

# RapidFinder™ Express Software v2.0

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**Note:** For safety and biohazard guidelines, see the “Safety” appendix in the RapidFinder™ Express Software v2.0 Online Help, RapidFinder™ Pathogen Detection Kits and MicroSEQ™ Pathogen Detection Kits User Guides, and *Applied Biosystems™ 7300/7500/7500 Fast Real-Time PCR System Installation and Maintenance Guide*. Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

## Overview

RapidFinder™ Express Software v2.0 is a graphical, easy-to-use tool for multiple pathogen detection applications. The software:

- Leads you through the steps to specify the targets of interest and the number of samples and controls to run.
- Gives you the flexibility to let the software determine the optimal location for unknown samples and controls on the plate or to customize the plate layout.
- Leads you through the steps to start an instrument run. The software uses preset, optimized thermal cycling conditions. It automatically generates the results (presence or absence of the pathogen), which you can view for all locations, for each sample, or for individual tubes.

This quick reference provides an overview of the software features, instructions for using the tutorial file that is included in the software, and guidance for importing additional assays.

## Pathogen detection workflow

### Sample Preparation Kits



#### Preparation procedures for the assay of interest

See the appropriate user guide for your assay.



### RapidFinder™ Express Software v2.0



#### Create or edit a run file

- Enter run file information
- Select targets
- Specify samples and controls
- Enter sample names
- Confirm run layout



#### Start instrument run






- Load the instrument
- Select a file to run
- Perform the run
- Unload the instrument



#### View results

- View results by location and by sample
- Export results
- Print reports

## RapidFinder™ Express Software v2.0 tools

Workflow tools	
	<b>Create/Edit a Run File</b> Leads you through the steps to name the run file, enter file information, and specify targets, samples, and controls.
	<b>Start Instrument Run</b> Starts the instrument run and generates results.
	<b>View Results</b> Displays results in graphical or tabular format for samples and controls. Allows you to print reports or export results.
Management tools	
	<b>Create/Edit a Template</b> Leads you through the steps to create a template, which contains default settings that you can use to create a run file. A template can contain default settings for targets, number of samples and replicates, and number of controls.
	<b>Manage System Settings</b> Provides global software settings: user-defined fields for sample information (such as batch or lot number), instrument serial number, company logo (for reports), and other default settings. Also enables uploading of new target pathogen assays, viewing C <sub>t</sub> and amplification plot information, and controlling which target pathogen assays are present in the <b>Target</b> lists.

## Start RapidFinder™ Express Software v2.0

Start the software by double-clicking the  RapidFinder™ Express Software icon on the Windows™ desktop.

The Main page opens (see Figure 1).

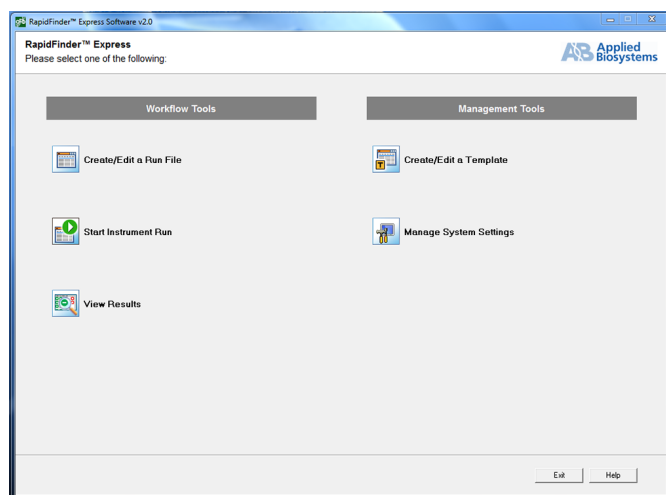



Fig. 1 RapidFinder™ Express Software v2.0 Main page

## RapidFinder™ Express Software v2.0 Online Help

Every page of the software includes instructive text and a Help button for access to complete information about the page, additional background information, and troubleshooting information.

### Create/Edit a run file

If you need to import a new target pathogen assay, see “Import pathogen assay files that are not loaded in the software” on page 3.

1. On the Main page of the RapidFinder™ Express Software v2.0, click  **Create/Edit a Run File**.
2. Follow the software prompts to select the target pathogen assay, number of samples, replicates, and positive and negative controls for each target.

**Note:** Ensure that you select the correct product brand and target pathogen assay. There is more than one assay per pathogen.

- Click **Help** at any time for information.
- If you select **STEC Confirm**, you can import screening samples to select screening runs and samples for the confirmation assay (see “Import screening samples for the STEC confirmation assay” on page 4).

**Note:** When you specify the number of samples, replicates, and controls, the Count indicator below the table shows the number of positions occupied.

### Customize the plate layout

The software determines the optimal location for unknown samples and controls on the plate. However, you can manually customize the plate layout:

1. To customize the plate layout:
  - By moving individual tubes: click on the tube you want to move and drag it to the desired new location
  - By moving an entire column: right-click on any tube of the column you want to move and drag it to the new desired location.

2. Click **Balance** after you finish customizing the plate layout.

The software re-balances the plate by adding empty tubes.


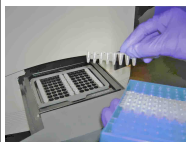

Click **Reset** to revert the plate layout to the software-generated layout.


## Start instrument run

1. On the Main page, click  **Start Instrument Run**.
2. Select a run file, then click **Next**.


**Note:** (Optional) You can save the run layout as a PDF file by clicking **Print**.

3. Close the tray door on the instrument.

Steps	
Press the tray door to open it.	
Following the run layout, transfer the tubes to the precision plate holder (PPH) in the tray.	
Close the tray door.	

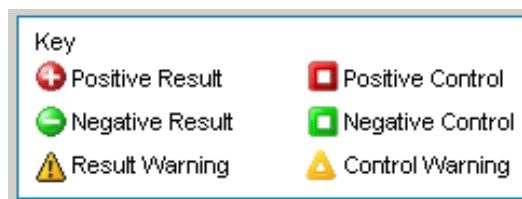
4. Click  on the **Start Instrument Run** page. Click **Help** for information on what the system does when you start a run.
5. When the run is complete, remove the tubes from the tray.

## View results

1. On the Main page, click  **View Results**.
2. Select a run file to view.
3. Investigate the results for each tube using the tabs. Click **Help** for a description of assessment text and suggested actions for warning results.

- **Results By Location:** displays results in a plate orientation in **Layout View** or a list of results and assessment text in table format in **Table View**.

To see replicate information about samples, select the sample of interest and click **View Details**.



- **Results by Sample:** displays results for all replicate tubes for a given sample/target combination.
  - **Run File Information:** displays information about the Run File.
  - **Report:** displays the information that can be included in the Results Report.
4. Select the information that you want included in the Results Report:
    - Click **Print Results Report** to print the report.
    - Click **Export Results Report** to save the report.


## Print reports

1. Click the **Report** tab in **View Results**.
2. Select the options to include on the report. Click  **Print Results Report**.

## Export results


1. Click the **Report** tab in **View Results**.
2. Select the options to include in the exported results. Click **Export Results Report**.

## Create/Edit a template

1. On the Main page of RapidFinder™ Express Software v2.0, click  **Create/Edit a Template**.
2. Select **Create New Template**, then enter Template and Creator names.
3. Follow the software prompts to select the target pathogen assay, number of samples, replicates (at least 1), and positive (optional) and negative (at least 1) controls for each target.

## Manage system settings

You can set optional system parameters the first time that you run the software. You can also change the parameters whenever you run the software.

1. On the Main page of RapidFinder™ Express Software v2.0, click  **Manage System Settings**.
2. Enter the optional parameters if needed:
  - Set the number of files to display and their location.
  - Check the appropriate boxes to display  $C_t$  values and Amplification Plot in the **Results View**.
  - Enable or disable target pathogen assays by checking or unchecking them in the **Assay** list.
  - Import new target pathogen assay definitions, as required (see next section).
  - Enter the serial number of your Real-Time PCR instrument.
  - Enter the names for the three User-Defined fields, in which you can enter information for samples such as batch or lot number, or any information required by your laboratory practices.
  - Select your company logo (a BMP image) to include in reports.
3. Click **Save and Close**.

For more information about this page, click **Help**.

The software uses these settings for all new run files until you change the settings again.

## Import pathogen assay files that are not loaded in the software

1. Download the ZIP pathogen assay file: go to [thermofisher.com/rapidfinder-express](http://thermofisher.com/rapidfinder-express), then click the pathogen assay file link.
2. Download the ZIP file to a folder on your hard drive, then extract the ZIP file into the same folder.

EDT, INI, and CSV files are in the folder.

**Note:** Any changes to the files makes them invalid.

3. In the Main screen of RapidFinder™ Express Software v2.0, select **Manage System Settings**.
4. In the **Targets** pane of the **System Settings** screen, click **Browse**. Select the INI file from the downloaded and extracted pathogen assay file.
5. Open the INI file by double-clicking, then click **Import**.
6. In the **Targets** pane of the **System Settings** screen, confirm that the assay module was added to the list of assays.
7. Click **Save and Close**.

The newly imported assay is now ready for use.

## Follow a tutorial to learn about the software

RapidFinder™ Express Software v2.0 includes an example experiment file, **Example\_Lmono\_Sal\_96**.

Follow these steps to use the example file to learn the basic features of the software and view results, without running the MicroSEQ™ Pathogen Detection Chemistry.

1. Create a run file:
  - a. On the Main page of RapidFinder™ Express Software v2.0, click **Create/Edit a Run File**.
  - b. Specify the following target pathogen assays, the number of samples and replicates, and the number of negative and positive controls, using the directions on each page. The software can be configured for more target pathogen assays than shown in the following table:

Target	# Samples	# Replicates	# Negative Controls	# Positive Controls
L. mono	14	3	3	3
Sal. spp.	14	3	3	3

2. On the **Select the Next Step** screen, select **Start Instrument Run**. The run file that you set up is selected by default.
3. On the **Select a File to Run on the Instrument** screen, select the desired run file, then click **Start** to run the example layout that you created.
4. On the Main page of the software, click **View Results**.
5. On the **View Results** page, select a run file:
  - **Example\_Lmono\_Sal\_96**
  - **Example\_STEC\_Screen**
  - **Example\_STEC\_Confirm**
6. Examine the results by tube (see Figure 2).

To display the  $C_t$  and/or the amplification plot for this location, select a location and click **View Details**. These options must be enabled in the System Settings.
7. To view results by sample, click **Results By Sample**.

Note that the example file contains Warning results for illustration purposes only. You will not typically see warning results in a run. Click **Help** for information on the assessments for the warning results.
8. In the **Report** tab, select the options to include on the report, then click **Print**.
9. Click **Exit** to return to the Main page, then click **Exit** again to close the software.

## Example results

	1	2	3	4	5	6	7	8	9	10	11	12
A	L. mono A-Lmono	L. mono C-Lmono	L. mono F-Lmono	L. mono I-Lmono	L. mono K-Lmono	L. mono N-Lmono	Sal spp. 1-Sal	Sal spp. 3-Sal	Sal spp. 6-Sal	Sal spp. 9-Sal	Sal spp. 11-Sal	Sal spp. 14-Sal
B	L. mono A-Lmono	L. mono D-Lmono	L. mono F-Lmono	L. mono I-Lmono	L. mono L-Lmono	L. mono N-Lmono	Sal spp. 1-Sal	Sal spp. 4-Sal	Sal spp. 6-Sal	Sal spp. 9-Sal	Sal spp. 12-Sal	Sal spp. 14-Sal
C	L. mono A-Lmono	L. mono D-Lmono	L. mono G-Lmono	L. mono I-Lmono	L. mono L-Lmono	L. mono	Sal spp. 1-Sal	Sal spp. 4-Sal	Sal spp. 7-Sal	Sal spp. 9-Sal	Sal spp. 12-Sal	Sal spp.
D	L. mono B-Lmono	L. mono D-Lmono	L. mono G-Lmono	L. mono J-Lmono	L. mono L-Lmono	L. mono	Sal spp. 2-Sal	Sal spp. 4-Sal	Sal spp. 7-Sal	Sal spp. 10-Sal	Sal spp. 12-Sal	Sal spp.
E	L. mono B-Lmono	L. mono E-Lmono	L. mono G-Lmono	L. mono J-Lmono	L. mono M-Lmono	L. mono	Sal spp. 2-Sal	Sal spp. 5-Sal	Sal spp. 7-Sal	Sal spp. 10-Sal	Sal spp. 13-Sal	Sal spp.
F	L. mono B-Lmono	L. mono E-Lmono	L. mono H-Lmono	L. mono J-Lmono	L. mono M-Lmono	L. mono	Sal spp. 2-Sal	Sal spp. 5-Sal	Sal spp. 8-Sal	Sal spp. 10-Sal	Sal spp. 13-Sal	Sal spp.
G	L. mono C-Lmono	L. mono E-Lmono	L. mono H-Lmono	L. mono K-Lmono	L. mono M-Lmono	L. mono	Sal spp. 3-Sal	Sal spp. 5-Sal	Sal spp. 8-Sal	Sal spp. 11-Sal	Sal spp. 13-Sal	Sal spp.
H	L. mono C-Lmono	L. mono F-Lmono	L. mono H-Lmono	L. mono K-Lmono	L. mono N-Lmono	L. mono	Sal spp. 3-Sal	Sal spp. 6-Sal	Sal spp. 8-Sal	Sal spp. 11-Sal	Sal spp. 14-Sal	Sal spp.

Fig. 2 Example\_Lmono\_Sal\_96 results - sample view

### Maintain your system

Use the RapidFinder™ Express Software Online Help to access information about how to:

- Calibrate the 7500 Fast System to ensure optimum performance.
- Use Windows™ Explorer to back up files.
- Archive or restore run files.
- Replace the halogen lamp.

In the software, click **Help**, then select **Maintain Your System** in the **Contents** tab.

### Import screening samples for the STEC confirmation assay

1. In the **Select Targets** screen, select **STEC Confirm**, then click **Import Screening Samples** (see Figure 3).
2. In the **Import Screening Samples** window, select the instrument runs and samples that you want to confirm, then click **OK**.

## Example results

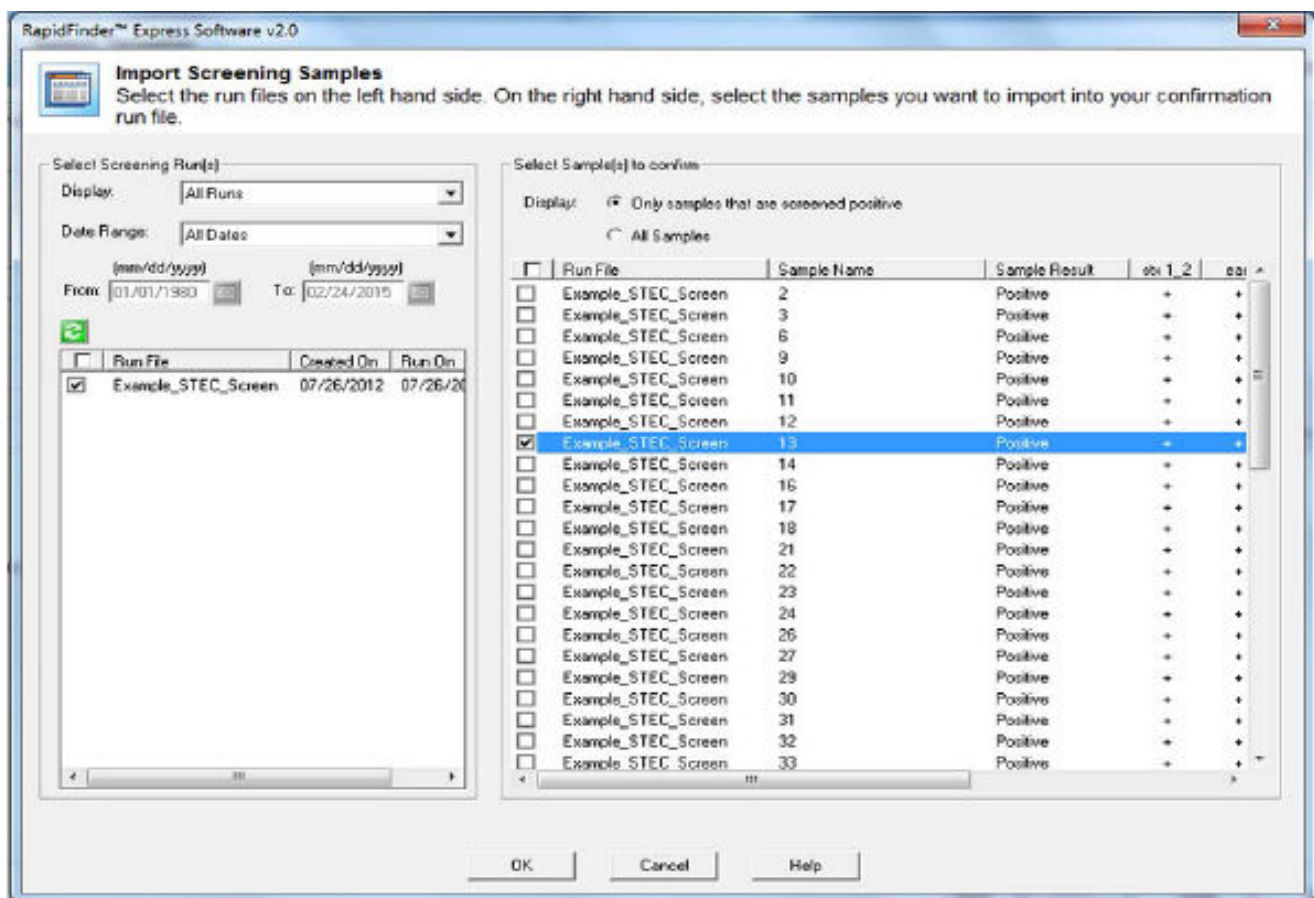


Fig. 3 Import Screening Samples window

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**Revision history:** Pub. No. 4480999

Revision	Date	Description
D	10 March 2018	Added information for importing new target pathogen assays. Also added new branding and legal information.
C	13 March 2015	Baseline for this revision history.

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