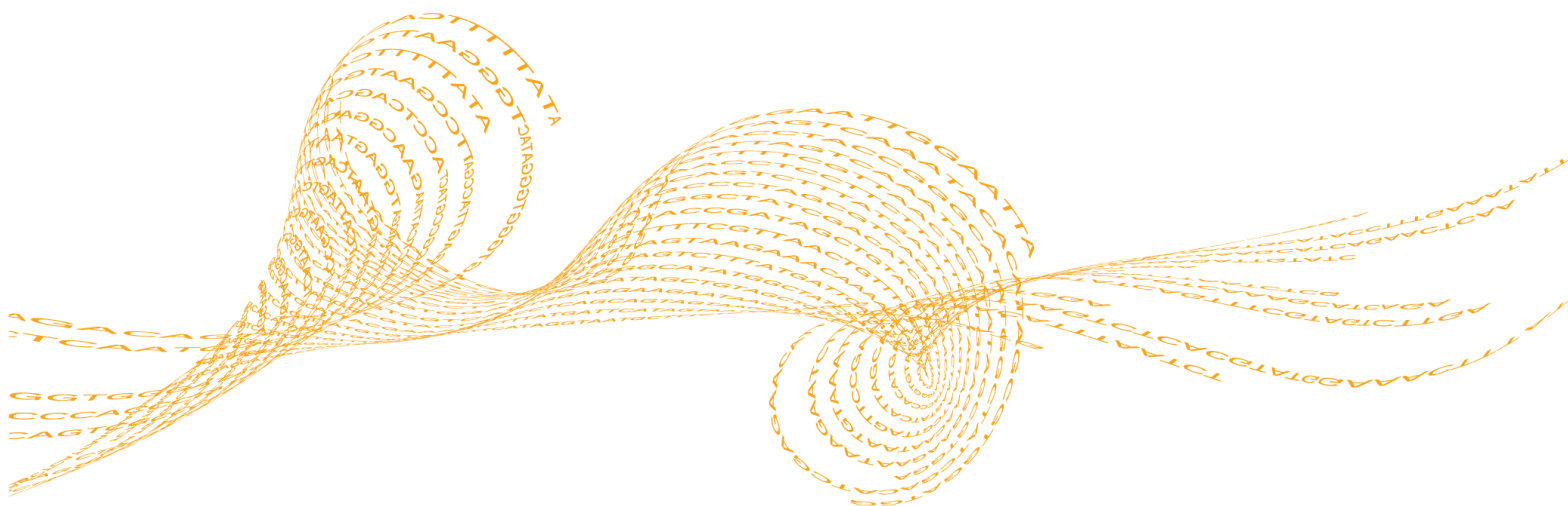


# Local Run Manager

## Software Guide

For Research Use Only. Not for use in diagnostic procedures.

Local Run Manager Overview	3
User Passwords	4
Dashboard Overview	6
Administrative Settings and Tasks	10
Workflow Overview	19
Analysis Module Updates	24
Revision History	25
Technical Assistance	27



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## Local Run Manager Overview

The Local Run Manager software is an on-instrument integrated solution for recording samples for a run, specifying run parameters, monitoring run status, performing data analysis, and viewing results.

The Local Run Manager has the following features:

- ▶ Runs as a Windows service on the instrument computer and integrates with the instrument control software.
- ▶ Records samples and input files, such as manifests and reference genomes.
- ▶ Provides a run setup interface specific to the selected analysis module.
- ▶ Performs on-instrument data analysis automatically upon completion of the sequencing run.
- ▶ Performs a series of analysis steps specific to the selected analysis module.
- ▶ Shows analysis metrics in the form of tables and graphs upon completion of analysis.

Only a single instance of Local Run Manager can be installed on the instrument control computer.

### Analysis Modules

The Local Run Manager software performs data analysis based on the analysis module selected during run setup. Each module performs a specific set of procedures appropriate for an application and library type. For a description of each analysis module, see the Local Run Manager support page on the Illumina website.

### Viewing Local Run Manager

The Local Run Manager interface is viewed through a web browser. Open a web browser on a computer with access to the same network as the instrument and connect using either of the following methods:

- ▶ On a local network, connect using the instrument IP address or instrument name. For example, **http://myinstrument**.
- ▶ To view the Local Run Manager interface on the instrument monitor, open a web browser and enter **http://localhost** in the address bar.
- ▶ To access the instrument remotely, port 80 must be **open**.

### Sequencing During Analysis

The instrument computing resources are dedicated to either sequencing or analysis. If a new sequencing run is started before analysis of an earlier run is complete, analysis is stopped automatically.

To restart the analysis after the sequencing run is complete, requeue analysis from the Local Run Manager interface. At that point, analysis starts from the beginning.

# User Passwords

To access the Local Run Manager interface, you need a valid user name and password to log in to the system. Only an admin user can assign user credentials.



## NOTE

User accounts are specific to an instrument. User passwords are not universal across multiple instruments.

When your password is approaching an expiration date, a message appears at the top of the interface to remind you to reset your password.

## My Account

After you have logged in for the first time, you can reset your existing password at any time from the My Account window. From My Account, you can view your user name, assigned role, and permissions.



Your current password is required to set a new password. Forgotten passwords require assistance from a system administrator or admin user.

## Password States


The following are possible password states:

- ▶ **Temporary password**—When an admin user creates a user account, the admin user assigns a temporary password for the new user.
- ▶ **User password**—Upon first access, a new user is prompted to change the temporary password from the login screen to a user-assigned password.
- ▶ **Forgotten password**—If a user forgets a password, an admin user can reassign a temporary password that can be changed upon next access.
- ▶ **Used password**—Any user cannot reuse a password for up to 5 password cycles.
- ▶ **User lockout**—If a user attempts to log in using an invalid password 3 times, the user account is locked. Only an admin user can unlock the account and assign a password.

## Reset Your Password

- 1 From the navigation bar, click the **User**  icon next to your name.
- 2 From the drop-down list, click **My Account**.
- 3 Click the **Edit**  icon in the Password section.
- 4 In the Old Password field, enter your old password.
- 5 In the New Password field, enter a new password.
- 6 In the Confirm New Password field, reenter your new password.
- 7 Click **Save**.

## Disable Password Expiration

- 1 Click the System  icon.
- 2 Click **System Settings**.
- 3 Select the Security tab.

- 4 Under Password Expiration, check **Disable password expiration**.

## Dashboard Overview

After you log in to the Local Run Manager software, the dashboard opens. From the dashboard, you can perform the following tasks:

- ▶ Track analysis status
- ▶ Sort and filter runs
- ▶ Create and edit runs
- ▶ Stop or requeue analysis
- ▶ View analysis results

The dashboard lists all runs performed on the instrument, 10 runs per page. Use the navigation arrows at the bottom of the list to scroll through pages.

Each run listed includes the run name, analysis module, run status, and the date that the run was last modified.

- ▶ **Run Name**—Lists the assigned run name and links to the run results pages. After analysis is complete, the analysis folder name is added to the run name column.
- ▶ **Module**—Lists the analysis module assigned to the run.
- ▶ **Status**—Lists the status of the run and includes a progress status bar. For more information, see *Possible Run States* on page 22.
- ▶ **Last Modified**—Lists the date and time that a run or analysis session was last modified. By default, the Active Runs page is sorted by this column

To sort the audit trails list, click any column heading to sort in ascending or descending order.

## Active Runs Page

The dashboard opens to show the Active Runs page. Across the top of the Active Runs page, a summary of active runs provides a count of runs in each of the following run status categories.




- ▶ **Ready**—Indicates that the run is ready for sequencing.
- ▶ **In Progress**—Indicates that the run is in the process of sequencing or data analysis, or in the process of stopping after a manual stop command.
- ▶ **Stopped or Unsuccessful**—Indicates that analysis was stopped manually or that analysis was unsuccessful.
- ▶ **Complete**—Indicates that analysis was successfully completed.
- ▶ **Total**—The total number of runs on the Active Runs page.

To manage runs on the Active Runs page, you can filter runs or move older runs to the Hidden Runs page.


## Filter Runs

- 1 Click a run status category in the summary of active runs to filter the Active Runs page as follows.
  - ▶ **Ready**—Filters the list to show only runs that are ready for sequencing.
  - ▶ **In Progress**—Filters the list to show only runs that are in progress.
  - ▶ **Stopped or Unsuccessful**—Filters the list to show only runs that were stopped or unsuccessful.
  - ▶ **Complete**—Filters the list to show only runs that are complete.
  - ▶ **Total**—Removes filters and shows all active runs.

## Hide and Restore Runs

- 1 From the Active Runs page, click the More Options  icon, and then click  **Hide**.
- 2 When prompted to confirm the move, click **Hide**.  
The run is moved to the Hidden Runs page.
- 3 To show the Hidden Runs page, click the Active Runs drop-down arrow and select **Hidden Runs**.
- 4 From the Hidden Runs page, click the Restore  icon.
- 5 When prompted to confirm the move, click **Restore**.  
The run is restored to the Active Runs page.
- 6 To show the Active Runs page, click the Hidden Runs drop-down arrow and select **Active Runs**.

## Search for Runs or Samples



- 1 From the dashboard navigation bar, click the Search  icon.
- 2 In the search field, enter a run name or sample ID.  
As you type, a list of possible matches appears to assist your search.
- 3 Select a match from the list or press **Enter**.
  - ▶ If you searched on a run name, the Run Overview tab opens.
  - ▶ If you searched on a sample ID, the Samples and Results tab opens.For more information, see *View Analysis Results Overview* on page 21.




### NOTE


The search feature applies only to active runs.

## Edit a Run

- 1 From the Active Runs page, click the More Options  icon next to the run name that you want to edit.
- 2 Click  **Edit**.
- 3 When prompted to confirm the action, click **Continue**.
- 4 Edit run parameters as needed.
- 5 When finished, click **Save Run**.  
The Last Modified date for the run is updated on the Active Runs page.

## Import a Run

- 1 From the Active Runs page, click **Create Run**.
- 2 Set the parameters for the run. For more information, see the workflow guide for the analysis module.
- 3 Click **Save Run**.
- 4 From the Active Runs page, click the More Options  icon next to the newly created run.

- 5 Click  **Import**.
- 6 Enter the full run folder path.




#### NOTE

- Local Run Manager does not support mapped drives or directories.
- Local Run Manager may fail to import runs from locations under user-specific directories, such as 'Desktop' and 'Documents'. Importing runs from universally accessible locations is recommended.
- Runs imported from network locations may take longer to analyze than runs imported from a local drive.

- 7 Click **Import Run**.  
Analysis starts immediately.



## Stop Analysis

- 1 From the Active Runs page, click the More Options  icon next to the run name that you want to stop.
- 2 Click **Stop**.  
The Stop command appears for runs that are either in the state of Analysis Queue or Analysis Running.
- 3 When prompted to confirm, click **Continue**.


## Requeue Analysis

You might requeue analysis if analysis was stopped, if analysis was unsuccessful, or if you want to reanalyze a run with different settings. You can requeue analysis from the dashboard or from the analysis results screen.

### Requeue Analysis from Active Runs

- 1 From the Active Runs page, click the More Options  icon next to the run name that you want to requeue.
- 2 Click  **Requeue**.
- 3 When prompted, select from the following options:
  - ▶ Click **Edit Setup** to change analysis parameters. From the Requeue Analysis page, change preferred settings, and then click **Requeue Analysis**.
  - ▶ Click **Requeue**. Analysis begins using current analysis parameters.












### Requeue Analysis from Results Page

- 1 Click the run name on the Active Runs page.
- 2 Click the Samples and Results tab.
- 3 Click  **Requeue Analysis**.
- 4 When prompted, select from the following options:
  - ▶ Click **Edit Setup** to change analysis parameters. From the Requeue Analysis page, change preferred settings, and then click **Requeue Analysis**.
  - ▶ Click **Requeue**. Analysis begins using current analysis parameters.



## Dashboard Icons

The following icons are used on the Local Run Manager dashboard to manage runs, create runs, and view analysis results.

Icon	Name	Description
	Copy to clipboard	Copies a field to the computer clipboard.
	Edit	Enables editing of run parameters.
	Export	Command to export items from the dashboard.
	Hide run	Moves a run from the active runs pages to the hidden runs page.
	More options	Opens available options for an entry on the dashboard.
	Restore run	Moves a run from the hidden runs page to the active runs page.
	Requeue	Restarts analysis of the selected run.
	Search	Opens the search field to search run names and sample IDs.
	System	Opens the system menu. Available items depend on user permissions.
	User	Opens the user account menu.
	Locked	Indicates that the run is being sequenced or another user is editing a run in another browser session.

## Administrative Settings and Tasks

The following settings and tasks require administrative user permissions:

- ▶ **Manager user accounts**—Adds users, assigns permissions, and sets passwords.
- ▶ **Manage system settings**—Sets system security parameters and maintenance intervals.
- ▶ **View audit trails**—Monitors access frequency and user activity.

Permissions to perform the following task are configurable in user management:

- ▶ **Edit module settings**—Allows upload of manifest files for use with all runs using a specific analysis module.
- ▶ **Add library kits**—Allows the addition of custom library prep kits.
- ▶ **Requeue analysis**—Allows editing of parameters and then rerunning analysis.

## User Management

All user accounts are listed on the User Management page, which includes the first name, last name, and user name for each account.



### NOTE

User accounts are specific to an instrument. User passwords are not universal across multiple instruments.

Within the details of each account, the role and associated permissions are managed. Two roles are possible, either Admin or User.

- ▶ **Admin role**—Admin roles have full permissions, by default.
- ▶ **User role**—User roles are configurable based on a subset of possible permissions. All users can create runs regardless of permission settings.

Only an admin user can view the User Management page.

## User Permissions



Permission	Description	Admin Role	User Role
Manage User Accounts	Create and edit user accounts	Allowed	Not allowed
Edit System Settings	Set security and maintenance settings	Allowed	Not allowed
View Audit Trails	View, filter, and export audit trails	Allowed	Not allowed
Requeue Analysis	Reanalyze runs; edit analysis parameters	Allowed	Optional
Edit Module Settings	Upload manifest files for analysis modules	Allowed	Optional
Add Library Prep Kits	Create a custom library kit definition	Allowed	Optional

## Create a New User




- 1 From the dashboard navigation bar, click the System  icon, and then click **User Management**.

- 2 From the User Management page, click **Create User**.
- 3 In the Create New User dialog box, enter the first and last name of the new user.
- 4 In the User Name field, enter a user name.  
User names must be unique and cannot be reused or edited later.
- 5 In the New Password field, enter a temporary password.  
Temporary passwords are not stored in the password history and can be reused repeatedly.
- 6 In the Confirm Password field, reenter the temporary password.
- 7 To select a role, click **Admin** or **User** to toggle between options.
- 8 Select user permissions based on the specified user role.
- 9 Click **Create User**.



### Reset User Password

- 1 From the dashboard navigation bar, click the System  icon, and then click **User Management**.
- 2 Locate the user name you want to edit, and click the **Edit**  icon.
- 3 In the New Password field, enter a temporary password.  
Temporary passwords are not stored in the password history and can be reused repeatedly.
- 4 In the Confirm Password field, reenter the temporary password.
- 5 Click **Update User**.



### Unlock User Password

- 1 From the dashboard navigation bar, click the System  icon, and then click **User Management**.
- 2 Locate the user name you want to edit, and click the **Edit**  icon.
- 3 From the Edit User dialog box, click  **Unlock User**.
- 4 In the New Password field, enter a temporary password.
- 5 In the Confirm Password field, reenter the temporary password.
- 6 Click **Update User**.

### Change User Permissions

- 1 From the dashboard navigation bar, click the System  icon, and then click **User Management**.
- 2 Locate the user name you want to edit, and click the **Edit**  icon.
- 3 To change a role, click **Admin** or **User** to toggle between options.
- 4 Select user permissions based on the specified user role.
- 5 Click **Update User**.

## Delete a User

- 1 From the dashboard navigation bar, click the System  icon, and then click **User Management**.
- 2 Locate the user name you want to edit, and click the **Edit**  icon.
- 3 In the Create New User dialog box, click **Delete User**.
- 4 When prompted to delete the user, click **Delete**.


## System Settings

System settings are global parameters for user security and automated data maintenance.


- ▶ User security settings include duration for password expiration, maximum login attempts, and duration for idle timeout.
- ▶ Data maintenance includes automatic cleanup of inactive run folders, database backup frequency, and a command for immediate database backup.

Only an admin user can view the System Settings page.

## Specify System Security Settings

- 1 From the dashboard navigation bar, click the System  icon, and then click **System Settings**.
- 2 Click the Security tab.
- 3 Specify the number of days before a password expires and has to be reset.
- 4 Specify the number of days that a user is reminded to reset a password before it expires.
- 5 Specify the maximum number of attempts that the user can enter invalid login credentials before being locked out of the system.
- 6 Specify the number of minutes that the system can remain idle before the user is automatically logged out.
- 7 Click **Save**.

## Specify System Maintenance Settings

- 1 From the dashboard navigation bar, click the System  icon, and then click **System Settings**.
- 2 Click the Maintenance tab.
- 3 [Optional] Select the **Enable Automatic Deletion** checkbox to enable automatic removal of inactive folders.  
When enabled, the system deletes inactive folders from the default analysis folder after the specified time.
- 4 If the Enable Automatic Deletion checkbox is selected, specify the number of days of inactivity before the automatic deletion command is activated.
- 5 Enter a preferred path to a backup location other than on the local instrument computer, such as a network location or on another networked computer.
- 6 In the Backup Period field, enter the duration in days between each backup.

- 7 To create an immediate backup, click **Backup Now**.
- 8 Click **Save**.

### Specify a Network Server

Specifying a network server requires read and write privileges and the path to the network server.

#### Designate the UNC Network Output Path

- 1 Click **Manage Instrument**.
- 2 Click **System Configuration**.
- 3 Click **Analysis Configuration**.
- 4 Click the Local Run Manager tab.  
The default user is admin.
- 5 In the Output folder, enter the UNC file path.
- 6 Click **Save**.

#### Assign a Logon for Analysis Service

- 1 In Windows Control Panel, click **Services**.
- 2 Right-click **Illumina Local Run Manager Analysis**, and then click **Stop**.
- 3 Right-click **Illumina Local Run Manager Analysis**, and then click **Properties**.
- 4 Click the Log On tab.
- 5 Click **This Account**, and then enter a user name and password.  
The default user name is sbsuser.  
The default password is sbs123.
- 6 Click **OK**.
- 7 Right-click **Illumina Local Run Manager Analysis**, and then click **Start**.

#### Assign a Logon for Job Service

- 1 In Windows Control Panel, click **Services**.
- 2 Right-click **Illumina Local Run Manager Job Service**, and then select **Stop**.
- 3 Right-click **Illumina Local Run Manager Job Service**, and then select **Properties**.
- 4 Click the Log On tab.
- 5 Click **This Account**, and then enter a user name and password.  
The default user name is sbsuser.  
The default password is sbs123.
- 6 Click **OK**.
- 7 Right-click **Illumina Local Run Manager Job Service**, and then click **Start**.

### Audit Trails

Audit trails records information about specific actions, such as user access, user profile changes, and changes to system, run, or analysis parameters. Each audit trail entry



includes the following information:

- ▶ When, represented as date YYYY-MM-DD and time in 24-hour time format.
- ▶ Who, represented by the user name who initiated the action.
- ▶ What, represented by a short predefined description of the action taken.
- ▶ Affected Item, represented by 4 affected item categories of User, Run, Analysis, or System.

To sort the audit trails list, click any column heading to sort in ascending or descending order. You can filter the audit trails list to show specific data and then export the filtered list to a report in PDF file format.

Only an admin user can view the Audit Trails page.

## Filter Audit Trails



- 1 From the dashboard navigation bar, click the System  icon, and then click **Audit Trails**.
- 2 From the Audit Trails page, click the Filter  icon.



### NOTE

You can apply filters to previously filtered results to refine the list. To apply a filter to the entire audit trails database, clear previous filters before proceeding.

### Filter by Date

- 1 Click the Calendar  icon and select a **From** date.
- 2 Click the Calendar  icon and select a **To** date.
- 3 Click **Filter**.

### Filter by User Name

- 1 In the Who field, enter a user name.  
You can enter any portion of a user name. Asterisks (\*) are not required.
- 2 Click **Filter**.

### Filter by Action





- 1 In the What field, enter an action description.  
You can enter any portion of an action description. Asterisks (\*) are not required.
- 2 Click **Filter**.

### Filter by Affected Item Description




- 1 In the Affected Item text field, enter any portion of the affected item description.  
The description can be a run name, user name, analysis module name, or report name, for example. You can enter any portion of a description. Asterisks (\*) are not required.
- 2 Click **Filter**.

### Filter by Affected Item Category

- 1 To filter by an affected item category, click the Category  icon in the Affected Item field and select from the following options:







- ▶  **User**—Filters the list to show user actions and user authentication actions.
  - ▶  **Run**—Filters the list to show changes to run parameters or run status
  - ▶  **Analysis**—Filters the list to show changes in analysis parameters or analysis status.
  - ▶  **System**—Filters the list to show actions at the system level, such as file uploads, system maintenance, or security settings.
- 2 Click **Filter**.

## Export Audit Trails

- 1 From the dashboard navigation bar, click the System  icon, and then click **Audit Trails**.
- 2 From the Audit Trails page, click the Filter  icon.
- 3 Apply preferred filters.
- 4 Click the Export  icon.  
The software generates a report in PDF file format that includes the user name, date of export, and filter parameters.

## Audit Trails Icons

The following icons are used on the Audit Trails screen.

Icon	Name	Description
	Analysis	Indicates a change in analysis parameters or analysis status.
	Export	Exports items from the Audit Trails list in a PDF file.
	Filter	Opens filtering options.
	Run	Indicates a change to run parameters or run status.
	System	Indicates a change to module settings or system settings.
	User	Indicates a user action or user authentication action.

## Module Settings


The Module Settings page provides a list of installed analysis modules in the left navigation panel. Each analysis module name opens a page that lists the module version and last modified date.

When a new or updated analysis module is available, you can download the module from the Illumina website and install it on the instrument computer. For more information, see *Analysis Module Updates* on page 24.



For analysis modules that require manifests, use the Add Manifests feature to copy manifests to the instrument. When you add manifests for an analysis module from the Module Settings page, the manifests are available for any runs using that analysis module.

Alternatively, you can import a manifest for a specific run using the Import Manifests command on the Create Run page. When you import a manifest from the Create Run page, the manifest is available for the current run only.



## Import Manifest Files (for Analysis Module)

- 1 Make sure that the manifests you want to copy to the instrument are available in an accessible network location or on a USB drive.
- 2 From the dashboard navigation bar, click the System  icon, and then click **Module Settings**.
- 3 From the list of analysis modules on the left panel, click the appropriate module name.
- 4 Click **Add Manifests**.
- 5 Navigate to the manifests and select the manifests that you want to add. You can add multiple manifests.

## Export a Manifest File

- 1 From the dashboard navigation bar, click the System  icon, and then click **Module Settings**.
- 2 From the list of analysis modules on the left panel, click the appropriate module name.
- 3 Click the Export  icon next to the manifest file that you want to export.

## Delete a Manifest File

- 1 From the dashboard navigation bar, click the System  icon, and then click **Module Settings**.
- 2 From the list of analysis modules on the left panel, click the appropriate module name.
- 3 Click the Delete  icon next to the manifest file that you want to remove.

## Library Prep Kits

The Library Prep Kits page provides a list of compatible library prep kit definitions installed with the software. A kit description and read type are listed for each kit.

From the Library Prep Kits page, you can upload a custom library prep kit definition created in an external file. A kit definition lists the compatible analysis modules, index sequences, and the maximum number cycles or reads in a run. Visit the Local Run Manager support page on the Illumina website for an example of a library kit definition file.

Guidelines for adding a custom library kit:

- ▶ Adding a custom library prep kit is a feature for advanced users.
- ▶ Add up to 20 custom library prep kits per module. Delete existing custom library prep kits to accommodate new ones.
- ▶ Always assign a *unique* kit name. Custom library prep kit names cannot be reused on the same instrument.



## Add a Library Prep Kit

- 1 Create an external custom library prep kit file using Excel or Notepad. Include the following section titles, headings, and information. If using Notepad, separate column headings with tabs.

- ▶ **[Kit]**—In this section, specify a kit name and default run parameters.

Row Heading	Description
<b>Name</b>	Assign a unique kit name for the new kit.
<b>Description</b>	A brief description or long kit name.
<b>IndexStrategy</b>	Options are <b>NoIndex</b> , <b>SingleOnly</b> , <b>DualOnly</b> , <b>SingleAndDual</b> , <b>NoAndSingle</b> , <b>NoAndDual</b> , or <b>All</b> . Enter the index strategy exactly as shown with no spaces.
<b>ReadType</b>	Options are <b>Single</b> , <b>Paired</b> , or <b>All</b> .
<b>DefaultReadLength1</b>	The default number of cycles for Read 2, such as <b>151</b> .
<b>DefaultReadLength2</b>	The default number of cycles for Read 2, such as <b>151</b> .

- ▶ **[Resources]**—In this section, specify custom parameters, such as the maximum number of samples possible.


Column Heading	Description
<b>Name</b>	Enter a name for the parameter. For example, Sample Limit. Spaces are allowed.
<b>Type</b>	Enter a name for the parameter without spaces. For example, SampleLimit.
<b>Format</b>	Enter INT.
<b>Value</b>	Enter a value for the parameter. For example, 384.

- ▶ **[Indices]**—In this section, specify which index sequences are used with the kit.

Column Heading	Description
<b>Name</b>	List the index sequence name, such as <b>A701</b> .
<b>Sequence</b>	List the index sequence.
<b>IndexReadNumber</b>	Specify the Index Read, either <b>1</b> or <b>2</b> .



- ▶ **[SupportedModules]**—In this section, specify analysis modules by name, which associates the new kit with an analysis module on the Create Run page. Enter the module name exactly as shown with no spaces.

Module Names	Description
<b>AmpliconDSWorkflow</b>	Amplicon DS analysis module
<b>EnrichmentWorkflow</b>	DNA Enrichment analysis module
<b>GenerateFastQWorkflow</b>	Generate FASTQ analysis module
<b>ResequencingWorkflow</b>	Resequencing analysis module
<b>SmallRNAWorkflow</b>	Small RNA analysis module
<b>TargetedRNAWorkflow</b>	Targeted RNA analysis module
<b>AmpliconWorkflow</b>	Amplicon analysis module

- 2 Save the file using a tab-separated value (\*.tsv) file format. Do not include spaces in the file name.
- 3 From the dashboard navigation bar, click the System  icon, and then click **Library Prep Kits**.
- 4 Click **Add Library Prep Kit**.

- 5 Navigate to the location of the library kit file and add the file.  
The kit name, description, and read type appears on the Library Prep Kits list.

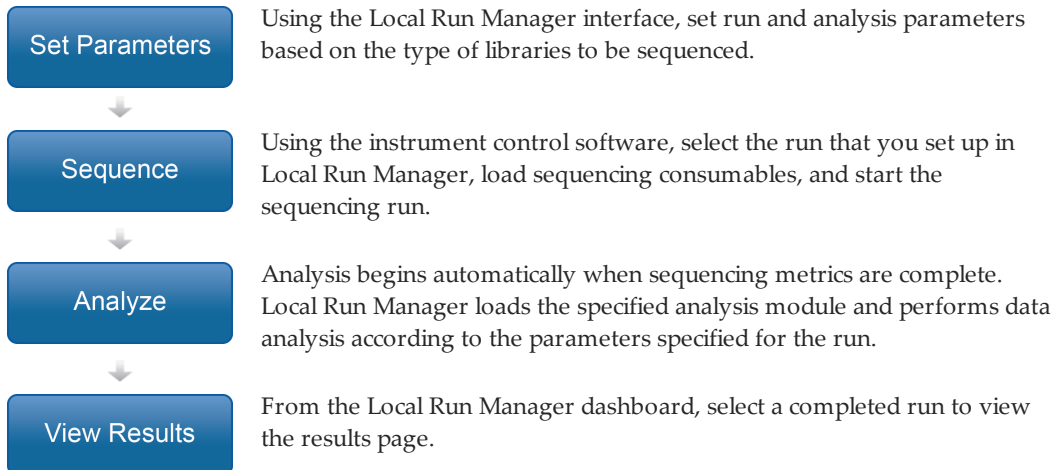
### Delete a Library Prep Kit

- 1 Click the System  icon.
- 2 Click **Library Prep Kits**.
- 3 Click the  icon next to the kit you want to delete.
- 4 Click **Delete**.

## Workflow Overview

This guide provides an overview of the workflow for creating a run and viewing analysis results in the Local Run Manager software. Specific steps vary for each analysis module. See the workflow guide for the analysis module you are using for step-by-step instructions.

### Local Run Manager Workflow



### Set Parameters Overview

To set up a run, use the Create Run command from the Local Run Manager dashboard and select an analysis module from the drop-down list. The Create Run page provides options for the selected analysis module.

The Create Run page consists of text fields, drop-down lists, toggle settings, and a samples table that is specific to each analysis module. Create Run pages include the following sections:

- ▶ Run Name
- ▶ Run Settings
- ▶ Module-Specific Settings
- ▶ Samples

Fields marked with an asterisk (\*) are required.

#### Run Name and Description

The run name is the name that identifies the run from sequencing through analysis. A run name can have up to 40 alphanumeric characters. Spaces, underscores, and dashes are allowed. A run description is optional and can have up to 150 alphanumeric characters.

#### Run Settings

Run settings identify the following parameters for the run.

- ▶ The library prep kit used to prepare samples for sequencing
- ▶ The read type: single read or paired end
- ▶ The number of index reads: 0, 1, or 2

- ▶ The number of cycles for each read

For some analysis modules, only a default selection is allowed.

For library kit compatibility, see the Local Run Manager support page on the Illumina website.

## Module-Specific Settings

The module-specific settings that appear in this section depend on analysis module selected for the run. Some modules include options for selecting an aligner and variant caller other than the default methods, and configurable analysis settings. Some analysis modules do not include any module-specific settings.

For more information, see the workflow guide for the analysis module.

## Samples Section

For each run, identify samples to be sequenced in the samples table. The samples table includes the sample ID, an optional description, and the indexes used with each sample.

The index columns provide a drop-down list of compatible index sequences based on the library kit specified for the run. For runs using custom index sequences, you can enter the sequence as free text.

For analysis modules that require a manifest, the samples table includes a drop-down list of available manifests associated with the module. You can upload and associate a manifest for an analysis module using Module Settings. See *Import Manifest Files (for Analysis Module)* on page 16. To import a manifest for a specific run, use the Import Manifests command.

For analysis modules that perform alignment or other methods that require a reference genome, the samples table includes a drop-down list of available genome folders.

You can import samples from a compatible text file and export samples from the samples table for use with another run.

## Import and Export Samples

The Samples section includes commands to import samples. To do so, create a samples table in an external comma-separated values (\*.csv) file with the same column headings as the samples table for the selected analysis module. For example, if the analysis module requires a manifest file, the external file must have a manifest column.



### NOTE

Sample sheets created with the Illumina Experiment Manager are not compatible for import to Local Run Manager.

After you have populated the samples table on the Create Run page, you can export the sample information to an external file that is compatible for later import to another run.

## Import Manifest Files for the Run

Unlike the command to import manifests from the Module Settings page, the command to import manifests on the Create Run imports the manifest for the current run only. Make sure that the manifests you want to import for the run are available in an accessible network location or on a USB drive.

## Import a Reference Genome

You can import a reference genome to be a selectable option in modules that specify a reference genome.

- 1 In C:\Illumina\Genomes, create a folder named for the species of your reference genome.
- 2 In the species folder, create a folder named for the agency that published the reference genome.  
For example, UCSC, NCBI, or Illumina.
- 3 In the agency folder, create a folder named for the version of the reference genome.  
For example, hg19, mm9, or 2005-10-07.
- 4 In the version folder, create a folder named WholeGenomeFasta.
- 5 Add the reference genome FASTA file, renamed genome.fa, to the WholeGenomeFasta folder.  
The path to the reference genome is:  
C:\Illumina\Genomes\Species\Agency\Version\WholeGenomeFasta\genome.fa


## View Analysis Results Overview

To view analysis results, click the run name from the Local Run Manager dashboard. A summary of analysis results is presented on the following 3 tabs:

- ▶ Run Overview
- ▶ Sequencing Information
- ▶ Samples and Results

### Run Overview Tab

The Run Overview tab lists information about the run, a summary of sequencing metrics, and the location of the run folder.

Section Title	Description
Run Name / Run ID	The run name assigned when the run was created.
Created By	The name of the user who created the run.
Description	The run description, if provided.
Output Run Folder	The path to sequencing run output folder. Click the copy to clipboard  icon for quick access to the output folder.
Total Clusters	The number of clusters in a run.
% Reads PF	The percentage of reads passing filter.
% > Q30 (Read 1)	The percentage of reads in Read 1 with a quality score of 30 (Q30) or greater.
% > Q30 (Read 2)	The percentage of reads in Read 2 with a quality score of 30 (Q30) or greater.
Last Scored Cycle	The last cycle in the run with a quality score. Unless the run ended early, this value represents the last cycle in the run.

## Sequencing Information Tab


The Sequencing Information tab provides a summary of sequencing run parameters. The following information is provided on the Sequencing Information tab.

Section Title	Description
Instrument Name	The name of the instrument on which the run was performed.
Module Version	The version of the analysis module assigned to the run.
Sequenced By	The name of the user who started the run.
Sequencing Start	The date and time that the sequencing run began.
Read Lengths	The number of reads and cycles for each read performed during the run.
Flow Cell Information	The barcode, part number, lot number, and expiration date of the flow cell used for the run.
Reagent Cartridge Information	The barcode, part number, lot number, and expiration date of the reagent cartridge used for the run.

## Samples and Results Tab

The Samples and Results tab provides a summary of analysis results for each sample listed in the samples table, the location of the analysis folder, and an option to requeue analysis. Each report includes the sample name, analysis software version, and the report date.

The following fields are common for all analysis modules. For descriptions of specific analysis results, see the analysis module workflow guide.

Section Title	Description
Select Analysis	A drop-down list of each analysis performed on the data generated from the sequencing run. For each time that analysis is run, a sequential number is assigned. Results are listed separately.
Analysis Folder	Click the copy to clipboard  icon for quick access to the analysis folder.
Requeue Analysis	The command provides the option to edit analysis parameters or proceed without changes, and then reanalyze the run.

## Possible Run States


The Status column on the dashboard shows the status of each run listed. The following table describes the possible states of a run and the appearance of the status bar.

Status	Status Bar Color	Status Description
Ready for Sequencing	None	Waiting for sequencing to begin.
Sequencing Running	Blue	Sequencing in progress.
Sequencing Unsuccessful	Red	Sequencing issue. No activity.
Sequencing Stopped	Red	Sequencing stopped. No activity.
Sequencing Complete	Blue	Sequencing completed. Status bar at 50%.
Primary Analysis Complete	Blue	Sequencing metrics complete. Status bar at 50%.
Analysis Queued	Blue	Waiting for analysis to begin.
Analysis Running	Blue	Analysis in progress.
Analysis Unsuccessful	Red	Analysis issue. No activity.
Stopping Analysis	Red	Request to stop analysis received.
Analysis Stopped	Red	Analysis stopped. No activity.
Analysis Completed	Green	Activity completed. Status bar at 100%.

## Analysis Module Updates

When a new analysis module or new version of an analysis module is available, you can download the installable file from the Illumina website and install it onto the instrument computer.

### Install or Update Analysis Modules

- 1 Download the installable file for the new or updated analysis module from the Local Run Manager support page on the Illumina website.
- 2 Copy the installable file (\*.msi) to the instrument or to a USB drive.
- 3 From the instrument computer, double-click the installable file.
- 4 When prompted, enter your Local Run Manager user name and password.
- 5 Click **Next** to begin the installation.
- 6 When the installation is complete, click **Finish**.
- 7 To confirm that the analysis module is available for use, click the System  icon, and then click **Module Settings** from the Local Run Manager dashboard.



## Revision History

Document	Date	Description of Change
Document # 1000000002702 v02	September 2016	<p>Updated software descriptions for Local Run Manager v1.3.1, which includes instructions for the following tasks:</p> <ul style="list-style-type: none"> <li>• Disable password expiration.</li> <li>• Import a run.</li> <li>• Specify a network server.</li> <li>• Delete a library prep kit.</li> <li>• Import a reference genome.</li> </ul> <p>Replaced Total Reads, a section of the Overview tab, with Total Clusters.</p> <p>Specified 20 as the maximum number of custom sample library prep kits allowed per module.</p> <p>Corrected the name of the supported module TSAWorkflow to AmpliconWorkflow.</p>
Document # 1000000002702 v01	February 2016	<p>Added the following information:</p> <ul style="list-style-type: none"> <li>• User accounts and passwords are specific to an instrument.</li> <li>• Only a single instance of the software can be installed on an instrument.</li> </ul> <p>Updated system maintenance instructions to specify a location for database backups other than on the instrument computer.</p> <p>Updated instructions for creating a custom library kit and added information about downloading example definition files from the Local Run Manager support page on the Illumina website.</p>
Document # 1000000002702 v00	January 2016	Initial release.

## Notes

## Technical Assistance

For technical assistance, contact Illumina Technical Support.

**Table 1** Illumina General Contact Information

<b>Website</b>	www.illumina.com
<b>Email</b>	techsupport@illumina.com

**Table 2** Illumina Customer Support Telephone Numbers

<b>Region</b>	<b>Contact Number</b>	<b>Region</b>	<b>Contact Number</b>
North America	1.800.809.4566	Japan	0800.111.5011
Australia	1.800.775.688	Netherlands	0800.0223859
Austria	0800.296575	New Zealand	0800.451.650
Belgium	0800.81102	Norway	800.16836
China	400.635.9898	Singapore	1.800.579.2745
Denmark	80882346	Spain	900.812168
Finland	0800.918363	Sweden	020790181
France	0800.911850	Switzerland	0800.563118
Germany	0800.180.8994	Taiwan	00806651752
Hong Kong	800960230	United Kingdom	0800.917.0041
Ireland	1.800.812949	Other countries	+44.1799.534000
Italy	800.874909		

**Safety data sheets (SDSs)**—Available on the Illumina website at [support.illumina.com/sds.html](http://support.illumina.com/sds.html).

**Product documentation**—Available for download in PDF from the Illumina website. Go to [support.illumina.com](http://support.illumina.com), select a product, then select **Documentation & Literature**.



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