept the result of re-correction and close the [Recorrect] window. Image: NOTE The result of re-correction is updated to the data only when [OK] is clicked to close the window. To perform re-correction on multiple files, it must be performed by opening the [Recorrect] window from the menu for each
[Cancel]	Cancel any settings made and close the [Recorrect] window.

2.2.5 [Window] Menu

Command	Description
[View]/[Measurement]	Change between view mode and measurement mode.
[Edit Printform]	Change to the edit print form mode window.

2.2.6 [Help] Menu

Command	Description					
[Help]	Display the help top page.					
	Display LabSolutions RF version information.					
[About]	About LabSolutions RF LabSolutions RF Version 1.00 Copyright © 2014 Shimadzu Corporation. All Rights Reserved. This product is licensed to: User Shimadzu Corp.					
	Warning: this computer program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any portion thereof, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. [About LabSolutions RF] Window					

2.3 Main Toolbar

Coren	Save	Print Preview	Measurement	MM. View	Edit Printform	Operations Peak Pick	Ţ	? Help
opon		Main Toolba	(Spectrum/3I) Spectrum/Tin	ne Course Applica	ations)		

Open Save Print Preview Measurement Edit Printform Help	Copen (1997)	Rave Save	Print Preview	Measurement	Edit Printform	? Help
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Main Toolbar (Quantitation/Photometric Applications)

Item	Description						
	Open an existing data file. Multiple files can be opened at once.						
[Open]	NOTE The mode automatically changes to view mode when a file is opened.						
	The data file types that can be opened are the same as those that can be opened from [Open] - [Data] on the [File] menu. Other files can be opened from [Open] on the [File] menu.						
[Save]	Save by overwriting the currently open data file.						
	It is possible to switch between [Print] and [Print Preview] by clicking v on the right.						
[Print]	• [Print]: Print the currently open data based on the settings of a report file.						
or [Print Preview]	• [Print Preview]: Display a preview of printer output based on the settings of a report file.						
	Reference <u>"9 Editing Print Forms"</u>						
[Measurement]	Change the window display to measurement mode.						
[View]	Change the window display to view mode.						
	Display the [Edit Printform] window.						
[Edit Printform]	Reference <u>"9 Editing Print Forms"</u>						
[Operations]	Displays the names of the two most recently selected data processing operations. Clicking an operation in view mode executes the corresponding data processing.						
	"8 Data Processing"						
[Help]	Displays the help top page.						

2.4 Tree View

The tree view displays loaded data (files) in a hierarchical structure (tree structure). Closing a file removes its display from the tree view and data area.

- 2.4.1 Spectrum/3D Spectrum/Time Course Applications
- 2.4.2 Quantitation and Photometric Applications
- <u>2.4.3 Active Data Set</u>

2.4.1 Spectrum/3D Spectrum/Time Course Applications

Perform measurement or open files to display data in the tree view and data area.

In the tree view, the data set name of data (raw data or corrected data) is displayed under the hierarchical structure of the file, and when data is processed, newly created operation data is added at the same level.

- When performing spectrum (or 3D spectrum) measurement on the RF-6000 series, spectrum correction is performed at the same time. This means that raw data ([RawData]) and corrected spectrum data ([CorrectionData]) are created in the file when measurement is complete.
 - On the RF-6000 series, [RawData] is not displayed in the tree view or graph view when using the default settings because corrected spectrum data is treated as captured data (in data processing etc.). To reference raw data, change the settings via [User Settings] on the [Tools] menu.

Reference • "[User Settings] window (spectrum application)"

- "[User Setting] window (3D spectrum application)"
- "[User Setting] window (time course application)"



Tree View (Spectrum Application)

No.	Item	Description						
0	Filename	 Displays the data filename. Click [Show Full Path] on the right-click menu to switch to path display. Select the checkbox to display all data within the file. Deselect the checkbox to hide all data within the file. indicates that the file has not been saved. 						
0	[RawData]	 Displays the data set name of the raw (measurement) data. Use the checkbox to display or hide a graph on the [Overlay] tab. * : Indicates that the graph line is hidden. : Indicates the line color displayed on the graph. NOTE Because corrected data is displayed on the RF-6000 series, raw data is not displayed on the tree view by default.						
		 Only available on the RF-6000 series. Displays the data set name after spectrum correction. Use the checkbox to display or hide a graph on the [Overlay] tab. * : Indicates that the graph line is hidden. 						

	[CorrectionData]	• 🔚 : Indicates the line color displayed on the graph.					
8		NOTE On the RF-6000 series, spectrum correction is performed together with measurement.					
4	[Dataset XXXXXX] (Edit data)	Displays the data set name edited (or created) in a data operation. Use the checkbox to display or hide a graph on the [Overlay] tab.					
		• $*$: Indicates that the graph line is hidden.					
		• 🔚 : Indicates the line color displayed on the graph.					
		Hint The active data set, which is targeted for data processing and saving, is highlighted in blue.					

•File operations in the tree view

Operation	Description
	Display or hide the corresponding data in the tree view.
Click [+] or [-] to the left of the filename	• Click [+] to display table lower in the hierarchy.
	• Click [-] to hide table lower in the hierarchy.
Double-click	Double-click on a filename to display or hide the corresponding data in the tree view. Double-clicking the data set name changes it to the active data set.
	Right-click on a filename to execute the following menu commands.
	• [Show Full Path]: Switch to "full path filename display" or "filename only display" in the tree view only.
Right-click	• [Close]: Close the file and remove it from memory.
	Right-click on a data set name to execute the following menu command.
	• [Text File Output]: Convert and save data to a text file.
Drag (only for data sets)	This function only applies to 3D spectra. When the graph area is set to tiled display, drag a data set name to any tile position to display contour plot graph for the data.

2.4.2 Quantitation and Photometric Applications

The tree view structure for the quantitation and photometric applications is shown below.

NOTE Only the sample table is displayed in the photometric application.



		Click [Show Full Path] on the right-click menu to change the path display.
0	Table names	Displays the table names contained in the open data.

•File operations in the tree view

Operation	Description						
	Display or hide the corresponding data in the tree view.						
Click [+] or [-] to the left of the filename	• Click [+] to display tables lower in the hierarchy.						
	• Click [-] to hide tables lower in the hierarchy.						
Click	Double-clicking the table name changes it to the active table.						
	Hint Click [Start] to perform measurement of the active table.						
	Right-click on a filename to execute the following menu commands.						
Diale aliale	• [Show Full Path]: Switch to "full path filename display" or "filename only display" in the tree view only.						
Right-click	• [Close]: Close the file and remove it from memory.						
	• [Text File Output]: Convert and save the quantitation (or photometric) file to a text file.						

2.4.3 Active Data Set

The active data set is the data set that is currently targeted for processing.

Before performing operations such as data processing, file saving, and text output, double-click on the target data set in the tree view to make it active.

The active data set is highlighted in blue in the tree view.

Reference "2.4 Tree View"

2.5 Log View

	Message			^
Shutter Motor Check - OK		9/1/2015 8:02:38 PM		
Emission Side Slit Motor Chee	k - OK	9/1/2015 8:02:38 PM		
Emission Side Grating Motor	Check - OK	9/1/2015 8:02:38 PM		
Total Judgment - OK		9/1/2015 8:02:38 PM		
Instrument Function Acquisit	ion - Passed	9/1/2015 8:02:39 PM		
Arc Lamp - mounted		9/1/2015 8:02:39 PM		
Arc Lamp - Total Lighting Tir	ne: 1093[hours]	9/1/2015 8:02:39 PM		
Mercury Lamp - unmounted		9/1/2015 8:02:39 PM		Ξ
Integrating Sphere - Not Used		9/1/2015 8:02:39 PM		
Sipper - Not Used Connection - Passed		9/1/2015 8:02:39 PM		
		9/1/2015 8:02:39 PM		_
•	III		•	
Item			Description	

	measurement are displayed in real time.					
	Indicates the date and time that the log event was generated.					
[Date/Time]	NOTE The date and time that instrument initialization information is obtained is displayed because this information is obtained in bulk at the start of communication.					
[User Name]	Nothing is displayed in the standard configuration. When using the optional user management function, the user name of the logged in user is recorded automatically.					
	1					

NOTE	The log view is limited to displaying a maximum of 1,000 events. When 1,000 events is exceeded, the oldest event is deleted to make way for the latest event.	

Hint To view previous log information, click [System Log] - [View] on the [Tools] menu.

Reference "[System Log] window"

2.6 Measurement Toolbar

\bigcirc	Ŵ	+⊘ →				☑ Set file name automatically >>	
Start	Stop	Open	Go To WL	Auto Zero	Search	AutoFile_001.fs2f	Disconnect

Measurement Toolbar (Spectrum/3D Spectrum/Time Course Applications)

\bigcirc	Ŵ	← ◎→			Sipper	Template:	Open Save As		
Start	Stop	Open	Auto Zero	Search	V Purge	File Name:	QntData_001.fquf	<u>>></u>	Disconnect

Measurement Toolbar (Quantitation/Photometric Applications)

Item	Description					
[Start]	Start measurement.					
[Stop]	Stop measurement.					
[Open]/[Close] (shutter)	Open or close the shutter.					
[Go To WL]	Display the [Wavelength setting] window and move the excitation wavelength and fluorescence wavelength.					
	Reference <u>"2.6.1 [Wavelength setting] Window"</u>					
[Auto Zero]	Set the fluorescence intensity to zero in the current state (wavelengths, instrument parameters, shutter open/close etc.).					
[Search]	 Display the [Search Optimal Wavelength] window and search for the optimal excitation wavelength and fluorescence wavelength. This button is disabled when the optional flash lamp is installed. RF-5300 series: "2.6.2 [Search Optimal Wavelength] Window" 					
	RF-6000 series: "2.6.3 [Perform Search] Window"					
[Sip] (sipper)	This button is enabled when the optional sipper is connected. Clicking this button causes the sipper to perform a sipping operation for the duration of the sipping time set under [Attachment] in the measurement parameters. This is used for washing the sipper cell or filling the cell with					

		blank solution.
[Purge] (sipper)		This button is enabled when the optional sipper is connected. Clicking this button causes the sipper to perform a purging operation for the duration of the purging time set under [Attachment] in the measurement parameters. This is used when discharging the blank solution filled in the sipper cell.
[Set file name automatically]		Select this checkbox to generate filenames automatically according to the settings registered in the [Configuration] window.
		Display the [Settings] window of the auto file function.
>> (auto file fu	nction)	Reference <u>"2.6.4 [Settings] Window (Auto File Function)"</u>
Filename displa	ıy	Displays the filename for creation/saving in the next measurement when the [Set file name automatically] checkbox is selected.
	[Open]	Open a template file.
[Template]	[Save As]	Save the current state as a template file.
[File Name]/[Pl File]	hotometric	Displays the filename used when saving or the name of the currently loaded data file.
>> (set file)		Set the quantitation or photometric file. The [Quantitation File Setting] window is displayed in the quantitation application and the [Photometric File Setting] window is displayed in the photometric application.
[Connect]/[Dise	connect]	Connect to or disconnect from the instrument.

- <u>2.6.1 [Wavelength setting] Window</u>
- 2.6.2 [Search Optimal Wavelength] Window
- 2.6.3 [Perform Search] Window
- 2.6.4 [Settings] Window (Auto File Function)
 2.6.5 [Quantitation File Setting] Window/[Photometric File Setting] Window

2.6.1 [Wavelength setting] Window

Wavelength setting	
Excitation Wavelength(nm):	350.0
Emission Wavelength(nm):	350.0
Emission Intensity:	
Move	Cancel

[Wavelength setting] Window

Item	Description
[Excitation Wavelength]	Set the excitation wavelength. Effective range: 220.0 to 900.0 (RF-5300 series), 200.0 to 900.0 (RF-6000 series)
[Emission Wavelength]	Set the fluorescence wavelength. Effective range: 220.0 to 900.0 (RF-5300 series), 200.0 to 900.0 (RF-6000 series)

[Emission Intensity]	After moving to the set wavelength, the fluorescence intensity is read and displayed.
[Move]	Move to the set wavelength.
[Close]	Close the [Wavelength setting] window.

2.6.2 [Search Optimal Wavelength] Window

When connecting to the RF-5300 series, this window is displayed by clicking [Search] on the measurement toolbar.

Excitation Search Range:	220	-	500	nm
Emission Search Range:	220] -	600	nm
Excitation Search Interval:	10	nm		
34	/170 secon	ds		
Optimal Wavelength:	/170 secon	ds		
34, Optimal Wavelength: Excitation Wavelength:	/170 secon	ds nm		[]
Optimal Wavelength:	170 secon	ds		

[Optimal Excitation/Emission Wavelength Search] Window

Item	Description
[Excitation Search Range]	Set the excitation wavelength range to search. Effective range: 220 to 900 nm (only integer value input accepted)
[Emission Search Range]	Set the fluorescence wavelength range to search. The start value for excitation is displayed as the start value (cannot be input). Effective range: 220 to 900 nm (only integer value input accepted)
[Excitation Search Interval]	Set the excitation wavelength interval to search. Effective range: 10 to 99 nm (only integer value input accepted)
Progress bar	Displays the progress of the search. (Elapsed time/estimated completion time in seconds)
[Optimal Wavelength]	After clicking [Execute], the optimal wavelengths are displayed once they have been determined.
[Execute]	Execute processing to determine the optimal wavelengths in the set wavelength ranges.
[Close]	Close the [Search Optimal Wavelength] window.

2.6.3 [Perform Search] Window

When connecting to the RF-6000 series, this window is displayed by clicking [Search] on the measurement toolbar.



[Perform Search] Window

No.	Item	Description
_		Select the search range. • to 500 nm • to 600 nm • to 700 nm
0	[Search Range]	 to 800 nm Full Range Hint When [to 500 nm] is selected, the excitation wavelength is set to 200 nm to 500 nm at intervals of 10 nm, and when the excitation wavelength is 400 nm, the fluorescence spectrum is measured in the range of 400 nm to 500 nm.
	Intensity axis settings	After searching is complete, the intensity axis range for the intensity contour can be set.
0	[Intensity]	Enter the minimum and maximum values for the intensity axis of the intensity contour. Values can be entered after searching is complete. Effective range: -100000000 to 100000000 ([Minimum] to [Maximum])
	[Set]	The intensity contour is redrawn using the set intensity range.
0	Intensity contour	Displays an intensity contour of the captured data. After searching is complete, drag out an area on the intensity contour to enlarge the display. To redraw the contour using the scale after measurement, click [Auto Scale] on the right-click menu.
4	Current value display at the crosshair cursor	Displays the horizontal axis (fluorescence wavelength), vertical axis (excitation wavelength), and intensity values corresponding to the crosshair cursor position.
-	[Execute]	Execute a wavelength search.
-	[Stop]	Stop a wavelength search.
-	[Close]	Close the [Perform Search] window.

2.6.4 [Settings] Window (Auto File Function)

Filename	Sample Name		
Name:		V Use sequen	tial number
AutoFile	Name:	First No.:	Step:
Use date O Use sequential number	r SampleName	+ 1	1
Sample: AutoFile_141107_202338.fs2f	Sample ID	Vse sequen	tial number
Analyst Name	Name:	First No.:	Step:
	SampleID	+ 1	1
Comment	Option	Use sequen	tial number
	Name:	First No.:	Step:
	Option	+ 1	1

When using the auto file function to automatically create filenames for saving after measurement, set the rules for creating file information such as filenames.

[Settings] Window

No.	Item	Description		
		Select this checkbox to display the [New Data Set Creation] window when performing measurement. Enter information such as sample information and the name to give the file that is created after measurement.		
	[Show new data	Reference "[New Data Set] Window"		
0	set creation dialog when measurement is	Hint Although the initial filename is created using the current date and time, this can be changed as required.		
	performed]	NOTE The file is automatically saved after measurement is complete. To change the filename after measurement, click [Save As] on the [File] menu to rename and save the file.		
	[Filename]	Set the creation rules for the filename that is automatically created when saving a file.		
	[Name]	Specify the text to use in the filename.		
	[Use date]	Select this setting to use the date and time in the filename.		
0	[Use sequential number]	Select this setting to use a sequential number in the filename.		
	[First No.]	Specify the starting number when using a sequential number in the filename.		
	[Sample]	Displays a preview of the data filename.		
0	[Analyst Name]	Enter the name of the analyst who created the data file.		
4	[Comment]	Enter a comment for the data file.		
	[Sample Name]/			

	[Sample ID]/ [Option]		
		[Use sequential number]	Select this checkbox to use a sequential number for the sample name, sample ID, and option.
0	[Name		Enter text to use for the sample name, sample ID, and option.
		[First No.]	Enter the starting number to use for the sample name, sample ID, and option.
		[Step]	Enter the number of steps from the starting number to use for the sample name, sample ID, and option.
-	[OK]		Save the automatic filename settings.
-	[Cancel]		Cancel the automatic filename settings and close the [Settings] window.

■[New Data Set] Window

NOTE	Since the file is automatically saved after measurement is complete, the filename cannot be changed at this point.
	To change the filename after measurement, click [Save As] on the [File] menu to save the
	file under a different filename.
	Data information such as the sample name and comment can be changed from [Properties]
	on the [File] menu.

Reference "[File Properties] window"

New Data Set		
<u>F</u> ilename:	C:\RF-Data\Data\File_150203_091341.fs2f	1
<u>D</u> ata Set Name:	RawData	
<u>A</u> nalyst:		
<u>S</u> ample Name:		
Sample <u>I</u> D:		
Option(<u>O)</u> :		
<u>C</u> omment:		*
	*	+
	OK Cancel	

[New Data Set] Window

Item	Description
	Displays the filename. Although the default filename is created using the current date and time, this can be changed as required. Click to display the [New File Name] window.

	M. New File Name		
	Look in: 🔒 Data	- 🕝 🌶 📂 🖽 -	
	Name	Date modified	Туре
	Recent Places		
	Desktop		
	Libraries		
[Filename]			
	Computer		
			•
	Network File <u>n</u> ame: File_150303_175619	-	Open
	Files of type: Spectrum File (*fs2f)	•	Cancel
	[New File Name] Wind	łow	
	The save destination can be selected on the	[New File Name]	window.
	The default save destination is the folder sp the [Tools] menu.	ecified at [Destina	tion Folder] on
	Reference "2.2.4 [Tools] Menu"		
	Enter the name of the analyst who created the	Enter the name of the analyst who created the data set.	
[Analyst]	If an analyst name is already set in the data set, it is read and displayed.		
[Comment]	Enter a comment for the data set.	Enter a comment for the data set.	
[comment]	If a comment is already set in the data set, it is read and displayed.		
EZ.	Click this icon to enter the current date to the cursor position in the entry field.		
\bigcirc	Click this icon to enter the current time to the field.	Click this icon to enter the current time to the cursor position in the entry field.	
for	Save the filename settings.		
	if the window was displayed at the start of i starts measurement.	neasurement, pres	sing this button
	Cancels the filename settings and closes the	[New Data Set] v	vindow.
[Cancel]	If the window was displayed at the start of r cancels measurement.	neasurement, pres	sing this button
L			

2.6.5 [Quantitation File Setting] Window/[Photometric File Setting] Window

Quantitation	File Setting	
		_
<u>F</u> ilename:	C:\RF-Data\Data\File_141020_100039.fqqf	😰 🔗
<u>A</u> nalyst:	RF User	
<u>C</u> omment:	for Help	*
		-
	ОК	
	[Quantitation File Setting] Window	

ilename:	C:\RF-Data\Data\File_150203_092208.fquf	🖬 🖂
Analyst:	RF User	
2omment:		•
		-

[Photometric File Setting] Window

Item	Description		
	Displays the name of the quantitation file or photometric file. Although the default filename is created using the current date and time, this can be changed as required. Click to display the [New Filename] window.		
[Filename]	□ □		
[Analyst]	Enter the name of the analyst who created the data file. If an analyst name is already set, it is read from the data file and displayed.		
[Comment]	Enter a comment for the data file. If a comment is already set, it is read from the data file and displayed.		
EZ	Click this icon to enter the current date to the cursor position in the entry field.		
\bigcirc	Click this icon to enter the current time to the cursor position in the entry field.		
[OK]	Save the filename settings.		
[Cancel]	Cancel the filename settings and close the [Quantitation File Setting] window or [Photometric File Setting] window.		

2.7 Photometer Status

•	EX EM
U	350.0 350.0
0	105.7
പ	✓ Arc Lamp ON (200 hours)
9	 Integrating Sphere
I	Photometer Status

No.	Item	Description	
9	[EX]	Displays the excitation wavelength.	
•	[EM]	Displays the fluorescence wavelength.	
0	Intensity value	Displays the current fluorescence intensity at the wavelength displayed at O .	
		The fluorescence intensity before spectrum correction is displayed.	
Photometer Status		Displays the lighting state and cumulative operating time of the light source lamp and the status of any installed options.	
0	[Arc Lamp]	 This is displayed when connected to an instrument installed with an arc lamp (not shown when disconnected). (green): Arc lamp can be used (yellow): Arc lamp has exceeded its service life (RF-5300 series: 500 hours, RF-6000: 2,000 hours) (red): Arc lamp is lit even though it should be unlit ON/OFF: Lamp lit/unlit display Time: Cumulative operating time of arc lamp 	
	[Integrating Sphere]	This is displayed when connected to an instrument installed with an optional integrating sphere (not shown when disconnected).	
	[Sipper]	This is displayed when connected to an instrument installed with an optional sipper (not shown when disconnected).	

• 2.7.1 [Photometer Status Properties] Window

2.7.1 [Photometer Status Properties] Window

Right-click on the Photometer Status and select [Properties] to display the Photometer Status properties window.

∎[Font] tab

<u>F</u> ont:	Font style:	<u>S</u> ize:
Aria Angsana New Angsana UPC Aparajita Arabic Typesetting Arial Arial Black	Bold Regular Italic Bold talic	11 11 12 14 16 18 20
Text <u>C</u> olor: White Sample	Background Colo	or: T
EX350.0 EM350.0	0 -0.0	

[Photometer Status Properties] Window - [Font] Tab

Item	Description	
[Font]	Set the font of the text to display in the Photometer Status.	
[Font style]	Set the style of the text to display in the Photometer Status.	
[Size]	Set the size of the text to display in the Photometer Status.	
[Text Color]	Set the color of the text to display in the Photometer Status.	
[Background Color]	Set the background color of the text to display in the Photometer Status.	
[Sample]	Displays a sample of the selected font.	
[OK]	Accept the display settings for the Photometer Status.	
[Cancel]	Cancel the display settings for the Photometer Status.	

■[Displayed Digits] tab

FUTIL Displayed Digits		
Decimal Places		
Excitation Wavelength:		
Emission Wavelength:	1	
Measurement Value:	1	
	-0.0	
EX350.0 EM350.0		
EX350.0 EM350.0	OK Cancel	
hotometer Status Propertie	OK Cancel s] Window - [Displayed Digits] Tab	

[Excitation Wavelength]	Set the number of decimal places used to display the excitation wavelength. Selection options: 0, 1
[Emission Wavelength]	Set the number of decimal places used to display the fluorescence wavelength. Selection options: 0, 1
	Set the number of decimal places used to display fluorescence intensity
[Measurement Value]	(analog values). Selection options: 0, 1, 2, 3

2.8 Parameter View

The information displayed in the parameter view differs depending on the window mode (measurement mode or view mode).

- 2.8.1 Measurement Mode
- <u>2.8.2 View Mode</u>

2.8.1 Measurement Mode

The currently set parameters can be checked, edited, and saved in this mode.

Because the graph view (for displaying calibration curves and sample graphs) is also displayed in the quantitation and photometric applications, select the [Parameter] tab to change to and display parameter information.

Reference
 Quantitation application: <u>"5.3 Parameter/Graph View"</u>

• Photometric application: "6.3 Parameter/Graph View"

Parameter	Value	
[Measurement]		
Spectrum Type	Emission	
EX Wavelength	350.0 nm	
EM Wavelength Start	350.0 nm	
EM Wavelength End	450.0 nm	
Data Interval	1.0 nm	
Scan Speed	6000 nm/min	
[Instrument]		
EX Bandwidth	3.0 nm	
EM Bandwidth	5.0 nm	
Sensitivity	Auto	
[Attachment]		
Attachment	None	
[AutoPrint]		
AutoPrint	Yes	
Report File	C:\RF-Data\Report\Spect	

Parameter View (Measurement Mode) - Spectrum Application

Item	Description
	Display the measurement parameters settings window. Use this window to edit the currently set parameters and save the settings as a

[Settings]	measurement parameters file.
	Reference • "3.3 [Spectrum Mesurement Parameters] Window",
	"4.3 [3D Spectrum Mesurement Parameters] Window"
	"5.4 [Quantitation Measurement Parameters] Window"
	"6.4 [Photometric Measurement Parameters] Window"
	"7.3 [Time Course Measurement Parameters] Window"
[Load]	Display the [Open] window. Use this window to select a saved measurement parameters file and load parameter settings.
Parameter display area	Displays the settings of the measurement parameters currently set for the instrument.

2.8.2 View Mode



Item	Description
[Parameter] tab	Displays the measurement parameters used when measuring the active data set.
[History] tab	Displays the data history of the active data set.
[Summary] tab	Displays a summary of the active data set.
[Event] tab	Only displayed in the time course application. Displays an event record of the active data set. VOTE The [Event] tab is only displayed when the [Record Events]

checkbox is selected on the [Measurement] tab in the [Time Course Mesurement Parameters] window and the measured data set is set to active.

■Right-click menu of the parameter view

Click the right mouse button on the parameter view to display the following right-click menu. The items displayed on the menu differ depending on the tab.

	Menu	Description
[Pa:	rameter] tab	
		Perform a quick print. Set or change the report file to use via [User Settings] on the [Tools] menu.
		Reference • "[User Setting] window (common)"
		"[User Settings] window (spectrum application)"
	[Print]	 "[User Setting] window (3D spectrum application)"
		 "[User Settings] window (quantitation application)"
		 "[User Settings] window (photometric application)"
		 "[User Setting] window (time course application)"
	[Properties]	Displays the [Parameter Properties] window. Whether to display or hide items on the parameter tab can be selected for each parameter group.
[Hi [Su	story] tab/ mmary] tab	
	[Copy]	Copy the selected items to the clipboard.
	[Select All]	Select all selectable items.