Local Run Manager v3

Software Reference Guide for MiSeqDx

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Revision History

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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 status, analyzing sequencing data, and viewing results.

Local Run Manager instructions in this guide apply when in the diagnostic mode of the instrument. Details listed in this section cover general Local Run Manager functionality. Some features may not apply to all analysis modules. For module specific features, see the respective Local Run Manager guide.

Local Run Manager has the following features:

- Runs on the instrument computer and integrates with the instrument control software.
- Records samples to be sequenced.
- Provides a run setup interface specific to the 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 upon completion of analysis.

Viewing Local Run Manager

The Local Run Manager interface is viewed through a web browser. The supported web browser is Chromium version 84.0.4147.89 on Windows 10 operating system. Connect using one of the following methods:

- Open a web browser on a computer with access to the same network as the instrument and connect using the instrument name. For example, **https://myinstrument**.
- To view the Local Run Manager interface on the instrument monitor, open a web browser and enter **https://localhost** in the address bar.

Sequencing During Analysis

The MiSeqDx computing resources are dedicated to either sequencing or analysis.

If a new sequencing run is started on the MiSeqDx before secondary analysis of an earlier run is complete, a confirmation dialog box appears. After confirming you want the new sequencing run to start, Local Run Manager stops secondary analysis of the earlier run until the new run completes sequencing.

After the new run completes sequencing, secondary analysis of the earlier run automatically starts again from the beginning.

User Passwords

The account management option, which requires password verification to use Local Run Manager, is enabled by default. To access the Local Run Manager interface, you need a valid user name and password to log in to the system.

Only users with the Admin role can assign user credentials. For more information on account management and roles, see *Account Management* on page 8.

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

You can reset your existing password at any time using the My Account window. From My Account, you can view your user name, your assigned role, and your permissions. You can also configure your security questions to regain access to your account in case you get locked out of Illumina.

To change your password, you must know your current password. If you forget your password, you can answer the security questions associated with your account. If you cannot answer the security questions correctly, an Admin can assign a temporary password so you can update your password.

Password States

The following are possible password states:

- **Temporary password**—When an Admin creates a user account, the Admin 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. The user must also set up security questions. These questions are used to help make sure that the user is the person requesting access to the account.
- **Forgotten password**—If a user forgets a password, an Admin can reassign a temporary password that can be changed upon next access.
- **Used password**—Users cannot reuse a password for up to five password cycles.
- **User lockout**—An Admin can change the limit of number of attempts to log in using an invalid password. The default is five. If the number of login attempts exceeds the number of allowed attempts, the account is locked. An Admin can unlock the account, or assign a temporary password.

Reset Your Password

1. From the navigation bar, select the **User** icon next to your name.
2. From the drop-down list, select **My Account**.

NOTE Depending on the size of the screen you are viewing the software on, the **My Account** menu item may be condensed underneath **More Options**.

3. In the Password section, select **Reset**.
4. In the Old Password field, enter your old password.
5. In the Password field, enter a new password.
6. In the Confirm Password field, reenter your new password.
7. Select **Reset Password**.

Set Up Security Questions

When logging into Local Run Manager for the first time, users are asked to set up security questions. If a user forgets their password, answering the security questions associated with their account unlocks the account.

Set up security questions for an account as follows.

1. From the first Question drop-down menu, select a security question. You can also make a custom question by selecting **Create my own question** and entering a question of your own.
2. Enter the answer in the Answer field.
   Answers are not case-sensitive.
3. Repeat steps 1 and 2 for the remaining question and answer fields.
4. Select **Update Security Questions** to save the security information to your account.

Security question information can be changed later by going to the My Account menu and selecting **Reset** in the Security Questions section.

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 sequencing and analysis status
- Sort and filter runs
- Create and edit runs
- Stop or requeue analysis
- View analysis status
- Hide runs

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. To sort runs, select the column names.

- **Run Name / ID**—Lists the assigned run name and links to the run results pages.
- **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 19.
- **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.

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. To filter active runs by status, select the number.

- **Ready**—Indicates that the run is ready for sequencing.
- **In Progress**—Indicates that the run is in the process of sequencing or data analysis.
- **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.

Filter Runs

- Select 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, select Actions next to the run name that you want to hide.
2. Select **Hide**.
3. When prompted to confirm the move, select **Hide**.
   The run is moved to the Hidden Runs page.
4. To show the Hidden Runs page, select the Active Runs drop-down arrow, and then select **Hidden Runs**.
5. To restore a run to the Active Runs page, select **Actions** next to the run name that you want to restore.
6. Select **Restore**.
7. When prompted to confirm the move, select **Restore**.
8. To show the Active Runs page, select the Hidden Runs drop-down arrow and select **Active Runs**.

Search for Runs or Samples

1. From the navigation bar, select the Search icon.

   NOTE Depending on the size of the screen you are viewing the software on, the **Search** menu item may be condensed underneath **More Options**.

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 Run and Sample Data* on page 17.

Edit a Run

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

Stop Analysis

1. From the Active Runs page, select **Actions** next to the run name that you want to stop.
2. Select **Stop Analysis**.
   The Stop Analysis command appears for runs that are either in the state of Analysis Queue or Analysis Running.
3. When prompted to confirm, select **Stop Analysis**.

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 Local Run Manager dashboard or from the Sample and Results tab. If you receive a “Run Folder Not Found” message when you requeue, then move or copy the run back to the D:\Illumina\MiSeqAnalysis folder.

Requeue Analysis from Active Runs

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

Requeue Analysis from Results Page

1. Select the run name on the Active Runs page.
2. Select **Requeue Analysis**.

3. When prompted, select from the following options:
   - Select **Edit Setup** to change analysis parameters. From the Requeue Analysis page, change preferred settings, and then select **Requeue Analysis**.
   - Select **Requeue**. Analysis begins using current analysis parameters.

Administrative Settings and Tasks

The following settings and tasks are available from the Tools drop-down menu:

Tool	Description	Role Permission
Account Management	Adds users, assigns permissions, and sets passwords.	Admin
Audit Trails	Monitors access frequency and user activity.	Admin
Modules & Manifests	Allows upload of manifest files for use with all runs using a specific analysis module.	User*
System Settings	Sets system security parameters and maintenance intervals.	Admin

* Available on a per user basis

Account Management

All user accounts are listed on the Account 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 Admins can view the Account Management page.

User Permissions

The following table lists the permissions and roles that are allowed to configure each permission.

Permission	Description	Admin Role	User Role
Edit MOS System Settings	Edit MOS system settings on the MiSeqDx instrument.	Allowed	Not allowed
Edit Local Run Manager System Settings	Set security, maintenance, and service accounts settings.	Allowed	Not allowed
Edit Module Settings	Upload manifest files for analysis modules.	Allowed	Optional
Manage User Accounts	Create and edit user accounts.	Allowed	Not allowed
Minimize MOS and Access Computer	Access instrument computer in kiosk mode.	Allowed	Optional
Requeue Analysis	Reanalyze runs; edit analysis parameters.	Allowed	Optional
Relink Run Folder	Restore deleted run data back to a run.	Allowed	Not allowed
Upload Site Certificate	Add custom HTTPS certificate for Local Run Manager.	Allowed	Not allowed
View Audit Trails	View, filter, and export audit trails.	Allowed	Not allowed

Create a New User

1. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **Account Management**.
2. From the Account Management page, select **Create Account**.
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 Password field, enter a temporary password.
   Temporary passwords are not stored in the password history and can be reused.
6. In the Confirm Password field, reenter the temporary password.
7. To select a role, select **Admin** or **User**.
8. Select user permissions based on the specified user role.
9. Select **Continue**.

Reset User Password

1. From the dashboard navigation bar, select the Tools drop-down list, and then select **Account Management**.
2. Locate the user name you want to edit, and select **Edit**.
3. In the Edit User dialog box, in the Password field, enter a temporary password.
   Temporary passwords are not stored in the password history and can be reused.
4. In the Confirm Password field, reenter the temporary password.
5. Select **Update User**.

Disable a User

1. From the dashboard navigation bar, select the **Tools** drop-down list and then select **Account Management**.
2. Locate the user name you want to edit, and select **Edit**.
3. In the Edit User dialog box, select **Disable User**.
   After you disable a user, you cannot create an account with that name again.
4. When prompted to disable the user, select **Disable**.
   The disabled user is moved to the Hidden Users drop-down list.

Restore a User

1. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **Account Management**.
2. In the Active Users drop-down list, select **Hidden Users** to display the disabled user accounts.
3. In the Hidden Users drop-down list, locate the disabled user name you want to restore, and then select **Restore**.
4. In the Restore User dialog box, select **Restore**.
5. In the Active Users drop-down list, locate the restored user name and click **Edit**.
6. In the Edit User dialog box, in the Password field, enter a temporary password.
7. In the Confirm Password field, reenter the temporary password.
8. Select **Update User**.

Change User Permissions

1. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **Account Management**.
2. Locate the user name you want to edit, and select **Edit**.
3. To change a role, select **Admin** or **User** to toggle between options.
4. Select user permissions based on the specified user role.

5. Select **Update User**.

Audit Trails

Audit trails record 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 four affected item categories of User, Run, Analysis, or System.
- To sort the audit trails list, select any column heading to sort in ascending or descending order.

Only an Admin can view the Audit Trails page.

Filter Audit Trails

1. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **Audit Trails**.
2. Select **Filter**.

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

Filter by Date

1. In the From field, enter a date (in yyyy-mm-dd format) to specify the beginning date for the filtered results.
   Alternatively, select the **Calendar** icon, and then select a **From** date.
2. In the To field, enter a date (in yyyy-mm-dd format) to specify the end date for the filtered results.
   Alternatively, select the **Calendar** icon, and then select a **To** date.
3. Select **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. Select **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. Select **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. Select **Filter**.

Filter by Affected Item Category

1. To filter by an affected item category, select the Affected Item icon and select from the following options:
   - **Analysis**—Filters the list to show changes in analysis parameters or analysis status.
   - **Run**—Filters the list to show changes to run parameters or run status.
   - **System**—Filters the list to show actions at the system level, such as file uploads, system maintenance, or security settings.
   - **User**—Filters the list to show user actions and user authentication actions.
2. Select **Filter**.

Export Audit Trails

1. From the dashboard navigation bar, select the **Tools** menu, and then select **Audit Trails**.
2. Select **Filter**.
3. Apply preferred filters.
4. Select **Export**.
   The software generates a report in PDF file format that includes the user name, date of export, and filter parameters.

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.

System Settings

System settings are global parameters for user security, automated data maintenance, service accounts, and program certificates. The following tasks can be managed in the system settings:

- System security settings include duration for password expiration, maximum login attempts, and duration for idle timeout. Available when Account Management is enabled.

- System maintenance includes automatic cleanup of inactive run folders, database backup frequency, and a command for immediate database backup.
- Service account settings include changing user accounts for data analysis, performing backups, and data storage.
- Manage and download Local Run Manager certificates.

Most of these settings can only be seen by an Admin, but all users are able to download the server certificate to access Local Run Manager with HTTPS.

Specify System Security Settings

1. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **System Settings**.
2. Select the Security tab.
3. From the Password Expiration section, 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. From the User Lockout section, specify the maximum number of attempts that the user can enter invalid login credentials before being locked out of the system.
6. From the Auto Logout section, specify the number of minutes that the system can remain idle before the user is automatically logged out.
7. Select **Save**.

Specify System Maintenance Settings

1. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **System Settings**.
2. Select the Maintenance tab.
3. [Optional] Select the **Enable Automatic Deletion** checkbox to able automatic removal of older analysis files.
   When enabled, the system keeps recent analysis information and deletes all other temp files to improve performance.
4. If the **Enable Automatic Deletion** checkbox is selected, specify a 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. To restore a database that has been backed up, contact Illumina technical support.
6. In the Backup Period field, enter the duration in days between each backup.
7. To create an immediate backup, select **Backup Now**.
8. Select **Save**.

Specify Service Account Settings

1. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **System Settings**.
2. Select the Service Accounts tab.
3. To enable and set the credentials for Analysis Service and Job Service Windows accounts, select **Windows Account**.
   The credentials for the account with access to network drive must be saved in Windows Credential Manager.

   NOTE Make sure that the service account you enter has permission to read and write to the output run folder.

4. In the User Name field, enter a user name.
   Include **.** in the username (eg, **.\username**). For domain users, include the domain name, then a backslash in the user name (eg, **domain\username**).
5. In the Password field, enter a password.
   The Windows 10 operating system requires a Windows password change every 180 days. Make sure to update the Windows Account in Local Run Manager with the same password as the Windows operating system.
6. Select **Save**.

Set Application Language

Local Run Manager comes installed with the English language pack only. Other languages are not supported at this time.

Specify Certificates

Local Run Manager uses HTTPS to encrypt data connections to make sure that run data information is private and secure. Security certificate settings should only be changed in the following situations:

- Access Local Run Manager from a new remote device.
- Use your own custom security certificate.
- Regain access to Local Run Manager after changing the system name or moving the system to a new domain.

Install a Security Certificate For Remote Access

1. On the remote device, log in to Local Run Manager.
2. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **System Settings**.

3. Select the Certificates tab.
4. Select **Download** to download a zip file that contains the Local Run Manager certificate.
5. Extract the contents of the zip file.
6. Right-click the BAT file and select **Run as administrator**.
7. Follow the prompts to finish the installation, and then restart your browser.

Upload a Custom Security Certificate

To replace the existing Local Run Manager certificate, do the following.

1. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **System Settings**.
2. Select the Certificates tab.
3. Select **Browse**, select the new certificate file (*.pfx), and then select **Open**.
4. Enter the password for the certificate file, and then select **Set Certificate**.
5. Restart your browser.

Regenerate a Security Certificate

If there was recent change to the system name or the system was moved to a new domain, you must regenerate the security certificate to regain access to Local Run Manager.

1. Launch Local Run Manager via HTTPS. If account management is enabled on the computer, log in to Local Run Manager using the Admin user account.
2. From the dashboard navigation bar, select the **Tools** drop-down list, and then select **System Settings**.
3. Select the Certificates tab.
4. Select **Regenerate the Certificate**.
5. Select **Download** to download a zip file that contains the Local Run Manager software certificate.
6. Extract the contents of the zip file.
7. Right-click the BAT file and select **Run as administrator**.
8. Follow the prompts to finish the installation, and then restart your browser.

Workflow Overview

This section 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. For step-by-step instructions, see the user guide for the analysis module you are using.

Local Run Manager Workflow

Create Run	Using the Local Run Manager interface, set run and analysis parameters based on the type of libraries to be sequenced.
Sequence	Using the instrument operating software, select the run that you set up in Local Run Manager, load sequencing consumables, and start the sequencing run.
Analyze	Analysis begins automatically when sequencing is complete. Local Run Manager loads the specified analysis module and performs data analysis according to the parameters specified for the run.
View Results	From the Local Run Manager dashboard, select a completed run to view the results page.

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, and a samples table that is specific to each analysis module. Create Run pages include the following sections:

- Run Name
- Samples

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. The run name must be unique, and cannot be a name used for a previous run set up.

A run description is optional and can have up to 150 alphanumeric characters.

Run Settings

Run settings identify the following parameters for the run:

- Read type—single read or paired end
- Number of cycles for each read

Module-Specific Settings

The module-specific settings that appear in this section depend on analysis module selected for the run. 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 adapters.

WARNING

If the Illumina Proactive monitoring service is enabled, use a sample ID that does not directly identify the patient (eg, the patient identifier). For information on the benefits of the Proactive monitoring service, see *Illumina Proactive Technical Note (document # 1000000052503)*.

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. A template is available for download on the Import Samples tab.

View Run and Sample Data

To view results for a run, select the run name from the Local Run Manager dashboard.

A summary of results is presented on the following 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. Select **Copy to Clipboard** for quick access to the output folder.
Total Clusters	The number of clusters in a run.
% Clusters PF	The percentage of clusters 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.
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.
Chemistry Type	Library prep chemistry type.

Section Title	Description
Chemistry Version	Version of the MiSeqDx reagent kit chemistry.
RTA Version	RTA software version in use for the run.
Module Version	Local Run Manager module software version assigned to the run.
PR2 Information	The barcode, part number, lot number, and expiration date of the PR2 bottle used for the run.

Samples and Results Tab

Information provided on the Samples and Results tab is specific to the analysis module used for the run. The Samples and Results tab can contain the following information fields.

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	The path to analysis folder. Select **Copy to Clipboard** for quick access to the analysis folder.
Requeue Analysis	The command to reanalyze the sequencing run data. The command provides the option to edit analysis parameters or proceed without changes.

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 color of the status bar in the Status column.

Status	Status Bar Color	Status Description
Ready for Sequencing	None	Waiting for sequencing to begin.
Sequencing Running	Blue	Sequencing in progress.
Sequencing Stopped	Red	Sequencing stopped. No activity.
Sequencing Unsuccessful	Red	Sequencing issue. No activity.
Sequencing Completed	Blue	Sequencing completed. Status bar at 50%.

Status	Status Bar Color	Status Description
Primary Analysis Unsuccessful	Red	RTA analysis failed. Status bar at 25%.
Primary Analysis Completed	Blue	Sequencing metrics complete. Status bar at 50%.
Analysis Queued	Blue	Waiting for analysis to begin.
Analysis Running	Blue	Analysis in progress.
Stopping Analysis	Red	Request to stop analysis received.
Analysis Stopped	Red	Analysis stopped. No activity.
Analysis Unsuccessful	Red	Analysis issue. No activity.
Analysis Completed	Green	Activity completed. Status bar at 100%.
Analysis Copying	Blue	Analysis is complete. Data are being copied to the output folder.
Stopping Analysis Copy	Red	Analysis is complete. Request to stop copying of analysis data received.
Copy Stopped	Yellow	Analysis is complete. Copying of analysis data was manually stopped.

Technical Assistance

For technical assistance, contact Illumina Technical Support.

Website: www.illumina.com
Email: techsupport@illumina.com

Illumina Technical Support Telephone Numbers

Region	Toll Free	International
Australia	+61 1800 775 688	
Austria	+43 800 006249	+43 1 9286540
Belgium	+32 800 77 160	+32 3 400 29 73
Canada	+1 800 809 4566	
China		+86 400 066 5835
Denmark	+45 80 82 01 83	+45 89 87 11 56
Finland	+358 800 918 363	+358 9 7479 0110
France	+33 8 05 10 21 93	+33 1 70 77 04 46
Germany	+49 800 101 4940	+49 89 3803 5677
Hong Kong, China	+852 800 960 230	
India	+91 8006500375	
Indonesia		0078036510048
Ireland	+353 1800 936608	+353 1 695 0506
Italy	+39 800 985513	+39 236003759
Japan	+81 0800 111 5011	
Malaysia	+60 1800 80 6789	
Netherlands	+31 800 022 2493	+31 20 713 2960
New Zealand	+64 800 451 650	
Norway	+47 800 16 836	+47 21 93 96 93
Philippines	+63 180016510798	
Singapore	1 800 5792 745	
South Korea	+82 80 234 5300	

Region	Toll Free	International
Spain	+34 800 300 143	+34 911 899 417
Sweden	+46 2 00883979	+46 8 50619671
Switzerland	+41 800 200 442	+41 56 580 00 00
Taiwan, China	+886 8 06651752	
Thailand	+66 1800 011 304	
United Kingdom	+44 800 012 6019	+44 20 7305 7197
United States	+1 800 809 4566	+1 858 202 4566
Vietnam	+84 1206 5263	

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

Product documentation—Available for download from support.illumina.com.

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